

2016 TOTALINE® HVAC/R PARTS CATALOG

**WHAT ARE YOU
WORKING ON
TODAY?™**



**Universal HVAC/R
Parts and Supplies**

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HERMETIC COMPRESSORS - GENERAL INFORMATION

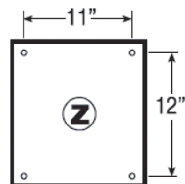
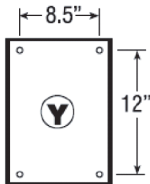
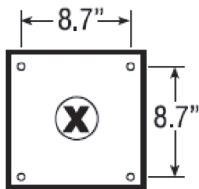
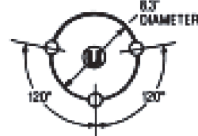
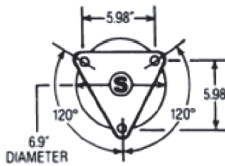
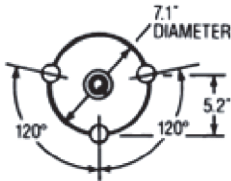
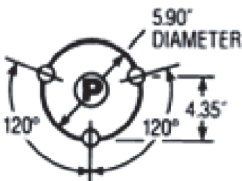
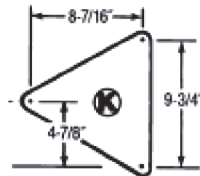
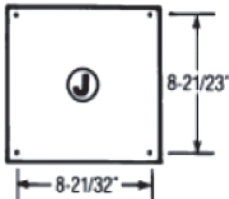
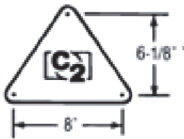
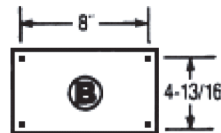
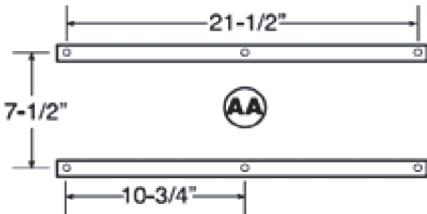
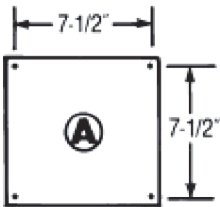
Information Guide

Unless otherwise noted, capacity ratings for air conditioning applications are:

Evaporator Temp	45° F
Condenser Temp	130° F
Liquid Temp	115° F
Return Gas Temp	65° F
Ambient Temp	95° F

Abbreviations:	
CFM	Cubic Feet Per Minute
PWS	Part Wind Starting
SC	Sub-Cooling Temperature
SCT	Saturated Condenser Temperature
SGT	Actual Suction Gas Temperature
SST	Saturated Suction Temperature
XL	Across the Line Start

Mounting Guide



HERMETIC COMPRESSORS - GENERAL INFORMATION

Hermetic Compressors "P-" Part Numbering System

Example: P031-5751 =

Part Code: Tecumseh

Capacity: 57,000 nominal btuh/hr

Voltage: 208/230V 3 phase

P	031	5	7	*(Use for large units)	5	1
Parts	Part Code	Capacity (1000) btuh/hr			Voltage Code	Numerical Sequence

Part Code	Supplier
030	Goldstar
031	Tecumseh
032	Bristol
033	Daewoo
034	Matsushita/Panasonic
035	Toshiba
036	Sanyo
037	Mitsubishi
038	Hitachi
039	Delchi
050	Copeland 50 Hz
051	Tecumseh 50 Hz

Voltage Code	Volts
0	115/1
1	200/1
2	208-230/1
3	230/1
4	200/3
5	208-230/3
6	230/3
7	460/3
8	575/3
9	265/1

HERMETIC COMPRESSORS - BRISTOL RECIPS

Bristol Compressor Part Numbering System

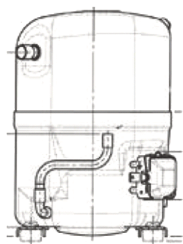
H	8	2	J	1	9	3	A	B	C	A
Mounting Feet Dimension (Inches)..... A = 7.5 x 7.5 B = 4.8 x 8.0 C = 8.44 x 9.75 D = 6.12 x 8.0 Electrical Characteristics..... A = 115 1 60 B = 230 1 60 C = 208-230 1 60 D = 208-230 3 60 (200-220 3 50) E = 460 3 60 (380-415 3 50) F = 575 3 60 (500 3 50) G = 230 1 50 H = 265 1 60 (220-240 1 50) Motor Protector..... B = Internal Line Break P = Pilot Duty - Solid State Motor Type..... A = PSC Permanent Split Capacitor B = CSR Capacitor Start/Cap. Run C = RSCR Resistance Start/Cap. Run D = AL 3 Phase-Across the Line E = CSIR Cap. Start/Induction Run Nominal Capacity (BTU/Hr)..... 193 = 19+000 or 19,000 BTU/Hr; 244 = 24+0,000 or 24,000 BTU/Hr 19B = 19+000 Internal bleed applied for equalized start Note: A letter (B, E, M, Q, S or U) in the third position also indicates k+000 Family..... A = Model A Reciprocating B = Model B Reciprocating C = Scroll (<42k) D = Dual Compressor Application Generation..... B = Second Generation - No PRV (Except G Series) D = Dual Compressor Application (Single and Interconnected) E = High Efficiency M = Alternate Pressure Relief Valve N = No Pressure Relief Valve (Except G Series) P = Basic Standard Model - Upgrade Plus R = Direct (Drop-in) Aftermarket Replacement S = Debris Resistant X = Prototype/Development Type of Refrigerant..... 1 = R12* 2 = R22 4 = R134a Refrigeration Application..... H = High Temperature L = Low Temperature M = Medium Temperature										
E = 9.5 x 9.5 F = 10.5 x 10.5 H = 7.5 x 21.5 J = 7.5 x 22.5 J = 208-230 1 50 K = 220-240 1 50 L = 200-230 3 60 (200-220 3 50) M = 200-220 3 50 N = 400 3 50 P = 200-240 1 50 S = 400 3 60 T = 208 1 60 R = Pilot Duty - Solid State (2nd Generation) T = Pilot Duty - Internal Thermostat and External Sensing Elements F = PWS 3 Phase-Part Winding Start G = 3 Phase 2/4 Pole (2 Speed) J = 1 Phase 2/4 Pole (2 Speed) K = 3 Phase Dual Voltage L = 3 Phase - WYE DELTA G = Model G Reciprocating J = Benchmark Model Reciprocating R = Scroll (>42k) T = Start Winding Protected 0 = Basic Standard Model 1 = Second Generation - Basic Standard Model 2 = Third Generation - Basic Standard Model 3 = Fourth Generation - Basic Standard Model 4 = Basic Standard Model - Improved Sound 5 = Inertia Series - Standard Model 6 = Inertia Series - High Efficiency Model 7 = Inertia Series - Second Generation High Efficiency Model 8 = Fifth Generation - Basic Standard Model Upgrade 9 = Sixth Generation - Basic Standard Model Upgrade 5 = R502 or Alternate Replacement Refrigerant R402B 6 = R404A R404A (Medium Temp)* 7 = R407C* 8 = R410A 9 = R407C, R22 (High Temp), B = R22 or R407C Beast Series (HBST) R = Designed for Use with Multiple Refrigerants T = High Temperature (2 Capacities/2 or 4 Cylinders) - Twin/Single V = Variable Speed										
K = 7.5 x 17 L = Offset Mounting Rail R = Horizontal/Vertical Mount X = 8.8 x 6.1 Y = 7.5 x 7.75 U = 220-380 3 60 V = 380-460 3 60 (380-415 3 50) W = 380-460 3 60 X = 380 3 60 Y = 208-230 3 60 Z = 380-415 3 50 2 = 180 3 120 M = 3 Phase Variable Speed Permanent Magnet N = 3 Phase Variable Speed Induction Requiring Drive P = 3 Phase ALS Synchronous Speed Permanent Magnet Motor										

*Compressors in this series may be applied with additional refrigerants. Please contact your Bristol Compressors account representative for details.

HERMETIC COMPRESSORS - BRISTOL RECIPS

Bristol Hermetic HCRB Recip R-22/R407C

Single Phase 208/230V, 60HZ



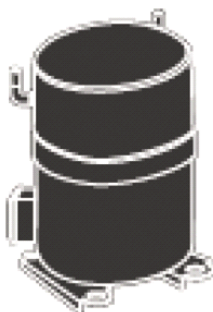
Features:

- Drop-in Replacements for Copeland CR Series
- Low Noise & Vibration levels
- Inherent motor protection
- Improved sound levels
- POE Oil

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
HCRB183ABCA	HCRB183ABCA	22	7.5 x 7.5	18300	208/230	1	60	7.4	13.5	30/370	3/4 H 11.2	1/2 U 6.3
HCRB223ABCA	HCRB223ABCA	22	7.5 x 7.5	22600	208/230	1	60	9.4	13.5	30/370	3/4 H 11.2	1/2 U 6.3
HCRB243ABCA	HCRB243ABCA	22	7.5 x 7.5	24200	208/230	1	60	9.6	14	35/370	3/4 H 11.2	1/2 U 6.3
HCRB283ABCA	HCRB283ABCA	22	7.5 x 7.5	28800	208/230	1	60	12.1	14	35/370	3/4 H 11.2	1/2 U 6.3
HCRB303ABCA	HCRB303ABCA	22	7.5 x 7.5	29900	208/230	1	60	12	14.5	40/370	3/4 H 12.2	1/2 U 6.3
HCRB353ABCA	HCRB353ABCA	22	7.5 x 7.5	35700	208/230	1	60	15	14.5	45/370	3/4 H 12.2	1/2 U 6.3

Bristol Hermetic Recip R-22

Single Phase 208/230V, 60HZ



Features:

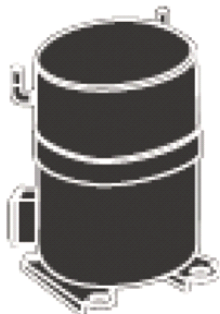
- For Heat Pump & Air Conditioning duty
- Low Noise & Vibration levels
- Inherent motor protection
- Improved sound levels

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P032-1523	H20J153ABCA	22	7.5 x 7.5	15100	208/230	1	60	6.2	13.9	30/370	5/8 U 13.6	3/8 U 4.1
P032-1524	H22J15BABCA	22	7.5 x 7.5	15500	208/230	1	60	6.7	13.5	30/370	3/4 H 11.2	1/2 U 2.9
P032-1820	H22J18BABCA	22	7.5 x 7.5	18300	208/230	1	60	7.4	13.5	30/370	3/4 H 11.2	1/2 U 2.9
P032-2227	T21J225CBCA	22	7.5 x 7.5	22100	208/230	1	60	9.1	15.8	30/440	3/4 U 15.4	1/2 U 4.3
P032-2229	H22J22BABCA	22	7.5 x 7.5	22600	208/230	1	60	9.6	14.0	30/370	3/4 H 11.2	1/2 U 2.9
P032-2429	H22J25BABCA	22	7.5 x 7.5	24200	208/230	1	60	9.6	14.0	35/370	3/4 H 11.7	1/2 U 2.9
P032-2522	T21J265CBCA	22	7.5 x 7.5	25300	208/230	1	60	10.2	15.8	40/440	3/4 U 15.4	1/2 U 4.1
P032-2829	H22J29BABCA	22	7.5 x 7.5	28800	208/230	1	60	11.8	14.0	35/370	3/4 H 11.7	1/2 U 2.9
P032-3121	H22J33BABCA	22	7.5 x 7.5	31900	208/230	1	60	1.0	14.5	40/370	3/4 H 12.2	1/2 U 2.9
P032-3322	T21J334CBCA	22	7.5 x 7.5	33100	208/230	1	60	13.4	15.8	50/440	3/4 U 15.4	1/2 U 4.1
P032-3526	H22J36BABCA	22	7.5 x 7.5	35700	208/230	1	60	14.4	14.5	45/370	3/4 H 12.2	1/2 U 2.9
P032-3721	H22J38BABCA	22	7.5 x 7.5	37800	208/230	1	60	14.9	15.8	45/370	3/4 H 14.0	1/2 U 4.1
P032-4021	H22J41BABCA	22	7.5 x 7.5	40900	208/230	1	60	17.1	15.8	50/370	3/4 H 14.0	1/2 U 4.1
P032-4421	H22J44BABCA	22	7.5 x 7.5	44300	208/230	1	60	17.8	15.8	65/370	3/4 H 14.0	1/2 U 4.1
P032-4922	H22A503ABCA	22	7.5 x 7.5	49000	208/230	1	60	22.3	16.4	40/440	7/8 H 14.0	1/2 U 3.3
P032-5723	H22A583ABCA	22	7.5 x 7.5	57100	208/230	1	60	26.6	16.4	55/440	7/8 H 14.0	1/2 U 3.3
P032-5722	H24A583ABCA	22	7.5 x 7.5	57500	208/230	1	60	25.0	16.1	60/370	7/8 U 15.6	1/2 U 3.3
P032-6022	H22A623ABCA	22	7.5 x 7.5	60800	208/230	1	60	28.2	16.4	55/440	7/8 H 14.0	1/2 U 3.3

HERMETIC COMPRESSORS - BRISTOL RECIPS

Bristol Hermetic Recip R-22

3 Phase 208/230V, 460V, 575V, 60HZ



Features:

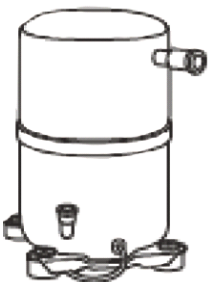
- For Heat Pump & Air Conditioning duty
- Low Noise & Vibration levels
- Inherent motor protection
- Improved sound levels

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P032-2751	H22J293DBLA	22	7.5 x 7.5	28000	208/230	3	60	7.8	14.0	N/A	3/4 H 11.7	1/2 U 2.9
P032-3252	H23A323DBLA	22	7.5 x 7.5	31700	208/230	3	60	9.0	14.6	N/A	3/4 U 14.3	3/8 U 3.3
P032-3255	H22J333DBLA	22	7.5 x 7.5	32400	208/230	3	60	9.0	14.5	N/A	3/4 H 12.2	1/2 U 2.9
P032-3553	H22J363DBLA	22	7.5 x 7.5	35000	208/230	3	60	9.6	14.5	N/A	3/4 H 12.2	1/2 U 2.9
P032-3753	H22J383DBLA	22	7.5 x 7.5	37500	208/230	3	60	10.2	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4051	H22J413DBLA	22	7.5 x 7.5	40500	208/230	3	60	11.0	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4452	H22J443DBDA	22	7.5 x 7.5	44100	208/230	3	60	11.7	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4956	H22A503DBLA	22	7.5 x 7.5	49000	208/230	3	60	13.7	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-5352	H22A543DBLA	22	7.5 x 7.5	53400	208/230	3	60	14.5	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-5351	H25A54QDBLA	22	7.5 x 7.5	53500	208/230	3	60	14.0	17.4	N/A	3/4 H 15.3	1/2 U 3.8
P032-5854	H22A563DBLA	22	7.5 x 7.5	55600	208/230	3	60	15.3	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-6051	H22A623DBLA	22	7.5 x 7.5	60800	208/230	3	60	17.0	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-2773	H22J293DBVA	22	7.5 x 7.5	27800	460	3	60	4.1	14.0	N/A	3/4 H 11.7	1/2 U 2.9
P032-3172	H22J333DBVA	22	7.5 x 7.5	31600	460	3	60	4.5	14.5	N/A	3/4 H 12.2	1/2 U 2.9
P032-3171	H23A323DBEA	22	7.5 x 7.5	31700	460	3	60	4.5	14.9	N/A	5/8 H 12.5	3/8 U 3.3
P032-3475	H22J363DBVA	22	7.5 x 7.5	34400	460	3	60	4.9	14.5	N/A	3/4 H 12.2	1/2 U 2.9
P032-3773	H22J383DBVA	22	7.5 x 7.5	37500	460	3	60	5.0	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4172	H22J413DBEA	22	7.5 x 7.5	40400	460	3	60	5.4	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4471	H22J443DBEA	22	7.5 x 7.5	44100	460	3	60	5.8	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4975	H22A503DBEA	22	7.5 x 7.5	49000	460	3	60	6.8	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-5871	H22A583DBEA	22	7.5 x 7.5	58400	460	3	60	7.9	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-5872	H22A623DBEA	22	7.5 x 7.5	60800	460	3	60	8.5	16.4	N/A	7/8 H 14.0	1/2 U 3.3
P032-4481	H22J443DBFA	22	7.5 x 7.5	44100	575	3	60	4.6	15.8	N/A	3/4 H 14.0	1/2 U 4.1
P032-4982	H25A50QDBFA	22	7.5 x 7.5	49000	575	3	60	5.2	17.4	N/A	7/8 H 15.3	1/2 U 3.8
P032-5883	H22A563DBFA	22	7.5 x 7.5	55600	575	3	60	6.4	16.4	N/A	7/8 H 14.0	1/2 U 3.3

HERMETIC COMPRESSORS - BRISTOL RECIPS

Bristol Hermetic Recip R410A

Single Phase 208/230V, 60HZ



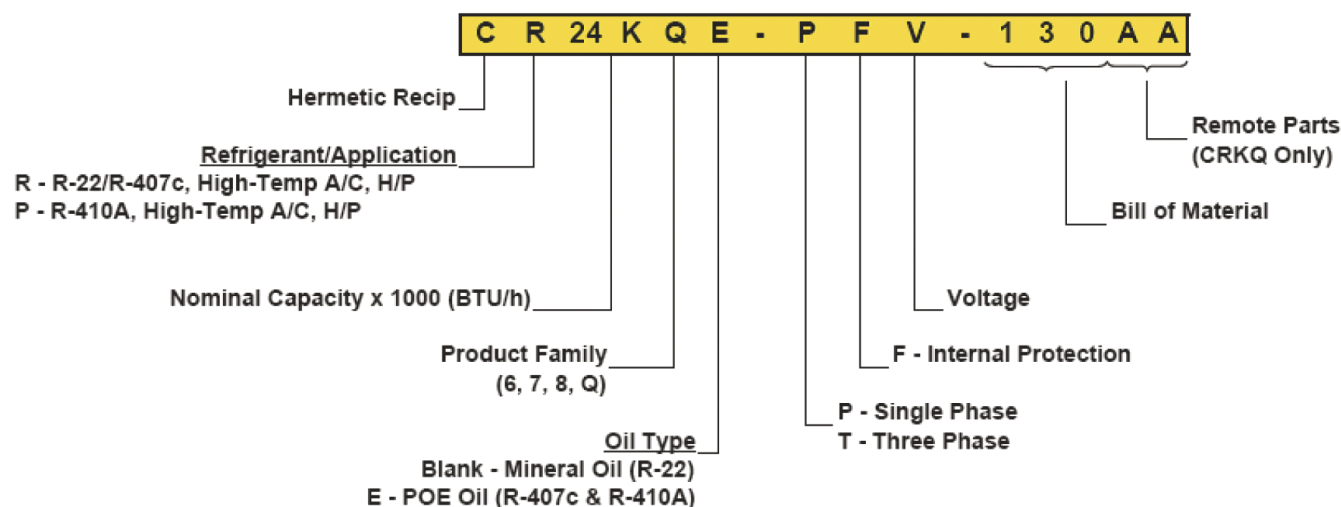
Features:

- For Heat Pump & Air Conditioning duty
- Low Noise & Vibration levels
- Inherent motor protection
- Improved sound levels

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P032-1423	H82J153ABCA	410A	7.5 x 7.5	14700	208/230	1	60	6.5	14.3	30/370	3/4 H 11.7	1/2 U 2.9
P032-18211	H82J183ABCA	410A	7.5 x 7.5	18100	208/230	1	60	7.4	14.5	35/370	3/4 H 11.7	1/2 U 2.9
P032-1829K	T81J195CBCA	410A	7.5 x 7.5	18300	208/230	1	60	11.4	15.6	30/440	3/4 U 15.2	1/2 U 4.2
P032-1926K	T89B194CBCA	410A	7.5 x 7.5	19250	208/230	1	60	11.9	14.3	25/440	3/4 H 12.1	1/2 U 3.0
P032-22210	H82J223ABCA	410A	7.5 x 7.5	22300	208/230	1	60	9.9	15.0	35/370	3/4 H 12.2	1/2 U 2.9
P032-2725	H82J273ABCA	410A	7.5 x 7.5	27100	208/230	1	60	11.8	15.0	40/370	3/4 H 12.2	1/2 U 2.9
P032-2722K	T89B284CBCA	410A	7.5 x 7.5	27200	208/230	1	60	15.0	14.3	45/440	3/4 H 12.1	1/2 U 3.0
P032-2723K	T81J285CBCA	410A	7.5 x 7.5	27700	208/230	1	60	14.3	15.6	40/440	3/4 U 15.2	1/2 U 4.2
P032-3026	H82J303ABCA	410A	7.5 x 7.5	30800	208/230	1	60	13.0	15.0	45/370	3/4 U 12.5	1/2 U 2.9
P032-3226	H82J323ABCA	410A	7.5 x 7.5	32200	208/230	1	60	13.6	15.3	45/370	3/4 H 12.5	1/2 U 2.9
P032-3525K	T81J384CBCA	410A	7.5 x 7.5	35500	208/230	1	60	25.0	15.6	55/440	3/4 U 15.2	1/2 U 4.2
P032-3722K	T89B385CBCA	410A	7.5 x 7.5	37600	208/230	1	60	22.0	14.3	55/440	3/4 H 12.1	1/2 U 3.0
P032-5121K	T89A514BBCA	410A	7.5 x 7.5	51470	208/230	1	60	28.6	17.4	55/370	7/8 H 15.3	1/2 U 3.3
P032-5122K	T89A514BBCA	410A	7.5 x 7.5	51900	208/230	1	60	29.3	17.4	55/370	7/8 U 17.0	1/2 U 3.3
P032-5221K	T89A515BBCA	410A	7.5 x 7.5	52700	208/230	1	60	28.2	17.4	55/370	7/8 U 16.8	1/2 U 3.8

HERMETIC COMPRESSORS - COPELAND RECIPS

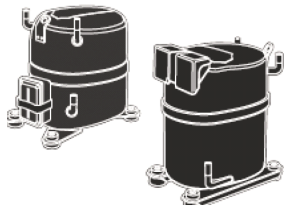
Recip Part Numbering System



HERMETIC COMPRESSORS - COPELAND RECIPS

Hermetic Recip R-22/407C

Single Phase 208/230V, 265V, 60HZ



Features:

- For Heat Pump & Air Conditioning duty
- Low Noise & Vibration levels
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
CR18K6E-PFV-775	22	7.5 x 7.5	18000	208/230	1	60	10.4	13.2	25/370	3/4 H 10.95	1/2 U 5.86
CR20K6E-PFV-775	22	7.5 x 7.5	19600	208/230	1	60	10.6	13.2	30/370	3/4 H 10.95	1/2 U 5.86
CR22K6E-PFV-775	22	7.5 x 7.5	22100	208/230	1	60	10.9	13.2	30/370	3/4 H 10.95	1/2 U 5.86
CR24K6E-PFV-775	22	7.5 x 7.5	24500	208/230	1	60	12.4	13.4	35/370	3/4 H 11.20	1/2 U 5.86
CR28K6E-PFV-775	22	7.5 x 7.5	28200	208/230	1	60	15.3	13.2	35/370	3/4 H 11.32	1/2 U 5.86
CR34K6E-PFV-775	22	7.5 x 7.5	34500	208/230	1	60	16.6	14.1	50/370	3/4 H 11.82	1/2 U 5.86
CR42K6E-PFV-775	22	7.5 x 7.5	41900	208/230	1	60	20.4	14.6	40/370	3/4 H 12.32	1/2 U 5.86
CR47KQE-PFV-970	22	7.5 x 7.5	47500	208/230	1	60	24.6	14.8	45/440	7/8 U 14.41	1/2 U 5.86
CR53KQE-PFV-970	22	7.5 x 7.5	53300	208/230	1	60	28.9	14.8	60/440	7/8 U 14.41	1/2 U 5.86
CRPQ-045E-PFV-970	22	7.5 x 7.5	58400	208/230	1	60	30.7	16.1	45/440	7/8 U 15.29	1/2 U 2.78
CRNQ-050E-PFV-970	22	7.5 x 7.5	60600	208/230	1	60	34.3	16.1	55/440	7/8 U 15.29	1/2 U 2.78
CR16K6E-PFJ-775	22	7.5 x 7.5	16300	265	1	60	9.0	13.2	25/370	3/4 Stub	1/2 Stub
CR22K6E-PFJ-775	22	7.5 x 7.5	22100	265	1	60	9.9	13.3	30/440	3/4 Stub	1/2 Stub
CR24K6E-PFJ-775	22	7.5 x 7.5	24500	265	1	60	10.9	13.4	35/440	3/4 Stub	1/2 Stub
CR32K6E-PFJ-775	22	7.5 x 7.5	32000	265	1	60	15.0	13.8	35/440	3/4 Stub	1/2 Stub

3 Phase 208/230V, 460V, 575V, 60HZ



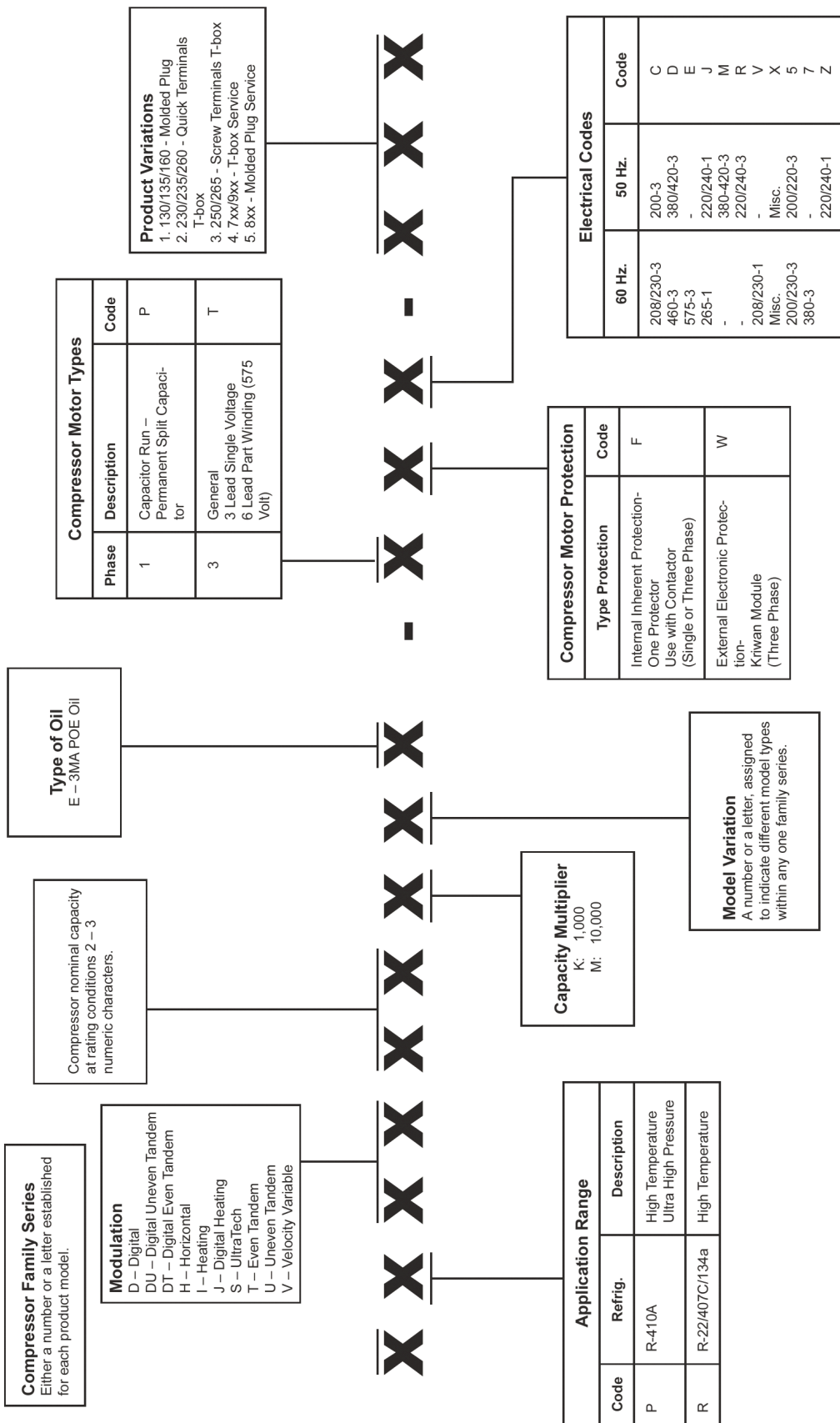
Features:

- External Line Break Overload
- Low Noise & Vibration levels
- Lightweight
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
CR18K6E-TF5-775	22	7.5 x 7.5	17600	208/230	3	60	6.1	13.2	N/A	3/4 H 11.07	1/2 U 5.86
CR24K6E-TF5-775	22	7.5 x 7.5	24000	208/230	3	60	7.7	13.4	N/A	3/4 H 11.2	1/2 U 5.86
CR35K6E-TF5-775	22	7.5 x 7.5	34900	208/230	3	60	11.4	14.1	N/A	3/4 H 11.82	1/2 U 5.86
CR42K6E-TF5-775	22	7.5 x 7.5	41700	208/230	3	60	14.0	14.6	N/A	3/4 H 12.32	1/2 U 5.86
CR47KQE-TF5-970	22	7.5 x 7.5	47200	208/230	3	60	16.1	14.8	N/A	7/8 U 14.30	1/2 U 5.86
CR53KQE-TF5-970	22	7.5 x 7.5	53200	208/230	3	60	18.2	14.8	N/A	7/8 H 13.06	1/2 U 6.25
CRPQ-045E-TF5-970	22	7.5 x 7.5	57000	208/230	3	60	19.6	16.1	N/A	7/8 U 15.29	1/2 U 2.78
CRNQ-050E-TF5-970	22	7.5 x 7.5	61500	208/230	3	60	21.4	16.1	N/A	7/8 U 15.29	1/2 U 2.78
CR24K6E-TFD-775	22	7.5 x 7.5	24000	460	3	60	4.0	13.4	N/A	3/4 H 11.20	1/2 U 5.86
CR35K6E-TFD-775	22	7.5 x 7.5	34900	460	3	60	4.8	14.1	N/A	3/4 H 11.82	1/2 U 5.86
CR42K6E-TFD-775	22	7.5 x 7.5	41700	460	3	60	6.4	14.6	N/A	3/4 H 12.32	1/2 U 5.86
CR47KQE-TFD-970	22	7.5 x 7.5	47200	460	3	60	8.2	14.8	N/A	7/8 U 14.30	1/2 U 5.86
CR53KQE-TFD-970	22	7.5 x 7.5	48800	460	3	60	9.1	14.8	N/A	7/8 H 13.06	1/2 U 6.25
CRPQ-045E-TFD-970	22	7.5 x 7.5	57000	460	3	60	10.4	15.9	N/A	7/8 U 15.29	1/2 U 2.78
CRNQ-050E-TFD-970	22	7.5 x 7.5	61500	460	3	60	9.6	16.1	N/A	7/8 U 15.29	1/2 U 2.78
CR35K6E-TFE-775	22	7.5 x 7.5	34900	575	3	60	4.1	14.1	N/A	3/4 H 11.82	1/2 U 5.86

HERMETIC COMPRESSORS - COPELAND SCROLLS

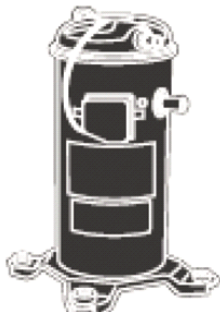
Scroll Part Numbering System



HERMETIC COMPRESSORS - COPELAND SCROLLS

Hermetic Scrolls R-22/R407C

Single Phase 208/230V, 265V, 60HZ



Features:

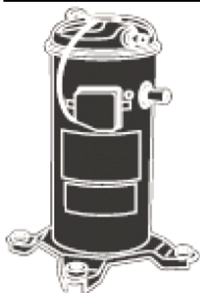
- ZR'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZR16K5E-PFV-830	22	7.5 x 7.5	15500	208/230	1	60	9.3	15.9	30/370	3/4 H 10.1	1/2 H 14.2
ZR18K5E-PFV-830	22	7.5 x 7.5	18000	208/230	1	60	10.7	15.9	30/370	3/4 H 10.1	1/2 H 14.2
ZR21K5E-PFV-830	22	7.5 x 7.5	21000	208/230	1	60	12.0	15.9	35/370	3/4 H 10.1	1/2 H 14.2
ZR25K5E-PFV-830	22	7.5 x 7.5	25300	208/230	1	60	15.0	15.9	40/370	3/4 H 10.1	1/2 H 14.2
ZR28K5E-PFV-830	22	7.5 x 7.5	28400	208/230	1	60	15.7	15.9	45/370	3/4 H 10.1	1/2 H 14.2
ZR32K5E-PFV-830	22	7.5 x 7.5	32600	208/230	1	60	17.1	15.9	50/370	3/4 H 10.1	1/2 H 14.2
ZR38K5E-PFV-830	22	7.5 x 7.5	38000	208/230	1	60	21.4	16.9	55/370	7/8 H 11.1	1/2 H 15.4
ZR42K5E-PFV-830	22	7.5 x 7.5	42200	208/230	1	60	22.1	16.3	55/370	7/8 H 11.1	1/2 H 15.4
ZR44K5E-PFV-830	22	7.5 x 7.5	44000	208/230	1	60	22.5	16.9	60/370	7/8 H 11.1	1/2 H 15.4
ZR48K5E-PFV-830	22	7.5 x 7.5	48200	208/230	1	60	24.3	16.9	60/440	7/8 H 11.1	1/2 H 15.4
ZR54K5E-PFV-830	22	7.5 x 7.5	53500	208/230	1	60	28.2	16.9	80/370	7/8 H 11.1	1/2 H 15.4
ZR57K3E-PFV-830	22	7.5 x 7.5	58000	208/230	1	60	32.1	17.8	80/370	7/8 H 11.68	1/2 H 16.13
ZR61K3E-PFV-830	22	7.5 x 7.5	62000	208/230	1	60	32.1	17.8	80/370	7/8 H 11.68	1/2 H 16.13
ZR61K3E-PFV-950	22	7.5 x 7.5	62000	208/230	1	60	32.1	17.8	80/370	7/8 H 11.68	1/2 H 16.13
ZR68KCE-PFV-950	22	7.5 x 7.5	69500	208/230	1	60	32.1	17.8	80/440	7/8 H 11.68	1/2 H 16.13
ZR42K5E-PFJ-830	22	7.5 x 7.5	42200	265	1	60	19.3	19.9	60/440	7/8 Stub	1/2 Stub

HERMETIC COMPRESSORS - COPELAND SCROLLS

Hermetic Scrolls R-22/R407C

3 Phase 208/230V, 460V, 575V, 60HZ



Features:

- ZR'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZR28K5E-TF5-830	22	7.5 x 7.5	28400	208/230	3	60	11.1	15.9	N/A	3/4 H 10.1	1/2 H 14.2
ZR32K5E-TF5-830	22	7.5 x 7.5	32600	208/230	3	60	12.0	15.9	N/A	3/4 H 10.1	1/2 H 14.2
ZR38K5E-TF5-830	22	7.5 x 7.5	38000	208/230	3	60	13.6	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR42K5E-TF5-830	22	7.5 x 7.5	42200	208/230	3	60	14.3	16.3	N/A	7/8 H 11.1	1/2 H 15.4
ZR44K5E-TF5-830	22	7.5 x 7.5	44000	208/230	3	60	14.3	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR48K5E-TF5-830	22	7.5 x 7.5	48200	208/230	3	60	17.1	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR54K5E-TF5-830	22	7.5 x 7.5	53500	208/230	3	60	17.1	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR57K3E-TF5-830	22	7.5 x 7.5	58500	208/230	3	60	19.3	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR57K3E-TF5-950	22	7.5 x 7.5	58500	208/230	3	60	19.3	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR61K3E-TF5-830	22	7.5 x 7.5	62000	208/230	3	60	19.3	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR68KCE-TF5-950	22	7.5 x 7.5	70000	208/230	3	60	20.7	17.8	N/A	7/8 Stub	1/2 Stub
ZR72KCE-TF5-830	22	7.5 x 7.5	73500	208/230	3	60	20.7	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR72KCE-TF5-950	22	7.5 x 7.5	73500	208/230	3	60	20.7	17.8	N/A	7/8 Stub	1/2 Stub
ZR81KCE-TF5-965	22	7.5 x 7.5	82000	208/230	3	60	25.0	18.0	N/A	1-1/4 Rotalock	1 1/4 Rotalock
ZR84KCE-TF5-950	22	7.5 x 7.5	85500	208/230	3	60	28.6	18.8	N/A	1-1/8 Stub	7/8 Stub
ZR90K3E-TWC-922	22	7.5 x 7.5	89000	208/230	3	60	29.3	21.2	N/A	1-3/8 Stub	7/8 Stub
ZR90K3E-TWC-961	22	7.5 x 7.5	89000	208/230	3	60	29.3	21.2	N/A	1-3/8 Stub	7/8 Stub
ZR94KCE-TF5-950	22	7.5 x 7.5	96500	208/230	3	60	32.1	18.8	N/A	1-1/8 Stub	7/8 Stub
ZR108KCE-TF5-950	22	7.5 x 7.5	109000	208/230	3	60	33.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR125KCE-TF5-950	22	7.5 x 7.5	128000	208/230	3	60	41.4	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR144KCE-TF5-950	22	7.5 x 7.5	146000	208/230	3	60	47.1	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR16M3E-TWC-922	22	8.7 x 8.7	154000	208/230	3	60	48.9	21.5	N/A	1-3/8 Stub	7/8 Stub
ZR16M3E-TWC-961	22	8.7 x 8.7	154000	208/230	3	60	48.9	21.5	N/A	1-3/4 Rotalock	1 1/4 Rotalock
ZR190KCE-TE5-950	22	7.5 x 7.5	181000	208/230	3	60	60.0	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZR19M3E-TWC-961	22	8.7 x 8.7	185000	208/230	3	60	55.0	23.3	N/A	2-1/4 Rotalock	1 1/4 Rotalock
ZR32K5E-TFD-830	22	7.5 x 7.5	32600	460	3	60	6.4	15.9	N/A	3/4 H 10.1	1/2 H 14.2
ZR38K5E-TFD-830	22	7.5 x 7.5	38000	460	3	60	6.4	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR42K5E-TFD-830	22	7.5 x 7.5	42200	460	3	60	6.4	16.3	N/A	7/8 H 11.1	1/2 H 15.4
ZR44K5E-TFD-830	22	7.5 x 7.5	44000	460	3	60	6.8	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR48K5E-TFD-830	22	7.5 x 7.5	48200	460	3	60	7.9	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR54K5E-TFD-830	22	7.5 x 7.5	53500	460	3	60	7.9	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR57K3E-TFD-930	22	7.5 x 7.5	55000	460	3	60	9.1	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR57K3E-TFD-830	22	7.5 x 7.5	58500	460	3	60	9.1	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR57K3E-TFD-950	22	7.5 x 7.5	58500	460	3	60	9.1	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR61K3E-TFD-830	22	7.5 x 7.5	62000	460	3	60	9.1	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR68KCE-TFD-950	22	7.5 x 7.5	70000	460	3	60	10.0	17.8	N/A	7/8 Stub	1/2 Stub
ZR72KCE-TFD-830	22	7.5 x 7.5	73500	460	3	60	10.0	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR72KCE-TFD-950	22	7.5 x 7.5	73500	460	3	60	10.0	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR81KCE-TFD-950	22	7.5 x 7.5	82000	460	3	60	12.1	18.0	N/A	7/8 Stub	3/4 Stub
ZR84KCE-TFD-950	22	7.5 x 7.5	85500	460	3	60	14.3	18.8	N/A	1-1/8 Stub	7/8 Stub

HERMETIC COMPRESSORS - COPELAND SCROLLS

Hermetic Scrolls R-22/R407C

3 Phase 208/230V, 460V, 575V, 60HZ

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZR90K3E-TWD-961	22	7.5 x 7.5	89000	460	3	60	14.1	21.2	N/A	1-3/8 Stub	7/8 Stub
ZR94KCE-TFD-950	22	7.5 x 7.5	94000	460	3	60	16.4	18.8	N/A	1-1/8 Stub	7/8 Stub
ZR11M3E-TWD-922	22	7.5 x 7.5	108000	460	3	60	17.0	21.2	N/A	1-3/8 Stub	7/8 Stub
ZR108KCE-TFD-950	22	7.5 x 7.5	109000	460	3	60	17.3	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR125KCE-TFD-950	22	7.5 x 7.5	125000	460	3	60	19.2	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR12M3E-TWD-922	22	7.5 x 7.5	125000	460	3	60	18.4	21.2	N/A	1-3/8 Stub	7/8 Stub
ZR12M3E-TWD-961	22	7.5 x 7.5	125000	460	3	60	18.4	21.2	N/A	1-3/8 Stub	7/8 Stub
ZR144KCE-TFD-950	22	7.5 x 7.5	146000	460	3	60	20.7	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR16M3E-TWD-922	22	8.7 x 8.7	154000	460	3	60	27.2	21.5	N/A	1-3/8 Stub	7/8 Stub
ZR16M3E-TWD-961	22	8.7 x 8.7	154000	460	3	60	27.2	21.5	N/A	1-3/4 Rotalock	1 1/4 Rotalock
ZR19M3E-TWD-922	22	8.7 x 8.7	185000	460	3	60	32.1	23.3	N/A	1-3/8 Stub	7/8 Stub
ZR19M3E-TWD-961	22	8.7 x 8.7	185000	460	3	60	32.1	23.3	N/A	2-1/4 Rotalock	1 1/4 Rotalock
ZR250KCE-TED-965	22	10.5 x 10.5	250000	460	3	60	33.6	28.6	N/A	1-5/8 H 13.13	1 3/8 H 26.26
ZR250KCE-TWD-965	22	10.5 x 10.5	250000	460	3	60	33.6	28.6	N/A	2-1/4 Rotalock	1 1/4 Rotalock
ZR44K5E-TFE-830	22	7.5 x 7.5	44000	575	3	60	5.0	16.9	N/A	7/8 H 11.1	1/2 H 15.4
ZR57K3E-TFE-950	22	7.5 x 7.5	58500	575	3	60	7.9	17.2	N/A	7/8 H 11.1	1/2 H 16.3
ZR61K3E-TFE-930	22	7.5 x 7.5	62000	575	3	60	7.9	17.2	N/A	7/8 H 11.68	1/2 H 16.13
ZR72KCE-TFE-950	22	7.5 x 7.5	73500	575	3	60	8.2	17.8	N/A	7/8 Stub	1/2 Stub
ZR94KCE-TFE-950	22	7.5 x 7.5	96500	575	3	60	12.0	18.8	N/A	1-1/8 Stub	7/8 Stub
ZR108KCE-TFE-950	22	7.5 x 7.5	109000	575	3	60	13.5	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR125KCE-TFE-950	22	7.5 x 7.5	127000	575	3	60	13.8	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZR16M3E-TWE-922	22	8.7 x 8.7	154000	575	3	60	19.3	21.5	N/A	1-3/8 Stub	7/8 Stub
ZR16M3E-TWE-961	22	8.7 x 8.7	154000	575	3	60	19.3	21.5	N/A	1-3/8 Stub	7/8 Stub

Hermetic Compressors

ZRT- Even Tandems/ ZRU-Uneven Tandems R-22/407C

3 Phase 200/230V, 460V, 60HZ



Features:

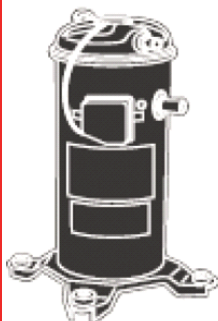
- ZR'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZRT122K3E-TFD-831	22	7.5 x 7.5	121000	460	3	60	1	18.8	N/A	1-1/8 Stub	3/4 Stub
ZRT144KCE-TFD-950	22	7.5 x 7.5	144000	460	3	60	1	18.8	N/A	1-1/8 Stub	3/4 Stub
ZRT188KCE-TFD-950	22	7.5 x 7.5	186500	460	3	60	1	19.5	N/A	1-5/8 Stub	1-3/8 Stub
ZRT250KCE-TFD-950	22	10.5 x 10.5	237000	460	3	60	1	22.7	N/A	1-5/8 Stub	1-3/8 Stub
ZRT250KCE-TFD-975	22	10.5 x 10.5	237000	460	3	60	1	22.7	N/A	1-5/8 Stub	1-3/8 Stub
ZRT90KCE-TF5-830	22	7.5 x 7.5	90500	200/230	3	60	1	18.0	N/A	1-1/8 Stub	3/4 Stub
ZRT122K3E-TF5-831	22	7.5 x 7.5	121000	200/230	3	60	1	18.8	N/A	1-1/8 Stub	3/4 Stub
ZRT144KCE-TF5-950	22	7.5 x 7.5	144000	200/230	3	60	1	18.8	N/A	1-1/8 Stub	3/4 Stub
ZRU140KCE-TFD-980	22	7.5 x 7.5	141000	460	3	60	1	18.8	N/A	1-1/8 Stub	3/4 Stub
ZRU140KCE-TF5-980	22	7.5 x 7.5	141000	200/230	3	60	1	18.8	N/A	1-1/8 Stub	3/4 Stub

HERMETIC COMPRESSORS - COPELAND SCROLLS

Hermetic Scroll - R-410A

Single Phase 208/230V, 265V, 60HZ



Features:

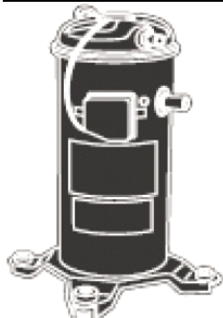
- ZP'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZP16K5E-PFV-830	410A	7.5 x 7.5	15500	208/230	1	60	10.0	14.3	30/370	3/4 H 10.3	1/2 H 14.15
ZP16KAE-PFV-830	410A	7.5 x 7.5	15650	208/230	1	60	10.4	14.9	30/370	3/4 Stub	1/2 Stub
ZP20K5E-PFV-830	410A	7.5 x 7.5	20000	208/230	1	60	15.0	15.3	35/370	3/4 H 10.3	1/2 H 14.15
ZP20KAE-PFV-830	410A	7.5 x 7.5	20000	208/230	1	60	12.5	14.9	35/370	3/4 Stub	1/2 Stub
ZPS20K5E-PFV-830	410A	7.5 x 7.5	20200	208/230	1	60	13.0	15.3	35/370	3/4 Stub	1/2 Stub
ZP21K5E-PFV-830	410A	7.5 x 7.5	21300	208/230	1	60	14.3	15.3	40/370	3/4 H 10.3	1/2 H 14.15
ZPS21K5E-PFV-830	410A	7.5 x 7.5	21300	208/230	1	60	12.4	15.3	35/370	3/4 Stub	1/2 Stub
ZP24K5E-PFV-830	410A	7.5 x 7.5	24000	208/230	1	60	14.3	15.3	40/370	3/4 H 10.3	1/2 H 14.15
ZP25K5E-PFV-830	410A	7.5 x 7.5	25200	208/230	1	60	15.7	15.3	40/370	3/4 H 10.3	1/2 H 14.15
ZP28K5E-PFV-830	410A	7.5 x 7.5	27900	208/230	1	60	17.9	15.3	45/370	3/4 H 10.3	1/2 H 14.15
ZP29K5E-PFV-830	410A	7.5 x 7.5	29000	208/230	1	60	15.7	15.3	45/370	3/4 H 10.3	1/2 H 14.15
ZP31K5E-PFV-830	410A	7.5 x 7.5	31100	208/230	1	60	18.6	15.3	45/370	3/4 H 10.3	1/2 H 14.15
ZP36K5E-PFV-830	410A	7.5 x 7.5	36000	208/230	1	60	20.0	16.9	45/370	7/8 H 11.50	1/2 H 15.34
ZP38K5E-PFV-830	410A	7.5 x 7.5	37500	208/230	1	60	22.1	16.9	45/370	7/8 H 11.50	1/2 H 15.34
ZP42K5E-PFV-830	410A	7.5 x 7.5	42000	208/230	1	60	24.3	16.9	70/370	7/8 H 11.50	1/2 H 15.34
ZP49K5E-PFV-830	410A	7.5 x 7.5	49400	208/230	1	60	27.9	16.9	70/370	7/8 H 11.50	1/2 H 15.34
ZP51K5E-PFV-830	410A	7.5 x 7.5	51000	208/230	1	60	29.4	16.9	70/370	7/8 H 11.50	1/2 H 15.34
ZP54K5E-PFV-830	410A	7.5 x 7.5	54000	208/230	1	60	29.3	16.9	80/370	7/8 H 11.50	1/2 H 15.34
ZP57K5E-PFV-830	410A	7.5 x 7.5	57000	208/230	1	60	31.6	16.9	80/370	7/8 H 11.68	1/2 H 15.87
ZP20K5E-PFJ-830	410A	7.5 x 7.5	20000	265	1	60	10.0	15.3	40/370	3/4 Stub	1/2 Stub
ZP21K5E-PFJ-830	410A	7.5 x 7.5	21300	265	1	60	10.7	15.3	40/370	3/4 Stub	1/2 Stub
ZP24K5E-PFJ-830	410A	7.5 x 7.5	24000	265	1	60	12.1	15.3	40/370	3/4 Stub	1/2 Stub
ZP31K5E-PFJ-830	410A	7.5 x 7.5	31100	265	1	60	15.0	15.3	60/370	3/4 Stub	1/2 Stub
ZP36K5E-PFJ-830	410A	7.5 x 7.5	36000	265	1	60	17.9	19.9	60/370	7/8 Stub	1/2 Stub

HERMETIC COMPRESSORS - COPELAND SCROLLS

Hermetic Scroll - R-410A

3 Phase 208/230V, 460V, 575V, 60HZ



Features:

- ZP'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZP72KCE-TF5-7M7	410A	7.5 x 7.5	72000	200/230	3	60	25.9	17.9	N/A	7/8 Stub	1/2 Stub
ZP83KCE-TF5-7M7	410A	7.5 x 7.5	83000	200/230	3	60	27.9	17.9	N/A	7/8 Stub	1/2 Stub
ZP91KCE-TF5-7M7	410A	7.5 x 7.5	90500	200/230	3	60	30.7	17.5	N/A	7/8 Stub	3/4 Stub
ZP24K5E-TF5-830	410A	7.5 x 7.5	24000	208/230	3	60	9.3	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP24K5E-TF5-899	410A	7.5 x 7.5	24000	208/230	3	60	9.3	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP29K5E-TF5-830	410A	7.5 x 7.5	29000	208/230	3	60	10.0	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP31K5E-TF5-830	410A	7.5 x 7.5	31200	208/230	3	60	11.6	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP36K5E-TF5-830	410A	7.5 x 7.5	36000	208/230	3	60	15.1	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP38K5E-TF5-830	410A	7.5 x 7.5	38000	208/230	3	60	15.1	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP42K5E-TF5-830	410A	7.5 x 7.5	42200	208/230	3	60	15.3	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP44K5E-TF5-830	410A	7.5 x 7.5	44500	208/230	3	60	16.1	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP49K5E-TF5-830	410A	7.5 x 7.5	49700	208/230	3	60	17.7	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP51K5E-TF5-830	410A	7.5 x 7.5	51500	208/230	3	60	17.8	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP54K5E-TF5-830	410A	7.5 x 7.5	54300	208/230	3	60	17.4	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP57K5E-TF5-830	410A	7.5 x 7.5	57500	208/230	3	60	21.4	16.9	N/A	7/8 H 11.68	1/2 H 15.87
ZP61K5E-TF5-830	410A	7.5 x 7.5	61500	208/230	3	60	21.9	16.9	N/A	7/8 H 11.68	1/2 H 15.87
ZP61K5E-TF5-899	410A	7.5 x 7.5	61500	208/230	3	60	21.9	16.9	N/A	7/8 H 11.68	1/2 H 15.87
ZP61KCE-TF5-830	410A	7.5 x 7.5	61500	208/230	3	60	21.2	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP67KCE-TF5-830	410A	7.5 x 7.5	67500	208/230	3	60	25.0	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP67KCE-TF5-950	410A	7.5 x 7.5	67500	208/230	3	60	25.0	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP72KCE-TF5-830	410A	7.5 x 7.5	72000	208/230	3	60	25.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP76KCE-TF5-830	410A	7.5 x 7.5	77000	208/230	3	60	27.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP76KCE-TF5-950	410A	7.5 x 7.5	77000	208/230	3	60	27.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP83KCE-TF5-830	410A	7.5 x 7.5	83000	208/230	3	60	27.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP83KCE-TF5-950	410A	7.5 x 7.5	83000	208/230	3	60	27.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP90KCE-TF5-855	410A	7.5 x 7.5	90500	208/230	3	60	32.9	18.8	N/A	1-1/8 H 3.69	7/8 H 17.49
ZP90KCE-TF5-950	410A	7.5 x 7.5	90500	208/230	3	60	32.9	18.8	N/A	1-1/8 H 3.69	7/8 H 17.49
ZP91KCE-TF5-950	410A	7.5 x 7.5	90500	208/230	3	60	30.7	17.5	N/A	7/8 H 11.73	3/4 H 16.17
ZP103KCE-TF5-855	410A	7.5 x 7.5	105000	208/230	3	60	33.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP103KCE-TF5-950	410A	7.5 x 7.5	105000	208/230	3	60	33.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP120KCE-TF5-855	410A	7.5 x 7.5	123000	208/230	3	60	37.1	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP120KCE-TF5-950	410A	7.5 x 7.5	123000	208/230	3	60	37.1	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP137KCE-TF5-855	410A	7.5 x 7.5	137000	208/230	3	60	53.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP137KCE-TF5-950	410A	7.5 x 7.5	137000	208/230	3	60	53.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP154KCE-TE5-950	410A	7.5 x 7.5	155000	208/230	3	60	57.1	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP182KCE-TE5-950	410A	7.5 x 7.5	183000	208/230	3	60	62.1	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP20K5E-TFD-830	410A	7.5 x 7.5	20000	460	3	60	3.9	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP24K5E-TFD-899	410A	7.5 x 7.5	24000	460	3	60	5.7	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP25K5E-TFD-830	410A	7.5 x 7.5	25200	460	3	60	4.6	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP28K5E-TFD-830	410A	7.5 x 7.5	27700	460	3	60	5.3	15.3	N/A	3/4 H 10.3	1/2 H 14.15

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZP29K5E-TFD-830	410A	7.5 x 7.5	29000	460	3	60	6.3	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP31K5E-TFD-830	410A	7.5 x 7.5	31200	460	3	60	6.4	15.3	N/A	3/4 H 10.3	1/2 H 14.15
ZP36K5E-TFD-830	410A	7.5 x 7.5	36000	460	3	60	6.6	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP38K5E-TFD-830	410A	7.5 x 7.5	38100	460	3	60	6.8	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP39K5E-TFD-899	410A	7.5 x 7.5	39000	460	3	60	4.6	16.9	N/A	7/8 Stub	1/2 Stub
ZP42K5E-TFD-830	410A	7.5 x 7.5	41900	460	3	60	6.9	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP49K5E-TFD-830	410A	7.5 x 7.5	50000	460	3	60	7.9	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP51K5E-TFD-830	410A	7.5 x 7.5	51600	460	3	60	8.6	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP54K5E-TFD-830	410A	7.5 x 7.5	54300	460	3	60	8.6	16.9	N/A	7/8 H 11.50	1/2 H 15.34
ZP57K3E-TFD-930	410A	7.5 x 7.5	58000	460	3	60	10.7	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP61K5E-TFD-899	410A	7.5 x 7.5	61500	460	3	60	9.1	16.9	N/A	7/8 H 11.68	1/2 H 15.87
ZP61KCE-TFD-830	410A	7.5 x 7.5	61500	460	3	60	10.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP61KCE-TFD-950	410A	7.5 x 7.5	61500	460	3	60	10.9	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP67KCE-TFD-7M7	410A	7.5 x 7.5	67000	460	3	60	11.8	17.9	N/A	7/8 Stub	1/2 Stub
ZP67KCE-TFD-830	410A	7.5 x 7.5	67000	460	3	60	11.8	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP67KCE-TFD-950	410A	7.5 x 7.5	67000	460	3	60	11.8	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP72KCE-TFD-7M7	410A	7.5 x 7.5	72000	460	3	60	12.5	17.9	N/A	7/8 Stub	1/2 Stub
ZP72KCE-TFD-830	410A	7.5 x 7.5	72000	460	3	60	12.5	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP76KCE-TFD-830	410A	7.5 x 7.5	77000	460	3	60	14.3	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP76KCE-TFD-950	410A	7.5 x 7.5	77000	460	3	60	14.3	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP83KCE-TFD-7M7	410A	7.5 x 7.5	83000	460	3	60	13.6	17.9	N/A	7/8 Stub	1/2 Stub
ZP83KCE-TFD-830	410A	7.5 x 7.5	83000	460	3	60	13.6	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP83KCE-TFD-950	410A	7.5 x 7.5	83000	460	3	60	13.6	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP90KCE-TFD-855	410A	7.5 x 7.5	90500	460	3	60	16.4	18.8	N/A	1-1/8 H 3.69	7/8 H 17.49
ZP90KCE-TFD-950	410A	7.5 x 7.5	90500	460	3	60	16.4	18.8	N/A	1-1/8 H 3.69	7/8 H 17.49
ZP91KCE-TFD-7M7	410A	7.5 x 7.5	90500	460	3	60	14.3	17.5	N/A	7/8 Stub	3/4 Stub
ZP91KCE-TFD-950	410A	7.5 x 7.5	90500	460	3	60	14.3	17.5	N/A	7/8 H 11.73	3/4 H 16.17
ZP103KCE-TFD-855	410A	7.5 x 7.5	105000	460	3	60	18.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP103KCE-TFD-950	410A	7.5 x 7.5	105000	460	3	60	18.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP120KCE-TFD-855	410A	7.5 x 7.5	123000	460	3	60	20.0	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP120KCE-TFD-950	410A	7.5 x 7.5	123000	460	3	60	20.0	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP137KCE-TFD-855	410A	7.5 x 7.5	135000	460	3	60	20.7	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP137KCE-TFD-950	410A	7.5 x 7.5	135000	460	3	60	20.7	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP154KCE-TED-950	410A	7.5 x 7.5	155000	460	3	60	25.7	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP154KCE-TFD-855	410A	7.5 x 7.5	155000	460	3	60	25.0	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP182KCE-TED-950	410A	7.5 x 7.5	183000	460	3	60	30.0	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP182KCE-TFD-855	410A	7.5 x 7.5	183000	460	3	60	29.3	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP236KCE-TED-750	410A	10.5 x 10.5	238000	460	3	60	34.3	27.2	N/A	1-5/8 H 14.78	1-1/8 H 25.04
ZP29K5E-TFE-830	410A	7.5 x 7.5	29000	575	3	60	4.2	15.3	N/A	3/4 Stub	1/2 Stub
ZP31K5E-TFE-830	410A	7.5 x 7.5	31100	575	3	60	4.2	15.3	N/A	3/4 Stub	1/2 Stub
ZP34K5E-TFE-899	410A	7.5 x 7.5	34600	575	3	60	4.6	16.9	N/A	7/8 Stub	1/2 Stub
ZP36K5E-TFE-830	410A	7.5 x 7.5	36000	575	3	60	5.5	16.9	N/A	7/8 Stub	1/2 Stub
ZP38K5E-TFE-830	410A	7.5 x 7.5	38100	575	3	60	4.6	16.9	N/A	7/8 Stub	1/2 Stub
ZP39K5E-TFE-830	410A	7.5 x 7.5	39000	575	3	60	4.9	16.9	N/A	7/8 Stub	1/2 Stub
ZP42K5E-TFE-830	410A	7.5 x 7.5	42000	575	3	60	5.4	16.9	N/A	7/8 Stub	1/2 Stub
ZP49K5E-TFE-830	410A	7.5 x 7.5	49700	575	3	60	5.7	16.9	N/A	7/8 Stub	1/2 Stub
ZP51K5E-TFE-830	410A	7.5 x 7.5	51000	575	3	60	6.4	16.9	N/A	7/8 Stub	1/2 Stub
ZP54K5E-TFE-830	410A	7.5 x 7.5	54000	575	3	60	6.5	16.9	N/A	7/8 Stub	1/2 Stub
ZP61KCE-TFE-830	410A	7.5 x 7.5	61500	575	3	60	7.4	17.9	N/A	7/8 Stub	1/2 Stub
ZP67KCE-TFE-830	410A	7.5 x 7.5	67500	575	3	60	8.6	17.9	N/A	7/8 Stub	1/2 Stub
ZP72KCE-TFE-830	410A	7.5 x 7.5	71700	575	3	60	8.8	17.9	N/A	7/8 H 11.73	1/2 H 16.17
ZP76KCE-TFE-830	410A	7.5 x 7.5	77000	575	3	60	6.7	17.9	N/A	7/8 Stub	1/2 Stub
ZP76KCE-TFE-950	410A	7.5 x 7.5	77000	575	3	60	6.7	17.9	N/A	7/8 Stub	1/2 Stub
ZP83KCE-TFE-7M7	410A	7.5 x 7.5	83000	575	3	60	10.0	17.9	N/A	7/8 Stub	1/2 Stub
ZP83KCE-TFE-830	410A	7.5 x 7.5	83000	575	3	60	10.0	17.9	N/A	7/8 Stub	1/2 Stub
ZP83KCE-TFE-950	410A	7.5 x 7.5	83000	575	3	60	10.0	17.9	N/A	7/8 Stub	1/2 Stub

HERMETIC COMPRESSORS - COPELAND SCROLLS

Hermetic Scroll - R-410A

3 Phase 208/230V, 460V, 575V, 60HZ

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZP90KCE-TFE-950	410A	7.5 x 7.5	90500	575	3	60	13.6	18.8	N/A	1-1/8 H 3.69	7/8 H 17.49
ZP91KCE-TFE-950	410A	7.5 x 7.5	90500	575	3	60	10.7	17.5	N/A	3/4 Stub	7/8 Stub
ZP103KCE-TFE-855	410A	7.5 x 7.5	104000	575	3	60	13.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP103KCE-TFE-950	410A	7.5 x 7.5	104000	575	3	60	13.6	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP120KCE-TFE-855	410A	7.5 x 7.5	121000	575	3	60	14.3	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP120KCE-TFE-950	410A	7.5 x 7.5	121000	575	3	60	14.3	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP137KCE-TFE-855	410A	7.5 x 7.5	136000	575	3	60	16.4	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP137KCE-TFE-950	410A	7.5 x 7.5	136000	575	3	60	16.4	21.0	N/A	1-3/8 H 4.81	7/8 H 19.73
ZP154KCE-TEE-950	410A	7.5 x 7.5	155000	575	3	60	22.1	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46
ZP182KCE-TEE-950	410A	7.5 x 7.5	183000	575	3	60	26.4	21.7	N/A	1-3/8 H 5.53	7/8 H 20.46

Hermetic Scroll - Digital, R-410A

3 Phase 200/230V, 460V, 575V, 60HZ



Features:

- ZP'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZPD42K5E-TF5-830	410A	7.5 x 7.5	43000	200/230	3	60	17.9	17.7	N/A	25/32 Stub	1/2 Stub
ZPD54K5E-TF5-830	410A	7.5 x 7.5	54600	200/230	3	60	18.8	18.8	N/A	25/32 Stub	1/2 Stub
ZPD103KCE-TF5-855	410A	7.5 x 7.5	105000	200/230	3	60	33.6	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD103KCE-TF5-950	410A	7.5 x 7.5	105000	200/230	3	60	33.6	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD120KCE-TF5-855	410A	7.5 x 7.5	123000	200/230	3	60	37.1	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD137KCE-TF5-855	410A	7.5 x 7.5	137500	200/230	3	60	53.6	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD154KCE-TE5-950	410A	7.5 x 7.5	155000	200/230	3	60	57.1	22.2	N/A	1-3/8 Stub	7/8 Stub
ZPD182KCE-TE5-950	410A	7.5 x 7.5	183000	200/230	3	60	62.1	22.2	N/A	1-3/8 Stub	7/8 Stub
ZPD51K5E-TFD-830	410A	7.5 x 7.5	51000	460	3	60	8.6	18.4	N/A	7/8 Stub	1/2 Stub
ZPD83KCE-TFD-950	410A	7.5 x 7.5	83000	460	3	60	14.1	19.5	N/A	7/8 Stub	1/2 Stub
ZPD91KCE-TFD-950	410A	7.5 x 7.5	90100	460	3	60	14.3	18.9	N/A	7/8 Stub	3/4 Stub
ZPD103KCE-TFD-855	410A	7.5 x 7.5	105000	460	3	60	18.6	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD103KCE-TFD-950	410A	7.5 x 7.5	105000	460	3	60	18.6	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD120KCE-TFD-855	410A	7.5 x 7.5	123000	460	3	60	20.0	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD137KCE-TFD-855	410A	7.5 x 7.5	137500	460	3	60	20.7	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD137KCE-TFD-950	410A	7.5 x 7.5	137500	460	3	60	20.7	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD154KCE-TED-950	410A	7.5 x 7.5	155000	460	3	60	25.7	22.2	N/A	1-3/8 Stub	7/8 Stub
ZPD182KCE-TED-950	410A	7.5 x 7.5	183000	460	3	60	30.0	22.2	N/A	1-3/8 Stub	7/8 Stub
ZPD120KCE-TFE-855	410A	7.5 x 7.5	121500	575	3	60	14.3	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD137KCE-TFE-855	410A	7.5 x 7.5	137500	575	3	60	16.4	21.0	N/A	1-3/8 Stub	7/8 Stub
ZPD182KCE-TEE-950	410A	7.5 x 7.5	183000	575	3	60	26.4	22.2	N/A	1-3/8 Stub	7/8 Stub

HERMETIC COMPRESSORS - COPELAND SCROLLS

ZPS-Ultra-Tech / ZPT-Tandems R-410A

Single & 3 Phase 200/230V, 460V, 575V, 60HZ



Features:

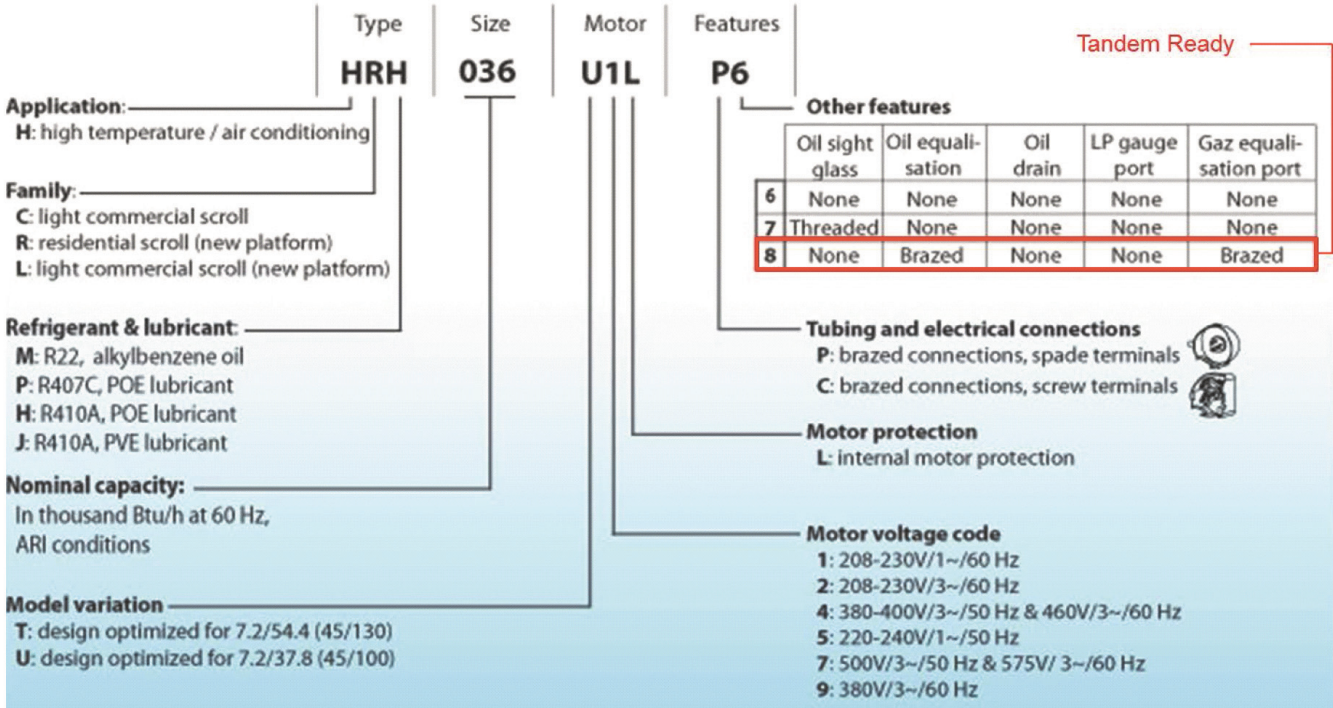
- ZP'S for high efficiency – EER 11.0 plus
- Low Noise & Vibration levels
- Inherent motor protection
- Centrifugal oil pump
- For Heat Pump & Air Conditioning duty
- POE Oil

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
ZPS26K5E-PFV-830	410A	7.5 x 7.5	26400	208/230	1	60	14.6	15.3	40/370	3/4 Stub	1/2 Stub
ZPS30K5E-PFV-830	410A	7.5 x 7.5	30600	208/230	1	60	17.0	15.3	40/370	3/4 Stub	1/2 Stub
ZPS31K5E-PFV-830	410A	7.5 x 7.5	31500	208/230	1	60	17.0	15.3	40/370	3/4 Stub	1/2 Stub
ZPS35K5E-PFV-830	410A	7.5 x 7.5	36800	208/230	1	60	20.0	16.9	45/370	7/8 Stub	1/2 Stub
ZPS40K5E-PFV-830	410A	7.5 x 7.5	41200	208/230	1	60	23.6	16.9	30/370	7/8 Stub	1/2 Stub
ZPS49K5E-PFV-830	410A	7.5 x 7.5	49100	208/230	1	60	32.1	16.9	40/440	7/8 Stub	1/2 Stub
ZPS51K5E-PFV-830	410A	7.5 x 7.5	52000	208/230	1	60	30.2		40/440	7/8 Stub	1/2 Stub
ZPS30K5E-TF5-830	410A	7.5 x 7.5	30600	208/230	3	60	12.9	15.3	N/A	3/4 Stub	1/2 Stub
ZPS40K5E-TF5-830	410A	7.5 x 7.5	41200	208/230	3	60	15.6	16.9	N/A	7/8 Stub	1/2 Stub
ZPS49K5E-TF5-830	410A	7.5 x 7.5	49300	208/230	3	60	18.1	16.9	N/A	7/8 Stub	1/2 Stub
ZPS30K5E-TFD-830	410A	7.5 x 7.5	30600	460	3	60	6.4	15.3	N/A	3/4 Stub	1/2 Stub
ZPS40K5E-TFD-830	410A	7.5 x 7.5	41200	460	3	60	7.1	16.9	N/A	7/8 Stub	1/2 Stub
ZPS49K5E-TFD-830	410A	7.5 x 7.5	49300	460	3	60	8.5	16.9	N/A	7/8 Stub	1/2 Stub
ZPS49K5E-TFE-830	410A	7.5 x 7.5	49300	575	3	60	5.9	16.9	N/A	7/8 Stub	1/2 Stub
ZPT180KCE-TF5-975	410A	7.5 x 7.5	181000	200/230	3	60	1.0	19.5	N/A	1-5/8 Stub	1-3/8 Stub
ZPT240KCE-TFD-975	410A	7.5 x 7.5	246000	460	3	60	1.0	22.7	N/A	1-5/8 Stub	1-3/8 Stub

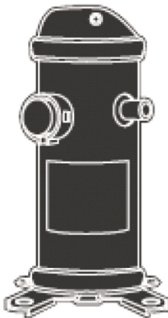
HERMETIC COMPRESSORS - DANFOSS SCROLLS

Hermetic Performer Black - R-22

Compressor Part Numbering System



Single Phase 208/230V, 60HZ



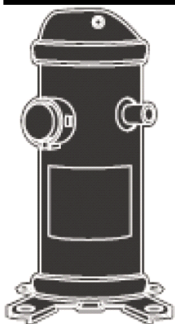
- Features:**
- Low Noise & Vibration levels
 - High efficiency
 - High reliability
 - For Heat Pump & Air Conditioning duty
 - Compact & lightweight

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
HRM034U1LP6	22	7.5 x 7.5	34112	208/230	1	60	16.7	15.5	45/370	3/4 H 9.8	1/2 H14.9
HRM038U1LP6	22	7.5 x 7.5	38010	208/230	1	60	19.5	15.5	55/370	3/4 H 9.8	1/2 H14.9
HRM040U1LP6	22	7.5 x 7.5	40010	208/230	1	60	21.0	15.5	60/370	3/4 H 9.8	1/2 H14.9
HRM042U1LP6	22	7.5 x 7.5	42017	208/230	1	60	21.0	15.5	60/370	3/4 H 9.8	1/2 H14.9
HRM045U1LP6	22	7.5 x 7.5	45039	208/230	1	60	23.0	16.5	70/370	7/8 H 10.8	1/2 H15.9
HRM048U1LP6	22	7.5 x 7.5	47743	208/230	1	60	26.6	17.2	60/370	7/8 H 11.0	1/2 H 16.6
HRM054U1LC6	22	7.5 x 7.5	53705	208/230	1	60	25.0	17.2	70/370	7/8 H 11.0	1/2 H 16.6
HRM054U1LP6	22	7.5 x 7.5	53705	208/230	1	60	25.0	17.2	70/370	7/8 H 11.0	1/2 H 16.6
HRM058U1LP6	22	7.5 x 7.5	57710	208/230	1	60	28.8	17.2	80/440	7/8 H 11.0	1/2 H 16.6
HRM058T1LP6	22	7.5 x 7.5	58019	208/230	1	60	28.9	17.2	55/370	7/8 H 11.0	1/2 H 16.6
HRM060U1LC6	22	7.5 x 7.5	59757	208/230	1	60	28.8	17.2	80/440	7/8 H 11.0	1/2 H 16.6
HRM060U1LP6	22	7.5 x 7.5	59757	208/230	1	60	28.8	17.2	80/440	7/8 H 11.0	1/2 H 16.6
HRM060T1LC6	22	7.5 x 7.5	60030	208/230	1	60	28.9	17.2	55/440	7/8 H 11.0	1/2 H 16.6
HRM060T1LP6	22		60030	208/230	1	60	28.9	17.2	55/440	7/8 H 11.0	1/2 H 16.6

HERMETIC COMPRESSORS - DANFOSS SCROLLS

Hermetic Performer Black - R-22

3 Phase 208/230V, 460V, 575V, 60HZ



Features:

- Low Noise & Vibration levels
- High efficiency
- High reliability
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
HRM034U2LP6	22	7.5 x 7.5	33510	208/230	3	60	11.2	15.5	N/A	3/4 H 9.8	1/2 H 14.9
HRM038U2LP6	22	7.5 x 7.5	38011	208/230	3	60	12.2	15.5	N/A	3/4 H 9.8	1/2 H 14.9
HRM042U2LP6	22	7.5 x 7.5	42018	208/230	3	60	14.1	15.5	N/A	3/4 H 9.8	1/2 H 14.9
HRM045U2LP6	22	7.5 x 7.5	45045	208/230	3	60	16.0	16.5	N/A	7/8 H 10.8	1/2 H 15.9
HRM047U2LP6	22	7.5 x 7.5	47504	208/230	3	60	16.0	16.5	N/A	7/8 H 10.8	1/2 H 15.9
HRM054U2LC6	22	7.5 x 7.5	53720	208/230	3	60	16.7	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM054U2LP6	22	7.5 x 7.5	53720	208/230	3	60	17.3	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM058T2LC6	22	7.5 x 7.5	57807	208/230	3	60	0		N/A		
HRM058U2LP6	22	7.5 x 7.5	57808	208/230	3	60	17.3	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060T2LP6	22	7.5 x 7.5	59700	208/230	3	60	16.7	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060U2LC6	22	7.5 x 7.5	59723	208/230	3	60	17.9	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060U2LP6	22	7.5 x 7.5	59723	208/230	3	60	17.9	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM068T2LC6	22	7.5 x 7.5	68950	208/230	3	60	19.2	17.2	N/A	7/8 H 11	1/2 H 16.6
HLM068T2LP6	22	7.5 x 7.5	68950	208/230	3	60	19.2	17.2	N/A	7/8 H 11	1/2 H 16.6
HLM072T2LC6	22	7.5 x 7.5	72806	208/230	3	60	19.2	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM075T2LC6	22	7.5 x 7.5	75545	208/230	3	60	22.4	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM075T2LP6	22	7.5 x 7.5	75545	208/230	3	60	22.4	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HCM078T2LC2	22	7.5 x 7.5	78491	208/230	3	60	23.7	17.2	N/A	7/8 H 11.0	3/4 H 16.6
HCM081T2LC2	22	7.5 x 7.5	81516	208/230	3	60	21.1	17.2	N/A	7/8 H 11.0	3/4 H 16.6
HLM081T2LC6	22	7.5 x 7.5	81516	208/230	3	60	21.1	17.2	N/A	7/8 H 11.0	3/4 H 16.6
HCM094T2LC2	22	7.5 x 7.5	94517	208/230	3	60	0		N/A		
HCM094T2LC6	22	7.5 x 7.5	94517	208/230	3	60	25.6	17.2	N/A	1-1/8 H 14.5	7/8 H 20
HRM038U4LP6	22	7.5 x 7.5	38011	460	3	60	6.4	15.5	N/A	3/4 H 9.8	1/2 H 14.9
HRM040U4LP6	22	7.5 x 7.5	40011	460	3	60	6.4	15.5	N/A	3/4 H 9.8	1/2 H 14.9
HRM042U4LP6	22	7.5 x 7.5	42018	460	3	60	7.1	15.5	N/A	3/4 H 9.8	1/2 H 14.9
HRM045U4LP6	22	7.5 x 7.5	45045	460	3	60	7.7	16.5	N/A	7/8 H 10.8	1/2 H 15.9
HRM048U4LP6	22	7.5 x 7.5	47205	460	3	60	8.0	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM054U4LC6	22	7.5 x 7.5	53720	460	3	60	8.4	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM054U4LP6	22	7.5 x 7.5	53733	460	3	60	8.4	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM058U4LP6	22	7.5 x 7.5	57808	460	3	60	9.6	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060T4LP6	22	7.5 x 7.5	59716	460	3	60	9.6	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060U4LC6	22	7.5 x 7.5	59723	460	3	60	9.6	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060U4LP6	22	7.5 x 7.5	59723	460	3	60	9.6	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HCM068T4LP6	22	7.5 x 7.5	68917	460	3	60	9.6	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM068T4LC6	22	7.5 x 7.5	68949	460	3	60	9.6	17.2	N/A	7/8 H 11	1/2 H 16.6
HLM075T4LP6	22	7.5 x 7.5	75545	460	3	60	10.3	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM075T4LC6	22	7.5 x 7.5	75560	460	3	60	10.3	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HCM078T4LC2	22	7.5 x 7.5	78514	460	3	60	0		N/A		
HLM078T4LC6	22	7.5 x 7.5	78514	460	3	60	10.3	17.2	N/A	7/8 H 11.0	3/4 H 16.6
HCM081T4LC2	22	7.5 x 7.5	81516	460	3	60	11.0	17.2	N/A	7/8 H 11.0	3/4 H 16.6

HERMETIC COMPRESSORS - DANFOSS SCROLLS

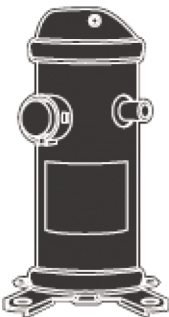
Hermetic Performer Black - R-22

3 Phase 208/230V, 460V, 575V, 60HZ

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
HCM094T4LC2	22	7.5 x 7.5	94517	460	3	60	13.5	17.2	N/A	1-1/8 H 14.5	7/8 H 20
HCM094T4LC6	22	7.5 x 7.5	94517	460	3	60	13.5	17.2	N/A	1-1/8 H 14.5	7/8 H 20
HRM047U7LP6	22	7.5 x 7.5	39273	575	3	60	6.4	16.5	N/A	7/8 H 10.8	1/2 H 15.9
HRM045U7LP6	22	7.5 x 7.5	45015	575	3	60	6.0	16.5	N/A	7/8 H 10.8	1/2 H 15.9
HRM054U7LC6	22	7.5 x 7.5	53705	575	3	60	7.0	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM054U7LP6	22	7.5 x 7.5	53705	575	3	60	7.0	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM058U7LP6	22	7.5 x 7.5	57807	575	3	60	7.4	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HRM060U7LC6	22	7.5 x 7.5	59707	575	3	60	7.4	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM075T7LC6	22	7.5 x 7.5	76406	575	3	60	9.0	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HLM075T7LP6	22	7.5 x 7.5	76406	575	3	60	9.0	17.2	N/A	7/8 H 11.0	1/2 H 16.6
HCM081T7LC2	22	7.5 x 7.5	81516	575	3	60	0		N/A		
HCM094T7LC2	22	7.5 x 7.5	94517	575	3	60	0		N/A		

Hermetic Scroll - R-410A

Single & 3 Phase 208/230V, 460V, 60HZ



Features:

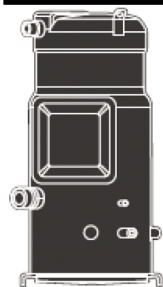
- Low Noise & Vibration levels
- High efficiency
- High reliability
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
HRH029U1LP6	410A	7.5 x 7.5	29000	208/230	1	60	17.0	15.5	45/370	3/4 H 9.8	1/2 H 14.9
HRH031U1LP6	410A	7.5 x 7.5	31000	208/230	1	60	17.0	15.5	45/370	3/4 H 9.8	1/2 H 14.9
HRH036U1LP6	410A	7.5 x 7.5	35400	208/230	1	60	21.5	15.5	55/370	3/4 H 9.8	1/2 H 14.9
HRH039U1LP6	410A	7.5 x 7.5	39500	208/230	1	60	21.0	16.5	60/370	7/8 H 10.8	1/2 H 15.9
HRH040U1LP6	410A	7.5 x 7.5	41503	208/230	1	60	21.0	16.5	60/370	7/8 H 10.8	1/2 H 15.9
HRH050U1LP6	410A	7.5 x 7.5	51000	208/230	1	60	27.5	16.5	70/370	7/8 H 11	1/2 H 16.6
HRH051U1LP6	410A	7.5 x 7.5	51820	208/230	1	60	26.3	17.2	70/440	7/8 H 11	1/2 H 16.6
HRH054U1LP6	410A	7.5 x 7.5	54520	208/230	1	60	29.0	17.2	80/440	7/8 H 11	1/2 H 16.6
HRH054U2LP6	410A	7.5 x 7.5	54529	208/230	3	60	17.3	17.2	N/A	7/8 H 11	1/2 H 16.6
ECH087T2LC2	410A	7.5 x 7.5	95300	208/230	3	60	28.2	21.7	N/A	1-1/8 H 14.7	7/8 H 20.6
ECH087T2LC6	410A	7.5 x 7.5	95300	208/230	3	60	28.2	21.7	N/A	1-1/8 H 14.7	7/8 H 20.6
ECH101T2LC6	410A	7.5 x 7.5	110600	208/230	3	60	15.4	21.7	N/A	1-1/8 H 14.7	7/8 H 20.6
ECH087T4LC2	410A	7.5 x 7.5	95300	460	3	60	15.4	21.7	N/A	1-1/8 H 14.7	7/8 H 20.6
ECH087T4LC6	410A	7.5 x 7.5	95300	460	3	60	15.4	21.7	N/A	1-1/8 H 14.7	7/8 H 20.6
ECH101T4LC2	410A	7.5 x 7.5	110600	460	3	60	0	0	N/A		
ECH101T4LC6	410A	7.5 x 7.5	110600	460	3	60	15.4	21.7	N/A	1-1/8 H 14.7	7/8 H 20.6

HERMETIC COMPRESSORS - DANFOSS SCROLLS

Commercial Performer Blue R-22/R-410A (Trane Drop-In Replacements)

3 Phase 208/230V, 460V, 575V, 60HZ



Features:

- Low Noise & Vibration levels
- High efficiency
- High reliability
- Universal scroll replacement

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
SM090-3VI	22	8.7 x 8.7	90049	208/230	3	60	25.0	20.0	N/A	1-1/8 H 5.6	3/4 H 18.3
SM115-3QAI	22	8.5 x 12	115200	208/230	3	60	37.1	22.0	N/A	1-3/8 H 7.1	7/8 H 21.2
SM125-3QAI	22	8.5 x 12	125000	208/230	3	60	37.1	21.3	N/A	1-3/8 H 7.1	7/8 H 21.2
SM175-3QAI	22	11 x 12	174355	208/230	3	60	53.6	25.6	N/A	1-5/8 H 7.1	1-1/8 H 25.3
SM185-3QAI	22	11 x 12	185474	208/230	3	60	53.6	25.6	N/A	1-5/8 H 7.1	1-1/8 H 25.3
SM090-4VI	22	8.7 x 8.7	90049	460	3	60	0		N/A		
SM115-4QAI	22	8.5 x 12	115200	460	3	60	17.9	22.0	N/A	1-3/8 H 7.1	7/8 H 21.2
SM125-4QAI	22	8.5 x 12	125000	460	3	60	17.9	21.3	N/A	1-3/8 H 7.1	7/8 H 21.2
SM175-4QAI	22	11 x 12	174355	460	3	60	25.0	25.6	N/A	1-5/8 H 7.1	1-1/8 H 25.3
SM185-4QAI	22	11 x 12	185474	460	3	60	25.0	25.6	N/A	1-5/8 H 7.1	1-1/8 H 25.3
SH090A3ALC	410A	7.5 x 7.5	92543	208/230	3	60	30.7	19.0	N/A	1-1/8 H 9.3	7/8 H 17.8
SH105A3ALC	410A	7.5 x 7.5	109617	208/230	3	60	32.9	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH120A3ALC	410A	7.5 x 7.5	125493	208/230	3	60	43.6	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH140A3ALC	410A	7.5 x 7.5	144445	208/230	3	60	45.7	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH161A3ALC	410A	7.5 x 7.5	161003	208/230	3	60	49.3	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH184A3ALC	410A	7.5 x 7.5	184359	208/230	3	60	53.6	21.9	N/A	1-3/8 H 11.8	7/8 H 20.7
SH240A3ABE	410A	11 x 12	251796	208/230	3	60	75.0	26.9	N/A	1-5/8 H 13	1-1/8 H 25.5
SH090A4ALC	410A	7.5 x 7.5	92543	460	3	60	14.3	19.0	N/A	1-1/8 H 9.3	7/8 H 17.8
SH105A4ALC	410A	7.5 x 7.5	109617	460	3	60	17.9	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH120A4ALC	410A	7.5 x 7.5	125493	460	3	60	20.7	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH140A4ALC	410A	7.5 x 7.5	144445	460	3	60	21.4	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH161A4ALC	410A	7.5 x 7.5	161003	460	3	60	23.6	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0
SH184A4ALC	410A	7.5 x 7.5	184359	460	3	60	27.6	21.9	N/A	1-3/8 H 11.8	7/8 H 20.7
SH161A7ALC	410A	7.5 x 7.5	161003	575	3	60	20.7	21.3	N/A	1-3/8 H 10.9	7/8 H 20.0

HERMETIC COMPRESSORS - DANFOSS SCROLLS

Hermetic Commercial (P040/P045 Models) R-22/R-410A

Compressor Part Numbering System

Example:

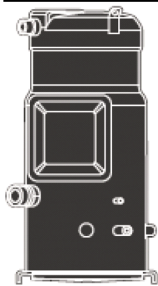
P	040	1	8	5	7	1
Parts	Part Code	Capacity (1000) btuh/hr			Voltage	Numerical Sequence
	040	Commercial Compressor – R-22				
	045	Commercial Compressor – R-410A				

Voltage	
0	115/1
1	200/1
2	208-230/1
3	230/1
4	200/3
5	208-230/3
6	230/3
7	460/3
8	575/3
9	265/1 or 277/1

HERMETIC COMPRESSORS - DANFOSS SCROLLS

Hermetic Commercial (P040/P045 Models) R-22/R-410A

3 Phase 208/230V, 380V, 460V, 575V, 60HZ



Features:

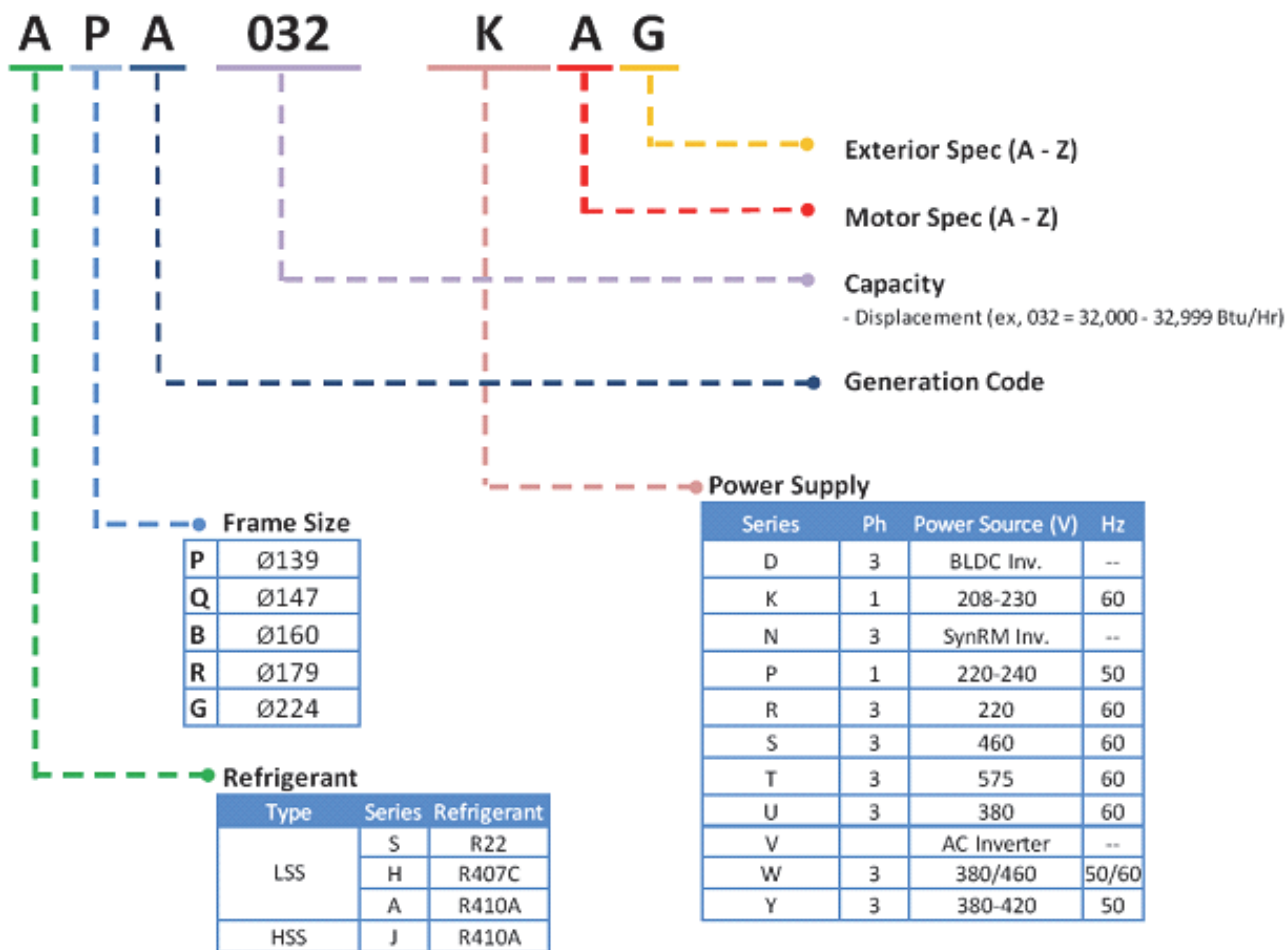
- Low Noise & Vibration levels
- High efficiency
- High reliability
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Note: P045 Models with suffix K includes tubing kit.

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P040-10751	SM1103VI	22	8.7 x 8.7	107800	208/230	3	60	32.1	21.6	N/A	1-3/8 H 7.0	7/8 H 20.0
P040-11551	SM1153CAI	22	8.5 x 12	115200	208/230	3	60	37.1	22.4	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-12551	SM1203VI	22	8.7 x 8.7	125300	208/230	3	60	35.7	22.0	N/A	1-3/8 H 7.0	7/8 H 20.3
P040-12651	SM1253CAI	22	8.5 x 12	126400	208/230	3	60	37.1	22.9	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-16251	SM1613VI	22	8.7 x 8.7	162600	208/230	3	60	45.7	23.3	N/A	1-3/8 H 7.1	7/8 H 21.9
P040-16351	SM1603CBI	22	8.5 x 12	163000	208/230	3	60	43.6	24.9	N/A	1-5/8 H 7.0	1-1/8 H 23.5
P040-17451	SM1753CAI	22	11 x 12	174300	208/230	3	60	53.6	26.2	N/A	1-5/8 H 6.5	1-1/8 H 24.8
P040-18551	SM1853CAI	22	11 x 12	185400	208/230	3	60	53.6	26.7	N/A	1-5/8 H 7.1	1-1/8 H 25.3
P040-12661	SM1259CAI	22	8.5 x 12	126400	380	3	60	22.9	22.4	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-16361	SM160T9CB	22	8.5 x 12	163000	380	3	60	25.7	24.9	N/A	1-5/8 H 7.0	1-1/8 H 23.5
P040-18561	SM1859CAI	22	11 x 12	185400	380	3	60	33.6	26.7	N/A	1-5/8 H 7.0	1-1/8 H 25.3
P040-10771	SM1104VI	22	8.7 x 8.7	107800	460	3	60	15.7	21.6	N/A	1-3/8 H 7.0	7/8 H 20.0
P040-11571	SM1154CAI	22	8.5 x 12	115200	460	3	60	17.9	22.4	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-12571	SM1204VI	22	8.7 x 8.7	125300	460	3	60	20.7	22.0	N/A	1-3/8 H 7.0	7/8 H 20.3
P040-12671	SM1254CAI	22	8.5 x 12	126400	460	3	60	17.9	22.9	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-16271	SM1614VI	22	8.7 x 8.7	162600	460	3	60	22.9	22.9	N/A	1-3/8 H 7.1	7/8 H 21.9
P040-16371	SM1604CBI	22	8.5 x 12	163000	460	3	60	20.7	24.9	N/A	1-5/8 H 7.0	1-1/8 H 23.5
P040-17471	SM1754CAI	22	11 x 12	174300	460	3	60	25.0	26.2	N/A	1-5/8 H 6.5	1-1/8 H 24.8
P040-18571	SM1854CAI	22	11 x 12	185400	460	3	60	25.0	26.7	N/A	1-5/8 H 7.1	1-1/8 H 25.3
P040-10781	SM1107VI	22	8.7 x 8.7	107800	575	3	60	12.9	21.6	N/A	1-3/8 H 7.0	7/8 H 20.0
P040-11581	SM1157CAI	22	8.5 x 12	115200	575	3	60	13.6	22.4	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-12581	SM1207VI	22	8.7 x 8.7	125300	575	3	60	13.6	22.0	N/A	1-3/8 H 7.0	7/8 H 20.3
P040-12681	SM1257CAI	22	8.5 x 12	126400	575	3	60	13.6	22.4	N/A	1-3/8 H 7.0	7/8 H 21.0
P040-16281	SM1617VI	22	8.7 x 8.7	162600	575	3	60	17.9	23.3	N/A	1-3/8 H 7.1	7/8 H 21.9
P040-16381	SM1607CBI	22	8.5 x 12	163000	575	3	60	17.9	24.9	N/A	1-5/8 H 7.0	1-1/8 H 23.5
P040-17481	SM1757CA1	22	11 x 12	174300	575	3	60	20.0	26.2	N/A	1-5/8 H 6.5	1-1/8 H 24.8
P040-18581	SM1857CAI	22	11 x 12	185400	575	3	60	20.0	26.7	N/A	1-5/8 H 7.1	1-1/8 H 25.3
P045-25121K	SH240A3ACB	410A	11 x 12	251796	200/230	3	60	75.0	26.9	N/A	1-5/8 H 13	1-1/8 H 25.5
P045-31721K	SH300A3ACB	410A	11 x 12	317815	200/230	3	60	94.3	27.4	N/A	1-5/8 H 12.4	1-1/8 H 25.2
P045-31751	SH300A3AAE	410A	11 x 12	317815	208/230	3	60	94.3	27.3	N/A	1-5/8 H 13	1-1/8 H 26.1
P045-25061K	SH240A9ACB	410A	11 x 12	250684	380	3	60	42.9	26.9	N/A	1-5/8 H 13	1-1/8 H 25.5
P045-31761K	SH300A9ACB	410A	11 x 12	317812	380	3	60	60.7	27.4	N/A	1-5/8 H 12.4	1-1/8 H 25.2
P040-29571K	SH240A4ACB	410A	11 x 12	246545	460	3	60	36.4	26.9	N/A	1-5/8 Stub	1-1/8 Stub
P045-24671	SH240A4AAE	410A	11 x 12	246545	460	3	60	36.4	25.7	N/A	1-5/8 H 13.0	1 1/8 H 25.5
P045-24672	SH240A4ABE	410A	11 x 12	246545	460	3	60	36.4	25.7	N/A	1-5/8 H 13.0	1 1/8 H 25.5
P045-25071K	SH240A4ACB	410A	11 x 12	250796	460	3	60	36.4	26.9	N/A	1-5/8 H 13	1-1/8 H 25.5
P045-31771K	SH300A4ACB	410A	11 x 12	317535	460	3	60	46.4	27.4	N/A	1-5/8 H 12.4	1-1/8 H 25.2
P045-31772	SH300A4AAE	410A	11 x 12	317535	460	3	60	46.4	27.3	N/A	1-5/8 H 13	1-1/8 H 26.1
P045-25081K	SH240A7ACB	410A	11 x 12	250965	575	3	60	29.3	26.9	N/A	1-5/8 H 13	1-1/8 H 25.5
P045-25082	SH240A7AAE	410A	11 x 12	250965	575	3	60	29.3	25.7	N/A	1-5/8 H 13	1-1/8 H 25.5
P045-31681K	SH300A7ACB	410A	11 x 12	316716	575	3	60	37.9	27.4	N/A	1-5/8 H 12.4	1-1/8 H 25.2

HERMETIC COMPRESSORS - LG SCROLLS

Compressor Part Numbering System



HERMETIC COMPRESSORS - LG SCROLLS

Hermetic Scroll R-22/R-410A

Single & 3 Phase 208/230V, 460V, 60HZ



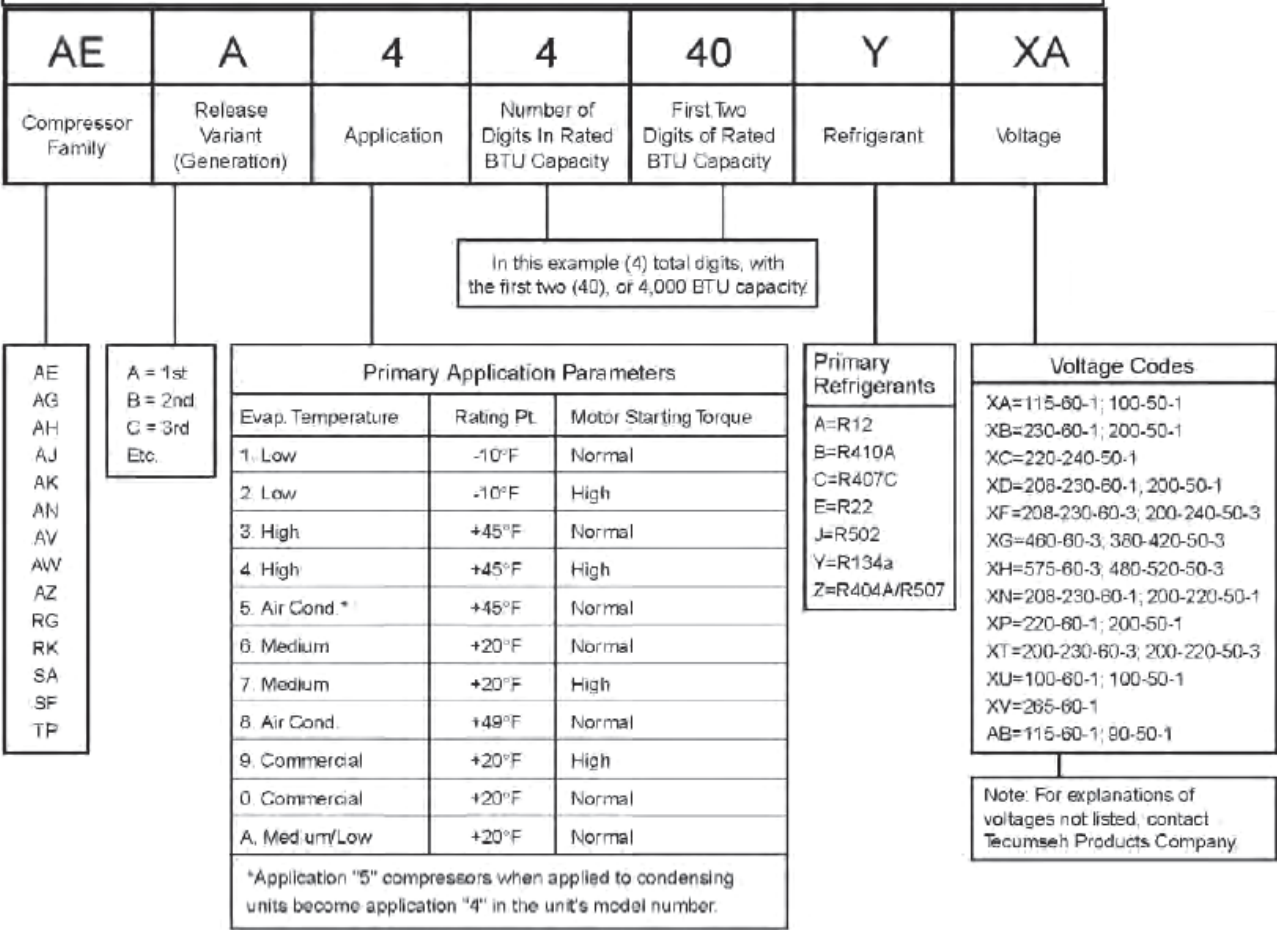
Features:

- Low Noise & Vibration levels
- High efficiency
- High reliability
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
SQA022KAB	22	7.5 x 7.5	21500	208/230	1	60	9.0	16.5	35/440	3/4 H 11.12	1/2 H 15.41
SQA026KAB	22	7.5 x 7.5	26100	208/230	1	60	10.5	16.5	35/440	3/4 H 11.12	1/2 H 15.41
SQA032KAB	22	7.5 x 7.5	32300	208/230	1	60	13.0	16.5	45/440	3/4 H 11.12	1/2 H 15.41
SQA038KAB	22	7.5 x 7.5	37000	208/230	1	60	15.0	16.5	50/440	3/4 H 11.12	1/2 H 15.41
SQA042KAB	22	7.5 x 7.5	41200	208/230	1	60	17.5	16.5	50/440	3/4 H 11.12	1/2 H 15.41
SR047KBE	22	7.5 x 7.5	47600	208/230	1	60	19.0	18.4	60/440	7/8 H 12.79	1/2 H 17.24
SRA053KAB	22	7.5 x 7.5	53500	208/230	1	60	21.0	18.4	70/440	7/8 H 12.79	1/2 H 17.24
SR057KCC	22	7.5 x 7.5	58000	208/230	1	60	24.0	18.4	70/440	7/8 H 12.79	1/2 H 17.24
SR061RBD	22	7.5 x 7.5	62000	208/230	3	60	17.0	17.6	N/A	7/8 H 11.50	1/2 H 15.9
SR061SAB	22	7.5 x 7.5	61500	460	3	60	7.8	17.6	N/A	7/8 H 11.50	1/2 H 15.90
APA016KAC	410A	7.5 x 7.5	15200	208/230	1	60	8.0	16.0	35/370	3/4 H 9.83	1/2 H 14.93
APA020KAC	410A	7.5 x 7.5	19500	208/230	1	60	10.0	16.0	35/370	3/4 H 9.83	1/2 H 14.93
APA024KAB	410A	7.5 x 7.5	22400	208/230	1	60	10.7	16.0	40/370	3/4 H 9.83	1/2 H 14.93
APA029KAC	410A	7.5 x 7.5	28000	208/230	1	60	13.0	16.0	45/440	3/4 H 9.83	1/2 H 14.93
APA030KAB	410A	7.5 x 7.5	29000	208/230	1	60	13.1	16.0	45/440	3/4 h 9.83	1/2 H 14.93
APA032KAG	410A	7.5 x 7.5	30500	208/230	1	60	14.0	16.0	45/440	3/4 H 9.83	1/2 H 14.93
AQA038KAB	410A	7.5 x 7.5	37700	208/230	1	60	16.5	17.5	60/440	7/8 H 11.94	1/2 H 16.42
AQA039KAC	410A	7.5 x 7.5	39000	208/230	1	60	17.0	17.5	60/440	7/8 H 11.94	1/2 H 16.42
AQA040KAB	410A	7.5 x 7.5	40000	208/230	1	60	17.1	17.85	60/440	7/8 H 12.34	1/2 H 16.81
AQA042KAE	410A	7.5 x 7.5	41500	208/230	1	60	18.0	17.5	70/440	7/8 H 11.94	1/2 H 16.42
ABA049KAB	410A	7.5 x 7.5	48000	208/230	1	60	20.6	17.7	70/440	7/8 H 11.69	1/2 H 16.37
ABA051KAF	410A	7.5 x 7.5	51500	208/230	1	60	21.7	17.7	75/440	7/8 H 11.69	1/2 H 16.37
ABA054KAC	410A	7.5 x 7.5	54000	208/230	1	60	23.0	17.7	80/440	7/8 H 11.69	1/2 H 16.37

HERMETIC COMPRESSORS - TECUMSEH RECIPS

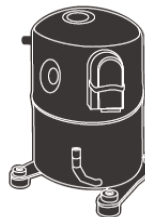
Compressor Part Numbering System



HERMETIC COMPRESSORS - TECUMSEH RECIPS

Hermetic Recip R-22

Single Phase 208/230V, 265, 60HZ



Features:

- Low Noise & Vibration levels
- Adaptable to limited cabinet space
- External line break overload
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P031-0801	AK130AT004S7Y	22	BRKT	8300	115	1	60	9.0	9.0	15/370	3/8 U	1/4 U
P031-0721	AK123ET009S7Y	22	BRKT	7500	208/230	1	60	2.8	9.5	15/370	3/8 U 9.4	1/4 U 6.7
P031-0821	AK130ET004S7Y	22	BRKT	8300	208/230	1	60	4.4	9.0	15/370	3/8 U	1/4 U
P031-0922	AK145ET009S7Y	22	BRKT	9400	208/230	1	60	3.5	9.4	15/370	3/8 U 9.2	5/16 U 6.7
P031-1221	AK151ET009S7Y	22	BRKT	12000	208/230	1	60	4.6	9.4	25/370	3/8 U 9.2	1/4 U 6.5
P031-1324	AK144ET009S7Y	22	BRKT	13500	208/230	1	60	5.8	9.5	15/370	3/8 U 9.4	1/4 U 6.7
P031-1521	AJ600FT120S7Y	22	4.8 x 8	15000	208/230	1	60	8.5	10.8	20/370	1/2 U	5/16 U
P031-1524	AK147ET009S7Y	22	BRKT	15000	208/230	1	60	6.2	9.4	25/370	3/8 U 9.2	1/4 U 6.5
P031-1527	AW700ET101S7Y	22	7.5 x 7.5	15500	208/230	1	60	7.3	13.1	20/370	5/8 H 11.6	3/8 U 3.9
P031-1721	AJ210FT206S7Y	22	4.8 x 8	17000	208/230	1	60	11.0	11.1	25/370	1/2 U	5/16 U
P031-1723	AW701ET103S7Y	22	7.5 x 7.5	17000	208/230	1	60	7.7	13.1	25/370	5/8 U 12.6	3/8 U 3.9
P031-1724	AW501ET088S7Y	22	7.5 x 7.5	17000	208/230	1	60	6.9	13.1	35/370	3/4 H 11.6	3/8 U 3.9
P031-1921	AJ220FT206S7Y	22	4.8 x 8	19000	208/230	1	60	11.6	11.3	25/370	1/2 U 11.0	5/16 U 4.2
P031-19210	AW503ET088S7Y	22	7.5 x 7.5	19000	208/230	1	60	7.7	13.1	35/370	3/4 H 11.6	3/8 U 3.9
P031-1928	AW702ET093S7Y	22	7.5 x 7.5	19000	208/230	1	60	8.6	13.1	25/370	3/4 H 11.6	3/8 U 3.9
P031-1929	AW702ET103S7Y	22	7.5 x 7.5	19000	208/230	1	60	8.6	13.1	25/370	5/8 U 12.6	3/8 U 3.9
P031-2224	AV122ET004S7Y	22	7.5 x 7.5	22000	208/230	1	60	8.8	13.1	35/370	3/4 H 11.6	3/8 U 3.9
P031-2429	AW505ET088S7Y	22	7.5 x 7.5	24400	208/230	1	60	10.0	13.1	35/370	3/4 H 11.6	3/8 U 3.9
P031-2824	AW706ET093S7Y	22	7.5 x 7.5	28400	208/230	1	60	13.5	13.1	35/370	3/4 H 11.6	3/8 U 3.9
P031-2825	AW507ET088S7Y	22	7.5 x 7.5	28400	208/230	1	60	11.2	13.1	45/370	3/4 H 11.6	3/8 U 3.9
P031-3025	AW707ET103S7Y	22	7.5 x 7.5	30200	208/230	1	60	14.4	13.1	45/370	5/8 U 12.6	3/8 U 3.9
P031-3221	AV113ET002S7Y	22	7.5 x 7.5	31292	208/230	1	60	14.5	14.9	35/370	3/4 U 14.3	3/8 U 5.1
P031-3123	AV113ET026S7Y	22	7.5 x 7.5	31460	208/230	1	60	14.5	14.9	35/370	7/8 H 12.4	1/2 U 5.1
P031-3124	AW708ET093S7Y	22	7.5 x 7.5	31500	208/230	1	60	15.1	13.1	45/370	3/4 H 11.6	3/8 U 3.9
P031-3223	AW509ET088S7Y	22	7.5 x 7.5	32000	208/230	1	60	13.4	13.1	45/370	3/4 H 11.6	3/8 U 3.9
P031-3523	AV122ET004S7Y	22	7.5 x 7.5	34600	208/230	1	60	15.7	14.9	40/370	3/4 U 14.6	3/8 U 5.2
P031-3522	AV125ET041S7Y	22	7.5 x 7.5	35000	208/230	1	60	14.2	14.6	45/370	7/8 H 12.4	1/2 U 5.1
P031-3823	AV135ET005S7Y	22	7.5 x 7.5	37551	208/230	1	60	17.2	14.6	35/440	7/8 U 14.5	1/2 U 5.1
P031-3822	AV133ET003A4Y	22	7.5 x 7.5	37750	208/230	1	60	17.2	15.3	35/440	7/8 H 12.9	1/2 U 5.1
P031-4221	AV146ET005S7Y	22	7.5 x 7.5	41560	208/230	1	60	18.3	14.6	40/440	7/8 U 14.5	1/2 U 5.1
P031-4222	AV147ET041S7Y	22	7.5 x 7.5	42000	208/230	1	60	17.1	14.6	45/440	7/8 H 12.4	1/2 U 5.1
P031-4621	AG111ET004S7Y	22	7.5 x 7.5	46000	208/230	1	60	22.7	15.8	40/440	7/8 U 15.0	1/2 U 4.5
P031-4622	AV168ET041S7Y	22	7.5 x 7.5	46000	208/230	1	60	21.5	14.6	40/440	7/8 H 12.4	1/2 U 5.1
P031-4623	AV177ET005S7Y	22	7.5 x 7.5	46700	208/230	1	60	20.4	14.6	45/440	7/8 U 14.3	1/2 U 5.1
P031-4921	AV178ET041S7Y	22	7.5 x 7.5	49000	208/230	1	60	20.5	14.6	45/440	7/8 H 12.4	1/2 U 5.1
P031-5721	AV190ET047S7Y	22	7.5 x 7.5	57500	208/230	1	60	24.8	14.6	45/440	7/8 H 12.4	1/2 U 5.1
P031-6121	AG133ET001S7Y	22	7.5 x 7.5	60000	208/230	1	60	30.5	16.4	55/440	7/8 U 16.0	1/2 U 4.8
P031-0791	AK123JB009S7Y	22	BRKT	7500	265	1	60	2.6	9.5	15/370	3/8 U 9.4	1/4 U 6.7
P031-0992	AK145JB009A4	22	BRKT	9400	265	1	60	3.0	9.4	15/370	3/8 U 9.2	1/4 U 6.7
P031-1292	AK151JB009S7Y	22	BRKT	12000	265	1	60	4.2	9.0	15/370	3/8 U 8.9	1/4 U 6.2
P031-1591	AJ600JB120S7Y	22	4.8 x 8	15000	265	1	60	7.4	10.8	20/440	1/2 U 3.5	5/16 U 10.3
P031-1593	AK147JB009S7Y	22	BRKT	15000	265	1	60	5.4	9.4	15/440	3/8 U 9.2	1/4 U 6.5

HERMETIC COMPRESSORS - TECUMSEH RECIPS

Hermetic Recip R-22

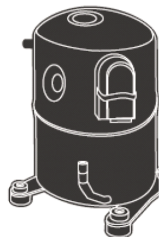
Single Phase 208/230V, 265, 60HZ

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P031-1791	AJ200JB206S7Y	22	4.8 x 8	17000	265	1	60	10.5	11.1	25/370	1/2 U	5/16 U
P031-1794	AW701JT094S7Y	22	7.5 x 7.5	17000	265	1	60	6.8	13.1	25/370	3/4 H 11.6	3/8 U 3.9
P031-1894	AW502JT089S7Y	22	7.5 x 7.5	18000	265	1	60	6.7	13.1	35/440	3/4 H 11.6	3/8 U 3.9
P031-1991	AJ220JB206S7Y	22	4.8 x 8	19000	265	1	60	12.0	11.4	25/440	1/2 U 11.1	5/16 U 4.1
P031-1993	AW702JT093S7Y	22	7.5 x 7.5	19100	265	1	60	7.5	13.1	25/370	3/4 H 12.6	3/8 U 3.9
P031-2191	AW504JT089S7Y	22	7.5 x 7.5	21800	265	1	60	7.8	13.1	35/370	3/4 H 11.6	3/8 U 3.9
P031-2492	AW705JT103S7Y	22	7.5 x 7.5	24700	265	1	60	9.2	13.1	35/440	5/8 AU 12.6	3/8 U 3.9
P031-2892	AW507JT089S7Y	22	7.5 x 7.5	28400	265	1	60	10.5	13.1	35/370	3/4 H 11.6	3/8 U 3.9

HERMETIC COMPRESSORS - TECUMSEH RECIPS

Hermetic Recip R-22

3 Phase 208/230V, 460, 575, 60HZ



Features:

- Low Noise & Vibration levels
- Adaptable to limited cabinet space
- External line break overload
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P031-2854	AW507RT098S7Y	22	7.5 x 7.5	28000	208/230	3	60	7.6	13.1	N/A	3/4 H 11.6	3/8 U 3.9
P031-3153	AW509RT098S7Y	22	7.5 x 7.5	31500	208/230	3	60	8.6	13.1	N/A	3/4 H 11.6	3/8 U 3.9
P031-3552	AV125RT046S7Y	22	7.5 x 7.5	34500	208/230	3	60	9.2	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-3551	AV5535E	22	7.5 x 7.5	34600	208/230	3	60	9.7	14.0	N/A	7/8 H 11.7	1/2 U 5.1
P031-3854	AV134RT012S7Y	22	7.5 x 7.5	37750	208/230	3	60	10.8	14.6	N/A	7/8 U 13.7	1/2 U 5.1
P031-4151	AV147RT041S7Y	22	7.5 x 7.5	41500	208/230	3	60	11.3	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-4251	AV145RT012S7Y	22	7.5 x 7.5	42500	208/230	3	60	12.0	14.6	N/A	7/8 U 13.8	1/2 U 5.1
P031-4652	AV169RT012S7Y	22	7.5 x 7.5	46000	208/230	3	60	13.3	14.6	N/A	7/8 U 13.8	1/2 U 5.1
P031-4951	AV178RT041S7Y	22	7.5 x 7.5	48500	208/230	3	60	13.5	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-5351	AG122RT003S7Y	22	7.5 x 7.5	53000	208/230	3	60	15.5	16.1	N/A	7/8 U 15.3	1/2 U 4.5
P031-5751	AV190RT045S7Y	22	7.5 x 7.5	57000	208/230	3	60	15.7	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-6151	AG133RT003S7Y	22	7.5 x 7.5	60000	208/230	3	60	18.0	15.9	N/A	7/8 U 15.5	1/2 U 4.8
P031-6851	AG144RT001S7Y	22	7.5 x 7.5	68000	208/230	3	60	20.2	16.7	N/A	7/8 U 16.2	1/2 U 4.8
P031-2171	AW504TT091S7Y	22	7.5 x 7.5	21300	460	3	60	2.9	13.1	N/A	3/4 H 11.6	3/8 U 3.9
P031-2872	AW507TT091S7Y	22	7.5 x 7.5	28000	460	3	60	3.8	13.1	N/A	3/4 H 11.6	3/8 U 3.9
P031-3272	AV114TT017S7Y	22	7.5 x 7.5	31460	460	3	60	4.4	14.6	N/A	3/4 U 13.6	3/8 U 5.1
P031-3174	AW509TT090S7Y	22	7.5 x 7.5	31500	460	3	60	4.3	13.1	N/A	3/4 H 11.6	3/8 U 3.9
P031-3471	AV125TT043S7Y	22	7.5 x 7.5	34500	460	3	60	4.6	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-3873	AV134TT036S7Y	22	7.5 x 7.5	38400	460	3	60	5.3	14.6	N/A	7/8 H 11.9	1/2 U 5.1
P031-4171	AV147TT043S7Y	22	7.5 x 7.5	41500	460	3	60	5.7	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-4271	AV145TT013S7Y	22	7.5 x 7.5	41560	460	3	60	5.9	14.6	N/A	7/8 U 13.8	1/2 U 5.1
P031-4672	AV169TT013S7Y	22	7.5 x 7.5	46000	460	3	60	10.9	14.6	N/A	7/8 U 13.8	1/2 U 5.1
P031-4873	AV178TT043S7Y	22	7.5 x 7.5	48000	460	3	60	6.7	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-5371	AG122UT003S7Y	22	7.5 x 7.5	53000	460	3	60	7.8	16.1	N/A	7/8 U 15.3	1/2 U 4.5
P031-5771	AV190TT045S7Y	22	7.5 x 7.5	57000	460	3	60	7.8	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-6171	AG133UT003S7Y	22	7.5 x 7.5	60000	460	3	60	9.5	15.9	N/A	7/8 U 15.5	1/2 U 4.8
P031-6871	AG144UT001S7Y	22	7.5 x 7.5	68000	460	3	60	10.6	16.4	N/A	7/8 U 16.0	1/2 U 4.5
P031-7171	AG188UT001S7Y	22	7.5 x 7.5	71280	460	3	60	11.8	16.3	N/A	7/8 U 15.8	1/2 U 4.7
P031-3481	AV125VT043S7Y	22	7.5 x 7.5	34500	575	3	60	4.0	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-4181	AV147VT043S7Y	22	7.5 x 7.5	41500	575	3	60	4.4	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-4981	AV178VT043S7Y	22	7.5 x 7.5	48800	575	3	60	5.4	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-5381	AG122VT004S7Y	22	7.5 x 7.5	51100	575	3	60	6.0	16.1	N/A	7/8 U 15.3	1/2 U 5.1
P031-5781	AV190VT045S7Y	22	7.5 x 7.5	57000	575	3	60	6.3	14.6	N/A	7/8 H 12.4	1/2 U 5.1
P031-6181	AG133VT003S7Y	22	7.5 x 7.5	59200	575	3	60	7.0	15.9	N/A	7/8 U 15.6	1/2 U 5.4

HERMETIC COMPRESSORS - LG/GOLDSTAR ROTARY

Rotary R22 Compressors

Single Phase 208/230V, 265, 60HZ



Features:

- Low Noise & Vibration levels
- Adaptable to limited cabinet space
- High efficiency
- For small size air conditioners
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	Height	Run Cap	Suction	Discharge
P030-0721	QA104KAD	22	P	7260	208/230	1	60	10.9	20/370	3/8 U 10.7	5/16 U 10.6
P030-0922	QK141KBM	22		9800	208/230	1	60	11.2	30/370	1/2 U	5/16 U
P030-1123	QK164KBD	22		11500	208/230	1	60	10.9	30/370	1/2 U	5/16 U
P030-1222	QK173KAH	22	P	12400	208/230	1	60	11.0	25/370	3/8 U 11.0	5/16 U 10.8
P030-1291	QK173QAA	22	P	12000	265	1	60	11.1	20/440	3/8 U 11.0	5/16 U 10.8

HERMETIC COMPRESSORS - HITACHI ROTARY

Rotary R22 Compressors

Single Phase 115V, 208/230V, 60HZ



Features:

- Low Noise & Vibration levels
- Adaptable to limited cabinet space
- High efficiency
- For small size air conditioners
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	Height	Run Cap	Suction	Discharge
P038-0901	SD134SW-H6AU	22	P	9605	115	1	60	11.1	55/250	3/8 U	5/16 U
P038-1121	SG673PB1-A	22		11945	208/230	1	60	11.7	35/400	3/8 U	5/16 U
P038-1721	SL253SN-C7EU	22		17700	208/230	1	60	12.3	50/400	1/2 U	3/8 U

HERMETIC COMPRESSORS - MATSUSHITA/PANASONIC ROTARY

Rotary R22 Compressors

Single Phase 115V, 208/230V, 265, 60HZ



Features:

- Low Noise & Vibration levels
- Excellent reliability
- High efficiency
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	Height	Run Cap	Suction	Discharge
P034-0503	2R8S126A-6H	22	P	5600	115	1	60	9.9	35/370	3/8 U 8.4	1/4 U 9.6
P034-0605	2R10S126A-6G	22	P	6670	115	1	60	10.0	35/370	3/8 U 8.4	5/16 U 9.8
P034-0705	2R11S3R126A-6A	22	P	7160	115	1	60	10.6	35/370	3/8 U 8.4	1/4 U 10.6
P034-0706	2R11U126A-6B	22		7280	115	1	60	0	35/230		
P034-1302	SC-52171362-A	22		13710	115	1	60	12.7	50/250	5/8 U 12.8	3/8 U 12.7
P034-0622	2R10S236A6E	22		6538	208/230	1	60	10.8	15/370	3/8 U 10.8	1/4 U 10.5
P034-0821	SC-51171335-AG-01	22		8553	208/230	1	60	9	15/370	3/8 U 10.8	1/4 U 10.7
P034-1021	2P15S236A-10	22	S	10140	208/230	1	60	11.7	30/370	3/8 U 11.0	5/16 U 11.4
P034-1222	2P18S236-1A	22	S	12400	208/230	1	60	11.8	30/370	1/2 U 11.0	5/16 U 11.5
P034-1522	2K21S236A6C	22		15092	208/230	1	60	12.5	35/370	1/2 U 11.6	3/8 U 12.5
P034-2621	2J36C3R236A -1B	22	S	26310	208/230	1	60	13.1	35/370	5/8 U 12.6	3/8 U 13.1
P034-2921	2J39C3R236A-1E	22	U	29400	208/230	1	60	14.3	50/370	5/8 U 13.3	3/8 U 14.3
P034-0891	2R13S3R276A-6A	22		8550	265	1	60	8.7	15/400		
P034-0893	2R13S276A6B	22		8550	265	1	60	10.5	15/400	3/8 U 10.5	1/4 U 10.4
P034-1191	2P17S276A1C	22		11350	265	1	60	12.3	25/400	1/2 U 10.6	5/16 U 11.5
P034-1491	2K21T276AUD	22	P	14520	265	1	60	0	35/440	1/2 U	3/8 U

HERMETIC COMPRESSORS - TECUMSEH ROTARY

Rotary R22 Compressors

Single Phase 115V, 208/230V, 265, 60HZ



Features:

- Low Noise & Vibration levels
- Adaptable to limited cabinet space
- High efficiency
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	RLA	Height	Run Cap	Suction	Discharge
P031-1004	RK136AT002S7Y	22	S	10300	115	1	60	8.6	10.5	25/370	1/2 U 8.6	3/8 U 10.0
P031-1103	RK147AT002S7Y	22	S	11700	115	1	60	9.4	11.6	25/370	1/2 U 8.8	5/16 U 11.0
P031-1301	RK157AT010S7Y	22	S	13200	115	1	60	11.4	11.4	25/370	1/2 U 9.1	5/16 U 11.3
P031-0921	RK124ET001T7Y	22	S	9100	208/230	1	60	3.8	11.2	25/370	1/2 U 9.3	5/16 U 10.6
P031-1124	HG191ET001S7Y	22	BRKT	11500	208/230	1	60	5.5	5.8	20/440	1/2 H	5/16 H
P031-1122	RK147ET002S7Y	22	S	11700	208/230	1	60	4.4	11.3	25/370	1/2 H 8.5	5/16 H 10.
P031-1323	RK157ET002T7Y	22	S	13200	208/230	1	60	5.4	11.7	25/370	1/2 U 8.9	5/16 U 10.5
P031-1523	RK222ET009S7Y	22	S	15500	208/230	1	60	6.4	11.9	25/370	5/8 U 9.2	5/16 U 11.3
P031-1825	RK233ET009S7Y	22	S	17700	208/230	1	60	7.6	11.8	25/370	5/8 U 9.2	5/16 U 11.3
P031-0991	RK124JB001T7Y	22	S	9100	265	1	60	3.3	11.2	25/370	1/2 U 9.2	5/16 U 10.5
P031-1191	RK147JB002A4	22	S	11700	265	1	60	4.5	11.7	25/440	1/2 U	5/16 U
P031-1391	RK157JB010S7Y	22	S	13200	265	1	60	4.8	11.5	25/440	1/2 U 8.8	5/16 U 10.9
P031-1594	RK222JB009S7Y	22	S	15500	265	1	60	5.4	12.3	25/440	5/8 U 9.6	5/16 U 11.7
P031-1793	RK233JB009S7Y	22	S	17500	265	1	60	6.3	12.3	25/440	5/8 U 9.6	5/16 U 11.7

HERMETIC COMPRESSORS - TOSHIBA ROTARY

Rotary R22 Compressors

Single Phase 208/230V, 265, 60HZ



Features:

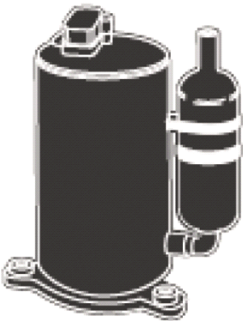
- Low Noise & Vibration levels
- High quality & reliability
- High efficiency
- For Heat Pump & Air Conditioning duty
- Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	Height	Run Cap	Suction	Discharge
P035-0924	PH135X1C-3DZDU2	22		9640	208/230	1	60	11.2	35/370		
P035-1122	PH160X1C-3DZDU	22		11507	208/230	1	60	11.0	35/370	3/8 U 9.9	5/16 U 11.2
P035-2522	PH250X3-3LU	22	S	25000	208/230	1	60	12.1	45/370	1/2 U 11.1	7/16 U 12.1
P035-0791	PRH68XA4-6K	22	P	6850	265	1	60	11.0	15/370	3/8 U 10.5	1/4 U 10.9
P035-0992	PRH88XA4-6K	22	P	9000	265	1	60	11.6	15/370	3/8 U 11.6	1/4 U 11.0

HERMETIC COMPRESSORS - TOSHIBA ROTARY

Rotary R410A Compressors

Single Phase 115V, 208/230V, 60HZ



- Features:**
- Low Noise & Vibration levels
 - High quality & reliability
 - High efficiency
 - For Heat Pump & Air Conditioning duty
 - Compact & lightweight

Part Number	Mfg Number	Refrigerant	MTG ARR	Capacity	Voltage	Phase	Hz	Height	Run Cap	Suction	Discharge
P035-0806	EA82X1C-1FZDU1	410A		8150	115	1	60	11.0	45/250	1/2 U 9.5	5/16 U 11.0
P035-1001	EA108X1C-1FZDU1	410A		10926	115	1	60	11.0	45/250	1/2 U 9.5	5/16 U 11.0
P035-1121	PA108X1C-3FZDU	410A		11011	208/230	1	60	11.0	35/370	1/2 U 9.6	5/16 U 10.9
P035-1521	PA150X2CS-3KUJ	410A		15365	208/230	1	60	12.6	40/370	1/2 U 12.5	5/16 U 12.6
P035-2021	PA200X2CS-3MUJ	410A	S	20145	208/230	1	60	13.5	50/370	5/8 U 13.4	3/8 U 13.5

HERMETIC COMPRESSOR ACCESSORIES

TotalTest Acid/Moisture Test Kits



TT1-001



TT1-002

A quick, convenient and reliable way to check for the presence of moisture or acid in refrigerant. Using the TotalTest® Instrument with the appropriate blue or yellow tube will provide an easy visual test if contaminant exists.

The "Blue Tube" Tests for Acid and Moisture in selected refrigerants:

- Acid Test for R-11, R-12, R-500, R-502, R-22, R407C, R410A, R134A
- Moisture Test for R-11, R-12, R-500, R-502, R-22

The "Yellow Tube" Tests for Moisture in R410A

TotalTest®Kit TT1-001

Kit Includes:

- One TotalTest Instrument
- Five Blue TotalTest test tubes
- One TotalTest Kit case

TotalTest®2Kit TT1-002

Kit Includes:

- One TotalTest Instrument
- Five blue TotalTest test tubes
- Five yellowTotalTest test tubes
- One TotalTest Kit case

Part Number	Part Name	Description
TT1-001	TotalTest® Kit	Acid and Moisture Test Kit (does not include moisture test for R410A)
TT1-002	TotalTest®2 Kit	Acid and Moisture Test Kit (includes moisture test for R410A)

Replacement Test Tube Pack



TT2-001



TT2-002

Six canisters of 5 tubes (30 tubes total) to be used with TotalTest® tool provided in kits TT1-001 and TT1-002

Part Number	Part Name	Description
TT2-001	Blue Tubes	Six canisters of 5 Blue Tubes (30 total)
TT2-002	Yellow Tubes	Six canisters of 5 Yellow Tubes (30 total)

Stake On Compressor Repair Kits



Features:

- Precision brass cylinder
- Won't breakdown under heat like plastic
- Wires are permanently attached
- Stainless steel set screws
- Standard factory 600 volt 65 strand machine wire
- Set of three color coded wires
- Insulator included
- Application wrench included
- Guaranteed for the life of the compressor

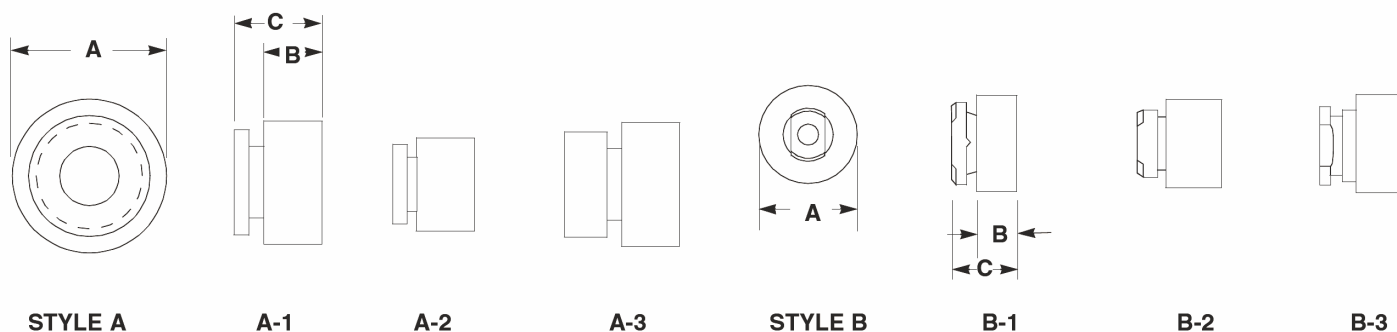
Part Number	AWG	Application
TLC-3-12	12	1.5-3 Ton
TLC-3-10	10	3.0-5.0 Ton
TLC-3-8	8	5 Ton & up

Compressor Hook-up Lead Kit

Part Number	Tab Width in (mm)	Wire Range AWG (mm2)	QTY/PKG
P298-LEADS-10	.250 (6.35)	10 (6.0)	3 – 8" Leads With Flags & Heat Shrinkable Butt Connectors

HERMETIC COMPRESSOR ACCESSORIES

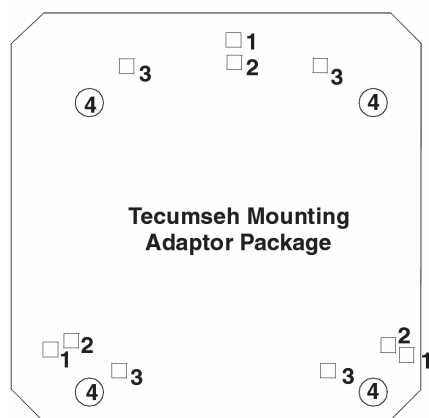
Compressor Grommets



Part Number	Spec Number	'A' Grommet Diameter (in.)	Support Height (in.)		Style And Type	Durometer Hardness	Compressor Usage
			'B'	'C'			
P041-5101	KA56CR073	1.25	0.72	1.16	A-3	30-35	CAR-J COPE.
P041-5102	KA56CR078	1.25	0.72	1.16	B-2	45-50	COPE.
P041-5103	KA56CR079	1.625	0.75	1.16	B-1	35-45	COPE.
P041-5105	KA56TR017	1.25	0.593	0.906	A-1	37	TEC.-AJ, AH
P041-5107	KA56TR053	1.44	0.81	1.125	A-1	37	TEC.-AB, AH, AJ, AV, AW
P041-5108	KA56TR055	1.625	1.156	1.437	A-2	37	TEC.-AG
P041-5109	KA56TR060	1.625	0.84	1.434	B-3	37	TEC.-AK, RK

Tecumseh Mounting Grommet/Adaptor Packages

Compressor Usage	SPEC. NO.	P/N
Tecumseh AB, AH, AG Mounting grommet Pkg.	LP99	P041-5001
Tecumseh AJ Mounting grommet Pkg.	LP15	P041-5002*
Tecumseh CL/AG Mounting grommet Pkg.	LP29	P041-5003



Compressor Mounting Pkg. Used to replace compressors with mounting configurations of: 8" x 4-13/16", 8" x 6-5/16" and 8" x 10- 1/4".

HOLE #	Description	Vendor No.	P/N
1	Holes for mounting P or 3 & 4 cylinder R compressors. (G - mount)	Lis. Mfg.	P041-4003
2	Holes for mounting 2 cylinder R compressors (F - mount)		
3	Holes for "B" mount compressors. 8" x 4-13/16"		
4	Holes standard "A" mount. 7-1/2" x 7-1/2"		

Adaptor Kit Contents

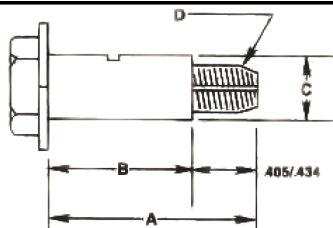
Quantity	Description	Works on:
8	Grommets	B to A F to A G to A (Refer to mounting guide)
8	Sleeves	
4	Carriage Bolts 5/16-18 x 1-3/4	
4	Lock Washers	
4	Flat Washers 5/16" x 3/4"	
1	Instruction sheet	

Compressor Mounting Kit - 3 to 4 Bolt Adaptor Plate

Part Number	Description
06WP 660 002	Use When Replacing 3 Bolt Mounting Pattern with a 4 Bolt Pattern 7.5" x 7.5"

HERMETIC COMPRESSOR ACCESSORIES

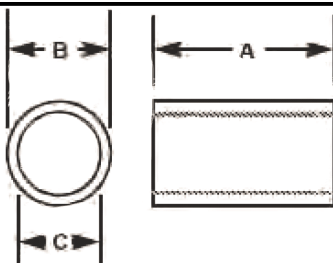
Compressor Bolts



Part Number	Spec No	'A' (in)	'B' (in)	'C' OD (in)	'D' Thread (in)	Compressor Usage
AH 01AM 210	AH01AM210	1.55	1.125	0.436	5/16-18-D	--
P041-5309	AH01EM205	2	1.5	0.418	5/16-18-D	TEC.
P041-5310	AH01AM208	1.375	0.875	0.47	5/16-18-D	TEC. TOSHIBA

*All are packaged in quantities of (12).

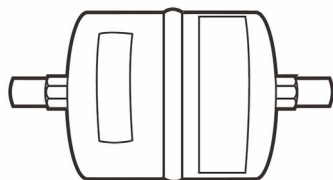
Compressor Grommets Sleeve



Part Number	Spec No	'A' (in)	'B' OD (in)	'C' OD (in)
P041-5201	KA56TS022	0.906	0.44	0.34

*All are packaged in quantities of (12).

Residential Mufflers 2 - 5 TON



Part Number	Nom Ton Car	OD (in)	Inlet* Dim (in)
LM10KH001	2	2-5/16	3/8
LM10HK010	3	2-15/16	1/2
LM680001	5	3	1/2

*Inlet and outlet dimensions are specified as I.D. unless otherwise indicated.

**90° elbow in inlet.

•• Supersedes LM10HK001, 002.

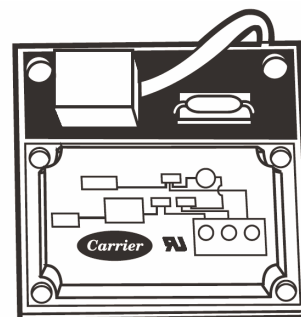
Compressor Terminal Connector



- Quick connect designed to fit Hermetic compressor terminal

Part Number	Description
HY61AM094	Compressor Terminal Connector

Single Function Time Guard



Size: 3.4H x 3.4W x 1.7D

- Time guard II
- Solid state controlled recycle delay timer
- Operation: in the event of any power interruption, Time guard II provides a 5 min. delay which prevents rapid cycling of the compressor
- Wiring diagram is printed on time guard
- Operating volts: 24
- Load current @ 24v-1 amp
- Switching arrangement: SPST-N.O.

Part Number	Description
HN67PA024	Single Function Time Guard

Discharge Thermostat Kit

Copeland "ZR" scroll compressors

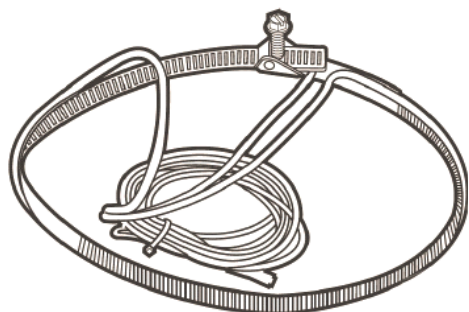
Kit contains:

Thermostat, top case,
Ring and silicone sealer

Part Number	Description
571-0044-00	Discharge Thermostat Kit

HERMETIC COMPRESSOR ACCESSORIES

Crankcase Heaters



- Wrap around style...conforms to hermetic compressor shape

Part Number	Outlet Dim (in)	Watts (Hot)	Max Volts	Lead Length (In)
P041-4411	--	40	120	A
P041-4412	--	40	120	B
P041-4422	TEC-AK	40	240	D
P041-4423	TEC-AJ/COPE-RR, SR	40	240	E
P041-4443**	CAR-SC,SR/COPE ZRK	40	240	D
P041-4424	CAR-J, W/COP-SR, HIT-RHC	40	240	H
P041-4441	COPE-RR, SR	40	460	E
P041-4442	CAR-J, W/COPE-SR, HIT-RHC	40	460	H
P041-4444**	CAR-SC, SR/COPE ZRK	40	460	D
HT32BH970	CARLYLE SC/SR75-94	70	120	7.25.
HT32BH857	CARLYLE SC/SR75-94	70	240	7.25.
HT32BH858	CARLYLE SC/SR75-94	70	480	7.25.
P041-4721	COPE-BR	70	240	F
P041-4741	COPE-BR	70	480	G
HT32BH859	COPE ZR94-144	90	240	9.15.
HT32BH860	COPE ZR94-144	90	480	9.15.
HT32BH852	COPE ZR16-19M3	70	240	11.14.
HT32BH853	COPE ZR16-19M3	70	480	11.14.
HT32BH950	MANEUROP SM	50	120	10.0.
HT32BH975	MANEUROP SM	75	120	12.45.
HT32BH600	CAR-J	40	277	A
HT32BH906	CAR-W	40	575	H
HT32BH907	CAR-J	40	575	H

*= Size A fits circumferences of 24-5/16 to 33-1/2.

Size B fits circumferences of 30 to 39-3/8.

Size D fits circumferences of 20 to 25.

Size E fits circumferences of 23 to 35-1/4.

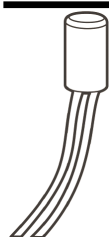
Size F fits circumferences of 27-7/8 to 39.

Size G fits circumferences of 28-3/8 to 37-1/2.

Size H fits circumferences of 28-3/8 to 35

**Fits both Copeland ZRK-16-72 size and Scroll Technologies 34-61 size compressors

Crankcase Heaters – PTC Insertion



- PTC insertion style
- Use with heat sink compound

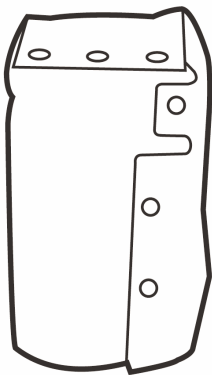
Part Number	Vendor Part No	Outlet Dim (in)	Watts	Volts	Lead Length
P041-4131	8HT5-507	TEC. AW	25-35	600	32

Heat Sink Compound

Part Number	Size	Description
38AQ680001	1/2 oz. Tube	Heat Sink Compound

HERMETIC COMPRESSOR ACCESSORIES

Compressor Soundshield



- Compressor sound shield provides sound level reduction
- Constructed of:

A. Acoustical polyurethane foam with vinyl covering

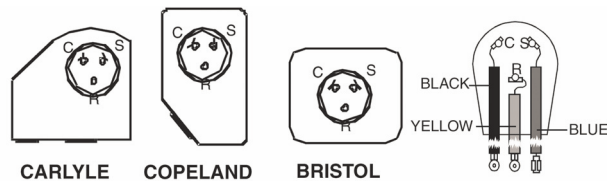
B. Polyethylene covered fiberglass

*Finished Goods Accessories.

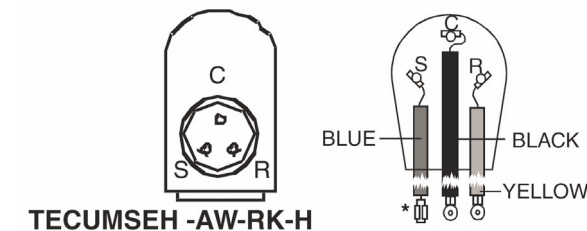
@ Limited to stock qty. on hand.

Part Number	Comp Model Used On	Approximate Blanket Height (in)	CONST
38ES400384	BRISTOL H23A	14.8	A
314841-401	BRISTOL "H23, 2524"	16.25	B
320399-401	BRISTOL H-29	15	B
326830-401	BRISTOL T-89	17.4	B
310060-401 @	CARLYLE "J"	14.9	A
38UE500874 @	CARLYLE "M"	14	A
38UE500894	CARLYLE "P"	14	A
321538-401	CARLYLE "SC"	17.4	B
321538-402	CARLYLE "SR"	19.7	B
38EC500314	COPELAND "CR"	13	A
318415-401	COPELAND "CRK"	14.5	B
314840-401	COPELAND "CR-4"	14.5	B
312997-401	COPELAND "CR-5"	16	B
318414-401	COPELAND "CRK"	13.5	B
315997-401	COPELAND "CRL3"	14.5	B
38QB501484	COPELAND "RE"	11	A
38EC500344 @	COPELAND "YRD"	15	A
317035-401	COPELAND "ZR18-28"	14	B
317037-401	COPELAND "ZR34-42"	15	B
316739-401	COPELAND "ZR46-61"	21.4	B
38ED500404	TECUMSEH "AB"	10.62	A
312900-401 *	TECUMSEH "AB-AW"	13.92	A
38EC500334 @	TECUMSEH "AH, AJ"	13.75	A
38EC500564	TECUMSEH "AV"	14.92	A
314776-401 *	TECUMSEH "AV"	14.92	B
318416-401	TECUMSEH "AW"	13.92	B

Service Compressor Plugs



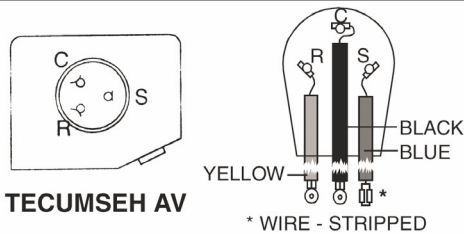
Part Number	Wire Gauge AWG	Wire Length		
		Black	Yellow	Blue
312906-413	10	44	44	44
312906-446	10	62	62	62
312906-426	10	92	92	85



Part Number	Wire Gauge AWG	Wire Length		
		Black	Yellow	Blue
312906-411	14	38	38	50
312906-436	12	44	44	44
312906-422	14	80	80	72

HERMETIC COMPRESSOR ACCESSORIES

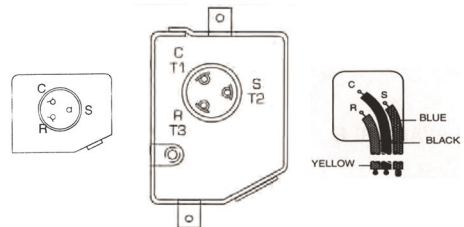
Service Compressor Plugs



Part Number	Wire Gauge AWG	Wire Length		
		Black	Yellow	Blue
312906-435	10	38	38	38
312906-428	12	44	44	44
312906-434	14	44	44	56

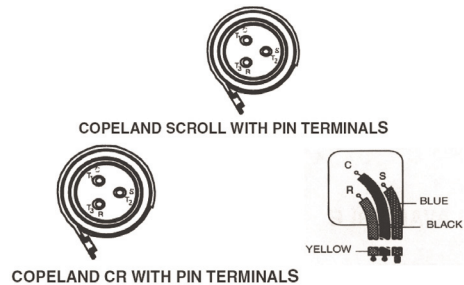


Part Number	Wire Gauge AWG	Wire Length		
		Black	Yellow	Blue
317749-407	12	52	52	52
317749-415	10	44	44	44



Part Number	Wire Gauge AWG	Wire Length		
		Black	Yellow	Blue
312906-452	(2)10 (1)14	54	54	54
312906-455	12	54	54	54

Compressor Plug Assembly



Part Number	Description
P298-001	For Copeland CR and Scroll Compressors with Pin Terminals

CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

06D Compressors

06DR 3 37 0 D A 36 5 A - (RP)**

Model = 0, Package = 1 or 9, A = Shipped Without Oil

Suction Cut-Off Unloading Designation for 06DR, DM Compressors:

0 = All Models Except as Noted

5 = No Oil

7 = 1 Unloader Elec. (DR, DM Only)

8 = 2 Unloaders

Y = Smart Unloading Models

Electrical Characteristics (XL Start Only, Unless Noted):

New H.E. Models

Old Std. Models

31 = 575-3-60

01 = 575-3-60

12 = 208/230-3-60

32 = 208/230-3-60

04 = 200-3-60

13 = 380-3-60

33 = 208/230-1-60

05 = 230-3-60

14 = 200-3-60 (PW)

34 = 220-3-50

06 = 400/460-3-50/60

15 = 230-3-60 (PW)

36 = 400/460-3-50/60

08 = 220-3-50

18 = 220-3-50 (PW)

Electrical Variables:

A = With Internal Thermostat and External Overloads

C = With Internal Thermostat and Without External Overloads

Suction Valve - Variables:

Location, Orientation and Mounting Bolts

Compressor Identification Key:

0 = New Compressor

2 = New Compressor

3 = New Compressor

6 = Service Compressor, Remanufactured

7 = Service Compressor, New Manufactured

8 = New Compressor, Special

9 = Service Compressor, Special

S = Oil Sensor Block and OPSS Sensor

Displacement (in Cfm at 1750 rpm)

Motor Size - (Does Not Signify Horsepower)

Compressor Type:

06DA = Compressor - A/C Duty

06DB = Compressor - A/C Duty

06DC = Compressor - A/C Duty

06DD = Compressor - A/C Duty

06DE = Compressor - A/C Duty

06DF = Compressor - A/C Duty

06DG = Compressor - A/C Duty

06DH = Compressor - A/C Duty

06DJ = Compressor - A/C Duty

06DM = Compressor Refrig. Duty Medium Temperature

06DR = Compressor Refrig. Duty Low Temperature

06DM = Service Compressor-Replacement for new 06DA, DM without unloading

06DS = Service Compressor-Replacement for new 06DF,G,H and J with

suction cut-off unloading. Compressor has 1-Stage suction

cut-off unloading

06DX = Service Compressor-Replacement for new 06DB,C,D, and E with

hot gas (bypass) unloading. Compressor has 1-stage of bypass unloading

No Unloading

1-Step Elec.

2-Step Elec.

1-Step Press.

2-Step Press.

1-Step Elec.

2-Step Elec.

1-Step Press.

2-Step Press.

} Hot Gas Bypass
Unloading

} Suction Cut-Off
Unloading

**Refrigeration Partner

CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

06E Compressors

06ER 3 99 3 0 A - (RP)**

Model = 0, Package = 1 or 9, A = Shipped Without Oil

Design Variable:

New Compressors

- 0 = OEM Model
- 1 = Carrier A/C Model
- 2 = Old Design Refrigeration Valve Plates
- 6 = Carrier A/C Model
- 9 = Cemak Model
- S = Oil Sensor Block and OPSS Sensor

Service Compressors

- 2 = New Manufactured (A/C)
- 4 = Remanufactured (Low Temp.)
- 6 = Remanufactured (A/C)
- 7 = Remanufactured (Med Temp.)

Electrical Characteristics (XL and PW Start, Unless Noted):

- 0 = 208/230-3-60
- 1 = 575-3-60
- 3 = 208/230/460-3-50/60 (460v XL Only)
- 4 = 200-3-60
- 5 = 230-3-60
- 6 = 400/460-3-50/60
- 8 = 230-3-50
- 9 = 220/380-3-60

Displacement (in Cfm at 1750 rpm)

Motor Size (Does Not Signify Horsepower)

- 0, 1, 2 = Models With Oil
- 3, 4, 5 = Models Without Oil
- 7 = 1 Unloader, Suction Cut-off, Oil-less (ER, EM Only)
- 8 = Special Order
- Y = SMART Unloading Model

Compressor Type:

STD*	REV†		
06EA	06EF	Compressor - A/C Duty	No Unloading
06EB	06EJ	Compressor - A/C Duty	1-Step Elec.
06EC	06EK	Compressor - A/C Duty	2-Step Elec.
06ED	06EL	Compressor - A/C Duty	1-Step Press.
06EE	06EN	Compressor - A/C Duty	2-Step Press.
06E2	06E6	Compressor - A/C Duty	1-Step Elec.
06E3	06E7	Compressor - A/C Duty	2-Step Elec.
06E4	06E8	Compressor - A/C Duty	1-Step Press.
06E5	06E9	Compressor - A/C Duty	2-Step Press.
06EM	-	Compressor - Refrig. Duty	Med Temp.
06ER	-	Compressor - Refrig. Duty	Low Temp.
06ET	-	Serv. Compressor A/C Duty Replaces 06E2,3,4,5,6,7,8, and 9.	
		Compressor has 1 stage of suction cut-off unloading.	
06EX	-	Serv. Compressor A/C Duty Replaces 06EA,B,C,D,E,F,J,K,L, and N.	
		Compressor has 1 stage of Bypass unloading.	
06EY	-	Serv. Compressor Refrig. Duty Replaces 06ER	
06EZ	-	Serv. Compressor Refrig. Duty Replaces 06EM	

Hot Gas Bypass
Unloading

Suction Cut-Off
Unloading

* Standard Center Cylinder Head.

† Reversed Center Cylinder Head.

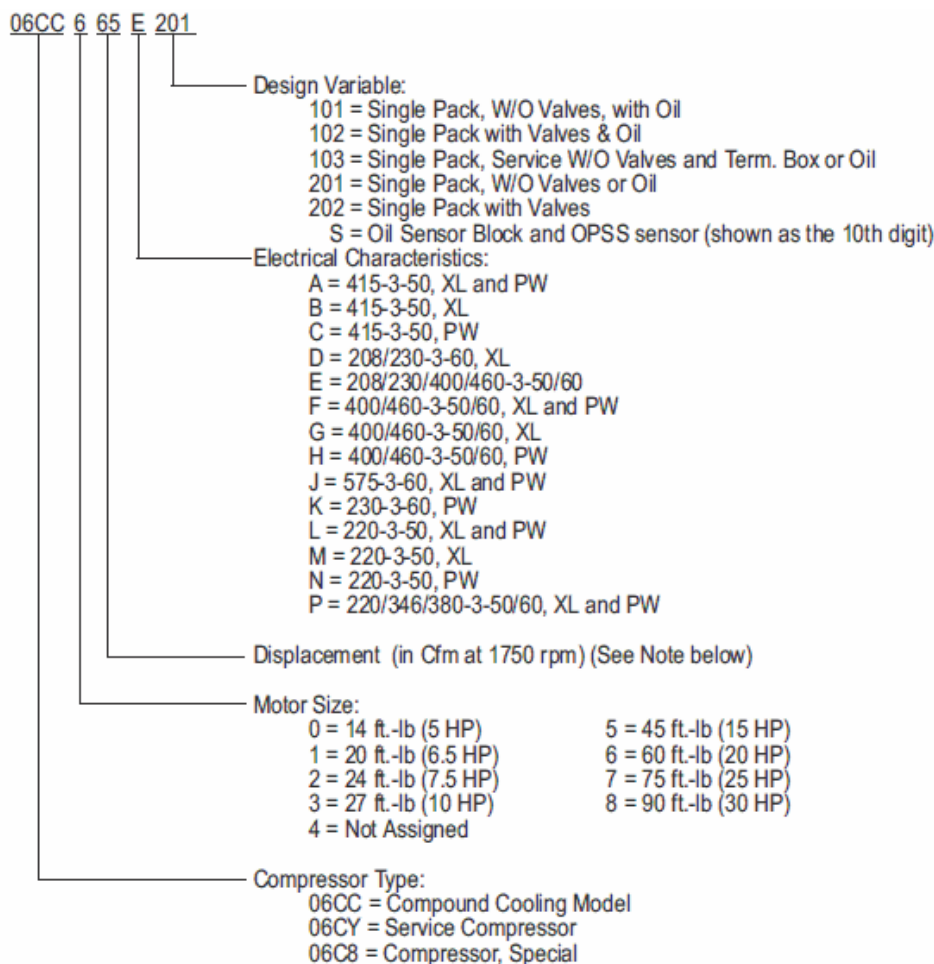
Service compressors shipped with reverse center head have the letter "R" after the serial number on the shipping box.

**Refrigeration Partner

CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

06CC Compressors



NOTE: USE OF "Cfm" AS MODEL SIZE DESIGNATION

Carlyle uses the "Cfm" designation in the model number to identify the compressor size. The Cfm values are the sixth and seventh digits of the model number. See example above.

Carlyle offers two series of compressors based on body size. The smaller compressors, from 8 to 37 Cfm, are referred to as "D" size units (model number "06D"). The larger compressors, from 50 to 99 Cfm, are referred to as "E" size units (model number "06E").

The 06CC, or Compound Cooling compressors, are made in 16 to 37 Cfm and 50 to 99 Cfm sizes. The 16 to 37 Cfm compressors use "D" size bodies. The 50 to 99 Cfm compressors use "E" size bodies.

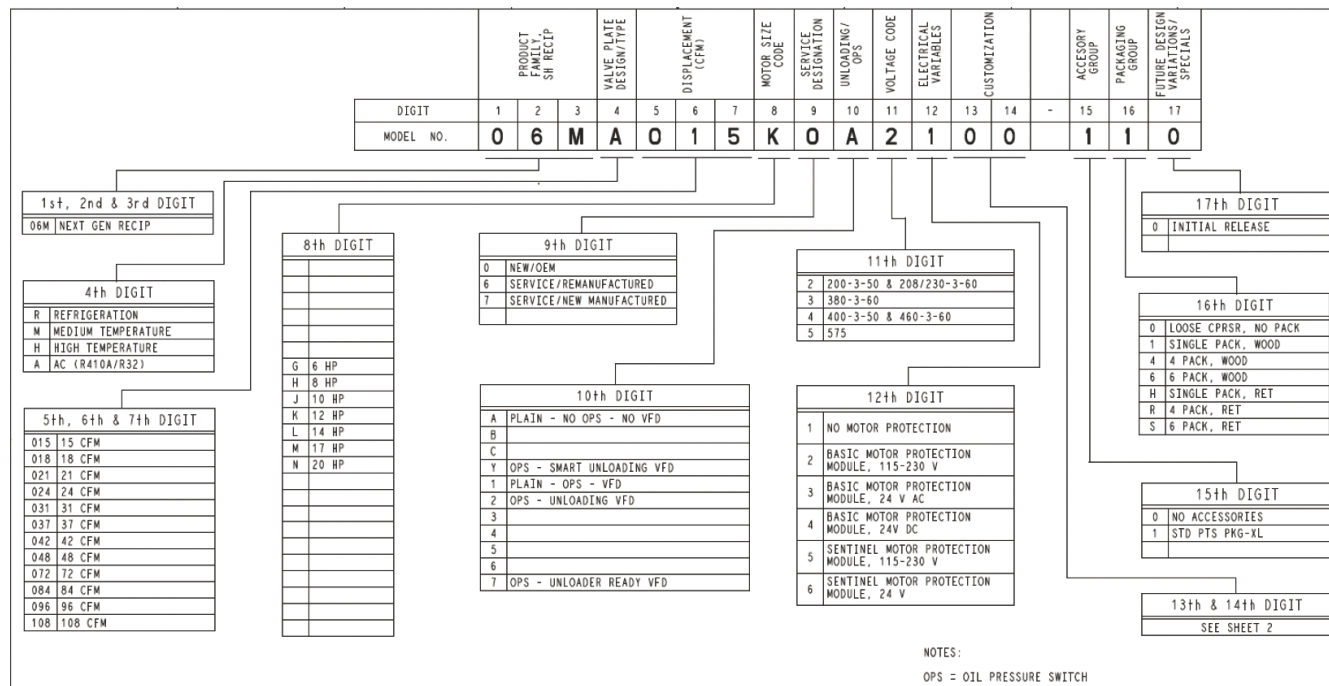
NOTE: METRIC MEASUREMENTS

The compressors are built using English units: inches, foot-pounds, pints, etc. A corresponding metric measurement has been added to all the English units in this guide. These metric measures are a guide only, having been rounded to the nearest whole number, and therefore are not meant to be an exact mathematical conversion.

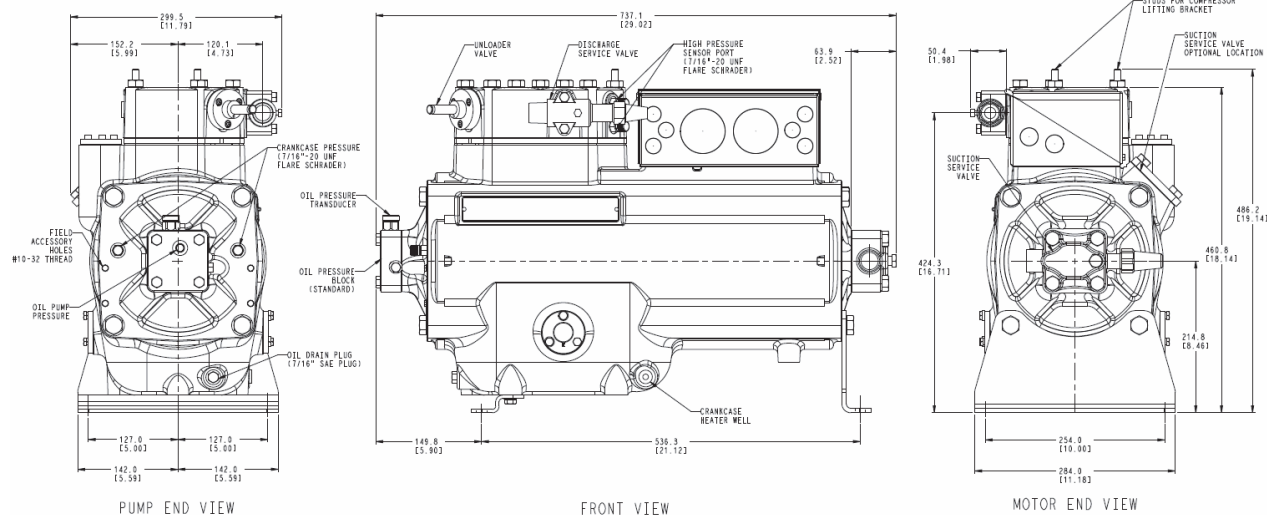
CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

06M Compressors



Part Number	CFM	Nom Hp	Service Connections - Suction Line Size	Service Connections - Discharge Line Size	Dry Weight (LBS/Kg)
06MA015	15.5 / 25.5 m3/hr	12 / 8.8 kw	1-1/8 IN / 28.575 mm	7/8 IN / 22.225 mm	379 LBS / 171.91 KG
06MA018	18.4 / 31.3 m3/hr	14 / 10.3 kw	1-1/8 IN / 28.575 mm	7/8 IN / 22.225 mm	384 LBS / 174.18 KG
06MA021	21.2 / 36 m3/hr	17 / 12.5 kw	1-3/8 IN / 34.925 mm	1-1/8 IN / 28.575 mm	387 LBS / 175.54 KG
06MA024	24.1 / 40.9 m3/hr	20 / 14.7 kw	1-3/8 IN / 34.925 mm	1-1/8 IN / 28.575 mm	392 LBS / 177.80 KG

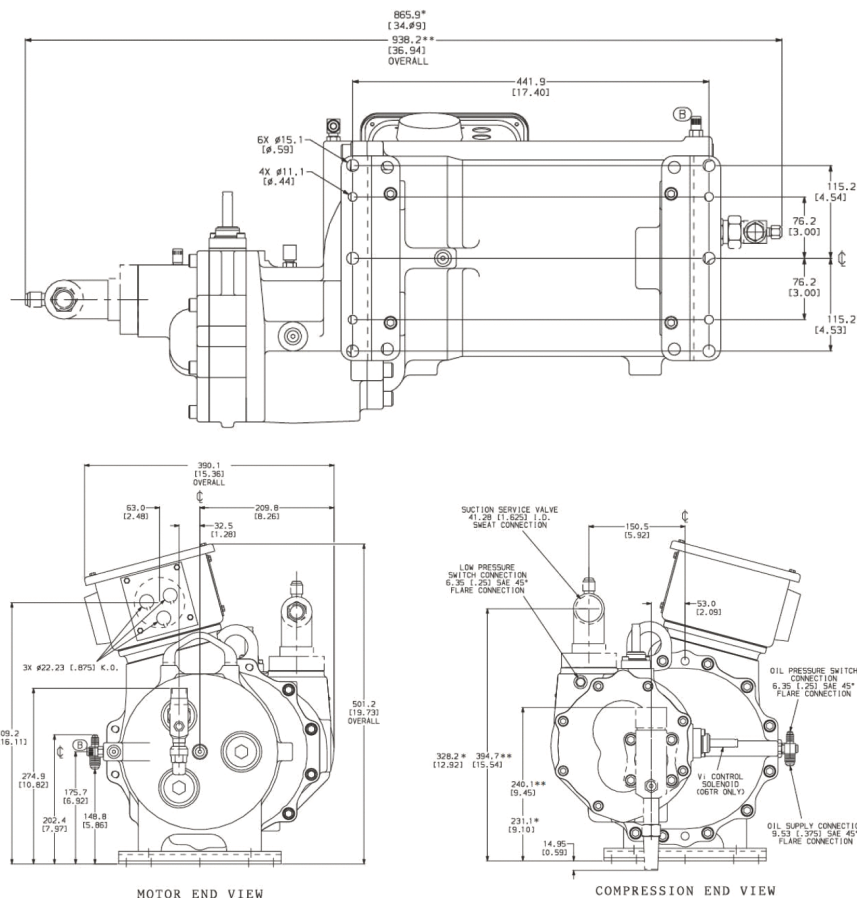
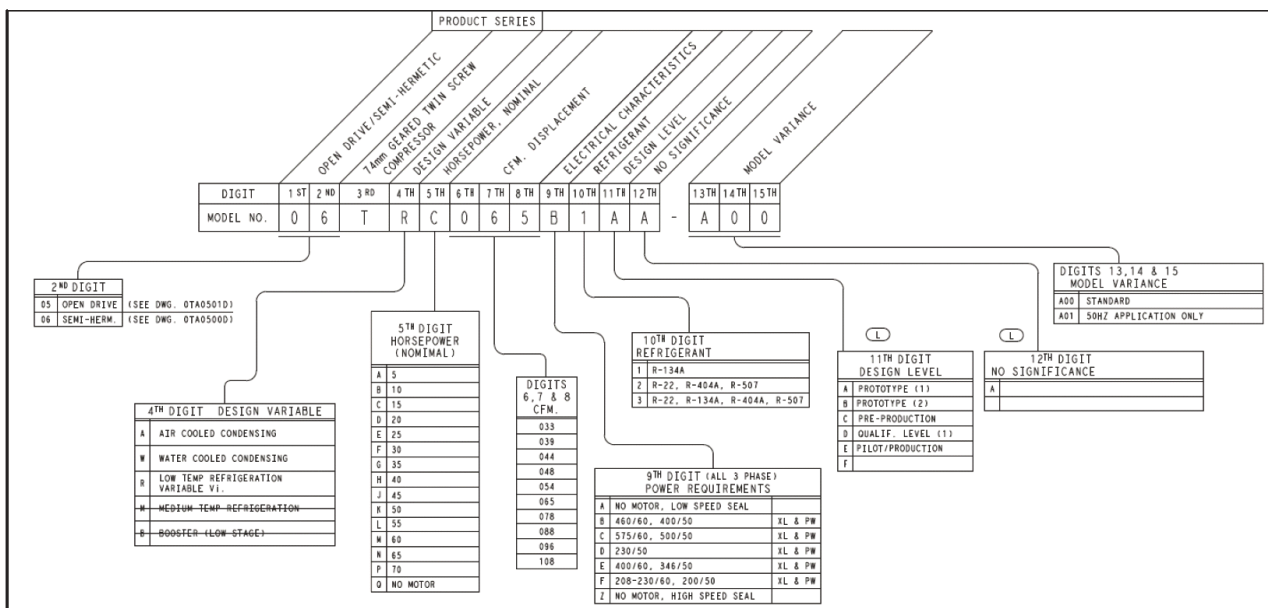


Note: All Dimensions are In Millimeters and Inches
06M Available A/C and Medium Temp Applications
Over 100 Models to choose from, please contact Customer Service for more details.

CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

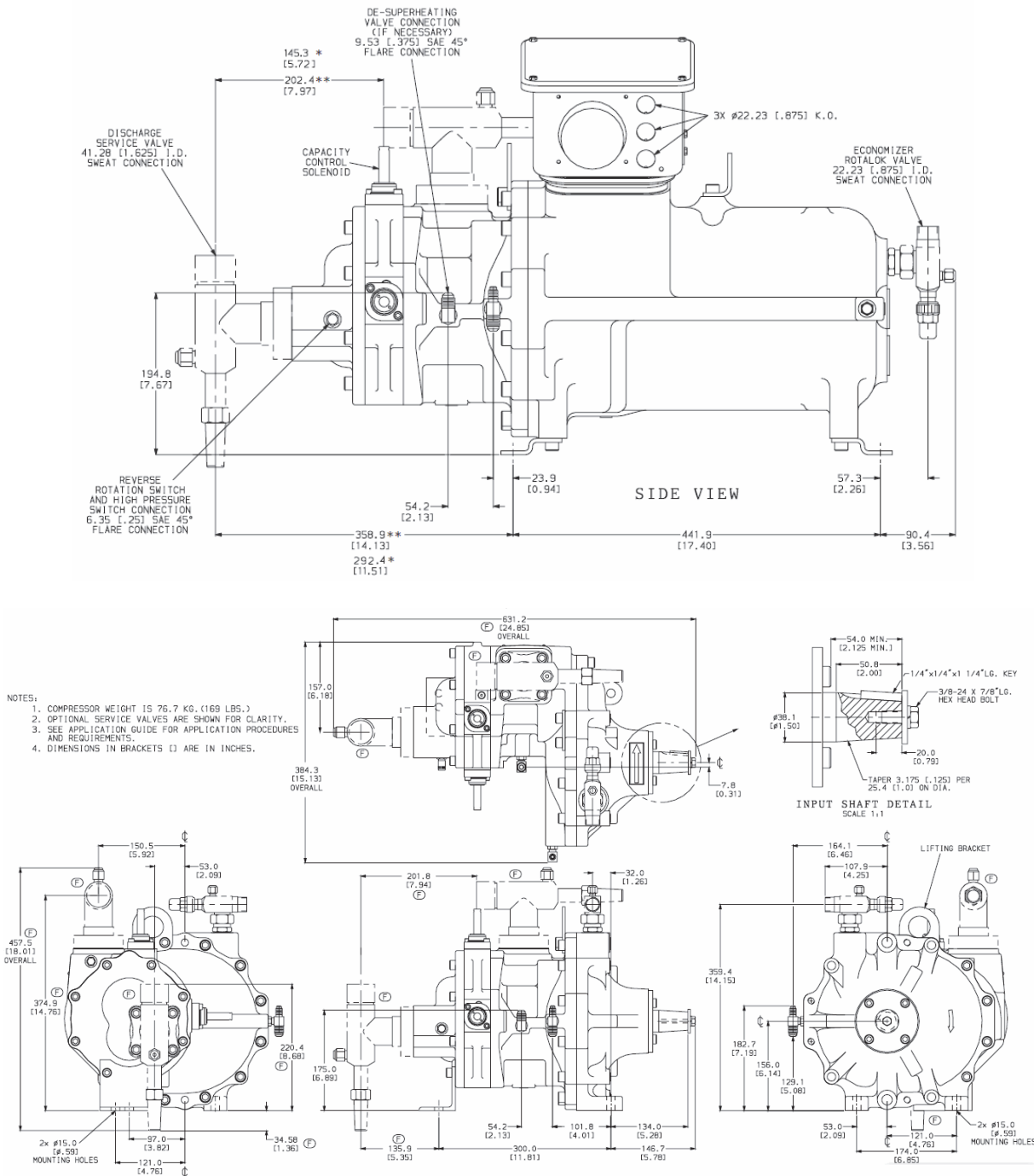
05T & 06T Screw Compressors



CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

05T & 06T Screw Compressors



Note: All Dimensions are in Millimeters and Inches

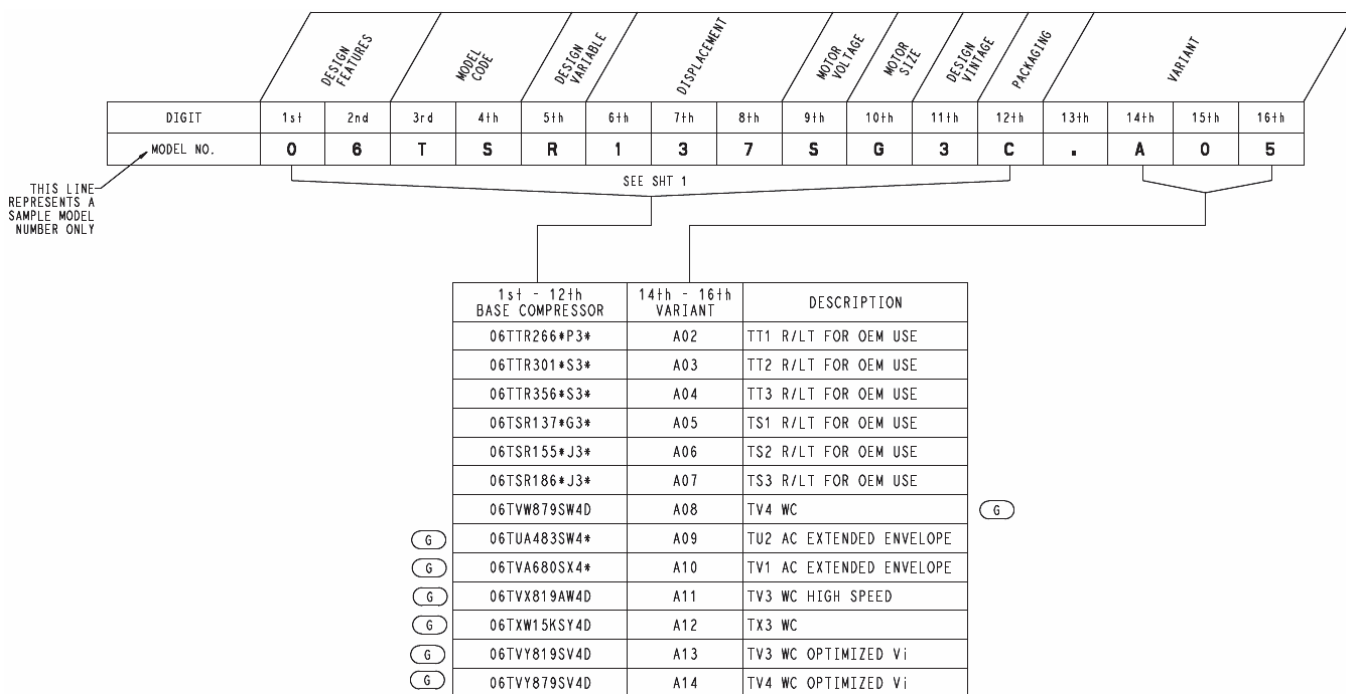
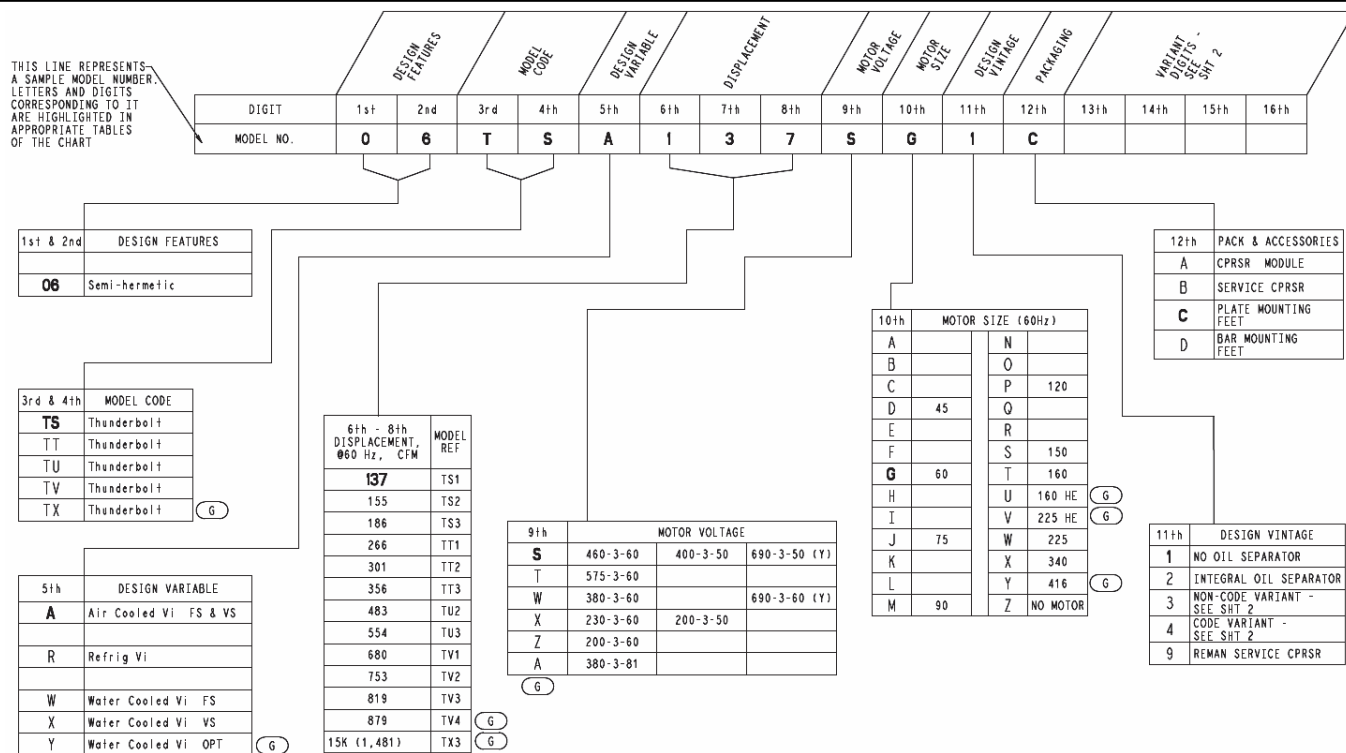
SEMI-HERMETIC

CARLYLE 05T & 06T Available Air/Water Cooled Condensing and Low Temp Refrigeration
Over 1000 Models to choose from, please contact Customer Service for more details.

CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

06TS & 06TT Screw Compressors

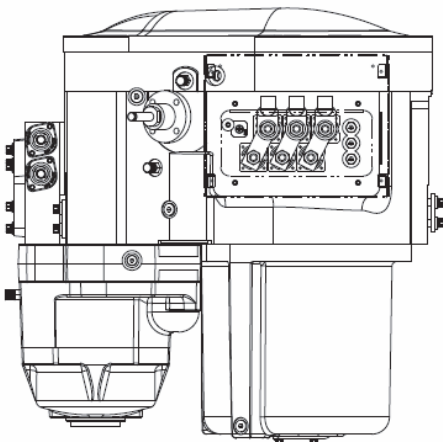
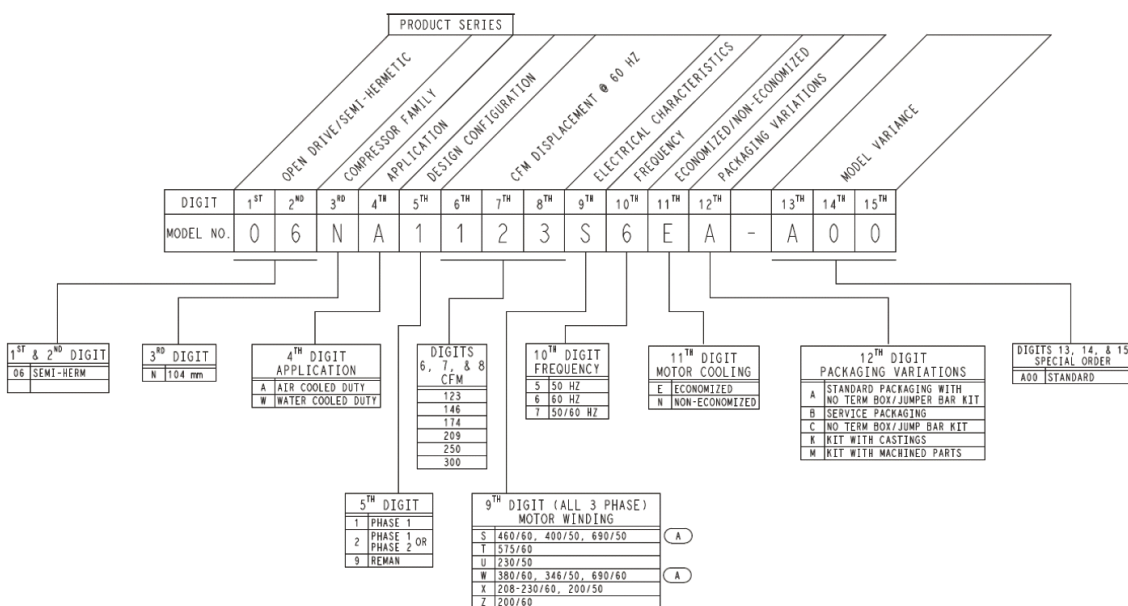


06TS & 06TT Available in Air Cooled Water Cooled and Refrigeration
Over 400 Models to choose from, please contact Customer Service for more details.

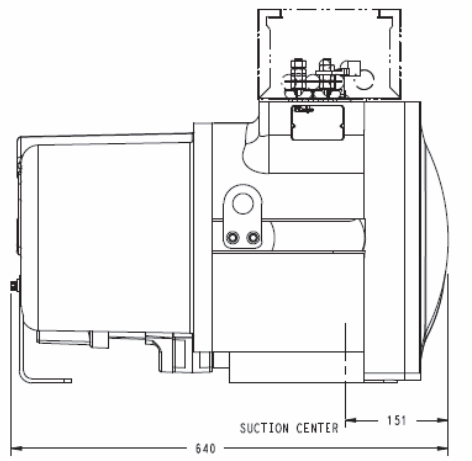
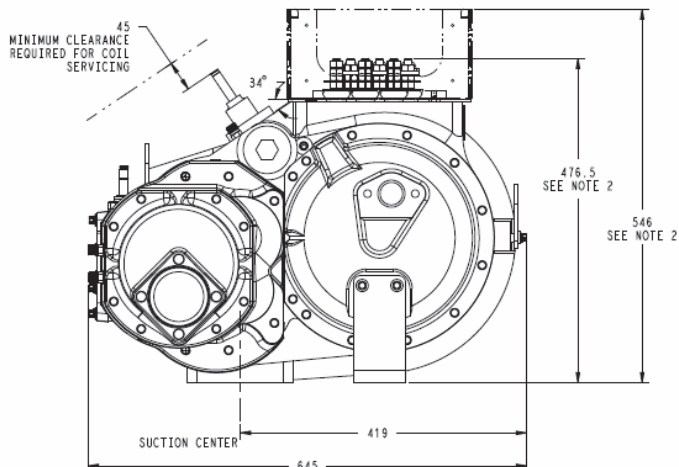
CARLYLE SEMI-HERMETIC COMPRESSORS

Compressor Model Number Significance

06N Screw Compressors



OVERALL DIMENSIONS

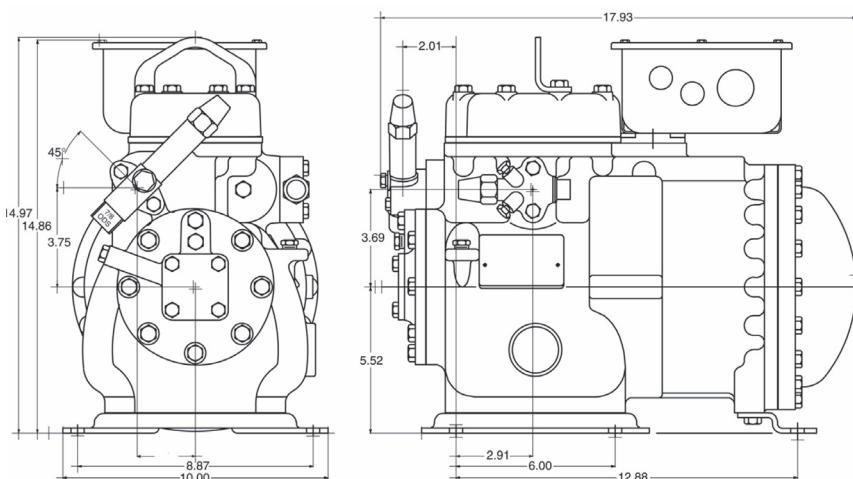


Note: All Dimensions Are In Millimeters
06N Available Air and Water Cooled Applications
Over 400 Models to choose from, please contact Customer Service for more details

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06D Compressor Drawings

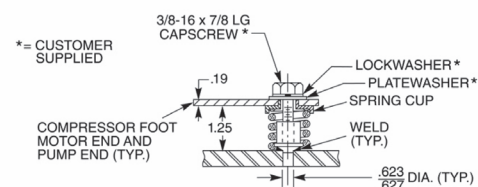
2 Cylinder



CYLINDERS: 2
CFM: 8
MODELS: 06DA808
06DM808
UNLOADING AVAIL: NO
STEPS: 0

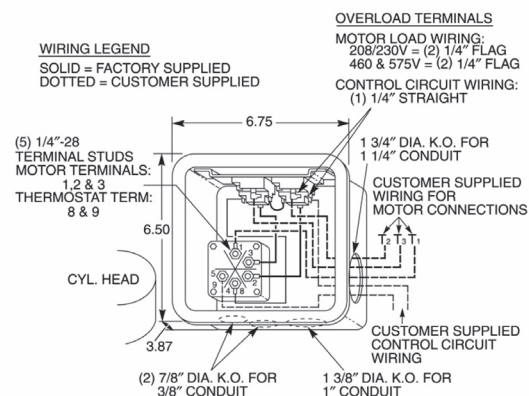
NOTE: ALL DIMENSION ARE IN INCHES
Multiple Service valve orientation are possible

Note: Compressors shown with optional accessories.



SPRING MOUNTING ARRANGEMENT

WIRING LEGEND
SOLID = FACTORY SUPPLIED
DOTTED = CUSTOMER SUPPLIED



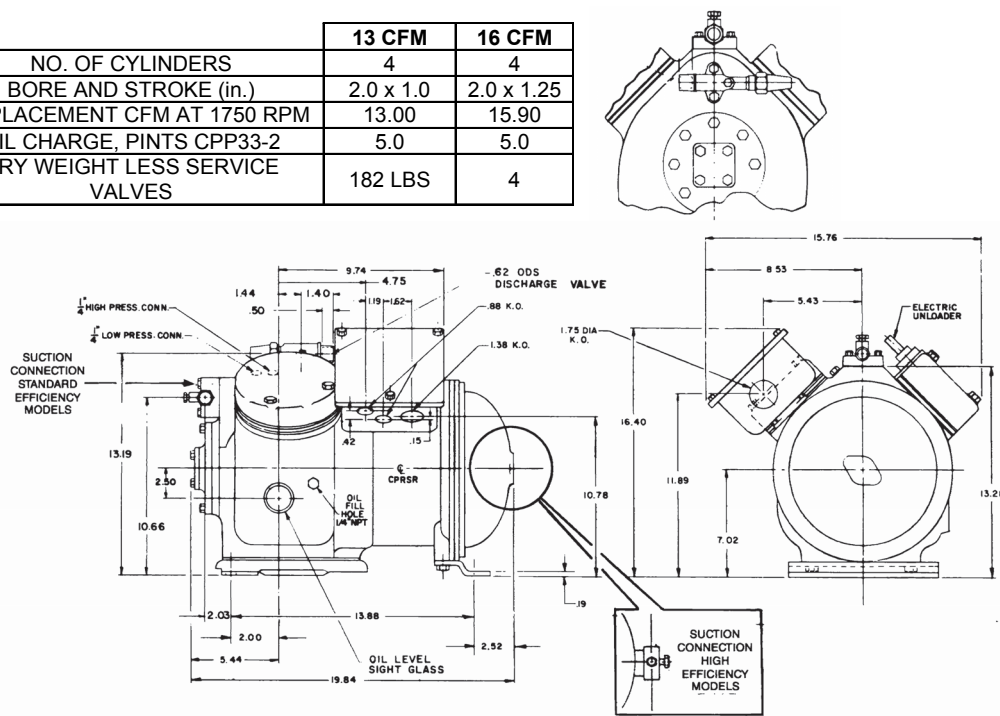
TERMINAL BOX DATA

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06D Compressor Drawings

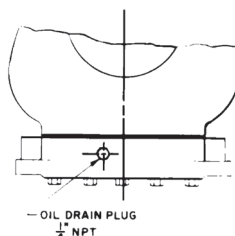
4 Cylinder

	13 CFM	16 CFM
NO. OF CYLINDERS	4	4
BORE AND STROKE (in.)	2.0 x 1.0	2.0 x 1.25
DISPLACEMENT CFM AT 1750 RPM	13.00	15.90
OIL CHARGE, PINTS CPP33-2	5.0	5.0
DRY WEIGHT LESS SERVICE VALVES	182 LBS	4

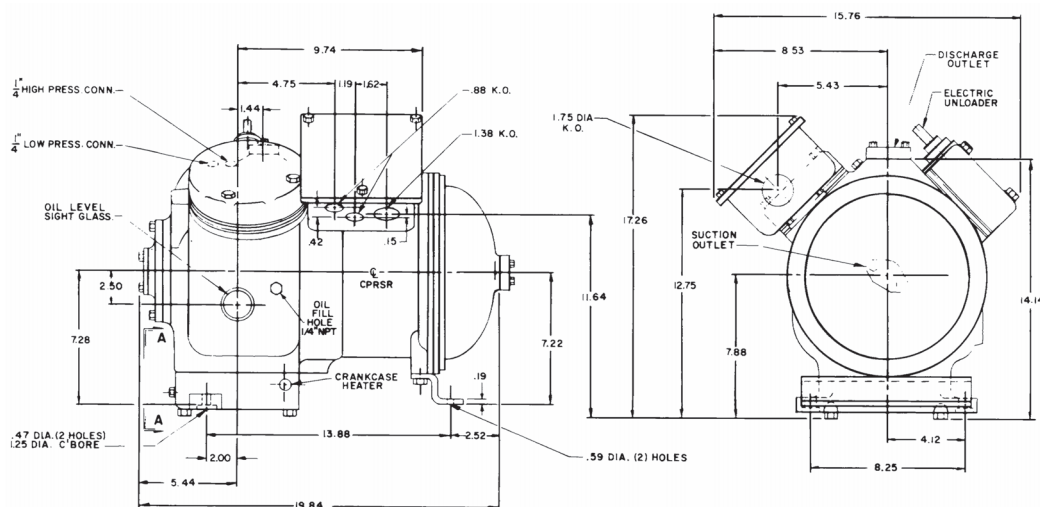


Suction Service Valve May Also Be Mounted On Oil Pump End Of Compressor

	18 CFM	20 CFM
NO. OF CYLINDERS	4	4
BORE AND STROKE (in.)	2.0 x 1.435	2.0 x 1.559
DISPLACEMENT CFM AT 1750 RPM	18.26	19.59
OIL CHARGE, PINTS CPP33-2	7.0	7.0
DRY WEIGHT LESS SERVICE VALVES	221 LBS	221 LBS



NOTE: OIL PUMP IS AUTOMATICALLY REVERSIBLE FOR EITHER DIRECTION OF ROTATION.



Generally, for a compressor changeout in a Carrier/BDP unit the use of existing circuit breaker(s) is acceptable.

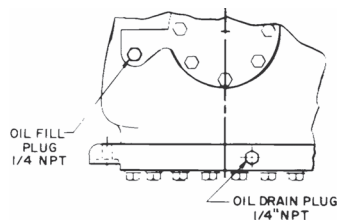
Note: Compressors shown with optional accessories.

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06D Compressor Drawings

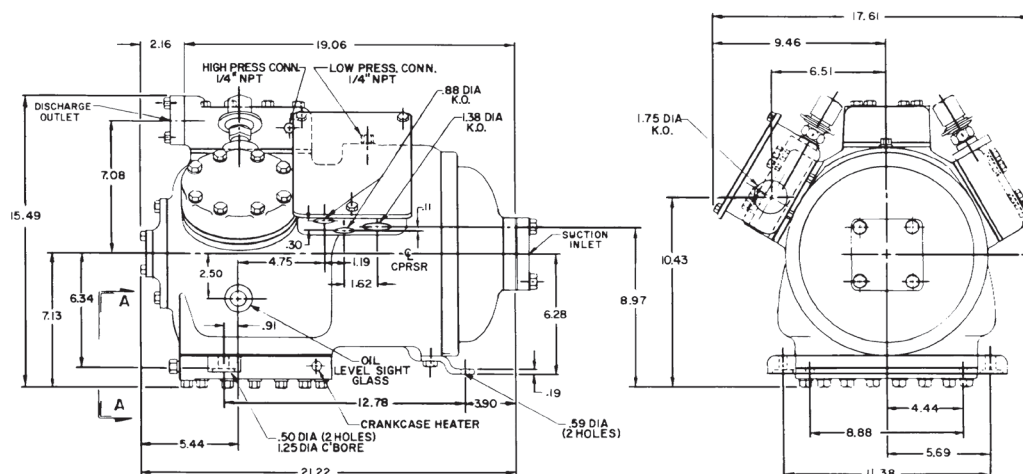
6 Cylinder

	24 CFM
NO. OF CYLINDERS	6
BORE AND STROKE (in.)	2.0 x 1.25
DISPLACEMENT CFM AT 1750 RPM	23.66
OIL, CHARGE, PINTS CPP33-2	9.5
DRY WEIGHT LESS SERVICE VALVES	275 LBS

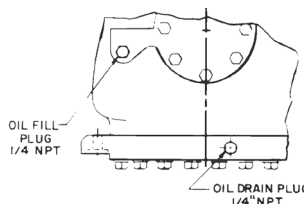


NOTE: OIL PUMP IS AUTOMATICALLY REVERSIBLE FOR EITHER DIRECTION OF ROTATION.

SECTION A-A

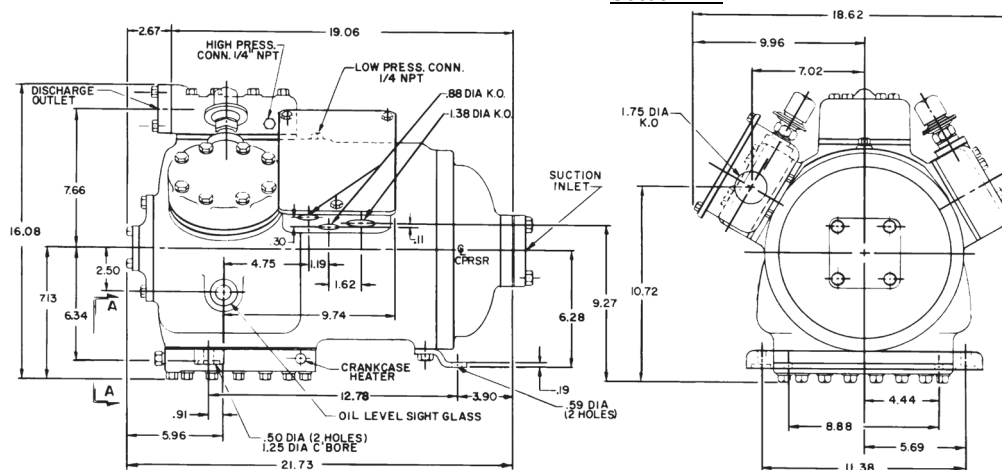


	28 CFM	37 CFM
NO. OF CYLINDERS	6	6
BORE AND STROKE (in.)	2.0 x 1.469	2.0 x 1.983
DISPLACEMENT CFM AT 1750 RPM	28.04	37.00
OIL, CHARGE, PINTS CPP33-2	9.5	9.5
DRY WEIGHT LESS SERVICE VALVES	305 LBS	305 LBS



NOTE: OIL PUMP IS AUTOMATICALLY REVERSIBLE FOR EITHER DIRECTION OF ROTATION.

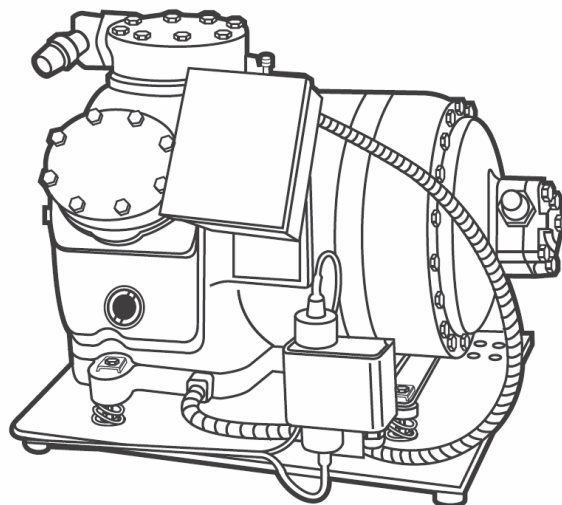
Section A-A



Note: Compressors shown with optional accessories.

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06D Compressor Application Data



Medium and High Temp Air-Cooled Condenser

MODEL NO	HP	CYL	REFR	SUCTION TEMP RANGE (F)	SST	SCT	SC	BTUH
06DM808	3	2	R-22	0 to 50	45°	130°	0°	36.5
06DM313	5	4	R-22	0 to 50	45°	130°	0°	56.9
06DM316	5	4	R-22	0 to 50	45°	130°	0°	-
06D()818	6.5	4	R-22	0 to 50	45°	130°	0°	82.9
06D()824	7.5	6	R-22	0 to 50	45°	130°	0°	105.8
06D()825	7.5	6	R-22	0 to 50	45°	130°	0°	105.8
06D()328	10	6	R-22	0 to 50	45°	130°	0°	127.8
06D()337	10	6	R-22	0 to 50	45°	130°	0°	-
06D()537	15	6	R-22	0 to 50	45°	130°	0°	175.2

Medium and High Temp Water-Cooled Condenser

MODEL NO	HP	CYL	REFR	SUCTION TEMP RANGE (F)	SST	SCT	SC	BTUH
06DM808	3	2	R-22	0 to 50	40°	105°	0°	39.9
06DM313	5	4	R-22	0 to 50	40°	105°	0°	62.9
06DM316	5	4	R-22	0 to 50	40°	105°	0°	77.9
06D()818	6.5	4	R-22	0 to 50	40°	105°	0°	90.8
06D()824	7.5	6	R-22	0 to 50	40°	105°	0°	117.3
06D()825	7.5	6	R-22	0 to 50	40°	105°	0°	117.3
06D()328	10	6	R-22	0 to 50	40°	105°	0°	140
06D()337	10	6	R-22	0 to 50	40°	105°	0°	185.6
06D()537	15	6	R-22	0 to 50	40°	105°	0°	190.3

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06D Compressor Application Data

Standard Efficiency Models

MODEL NO	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
06DX8186AC0600	400/460	3	50/60	6.5	4	7	9,000/10,800	15.7	22	62
06DX8186AC1200	208/230	3	60	6.5	4	7	10,800	34.9	48.8	137
06DX7246AC0100	575	3	60	6.5	6	10	10,800	14.1	17.6	50
06DX7246AC0600	400/460	3	50/60	6.5	6	10	9,000/10,800	17.6	22	62
06DX7246AC1200	208/230	3	60	6.5	6	10	10,800	39	48.8	137
06DX7246BC0100	575	3	60	6.5	6	10	10,800	14.1	17.6	50
06DX7246BC0600	400/460	3	50/60	6.5	6	10	9,000/10,800	17.6	22	62
06DX7246BC1200	208/230	3	60	6.5	6	10	10,800	39	48.8	137
06DX8246AC0100	575	3	60	7.5	6	10	14,100	15.9	22.2	62
06DX8246AC0600	400/460	3	50/60	7.5	6	10	11,700/14,100	19.7/19.9	27.8	77
06DX8246AC1200	208/230	3	60	7.5	6	10	14,100	43.9	61.5	170
06DX8246BC0100	575	3	60	7.5	6	10	14,100	15.9	22.2	62
06DX8246BC0600	400/460	3	50/60	7.5	6	10	11,700/14,100	19.7/19.9	27.8	77
06DX8246BC1200	208/230	3	60	7.5	6	10	14,100	43.9	61.5	170
06DX3286BC100	575	3	60	10	6	10	15,900	17.9	25	69
06DX3286BC0600	400/460	3	50/60	10	6	10	13,200/15,900	22.1	31	86
06DX3286BC1200	208/230	3	60	10	6	10	15,900	49.3	69	191
06DX3376BC0100	575	3	60	10	6	10	15,900	17.9	25	69
06DX3376BC0600	400/460	3	50/60	10	6	10	13,200/15,900	22.1	31	86
06DX3376BC1200	208/230	3	60	10	6	10	15,900	49.3	69	191
06DX5376BC0100	575	3	60	15	6	10	20,700	22.9	32	96
06DX5376BC0600	400/460	3	50/60	15	6	10	17,200/20,700	28.6	40	120
06DX5376BC1200	208/230	3	60	15	6	10	20,700	63.6	89	266

Standard Efficiency Models, Part Wind Start

MODEL NO	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
06DX3376-1400	200	3	60	10	6	10	15,900	27.6/27.6	34.5/34.5	115/92
06DX3376-1500	230	3	60	10	6	10	15,900	24.8/24.8	31.0/31.0	103/86
06DX5376-1400	200	3	60	15	6	10	20,700	35.6/35.6	44.5/44.5	160/133
06DX5376-1500	230	3	60	15	6	10	20,700	32.0/32.0	40.0/40.0	144/120
06DX3286-1800	220	3	50	10	6	10	13,200	41.6	52	143
06DX3376-1800	220	3	50	10	6	10	13,200	41.6	52	143
06DX5376-1800	220	3	50	15	6	10	17,200	46.9	67	200

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06D Compressor Application Data

Med Temp, Three Phase

CARLYLE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
06DM8086GC3150	575	3	60	3	2	3	4100	4.5	7	28.4
06DM8086GC3250	208/230	3	60	3	2	3	4100	11.2	17.4	71
06DM8086GC3650	400/460	3	50/60	3	2	3	3,400/4,100	7/5.6	8.7	35.5
06DM3136CC3150	575	3	60	5	4	5	6250	6.9	10.8	40
06DM3136CC3250	208/230	3	60	5	4	5	6250	17.3	27	100
06DM3136CC3650	400/460	3	50/60	5	4	5	5,200/6,250	10.8/8.6	13.5	50
06DM3166CC3150	575	3	60	5	4	5	6250	6.9	10.8	40
06DM3166CC3250	208/230	3	60	5	4	5	6250	17.3	27	100
06DM3166CC3650	400/460	3	50/60	5	4	5	5,200/6,250	8.6	13.5	50
06DM8186AC0100	575	3	60	6.5	4	7		11.3-12.6		64-50
06DM8186AC0600	460	3	60	6.5	4	7		14.1-15.7		80-62
06DM8186AC1200	208/230	3	60	6.5	4	7		28.2-34.9		160-137
	575	3	60	6.5	4	7		11.3-12.6		64-50
	460	3	60	6.5	4	7		14.1-15.7		80-62
	208/230	3	60	6.5	4	7		28.2-34.9		160-137
06DM3376DC3150	575	3	60	10	6	10	16,500	16	25	91
06DM3376DC3650	400/460	3	50/60	10	6	10	13,700/16,500	22.1/19.9	31	114
06DM3376DC3250	208/230	3	60	10	6	10	16,500	39.7	62	228
06DM5376BC0100	575	3	60	15	6	10		20.5		96
06DM5376BC0600	400/460	3	50/60	15	6	10		57.1		120
06DM5376DC3250	208/230	3	60	15	6	10		25.6		266

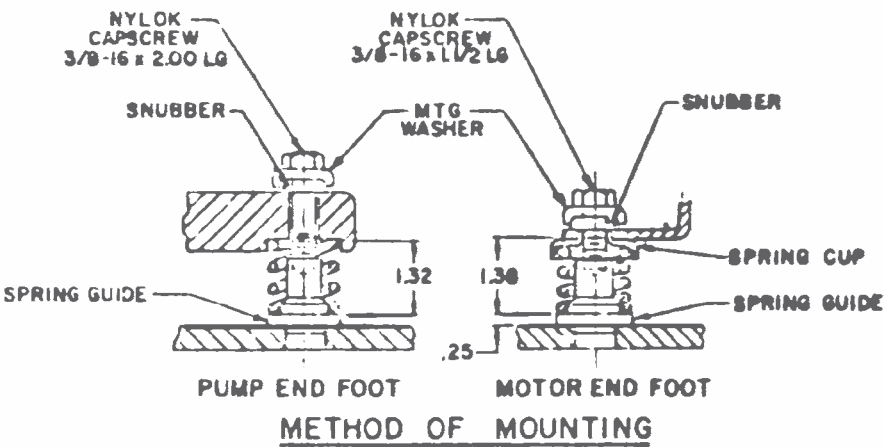
High Temp, Suction Cut Off, Three Phase

CARLYLE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
06DS3136AC3100	575	3	60	5	4	5	6,250	6.9	10.8	40
06DS3136AC3600	400/460	3	50/60	5	4	5	5,200/6,250	10.8/8.6	13.5	50
06DS3136AC1200	208/230	3	60	5	4	5	6,250	17.3	27	100
06DS8186AC3100	575	3	60	6.5	4	7	10,800	11.3	17.6	64
06DS8186AC3600	400/460	3	50/60	6.5	4	7	9,000/10,800	15.7/14.1	22	80
06DS8186AC3200	208/230	3	60	6.5	4	7	10,800	28.2	44	160
06DS8246AC3100	575	3	60	7.5	6	10	12,800	14.2	22	79
06DS8246AC3600	400/460	3	50/60	7.5	6	10	10,700/12,800	19.9/17.8	27.8	99
06DS8246AC3200	208/230	3	60	7.5	6	10	12,800	35.5	55.5	198
06DS8246BC3100	575	3	60	7.5	6	10	12,800	14.2	22	79
06DS8246BC3600	400/460	3	50/60	7.5	6	10	10,700/12,800	19.9/17.8	27.8	99
06DS8246BC3200	208/230	3	60	7.5	6	10	12,800	35.5	55.5	198
06DS8256BC3100	575	3	60	7.5	6	10	12,800	14.2	22	79
06DS8256BC3600	460	3	60	7.5	6	10	12,800	17.8	27.8	99
06DS8256BC3200	208/230	3	60	7.5	6	10	12,800	35.5	55.5	198
06DS3286BC3100	575	3	60	10	6	10	16,500	16	25	91
06DS3286BC3600	400/460	3	50/60	10	6	10	13,700/16,500	22.1/19.9	31	114
06DS3286BC3200	208/230	3	60	10	6	10	16,500	39.7	62	228
06DS5376BC0100	575	3	60	15	6	10	20,700	20.5	32	96
06DS5376BC0600	400/460	3	50/60	15	6	10	17,200/20,700	32/25.6	40	120
06DS5376BC1200	208/230	3	60	15	6	10	20,700	57.1	89	266

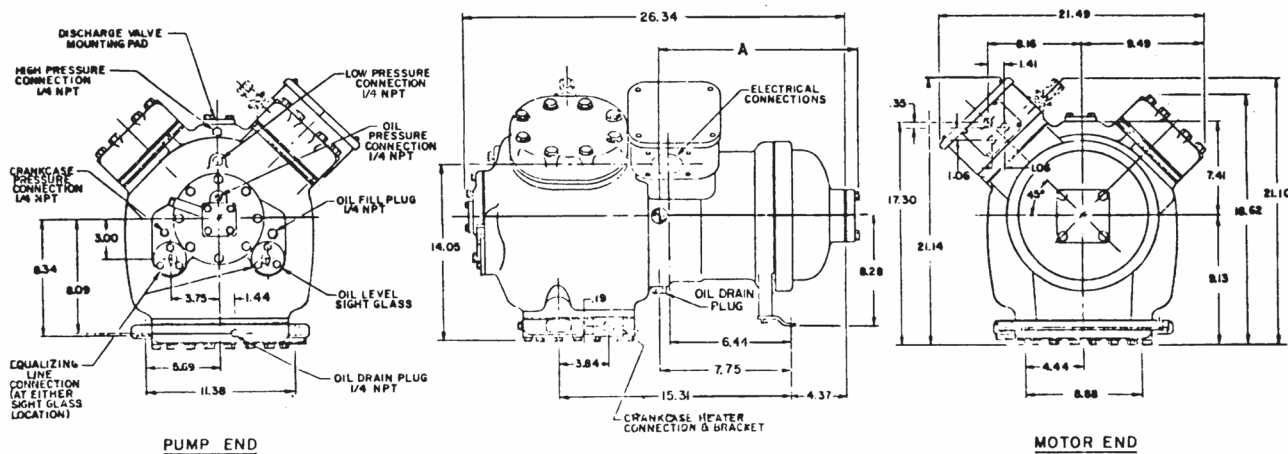
CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06E Compressor Drawings

4 Cylinder



	06E()150	06E()250	06E()266
Motor Horsepower	15	20	25
No. Of cylinders	4	4	4
Bore and stroke (in.)	2.688 x 2.188	2.688 x 2.188	2.688 x 2.874
Displacement cfm at 1750 rpm	50	50	66
Oil, charge, pints cpp33-2	14	14	14
Nameplate test pressure -high	450 PSI	450 PSI	450 PSI
Nameplate test pressure -low	315 PSI	315 PSI	315 PSI
Dry weight less service valves	390 LBS	400 LBS	416 LBS
Max. Operating conditions r-22	50/120° F	50/145° F	50/130° F



Carlyle 06E Compressor Drawings

6 Cylinder

The image contains three technical drawings of a compressor assembly, showing the pump end, a side view, and the motor end. Dimensions are given in inches.

PUMP END: This drawing shows the front of the pump. Key features and dimensions include:

- CRANKCASE PRESSURE CONNECTION 1/4 N.P.T.** (top left)
- LOW PRESSURE CONNECTION 1/4 N.P.T.** (top center)
- OIL PRESSURE CONNECTION 1/4 N.P.T.** (top right)
- EQUALIZING LINE CONNECTIONS 1/4 N.P.T. (AT EITHER SIGHT GLASS LOCATION)** (bottom left)
- OIL LEVEL SIGHT GLASS** (bottom center)
- OIL DRAIN PLUG 1/4 N.P.T.** (bottom right)
- Dimensions: 3.00, 0.34, 3.75, 1.44, 0.09, 5.69, 11.38.

SIDE VIEW: This drawing shows the side profile of the pump and motor. Key features and dimensions include:

- ELECTRICAL CONNECTION** (top right)
- OIL DRAIN PLUG** (bottom right)
- OIL FILL PLUG 1/4 N.P.T.** (bottom center)
- CRANKCASE HEATER CONNECTION & BRACKET** (bottom left)
- Dimensions: 28.46, 25.25, 8.28, 20.17, 9.3, 11.31, 1.19, 3.04, 6.84, 4.37, 8.38, 17.38.

MOTOR END: This drawing shows the front of the motor. Key features and dimensions include:

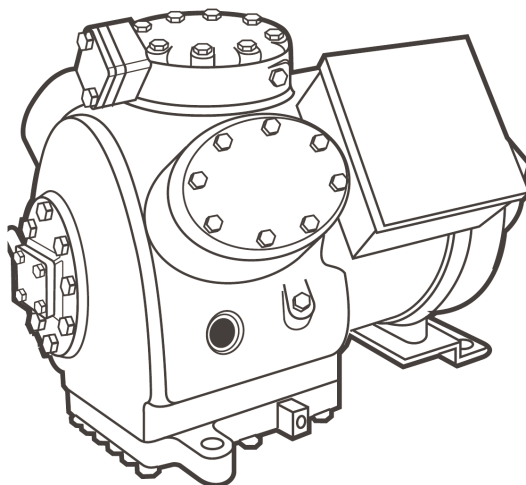
- HIGH PRESSURE CONNECTION 1/4 N.P.T.** (top right)
- Dimensions: 23.68, 10.48, 19.12, 14.91, 16.99, 20.32, 0.75, 0.27, 0.07, 30°, 4.44, 0.66.

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CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06E Compressor Application Data

Medium and High Temp Air-Cooled Condenser



06E MEDIUM AND HIGH TEMPERATURE COMPRESSOR APPLICATION DATA

MODEL NO	HP	CYL	REFR	SUCTION TEMP RANGE (F)	SST	SCT	SC	BTUH
06E()150	15	4	R-22	0 to 50	45°	130°	0°	-
06E()250	20	4	R-22	0 to 50	45°	130°	0°	223.3
06E()265	25	6	R-22	0 to 50	45°	130°	0°	300.3
06E()266	25	4	R-22	0 to 50	45°	130°	0°	290
06E()175	25	6	R-22	0 to 50	45°	130°	0°	-
06E()275	30	6	R-22	0 to 50	45°	130°	0°	332.8
06E()199	35	6	R-22	0 to 50	45°	130°	0°	-
06E()299	40	6	R-22	0 to 50	45°	130°	0°	437.9

Medium and High Temp Water-Cooled Condenser

MODEL NO	HP	CYL	REFR	SUCTION TEMP RANGE (F)	SST	SCT	SCT	BTUH
06E()150	15	4	R-22	0 to 50	40°	105°	0°	245.9
06E()250	20	4	R-22	0 to 50	40°	105°	0°	247
06E()265	25	6	R-22	0 to 50	40°	105°	0°	334.7
06E()266	25	4	R-22	0 to 50	40°	105°	0°	302.6
06E()175	25	6	R-22	0 to 50	40°	105°	0°	364.3
06E()275	30	6	R-22	0 to 50	40°	105°	0°	363
06E()199	35	6	R-22	0 to 50	40°	105°	0°	469.7
06E()299	40	6	R-22	0 to 50	40°	105°	0°	476.3

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06E Compressor Application Data

Standard Efficiency

CARLYLE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
06EX150-160	575	3	60	15	4	14	22,000	31	38	98
06EX150-360	208-230/460	3	60	15	4	14	22,000	72/36	90/45	283/142
06EX150-660	400/460	3	50/60	15	4	14	18,300/22,000	72/36	90/45	283/142
06EX250-160	575	3	60	20	4	14	25,300	36	45	120
06EX250-360	208-230/460	3	60	20	4	14	25,300	87/44	108/54	345/173
06EX250-660	460	3	60	20	4	14	25,300	45	56	150
06EX266-160	575	3	60	25	4	14	33,600	46	57	164
06EX266-360	208-230/460	3	60	25	4	14	33,600	112/56	140/70	446/223
06EX266-660	460	3	60	25	4	14	33,600	57	71	205
06EX250-360	200/400	3	50	20	4	14	21,100	87/44	108/54	345/173
06EX250-660	400	3	50	20	4	14	21,100	45	56	150
06EX266-360	200/400	3	50	25	4	14	28,000	112/56	140/70	446/223
06EX266-660	400	3	50	25	4	14	28,000	57	71	205
06EX265-160	575	3	60	25	6	19	33,600	46	57	164
06EX265-360	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06EX265-660	460	3	60	25	6	19	33,600	57	71	205
06EX265-160	575	3	60	25	6	19	33,600	46	57	164
06EX265-360	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06EX265-660	460	3	60	25	6	19	33,600	57	71	205
06EX175-160	575	3	60	25	6	19	33,600	46	57	164
06EX175-360	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06EX175-660	460	3	60	25	6	19	33,600	57	71	205
06EX275-160	575	3	60	30	6	19	39,100	52	65	176
06EX275-360	208-230/460	3	60	30	6	19	39,100	135/68	168/84	506/253
06EX275-660	460	3	60	30	6	19	39,100	65	81	220
06EX299-160	575	3	60	40	6	19	54,000	77	97	240
06EX299-360	208-230/460	3	60	40	6	19	54,000	189/95	236/118	690/345
06EX299-660	460	3	60	40	6	19	54,000	97	121	300
06EX265-360	200/400	3	50	20	6	19	28,000	112/56	140/70	446/223
06EX265-660	400	3	50	20	6	19	28,000	57	71	205
06EX175-360	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
06EX175-660	400	3	50	25	6	19	28,000	57	71	205
06EX275-360	200/400	3	50	30	6	19	32,600	135/68	168/84	506/253

FOR PREFERENCE PHYSICAL AND ELECTRICAL DATA

06EX HAS BEEN REPLACED BY 06ET SERIES

CARLYLE SEMI-HERMETIC COMPRESSORS

Carlyle 06E Compressor Application Data

High Efficiency, Suction Cut-Off

CARLYLE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
06ET150-160	575	3	60	15	4	14	22,000	31	38	98
06ET150-360	208-230/460	3	60	15	4	14	22,000	72/36	90/46	283/142
06ET150-660 PW	460	3	60	15	4	14	22,000	36	46	142
06ET250-160	575	3	60	20	4	14	25,300	36	45	120
06ET250-360	208-230/460	3	60	20	4	14	25,300	87/44	108/54	345/173
06ET250-660 PW	460	3	60	20	4	14	25,300	44	54	173
06ET150-320	200/400	3	50	15	4	14	18,300	72/36	90/46	283/142
06ET150-360	200/400	3	50	15	4	14	18,300	72/36	90/46	283/142
06ET150-620	400	3	50	15	4	14	18,300	36	46	142
06ET150-660 PW	400	3	50	15	4	14	18,300	36	46	142
06ET250-320	200/400	3	50	20	4	14	21,100	87/44	108/54	345/173
06ET250-360	200/400	3	50	20	4	14	21,100	87/44	108/54	345/173
06ET250-620	400	3	50	20	4	14	21,100	44	54	173
06ET250-660 PW	400	3	50	20	4	14	21,100	44	54	173
06ET265-160	575	3	60	25	6	19	33,600	46	57	164
06ET265-360	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06ET265-360 R	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06ET265-660 PW	460	3	60	25	6	19	33,600	56	70	223
06ET175-160	575	3	60	25	6	19	33,600	46	57	164
06ET175-360	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06ET175-360 R	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
06ET175-660 PW	460	3	60	25	6	19	33,600	56	70	223
06ET275-160	575	3	60	30	6	19	39,100	52	65	176
06ET275-360	208-230/460	3	60	30	6	19	39,100	135/68	168/84	506/253
06ET275-360 R	208-230/460	3	60	30	6	19	39,100	135/68	168/84	506/253
06ET275-660 PW	460	3	60	30	6	19	39,100	68	84	253
06ET299-160	575	3	60	40	6	19	54,000	75	94	276
06ET299-360	208-230/460	3	60	40	6	19	54,000	189/95	236/118	690/345
06ET299-360 R	208-230/460	3	60	40	6	19	54,000	189/95	236/118	690/345
06ET299-660 PW	460	3	60	40	6	19	54,000	95	118	345
06ET265-320	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
06ET265-360	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
06ET265-620	400	3	50	25	6	19	28,000	56	70	223
06ET265-660	400	3	50	25	6	19	28,000	56	70	223
06ET175-320	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
06ET175-360	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
06ET175-620	400	3	50	25	6	19	28,000	56	70	223
06ET175-660	400	3	50	25	6	19	28,000	56	70	223
06ET275-320	200/400	3	50	30	6	19	32,600	135/68	168/84	506/253
06ET275-360	200/400	3	50	30	6	19	32,600	135/68	168/84	506/253
06ET275-620	400	3	50	30	6	19	32,600	68	84	253
06ET275-660	400	3	50	30	6	19	32,600	68	84	253
06ET299-320	200/400	3	50	40	6	19	45,000	189/95	236/118	690/345
06ET299-360	200/400	3	50	40	6	19	45,000	189/95	236/118	690/345
06ET299-620	400	3	50	40	6	19	45,000	95	118	345
06ET299-660	400	3	50	40	6	19	45,000	95	118	345

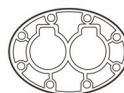
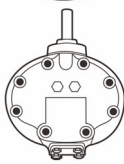
“R” Suffix designates Reverse Head

“PW” Suffix designates Part Wind Compressor

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

06D Suction Cutoff Unloading Kits

Electric Capacity Control



The capacity control valve in this package is actuated by an electric solenoid. The solenoid is either energized or de-energized by the action of an external controller. The solenoid coil is not supplied with this package.

This package can be used to (1) convert an 06D compressor with hot gas bypass unloading to electrically operated suction cutoff unloading, (2) add unloading or (3) add a second bank of unloading to an 06D compressor.

The kit consists of the following:

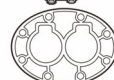
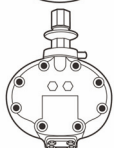
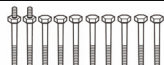
- Cylinder Head **06DA504614** Assembly (incl. 06EA660135 capacity control valve)
- Valve Plate Gasket **06DA500153**
- Cylinder Head Gasket **05GA502223**
- Cylinder Head Bolts **AA06GR239**
- Instructions

Solenoid Coils for electric unloader valve: **(NOT INCLUDED)**

PART NO.	VOLTAGE
EF19ZE024	24
EF19ZE120	120
EF19ZE240	208-240

Part Number	Description
06DA660089	Electric Capacity Control

06D Suction Cutoff Unloading Kits with Pressure Capacity Control



NOT RECOMMENDED FOR REFRIGERATION APPLICATIONS

The capacity control valve in this package is controlled by suction pressure and actuated by discharge pressure.

This package can be used to:

- (1) convert an 06D compressor with hot gas bypass unloading to suction cutoff unloading,
- (2) add unloading, or
- (3) add a second bank of unloading to an 06D compressor.

The kit consists of the following:

- Cylinder Head Assembly **06DA504614** (incl. **06EA660100** capacity control valve)
- Valve Plate Gasket **06DA500153**
- Cylinder Head Gasket **050A502223**
- Cylinder Head Bolts **AA06GR239**
- Instructions

Part Number	Description
06DA660090	06D Suction Cutoff Unloading Kits With Pressure Capacity Control

06D Suction Cutoff Unloader Repair Kit

Suction Cutoff Unloading

This kit contains the parts used internally for the suction cutoff unloading head. It is used for both electric and pressure operated suction cutoff unloading applications. The kit **does not** contain the capacity control valve.

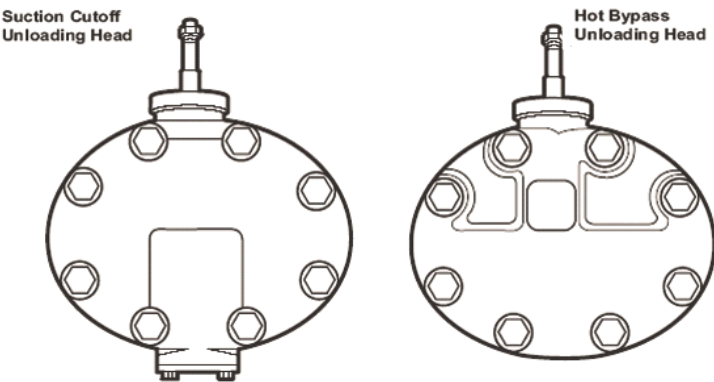
The kit contains the following:

- Piston and Ring **06DA503072**
- Valve Body **06DA502963**
- Spring **06DA502953**
- Capacity Control Valve Gasket **06EA501253**
- Cover Gasket **06DA502983**
- Strainer **6D75601**
- Instructions

Part Number	Description
06DA660111	Suction Cutoff Unloading

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

06E Suction Cutoff Unloading VS Hot Gas Bypass Unloading



Suction cutoff unloading is a more efficient unloading method for the 06D/06E compressors. There are substantial energy savings and improved compressor reliability when a hot gas bypass unloading system is replaced with suction cutoff unloading. Since 1981 many of the Commercial Products Carrier produced with 06E compressors utilized “Suction Cutoff Unloading” in place of Hot Gas Bypass Unloading. It is easy to identify a suction cutoff unloading compressor from a hot gas bypass unloading compressor. **This can be done in one of two ways:**

- #1) The Finished Goods (new) compressor model number is different than the hot gas bypass model number.
- #2) The unloading heads themselves physically look different.

The parts used in Hot Gas Bypass are different from those used in Suction Cutoff Unloading.

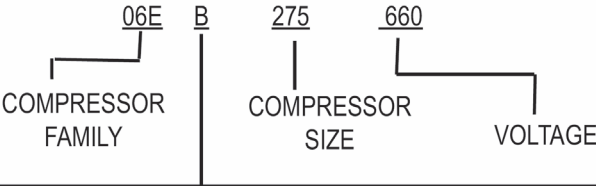
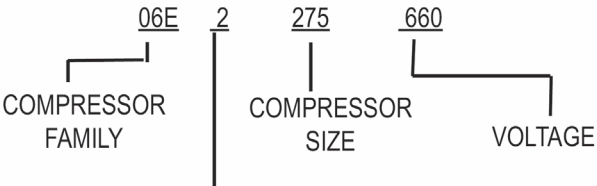
These differences are:

CENTER CYLINDER HEAD 06EA502074

STANDARD HEAD 06E502084 REVERSED HEAD

SUCTION CUTOFF

HOT GAS BYPASS



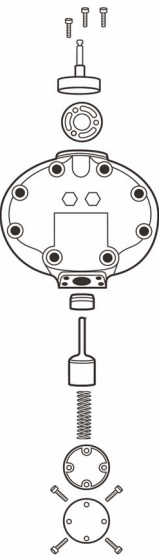
2	one electric unloader		B	one electric unloader	
3	two electric unloaders		C	two electric unloaders	
4	one pressure unloader		D	one pressure unloader	
5	two pressure unloaders		E	two pressure unloaders	
6	one electric unloader	Reversed Center Head (6 cylinder)	J	one electric unloader	Reversed Center Head (6 cylinder)
7	two electric unloaders		K	two electric unloaders	
8	one pressure unloader		L	one pressure unloader	
9	two pressure unloaders		N	two pressure unloaders	
HOT GAS BYPASS PART NO	SUCTION CUTOFF PART NO	CENTER CYLINDER HEAD	DESCRIPTION		
06EA660105	--	06EA680137	Valve Plate Package		
06EA503314	--	06EA503334 (stnd)	Cylinder Head Gasket		
--	06EA660137	06EA660137	Valve Plate Package		
--	06EA503334	06EA503314 (rev)	Cylinder Head Gasket		
--	06EA503524	--	Cylinder Head		

The valve plate gasket for both Hot Gas Bypass and Suction Cutoff is 06EA504884. Both hot gas bypass and suction cutoff use the same Control Valve Packages:
 Pressure Control Valve **P/N 06EA660100**
 Electric Control Valve **P/N 06EA660135**
 These control valves are similar to those you used in the past except that the bypass piston is now separate from the valve and the pressure control valve has had internal modifications that allow it to operate on suction cutoff applications

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

06E Suction Cutoff Unloader Repair Kit

Electric Capacity Control Modification



The capacity control valve in this package is actuated by an electric solenoid. The solenoid is either energized or de-energized by the action of an external controller. The solenoid coil is not supplied with this package.

This package can be used to

- 1) convert an 06E compressor with hot gas bypass unloading to electrically operated suction cutoff unloading,
- 2) add unloading or add a second bank of unloading to an 06D compressor.

The kit consists of the following:

- Cylinder Head 06EA502094 Assembly (incl. **06EA660135** electric capacity control valve)
- Valve Plate Gasket A/C **06EA506414** & Ref. **06EA501853**
- Suction Valves **06EA660104**
- Cylinder Head Gasket **06EA503334**
- Capscrews **AB44AA168**
- Washers **AU52YA171**
- Instructions

Solenoid Coils for electric unloader valve: **(NOT INCLUDED)**

PART NO.	VOLTAGE
EF19ZE024	24
EF19ZE120	120
EF19ZE240	208-240

Part Number	Description
06EA660138	Electric capacity control modification Package

06E Suction Cutoff Unloading Kit

Pressure Capacity Control Modification Package

The capacity control valve in this package is controlled by suction pressure and actuated by discharge pressure.

This package can be used to

- (1) convert an 06E compressor with hot gas bypass unloading to pressure operated suction cutoff unloading,
- (2) add unloading, or
- (3) add a second bank of unloading to an 06E compressor.

The kit contains the following:

- Cylinder Head 06EA502094 (incl. **06EA660100** electric capacity control valve)
- Valve Plate Gasket A/C **06EA506414**)
- Suction Valves **06EA660104**
- Cylinder Head Gasket **06EA503334**
- Capscrews **AB44AA168**
- Washers **AU52YA171**
- Instructions

Part Number	Description
06EA660139	Pressure Capacity Control Modification Package

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

06E and 06D Suction Cutoff Unloading Repair Kit

This kit contains the parts used internally for the suction cutoff unloading head. It is used for both electric and pressure operated suction cutoff unloading applications. This can be used with 06EA660138 and 06EA660139

The kit does not contain the capacity control valve.

The kit contains the following:

- Piston **06EA505224**
- Ring **06EA502023**
- Valve Body **06DA408824**
- Spring
- Capacity Control Valve Gasket **06EA501253**
- Cover Gasket **06EA501382**
- Strainer **6D75601**
- Instructions

Part Number	Description
06EA660079	Suction Cutoff Unloading Repair Kit

Control Valve Kits

These kits contain the capacity control valve. The 06D and 06E compressors use the same capacity control valve. (The piston assembly is used with hot gas bypass unloading only.)

06EA660100 Pressure operated kit contains the following:

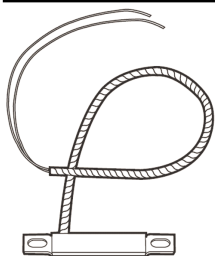
- Pressure Operated Capacity Control Valve **06EA660100**
- Capacity Control Valve Gasket **06EA501253**
- Piston Assembly (for HGBP) **06EA505224**
- Wrench **06EA680036**
- Instructions

06EA660135 Electrically operated kit contains the following:

- Electrically Operated Capacity Control Valve **06EA660135**
(Select appropriate solenoid coil: 24, 120, or 208-240V)
- Capacity Control Valve Gasket **06EA501253**
- Piston Assembly (for HGBP) **06EA505224**
- Instructions

Crankcase Heaters

Bar/Strip Style - 06D, 2 CYL. And 4 CYL. 8, 9, 13, 16 CFM Models



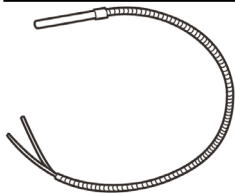
Dimensions: 7-1/2" Long, 1" Wide, 1/2" Thick

Part Number	Watts	Volts	Length (in)	
			Lead	Conduit
06DA660091	50	115	39	24
06DA660092	50	230	39	24

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

Crankcase Heaters

Bar/Strip Style - 06D, 06E, 06CC, 06CY


Features:

- New Straight Tube Heater Design
- Kit contains crankcase heater, retainer clip and anti-short bushing, Heat Conducting Grease (P/N: **38AQ680001**)

Part Number	Heater Number	Watts	Volts	Length (in)	
				Conduit	Wire
06EA660165	HT36DM132	180	115	19	24
06EA660167	HT36DM134	180	115	52	73
06EA660166	HT36DM432	180	230	19	24
06EA660168	HT36DM434	180	230	52	73
06DA660076	HT36DL480	125	480	NONE	24
06EA660107	HT36FL379	125	120	52	73
06EA660108	HT36FL479	125	240	52	73

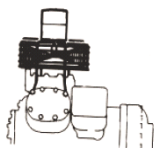
Liquid Injection Valves (For R-22 Low Temp. Apps)

06DR, 06EY, 06CY

Part Number	Valve Size	Usage
EA11ZC011	1/2 Ton	All 06DR, 06CY16, 18, 24, 25, 28, 37
EA11ZC022	1 Ton	06EY750, 765, 775 - 06CY550, 665, 675
EA11ZC030	1-1/2 Ton	06EY799 - 06CY899

Optional Accessories

06D Cylinder Head Cooling Fan Package



Part Number	Series	Electrical Rating
06DR660014	06DR	208/230-1-60/1550 RPM
06ER660011	06EY	208/230-1-60/1550 RPM

06D Sight Glass Removal Tool

Part Number	Description
T-133300B-1	06D Sight Glass Removal Tool

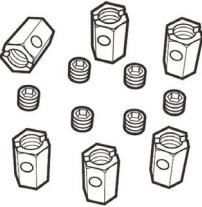
06D Terminal Lug Socket Tool

Part Number	Description
P920-0009	06D Terminal Lug Socket Tool

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

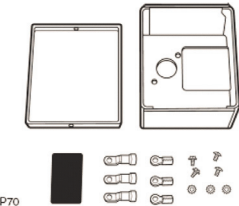
Optional Accessories

Terminal Package



Part Number	Description
06DA660095	Terminal Package for 06D Compressors

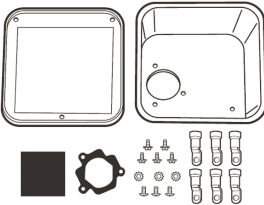
06D Terminal Box Kit - Square



This kit consists of the terminal box and cover plus all screws, washers, and terminals. 06DA660075 can be used in place of 06DA660078 Terminal Box and Cover Package if overloads are to be used with the compressor. However, it may be necessary to field fabricate a mounting box spacer to allow the 06DA660075 box to mount on the compressor body without interfering with the Compressor Terminal Insulator.

Part Number	Description
06DA660075	Terminal Box and Cover Package - Square

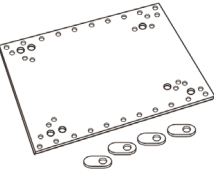
06D Terminal Box Kit - Deep



The 06DA660078 Terminal Box and Cover Package mounts directly to the Terminal Plate.

Part Number	Description
06DA660078	Terminal Box and Cover Package - Deep

06D, 06E Compressor Mounting Plate Kit



This universal mounting plate kit will accommodate any size 06D or 06E compressor offered by RCD. The kit includes the predrilled mounting plate, spacers and template.

Part Number	Description
06EA660096	Universal Mounting Plate Kit

06E Terminal Lugs



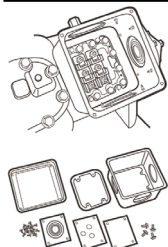
Note: For some 200/230 volt across the line installations, the connection of 3 power wires to the compressor may not be possible because the wire diameter may be too large to fit the below listed lugs. In these instances we recommend that 6 motor leads and 6 terminal lugs be used to connect to the compressor terminal plate. The use of 6 leads (instead of 3) allows for a wire sized reduction. Consult the National Electric Code or your local electric code for the appropriate wire sizing information.

Part Number	Fits Wire Size	Description
HY85TB008	#8 to #4	06E Terminal Lugs
HY85TB004	#4 to #1	06E Terminal Lugs

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

Optional Accessories

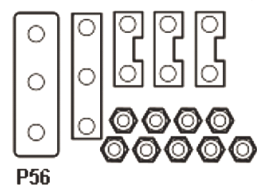
06E Terminal Box Kits



This kit consists of the terminal box, cover, gasket and 3 cover plates (one blank, one with 3 knockouts, one with concentric knockouts). Screws are included.

Part Number	Description
06EA660095	06E Terminal Box Kits

Old Terminal Plate Kit



Part Number	Description
06EA660141	Old Terminal Plate Kit

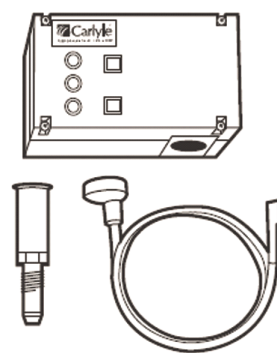
06D Replacement Terminal Plate Kit

Part Number	Description
06DA660-134	06D Replacement Terminal Plate Kit

Replacement Gasket Only

Part Number	Description
6D401061	Replacement Gasket Only

06D, 06E Electronic Lube Oil Control



Features:

- Solid State
- LED'S continuously display status of the compressor lubrication system.
- When control is connected to 06E bearing head or 6D68-952A (new 06D bearing head) external tubing is eliminated.
- Timing is not cumulative as in controls using a thermal timing circuit. Each time a low oil pressure condition is sensed the time delay will be of full duration.
- Short cycle protection – select either 35, 65 or 100 second time delay periods to prevent rapid cycling (feature can also be bypassed)
- Manual Reset

Part Number	Description
06DA660115	Electronic Lube Oil Control

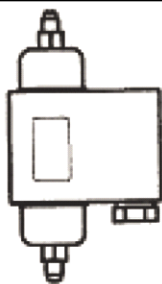
CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

Optional Accessories

Special Gasket for Transducer & Bearing Head Connection

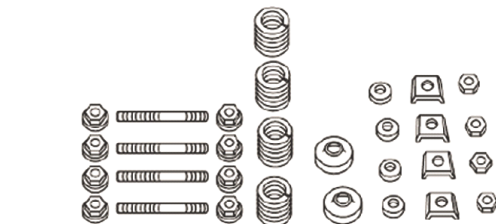
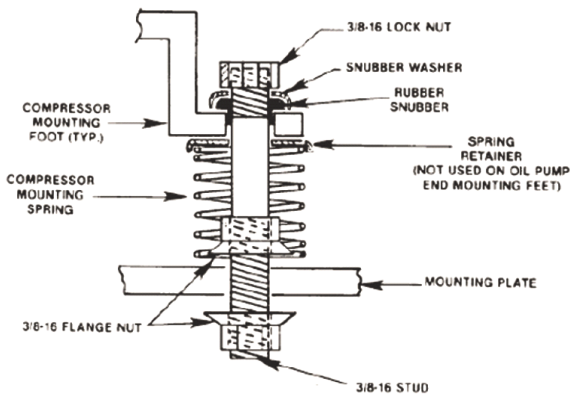
Part Number	Description
06DA680-063	Special Gasket For Transducer

06D, 06E Lube Oil Control



Part Number	Description
060B2008	Lube Oil Control

06D, 06E Suspension Kit



P58

COMPRESSOR MODEL NO.	SUSPENSION KIT PART NO.
06ET150	06EA660089
250	
265	
175	
275	
299	
06EX150	06EA660089
250	
166	
266	
265	
175	
275	
199	
299	
06EY150	06EA660089
166	
175	
099	
06EZ150	06DA660056 06DA660057
266	
175	
199	
06DX8186	
7246	
8246	06DA660056 06DA660057
3286	
3376	
5376	

COMPRESSOR MODEL NO.	SUSPENSION KIT PART NO.
06DR1096	06DA660058
136	06DA660056
3166	06DA660056
7186	06DA660056
8206	06DA660056
7246	06DA660057
2286	06DA660057
3376	06DA660057
06DM8086	06DA660058
3136	06DA660056
3166	06DA660056
8186	06DA660056
3376	06DA660056
5376	06DA660057
7246	06DA660057
8246	06DA660057
06CY016	06DA660057
18	06DA660057
124	06DA660057
228	06DA660057
337	06DA660057
550	06EA660089
665	06EA660089
675	06EA660089
899	06EA660089

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

Optional Accessories

06D Compressor Overloads

COMPRESSOR SIZE	VOLTAGE	PART NO.	REMARKS
06DR109	208/230-1-60	HN69GZ025 HN69GZ032	Common Start
06DM808 06DR013	208/230-1-60	HN69GZ024 HN69GZ014	Common Start
06DM313 06DM316 06DR316 06DR718	208/230-1-60	HN69GZ106 HN69GZ037	Common Start
06DR109	208/230 460 575	HN69GZ007 HN69GZ015 HN69GZ011	2 Required
06DM808 06DR013	208/230 460 575	HN69GZ053 HN69GZ012 HN69GZ012	2 Required
06DM313 06DM316 06DR316 06DR718	208/230 460 575	HN69GZ024 HN69GZ014 HN69GZ032	2 Required
06DA818 06DR820 06DR724 (25)	208/230 460 575	HN69GZ214 HN69GZ038 HN69GZ037	2 Required
06DA824 (25) 06DR228	208/230 460 575	HN69GZ306 HN69GZ010 HN69GZ053	2 Required
06DA328 06DM337 06DR337	208/230 460 575	HN69GZ309 HN69GZ024 HN69GZ025	3 Required 2 Required 2 Required
06DA537 06DR541	208/230 460 575	HN69GZ214 HN69GZ106 or HN69GZ307 HN69GZ301	4 Required** 2 Required 2 Required

*Based on new High Efficiency (HE) extended voltage compressor models.

**Two overloads in parallel in legs 1 and 3.

NOTE: Most 06D compressors have internal thermostat installed in motor & wired across terminals 8 & 9 at the terminal block. It trips (opens) control circuit at 221°F (105°C) and resets at 181°F (83°C).

CARLYLE SEMI-HERMETIC COMPRESSOR ACCESSORIES

Optional Accessories

Shipping Pads

MODEL	SUCTION VALVE BLANK OFF PAD	BOLTS	SUCTION VALVE PAD GASKET	DISCHARGE VALVE BLANK OFF PAD	BOLTS	DISCHARGE VALVE PAD GASKET
06DR						
109	06DA504283*	(2) AA06GR199	6D23-1421	06DA504283*	(2) AA06GR199	6D23-1421
013, 316	06DA504253*	(2) AA06GR202	6D40-1131	06DA504243*	(2) AA06GR202	6D23-1421
718, 820	06DA502573*	(4) AA06GR293	6D68-1131	06DA504243*	(2) AA06GR202	6D23-1421
724, 228, 337	06DA502573*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR202	6D40-1131
06DM						
808	06DA504283*	(2) AA06GR199	6D23-1421	06DA504283*	(2) AA06GR199	6D23-1421
313, 316, 818	06DA504253*	(2) AA06GR202	6D40-1131	06DA504243*	(2) AA06GR202	6D23-1421
724, 824						
2 BOLT SUC. VAL.	06DA504253*	(2) AA06GR202	6D40-1131	06DA504243*	(2) AA06GR202	6D40-1421
4 BOLT SUC. VAL.	06EA502573*	(4) AA06GR293	6D68-1131	06DA504243*	(2) AA06GR202	6D40-1421
337, 537	06EA502573*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR202	6D40-1421
06DX						
818	06DA504253*	(2) AA06GR202	6D40-1131	06DA504243*	(2) AA06GR202	6D23-1421
724, 824 W/:						
2 BOLT SUC. VAL.	06DA504253*	(2) AA06GR202	6D40-1131	06DA504243*	(2) AA06GR202	6D40-1131
4 BOLT SUC. VAL.	06EA502273*	(4) AA06GR293	6D68-1131	06DA504243*	(2) AA06GR202	6D40-1131
328, 337, 537	06EA502273*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR202	6D40-1131
06DS						
313, 818	06DA504253*	(2) AA06GR202	6D40-1131	06DA504243*	(2) AA06GR202	6D23-1421
824	06EA502573*	(4) AA06GR293	6D68-1131	06DA504243*	(2) AA06GR202	6D40-1131
328, 537	06EA502573*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR202	6D40-1131
06ET						
150, 250	06EA502573*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR200	6D40-1131
265	06EA502573*	(4) AA06GR293	6D68-1131	06EA502573*	(4) AA06GR200	6D68-1131
175, 275, 199, 299	06EA402653*	(4) AA06GR323	06EA500181	06EA502573*	(4) AA06GR293	6D68-1131
06EX						
150, 250	06EA502573*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR200	6D40-1131
265	06EA502573*	(4) AA06GR293	6D68-1131	06EA502573*	(4) AA06GR200	6D68-1131
166	06EA502573*	(4) AA06GR293	6D68-1131	06DA504253*	(2) AA06GR200	6D40-1131
175, 275, 199, 299	06EA402653*	(4) AA06GR323	06EA500181	06EA502573*	(4) AA06GR293	6D68-1131
06EY						
150, 165	06EA402653*	(4) AA06GR323	06EA500181	06DA504253*	(2) AA06GR200	6D40-1131
166, 175, 099	06EA402653*	(4) AA06GR323	06EA500181	06EA502573*	(4) AA06GR293	6D68-1131
06EZ						
150, 266	06EA402653*	(4) AA06GR323	06EA500181	06DA504253*	(2) AA06GR200	6D40-1131
175, 199	06EA402653*	(4) AA06GR323	06EA500181	06EA502573*	(4) AA06GR293	6D68-1131

*05GA501762 plug required.

Unloader valve blank off plate: 06DA501032 for both 06D and 06E models.

TOTALINE® SEMI-HERMETIC COMPRESSORS

O6D Application Data, Medium Temp

TOTALINE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
6DM8186TLAC0100	575	3	60	6.5	4	7		11.3-12.6		64-50
6DM8186TLAC0600	460	3	60	6.5	4	7		14.1-15.7		80-62
6DM8186TLAC1200	208/230	3	60	6.5	4	7		28.2-34.9		160-137
6DM8186TLBC0100	575	3	60	6.5	4	7		11.3-12.6		64-50
6DM8186TLBC0600	460	3	60	6.5	4	7		14.1-15.7		80-62
6DM8186TLBC1200	208/230	3	60	6.5	4	7		28.2-34.9		160-137
6D3376TLBC0100T	575	3	60	10	6	10	16,500	16	25	91
6D3376TLBC0600T	400/460	3	50/60	10	6	10	13,700/16,500	22.1/19.9	31	114
6D3376TLBC1200T	208/230	3	60	10	6	10	16,500	39.7	62	228
6D5376TLBC0100T	575	3	60	15	6	10		20.5		96
6D5376TLBC0600T	400/460	3	50/60	15	6	10		57.1		120
6D5376TLBC1200T	208/230	3	60	15	6	10		25.6		266

O6D Application Data, High Temp

TOTALINE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
6D8246TLAC0100T	575	3	60	7.5	6	10	12,800	14.2	22	79
6D8246TLAC0600T	400/460	3	50/60	7.5	6	10	10,700/12,800	19.9/17.8	27.8	99
6D8246TLAC1200T	208/230	3	60	7.5	6	10	12,800	35.5	55.5	198
6D8246TLBC0100T	575	3	60	7.5	6	10	12,800	14.2	22	79
6D8246TLBC0600T	400/460	3	50/60	7.5	6	10	10,700/12,800	19.9/17.8	27.8	99
6D8246TLBC1200T	208/230	3	60	7.5	6	10	12,800	35.5	55.5	198
6D3286TLBC0100T	575	3	60	10	6	10	16,500	16	25	91
6D3286TLBC0600T	400/460	3	50/60	10	6	10	13,700/16,500	22.1/19.9	31	114
6D3286TLBC1200T	208/230	3	60	10	6	10	16,500	39.7	62	228
6D5376TLBC0100T	575	3	60	15	6	10	20,700	20.5	32	96
6D5376TLBC0600T	400/460	3	50/60	15	6	10	17,200/20,700	32/25.6	40	120
6D5376TLBC1200T	208/230	3	60	15	6	10	20,700	57.1	89	266

O6E Application Data, Standard Efficiency

TOTALINE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
6E150TL160T	575	3	60	15	4	14	22,000	31	38	98
6E150TL360T	208-230/460	3	60	15	4	14	22,000	72/36	90/45	283/142
6E250TL160T	575	3	60	20	4	14	25,300	36	45	120
6E250TL360T	208-230/460	3	60	20	4	14	25,300	87/44	108/54	345/173
6E250TL360T	200/400	3	50	20	4	14	21,100	87/44	108/54	345/173
6E265TL160T	575	3	60	25	6	19	33,600	46	57	164
6E265TL360T	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
6E175TL160T	575	3	60	25	6	19	33,600	46	57	164
6E175TL360T	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
6E275TL160T	575	3	60	30	6	19	39,100	52	65	176
6E275TL360T	208-230/460	3	60	30	6	19	39,100	135/68	168/84	506/253
6E299TL160T	575	3	60	40	6	19	54,000	77	97	240
6E299TL360T	208-230/460	3	60	40	6	19	54,000	189/95	236/118	690/345

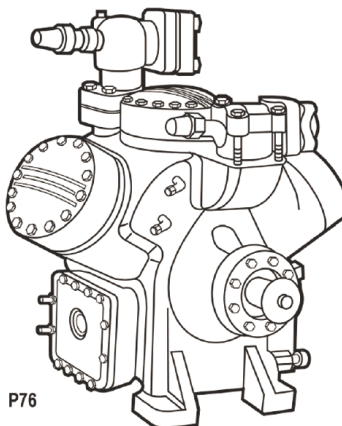
O6E Application Data, High Efficiency

TOTALINE MODEL	VOLTS	PH	HZ	HP	CYL	OIL CHG (PINTS)	MAX WATTS	MAX RLA	MTA	LRA
6E150TL360T	208-230/460	3	60	15	4	14	22,000	72/36	90/46	283/142
6E250TL160T	575	3	60	20	4	14	25,300	36	45	120
6E250TL360T	208-230/460	3	60	20	4	14	25,300	87/44	108/54	345/173
6E250TL360T	200/400	3	50	20	4	14	21,100	87/44	108/54	345/173
6E265TL360T	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
6E265TL360TR	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
6E175TL360T	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
6E175TL360TR	208-230/460	3	60	25	6	19	33,600	112/56	140/70	446/223
6E275TL160T	575	3	60	30	6	19	39,100	52	65	176
6E275TL360T	208-230/460	3	60	30	6	19	39,100	135/68	168/84	506/253
6E275TL360TR	208-230/460	3	60	30	6	19	39,100	135/68	168/84	506/253
6E299TL160T	575	3	60	30	6	19	54,000	75	94	276
6E299TL360T	208-230/460	3	60	30	6	19	54,000	189/95	236/118	690/345
6E299TL360TR	208-230/460	3	60	30	6	19	54,000	189/95	236/118	690/345
6E265TL360	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
6E175TL360T	200/400	3	50	25	6	19	28,000	112/56	140/70	446/223
6E275TL360T	200/400	3	50	30	6	19	32,600	135/68	168/54	506/253
6E299TL360T	200/400	3	50	40	6	19	45,000	189/95	236/118	690/345

CARLYLE OPEN DRIVE COMPRESSORS

5F And 5H Models

Open-Drive Compressor Application Data



Model Number	Nominal Horsepower			Ratings In Tons							Min Speed for Unloader Operation	Oil CHG (Pints)	Suctline ODF (in)	Disch Line ODF (in)	Comp WT (lb)
	134a	R-22	R-407c	# OF CYL	Bore (in)	Stroke (in)	CFM @ 1750 RPM	R-22	R-134a	R-407c					
5F20	6	10	8.8	2	2	2	19.8	8.5	5.2	8.2	600	5	1	7/8	175
5F30	9	15	13	3	2	2	29.8	12.7	7.8	12.3	700	5-1/2	1	1-3/8	215
5F40	11.5	20	17.3	4	2	2	39.8	16.8	10.5	16.3	800	12	1	1-3/8	355
5F60	17	25	26	6	2	2	59.6	25.6	15.7	24.6	900	13	2	1-5/8	400
5H40	27.5	40	39.5	4	3	2-3/4	92.4	39.6	24.7	38.4	800	18	2	2-1/8	610
5H46	35.4	60	51.4	4	3	3-7/16	115.5	49.1	30.6	47.5	800	18	2	2-1/8	610
5H60	40.8	60	59	6	3	2-3/4	138.4	59.4	37.0	57.6	900	21	3	3-1/8	795
5H66	53	75	76.8	6	3	3-7/16	173.0	73.8	45.9	71.4	900	21	3	3-1/8	795
5H80	54.6	75	78.4	8	3	2-3/4	184.7	79.2	49.5	76.8	1100	41	3	3-1/8	1115
5H86	70.5	100	102	8	3	3-7/16	231.0	98.2	61.1	95.3	1100	41	3	3-1/8	1115
5H120	80.5	125	117.1	12	3	2-3/4	276.0	119.0	74.0	115.3	900	61	4	4-1/8	1580
5H126	101.4	150	152.3	12	3	3-7/16	346.0	149.0	91.8	143.0	900	61	4	4-1/8	1580

Notes:

1. *40° F saturated suction, 105° F saturated discharge, 15° F superheat, 0° F subcooling.
2. 45 PSIG net oil pressure (oil pressure PSIG - suction pressure PSIG).
3. ODF = Outside Diameter Female (in.).
4. Maximum RPM = 1750.
5. Minimum RPM for lubrication = 400 RPM.
6. Must use oil cooler on long stroke models: 5H46, 5H66, 5H86, 5H126
7. 5F & 5H Compressor Models Available

Compressor Models Available

5F COMPRESSOR MODELS	
COMPRESSOR PART NO.	NO. OF UNLOADERS
5F20-S674	0
5F20-A684	1
5F20-S684	1
5F30-A189	0
5F30-S644	0
5F30-A219	2
5F30-S664	2

5F/5H COMPRESSOR MODELS	
COMPRESSOR PART NO.	NO. OF UNLOADERS
5F40-A219	3
5F40-S219	3
5F60-A219	4
	4
5H40-(+)219	3
5H46-(+)219	3

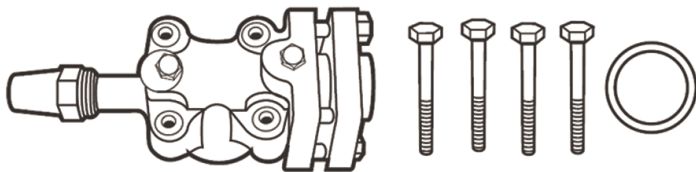
5H COMPRESSOR MODELS	
COMPRESSOR PART NO.	NO. OF UNLOADERS
5H60-(+)219	4
5H66-(+)219	6
5H80-(+)219	6
5H86-(+)219	6
5H120-(+)219	8
5H126-(+)219	8

(+) = May be either "A" (Remanufactured) or "S" (New Manufactured).
For R404a/R507a application data, contact RCD.

CARLYLE OPEN DRIVE COMPRESSORS

Compressor Accessories

Service Valves - 5F Compressors



COMPRESSOR MODEL	SUCTION SERVICE VALVE PART NO.	DISCHARGE SERVICE VALVE PART NO.
5F20-S674	06DA660063	06DA660062
5F20-A684	06DA660063	06DA660062
5F20-S684	06DA660063	06DA660062
5F30-AI89	06EA660090	06DA660065
5F30-S644	06EA660090	06DA660065
5F30-A219	06EA660090	06DA660065
5F30-S664	06EA660090	06DA660065
5F40-A219	06EA660090	06DA660065
5F40-S219	06EA660090	06DA660065
5F60-A219	5F660-002	5F660-001
5F60-S219	5F660-002	5F660-001

Service Valves - 5H Compressors

COMPRESSOR MODEL	SUCTION SERVICE VALVE PART NO.	DISCHARGE SERVICE VALVE PART NO.
5H40-(+)219	5H660-008	5F660-002
5H46-(+)219	5H660-008	5F660-002
5H60-(+)219‡	06LA660010	06LA660010
5H66-(+)219‡	06LA660010	06LA660010**
5H80-(+)219	06LA660010*	06LA660010**
5H86-(+)219	06LA660010*	06LA660010
5H120-(+)219‡	06LA660011	06LA660011
5H126-(+)219‡	06LA660011	06LA660011

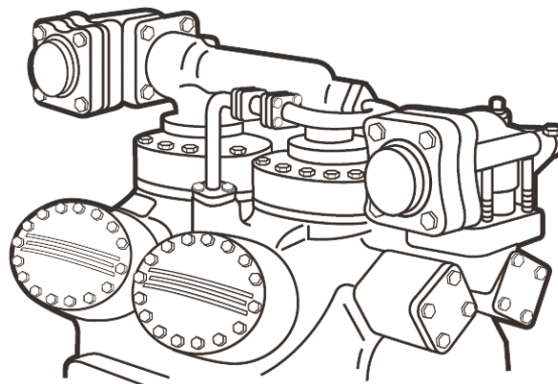
(+) May be either "A" (Remanufactured) or "S" (New Manufactured).

‡ These Models require a suction and a discharge manifold in order to mount the service valve.

* Requires a suction valve adapter (Part No.: 5H660-006).

** Requires a discharge valve adapter (Part No.: 5H660-005).

Relief Valve Kit



Compressor Models 5H 120 & 126 Require the addition of a relief valve and associated piping.

The Models listed requires a suction and discharge manifold in order to mount the service valve.

COMPRESSOR MODEL	SUCTION SERVICE VALVE PART NO.	DISCHARGE SERVICE VALVE PART NO.
5F20-S674	06DA660063	06DA660062
5F20-A684	06DA660063	06DA660062
5F20-S684	06DA660063	06DA660062
5F30-AI89	06EA660090	06DA660065
5F30-S644	06EA660090	06DA660065
5F30-A219	06EA660090	06DA660065
5F30-S664	06EA660090	06DA660065
5F40-A219	06EA660090	06DA660065
5F40-S219	06EA660090	06DA660065
5F60-A219	5F660-002	5F660-001
5F60-S219	5F660-002	5F660-001

Part Number	Description
5H120-337	Relief Valve Kit

Other Compressor Accessories

Mufflers

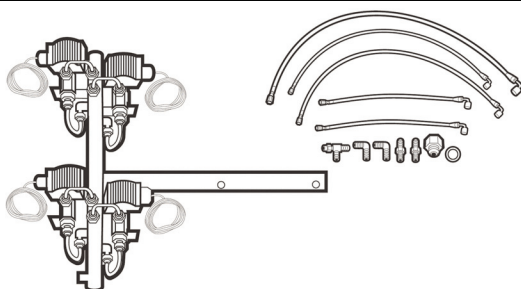


Compressor Model	Part Number	Length (in)	Conn Size (in)
5F20	06DA605614	11-1/4	1-1/8 O.D.F
5F30, 40, 60	05HY500853	13-3/4	1-3/8 O.D.F
5H40, 46, 60, 66	05HY500863	22-5/8	2-5/8 O.D.F
5H80, 86, 120, 126	05HY501013	22-5/8	3-1/8 O.D.F

CARLYLE OPEN DRIVE COMPRESSORS

Other Compressor Accessories

External Unloader Conversion Kit



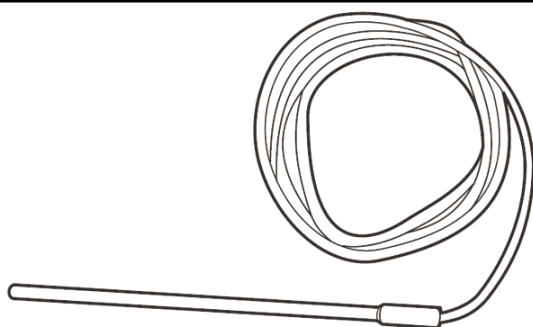
Kit is used to bypass the standard 5 line responds 5F40/5H126 cylinder unloading system that to suction pressure. A field supplied controller is used in conjunction with this kit to control solenoid valves that activate/deactivate cylinder unloaders. External capacity control results in more precise compressor capacity matching to the load.

- 5F Kits contain hand hole cover.
- 5H Kits contain blankoff plates.
- 120 Volt solenoid coils.

Compressor Model	Part Number
5F40	5F40-4FI-A
5F60	5F60-4FI-A
5H40, 46	5H40-4FI-A
5H60, 66, 80, 86	5H60-4FI-A
5H120, 126	5H120-4FI-A

5F Kits contain hand hole cover.
5H Kits contain blankoff plates.
120 Volt solenoid coils.

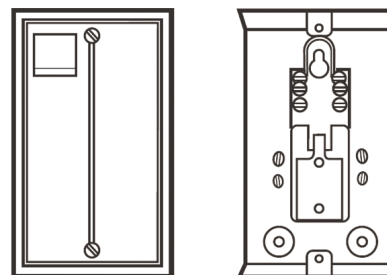
Crankcase Heaters



Compressor Model	Part Number	Watts	Volts	Lead Length (In.)	Sheath Length (In.)
5F20, 30, 40, 60	HT31AZ120	100	120	48	7
5F20, 30, 40, 60	H731AZ240	100	240	48	7
5H40, 46, 60, 66, 80*, 86*, 120*, 126*	HT31AZ121	200	120	63	7
5H40, 46, 60, 66, 80*, 16*, 120*, 126*	HT31AZ241	200	240	63	7

*These Models Require Two Heaters.

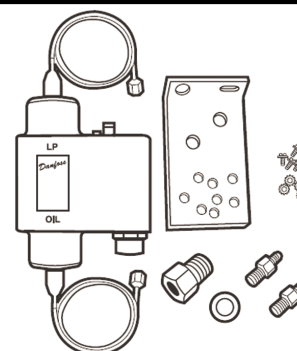
Crankcase Heater Relays



The Crankcase Heater Relay is used to energize the Heater when the compressor is not in operation. The Crankcase Heater Relay is not required when using 32 Series control panels.

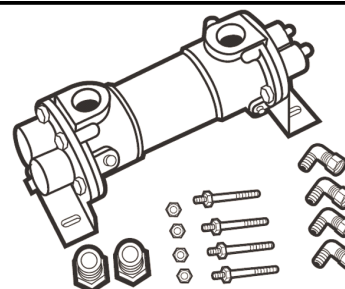
Part Number	Coil Volts
HN61AJ101	120
HN61AJ108	240

Oil Safety Switch



Part Number	Control Only	Time Delay	Connection	Pressure Differential Cut		Volts	Reset
				In	Out		
P529-4120	P529-4120	45 Seconds	36" Lg. Cap w/1/4" Fl. Nuts	15-20 psi	11-15 psi	115/230	Manual

Oil Cooler Package

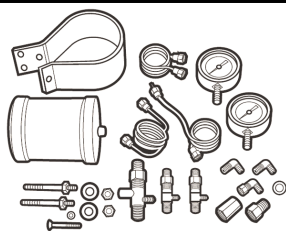


Compressor Model Used On	Part Number
All 5F	5F20-B103
5H40, 46, 60, 66, 80, 86	5H40-B283
5H120, 126	5H120-B283

CARLYLE OPEN DRIVE COMPRESSORS

Other Compressor Accessories

Oil Filter Package



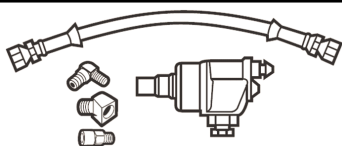
Package Includes:

(1) partial flow oil filter with fittings (2) angle valves, tubing and (2) oil pressure gauges. All 5H120, 126 are supplied standard with a full flow oil filter.

Use on: 5H40, 46, 60, 66, 80, 86 compressor models

Part Number	Description
5H40-A274	Oil Filter Package
05HG660020	

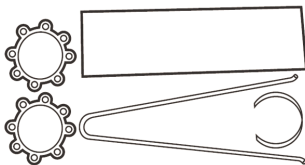
Capacity Control Valve Package



For use on 5F20, 30 compressors.

Compressor Model	Part Number	Refrigerant Usage
5F20, 30	5F20-752	R-12
5F20, 30	5F20-A752	R-22, R-502

Felt Filter Kit

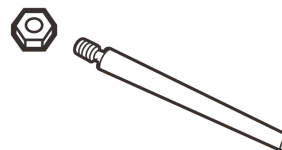


Felt Filters are installed in the compressor's suction strainer as a temporary clean up medium.

NOTE: Filter Kit is included with service compressors.

Compressor Model	Part Number	Filter Only	Filters Required Per Comp
5F40, 46	5F40-A352	5F40-3792	1
5F60, 66	5F60-A352	5F60-3792	2
5H40, 46	5H40-A382	5H40-4032	1
5H60, 66	5H60-A382	5H60-4032	2
5H80, 86	5H80-A382	5H80-4032	1
5H120, 126	5H120-A382	5H120-4552	2

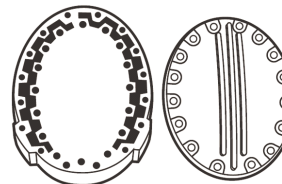
Dowel Pin



Tapered dowel pin (no. 6 x 2-3/4" long) is used to maintain alignment and to ensure exact compressor/ motor repositioning after service. Two Pins are required for both motor and compressor. (Pins for motor are included in motor fastening package.)

Part Number	Description
AX35AA238	Tapered Dowel Pin 6 x 2-3/4" Long

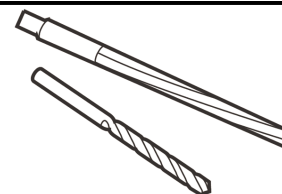
Water-Cooled Head Package 5H Compressors



Water Cooled Heads are required for compressors used on low temp R-22 applications. The water cooled head packages listed contain the necessary heads, covers, gaskets, and fittings to convert standard 5F/H compressors to water cooled heads.

Compressor Model	Part Number
5H40, 46	5H40-507
5H60, 66	5H60-507
5H80, 86	5H80-507
5H120, 126	5H120-507
5F20	5F20-172
5F30	5F30-172
5F40	5F40-172
5F60	5F60-172

Drill & Reamer Kit



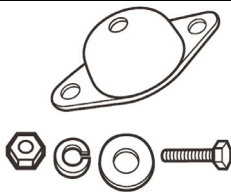
Drill and reamer kit includes a 9/32 in. drill bit and a no.6 taper reamer to facilitate installation of the no.6 tapered dowel pin.

Part Number	Description
5H40680004	Drill & Reamer Kit

CARLYLE OPEN DRIVE COMPRESSORS

Other Compressor Accessories

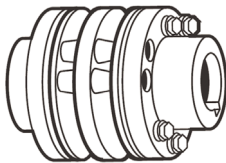
Vibration Isolators



VIBRATION ISOLATORS limit the transfer of vibration. They are attached underneath the surface to which the compressor is mounted. Four isolators are supplied in each package. One for each corner of the unit. Associated hardware is also included. Select proper size isolator by dividing total unit weight by 4.

Part Number	Isolator Loading Lbs/Isolator
5F20-623	90 to 150
5F30-623	150 to 210
5F60-633	210 to 290
5F60-663	290 to 390
5H40-653	350 to 450
5H60-673	450 to 650
5H80-673	650 to 950
5H120-467	950 to 1250
5H120-527	1250 to 1550

Flexible Steel Couplings For Direct Drive Units



When 5H126-623 coupling is used with a 404T or 405T frame motor, field boring is required. Enlarge motor bore to 2.875/2.8755 in. diameter. Increase Keyway size to 3/4 x 3/8 in. **Note:** A Dial Indicator must be used to properly align the compressor and motor shafts for reliable operation.

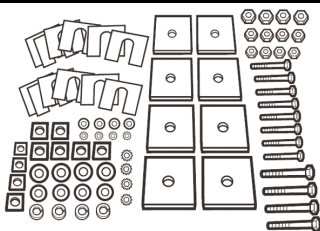
Compressor Model	Part Number	H P	Frame Size	Shaft dia (in)	Maximum Coupling Hp Rating	WT (lbs)
5F20, 30	5F20-847	7-1/2,10	213T, 215T	1.375	11.5	10
5F20, 30	5F30-847	15	254T	1.625	17.5	10
5F40, 60	5F40-603	7-1/2,10	213T, 215T	1.375	17.5	15
5F40, 60	5F40-623	15	254T	1.625	17.5	15
5F40, 60	5F60-623	20	256T	1.625	30	21
5F40, 60	5F60-613	25,30	284T, 286T	1.875	34.5	21
5H40, 46	5H40-613	20	256T	1.625	34.5	21
5H40, 46	5H60-613	25,30	284T, 286T	1.875	65	24
5H40, 46	5H60-623	40,50	324T, 326T	2.125	65	24
5H40, 46	5H80-613	60	364T	2.375	86	30
5H60, 66	5H80-663	75	365TS	1.875	86	30
5H60, 66	5H120-623	100	404TS	2.125	150	35
5H120, 126	5H126-623 *	150,200	444TS, 445TS	2.375	200	40

Compressor Model	Part Number	H P	Frame Size	Shaft dia (in)	Maximum Coupling Hp Rating	WT (lbs)
5H80, 86	5H120-623	100	404TS, 405TS	2.125	150	35
5H120, 126	5H120-623	100, 125	404TS, 405TS	2.125	150	150
5H120, 126	5H126-623 *	100, 125	404T, 405T	2.875	200	40
5H40, 46	5H60-613	40,50, 60	324TS, 326TS, 364TS	1.875	65	24
5H60, 66	5H60-613	30	286T	1.875	65	24
5H60, 66	5H60-613	40,50, 60	324TS, 326TS, 364TS	1.875	65	24
5H80, 86	5H60-613	40,50, 60	324TS, 326TS, 364TS	1.875	65	24
5H120, 126	5H60-613	60	364TS	1.875	65	24
5H60, 66	5H60-623	40,50	324T, 326T	2.125	65	24
5H80, 86	5H60-623	40,50	324T, 326T	2.125	65	24
5H60, 66	5H80-613	60,75	364T, 365T	2.375	86	30
5H80, 86	5H80-613	60,75	364T, 365T	2.375	86	30
5H120, 126	5H80-613	60,75	364T, 365T	2.375	86	30
5H80, 86	5H80-663	75	365TS	1.875	86	30
5H120, 126	5H80-663	75	365TS	1.875	86	30

CARLYLE OPEN DRIVE COMPRESSORS

Other Compressor Accessories

Motor Fastening Kits For Direct Drive Applications



Motor Fastening Kit includes steel blocks and shims to align motor shaft to compressor shaft, hardware to attach motor to base and tapered dowel pins to pin motor to base and lock in alignment. Not enough memory to convert the items on the clipboard.

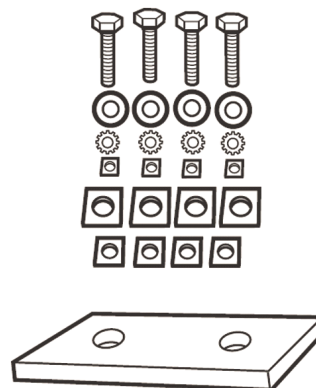
Note: Motor Fastening kit approximate shipping weight is 42 lbs.

Model Number	Part Number	Shaft Ht (In)	H P	Frame Size	Shaft Ht (In)
5F20, 30	5F40-401	6-1/4	7-1/2,10	213T, 215T	5-1/4
5F20, 30	5F40-801	6-1/4	7-1/2,10	213T, 215T	6-1/4
5H40, 46	5H40-401	9	25,30	284T, 286T	8
5H40, 46	5F60-401	9	60,75	364, 365 T/TS	7

Compressor Model	Part Number	Shaft Ht (In)	H P	Frame Size	Shaft dia (in)
5F40, 60	5F40-401	8	15,20	254T, 56T	7
5F40, 60	5F40-401	8	25,30	284T, 286T	6-1/4
5H40, 46	5F40-401	9	40,50	324, 326 T/T	9
5H60, 66	5F40-401	9	40,50	324, 326 T/TS	9
5H80, 86	5F40-401	9	40,50	324, 326 T/TS	9
5H120, 126	5F40-401	11	100,125	404, 405 T/TS	11
5F20, 30	5F40-801	6-1/4	15	254T	5-1/4
5F40, 60	5F40-801	8	7-1/2,10	213T, 215T	6-1/4
5H40, 46	5F40-801	9	20	256T	7
5H60, 66	5H40-401	9	30	286T	8
5H120, 126	5H40-401	11	60,75	364, 365 T/TS	10
5H60, 66	5F60-401	9	60,75	364, 365 T/TS	10
5H60, 66	5F60-401	9	100	404 T/TS	8
5H80, 86	5F60-401	9	60,75	364, 365 T/TS	10
5H80, 86	5F60-401	9	100,125	404, 405 T/TS	9
5H120, 126	5F60-401	11	150,200	444, 445 TS	

Note: Motor Fastening kit approximate shipping weight is 42 lbs.

Motor Fastening Kit For Belt Drive Applications



Motor Fastening Kit attaches motor to base. Kit includes: bolts, nuts and washers.

Compressor Mounting Block is used when a 5H66,80,86 is matched to a 100 Hp motor, or when a 5H86 is matched to a 125 Hp motor. The block raises compressor to allow alignment between compressor and motor shaft. Two blocks are required per compressor.

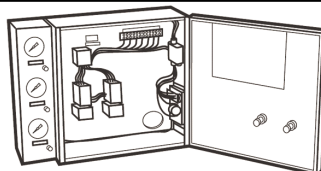
Compressor Model	Part Number	Size	Frame Size
5F20, 30	5F20-821	5, 7-1/2, 10	184T, 213T, 215T
5F30	5F30-821	15	254T
5H60	5H40-711	40,50,60,75	324T, 326T,364T, 365T

Compressor Model	Part Number	Size	Frame Size
5F40, 60	5F20-821	7-1/2, 10,15, 20, 25	213T, 215T,254T, 256T, 284T
5H40	5F30-821	20, 25, 30, 40,50	256T, 284T, 286T, 324T, 326T
5H60	5F30-821	40,50	324T, 326T
5H80, 120	5H40-711	40, 50, 60, 75, 100, 125, 150	324T, 326T, 364T, 365T,404T, 405T, 444T

CARLYLE OPEN DRIVE COMPRESSORS

Control Panels

Compressor to Drive Motor Combinations



Control panels are designed for indoor use to control compressor and condensing units from 5 thru 150 Hp, in 208 to 575 volts, across-the-line starting applications. All units operate on 120 volt control circuit. Control panel easily mounts on one end of the unit base. Simple conversion to part-winding starting on 2 contactor models by adding time delay Part No. HN67ZA001. Single contactor panels require the addition of another contactor of the same size and time delay.

Single overload panels: overload dial is set at a value equal to NEC motor full load current rating and will trip at 125% of this rating. If tripping is required at 115% of NEC motor full load current rating, set the overload dial to value 0.92 times F.L.C. value. Two overload panels: Each overload dial is set at a value equal to one half of NEC motor full load current rating and will trip at 125% of the setpoint. If tripping is required at 115% of NEC motor full load current rating, set each overload dial to value of 0.92 times one half of F.L.C. value.

Features:

ETL Approved

Oil Pressure Safety Switch protects compressor against damage from low oil pressure.

Time Guard circuit protects compressor and motor against short cycling.

Overload Relay* manual reset.

Suction, Discharge, Oil Pressure Gauges display operating conditions.

Gauge Shutoff Valves Capillaries supplied for pressure gauges and switches.

Contactors- Terminal Blocks for field connections

From the National Electrical Code based on motor horsepower and voltage.

†AC3 rating is an IEC (International Electrical Code) rating per U.L. standards.

The contactors supplied with the panels are not definite purpose contactors. They are specific to motor switching circuits.

Note: The information presented in the table on the previous page is for the current control panels offered through RCD.

Grounding Lug

Crankcase Heater Relay energizes heater on compressor shutdown to prevent dilution of oil by refrigerant.

Pumpout Relay safeguards compressor against liquid refrigerant slugging on start-up.

Elapsed Running Time Meter

Wire Assemblies provided in conduit are used to connect panel box and external controls to a junction box (provided).

Fuse, On-Off Switch, Nema Enclosure, Hinged Cover

Heavy Duty Panel Mounting Base is provided. Can be welded to compressor base or attached with supplied hardware.

5F Compressor/Motor Combinations

Motor selection is based on compressor rating charts.

Compressor Model	Motor H.P. Rating
5F20	5,7.5,10
5F30	7.5,10,15
5F40	7.5,10,15, 20, 25
5F60	10,15, 20, 25, 30

Note: Extended stroke compressors (5H46, 66, 86,126) should not be applied on belt drive applications.

5H Compressor/Motor Combinations

Compressor Model	Motor H.P. Rating
5H40	20, 25, 30, 40, 50
5H46*	25, 30, 35, 40, 50, 60
5H60	30, 40, 50, 60, 75
5H66*	40, 50, 60, 75, 100
5H80	40, 50, 60, 75, 100
5H86*	50, 60, 75, 100, 125
5H120*	60, 75, 100, 125, 150
5H126*	75, 100, 125, 150, 200

CARLYLE OPEN DRIVE COMPRESSORS

Control Panels

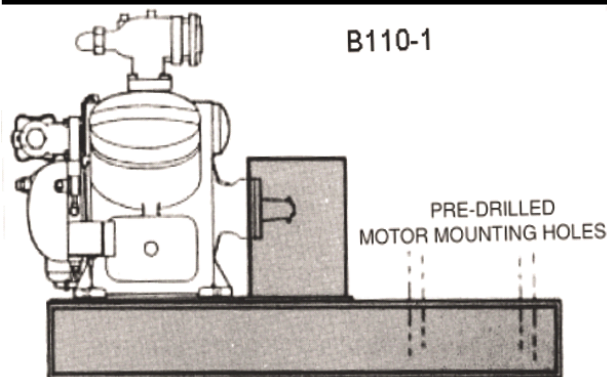
Part Number	HP	Motor		Contactor		Overload		LUG Wire Range (AWG)	Approx Ship WT (lbs)
		NEC Amps (FLA)*	Volts	Rating (AC3)†	Qty	Amp Range	Qty		
32CF131A4	5	17.5	208	28	1	13-19	1	12-8	115
32CF131A5	5	15.2	230	17	1	13-19	1	18-10	115
32CF131A6	5	7.6	460	9	1	6-8.5	1	18-10	115
32CF131A1	5	6.1	575	9	1	4.5-6.5	1	18-10	115
32CF132B4	7.5	25	208	28	1	24-32	1	12-8	115
32CF132B5	7.5	22	230	28	1	18-25	1	12-8	115
32CF131B6	7.5	11	460	11	1	14-Oct	1	18-10	115
32CF131B1	7.5	9	575	9	1	7.5-11	1	18-10	115
32CF142C4	10	32	208	32	1	29-42	1	8-4	115
32CF142C5	10	28	230	32	1	24-32	1	8-4	115
32CF131C6	10	14	460	17	1	13-19	1	18-10	115
32CF131C1	10	11	575	11	1	14-Oct	1	18-10	115
32CF153D4	15	48	208	54	1	36-52	1	8-1	115
32CF153D5	15	42	230	41	1	36-52	1	8-1	115
32CF132D6	15	21	460	28	1	18-25	1	12-8	115
32CF131D1	15	17	575	17	1	13-19	1	18-10	115
32CF242E4	20	62	208	65	1	45-63	1	8-1	115
32CF242E5	20	54	230	54	1	45-63	1	8-1	115
32CF142E6	20	27	460	32	1	24-32	1	8-4	115
32CF142E1	20	22	575	28	1	18-25	1	12-8	115
32CF243F4	25	78	208	80	1	60-80	1	8-1	130
32CF242F5	25	68	230	80	1	60-80	1	8-1	130
32CF152F6	25	34	460	41	1	29-42	1	8-4	115
32CF152F1	25	27	575	28	1	24-32	1	12-8	115
32CF253G4	30	92	208	95	1	80-110	1	6-2/0	130
32CF243G5	30	80	230	80	1	60-80	1	8-1	130
32CF231G6	30	40	460	41	1	29-42	1	8-4	115
32CF141G1	30	32	575	32	1	29-42	1	8-4	115
32CF263H4	40	120	208	130	1	100-135	1	8-3/0	130
32CF263H5	40	104	230	110	1	80-110	1	6-2/0	130
32CF242H6	40	52	460	54	1	45-63	1	8-1	115
32CF241H1	40	41	575	41	1	29-42	1	8-4	115
32CG273J4	50	150	208	156	1	130-175	1	8-250MCM	130
32CG273J5	50	130	230	130	1	100-135	1	8-3/0	130
32CF242J6	50	65	460	65	1	60-80	1	8-1	130
32CF242J1	50	52	575	54	1	45-63	1	8-1	115
32CH295K4	60	177	208	192	1	150-200	1	6-250MCM	130
32CH295K5	60	154	230	156	1	130-175	1	8-250MCM	130
32CF253K6	60	77	460	80	1	60-80	1	8-1	130
32CF252K1	60	62	575	65	1	60-80	1	8-1	130
32CH205L4	75	221	208	242	1	220-310	1	4-500MCM	130
32CH205L5	75	192	230	192	1	150-200	1	6-250MCM	130
32CF263L6	75	96	460	11	1	80-110	1	6-2/0	130
32CF263L1	75	77	575	95	1	80-110	1	6-2/0	130
32CI216M4	100	285	208	156	2	110-150	2	6-350MCM	130
32CI216M5	100	248	230	130	2	100-135	2	6-350MCM	130
32CH274M6	100	124	460	130	1	100-135	1	8-3/0	130
32CF273M1	100	99	575	110	1	80-110	1	6-2/0	130
32CI227N4	125	358	208	192	2	150-200	2	6-350MCM	130
32CI227N5	125	312	230	156	2	130-175	2	6-350MCM	130
32CI205N6	125	156	460	156	1	130-175	1	8-250MCM	130

CARLYLE OPEN DRIVE COMPRESSORS

Control Panels

Part Number	HP	Motor		Contactor		Overload		LUG Wire Range (AWG)	Approx Ship WT (lbs)
		NEC Amps (FLA)*	Volts	Rating (AC3)†	Qty	Amp Range	Qty		
32CI225N1	125	125	575	130	1	100-135	1	8-3/0	130
32CJ217P4	150	415	208	242	2	165-235	2	2-600MCM	130
32CJ227P5	150	360	230	192	2	150-200	2	6-350MCM	130
32CJ205P6	150	180	460	192	1	150-200	1	6-250MCM	130
32CJ284P1	150	144	575	156	1	110-150	1	8-250MCM	130
32CJ218Q4	200	550	208	302	2	220-310	2	2-600MCM	130
32CJ218Q5	200	480	230	242	2	220-310	2	2-600MCM	130
32CJ216Q6	200	240	460	242	1	220-310	1	4-500MCM	130
32CJ205Q1	200	192	575	192	1	150-200	1	6-250MCM	130

Direct Drive Unit Bases



Features:

- Heavy duty channelled steel base
- Coupling guard included
- Motor and compressor mounting holes are predrilled.

Select motor drilling code from the chart below:
Motor Drilling Code Chart

CODE	H. P.	FRAME
A	5	184T
B	7.5	213T
C	10	215T
D	15	254T
E	20	256T

CODE	H. P.	FRAME
F	25	284T
G	30	286T
H	40	324T
J	50	326T
K	60	364T

CODE	H. P.	FRAME
L	75	365T
M	100	404T
N	125	405T
O	150	444TS
P	200	445TS

COMPRESSOR USED WITH	MOTOR DRILLING SELECTION	BASE SIZE (L x W x H)	APPROX BASE WEIGHT	DIRECT DRIVE UNIT BASE PART NO
5F20	A, B, C	37 x 16 x 11	200	5F20-515(*)
5F30	B, C, D	37 x 16 x 11	200	5F20-515(*)
5F40	B, C, D, E, F	48 x 22 x 6	250	5F40-398(*)
5F60	C, D, E, F, G	48 x 22 x 6	250	5F40-398(*)
5H40	E, F, G, H, J	56 x 25 x 8	400	5H40-588(*)
5H46	F, G, H, J, K	56 x 25 x 8	400	5H40-588(*)
5H60	G, H, J, K, L	56 x 25 x 8	400	5H40-588(*)
5H66	H, J, K, L, M†	56 x 25 x 8	400	5H40-588(*)
5H80	H, J, K, L, M	75 x 32 x 10	800	5H80-588(*)
5H86	J, K, M, N	75 x 32 x 10	800	5H80-588(*)
5H120	K, L, M, N, O	75 x 32 x 10	800	5H80-588(*)
5H126	L, M, N, O, P	75 x 32 x 10	800	5H80-588(*)

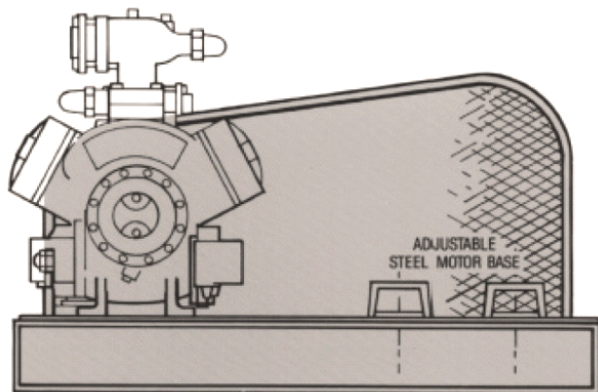
(*)Select motor drilling from chart above to complete part number. For example, when 5F20-515A is selected the base will be drilled to accept a 5 H.P., 184T frame motor. †5H66, 80, 86 with 100 H.P. motor and 5H86 with 125 H.P. motor require (2) 5H40-1422 compressor blocks.

Note: For base drilling code selections "H" thru "N", an "S" placed at the end of the part number indicates a base drilling for a short shaft Motor/TS frame.

(For example, Part No. 5H40-588HS is a 5H40-588 base drilled to accept a 324TS frame motor.)

CARLYLE OPEN DRIVE COMPRESSORS

Belt Drive Unit Bases



Features:

- Heavy duty channeled steel base
- Belt guard included.
- Compressor mounting holes are predrilled.
- An adjustable steel motor base facilitates motor positioning.

B111-1

Select adjustable motor base from the chart below:

Adjustable Motor Base Code Chart

CODE	H. P.	FRAME
A	5	184T
B	7.5	213T
C	10	215T
D	15	254T
E	20	256T

CODE	H. P.	FRAME
F	25	284T
G	30	286T
H	40	324T
J	50	326T
K	60	364T

CODE	H. P.	FRAME
L	75	365T
M	100	404T
N	125	405T

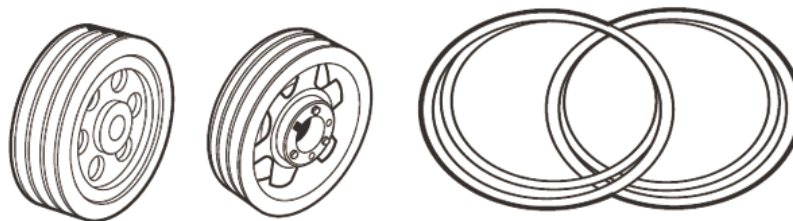
COMPRESSOR USED WITH	ADJUSTABLE MOTOR BASE	BASE SIZE (L x W x H)	APPROX BASE WEIGHT	BELT DRIVE UNIT BASE PART NO
5F20	A, B, C	37 x 16 x 11	150	5F20-238(*)
5F30	B, C, D	37 x 16 x 11	150	5F20-238(*)
5F40	B, C, D, E, F	48 x 22 x 6	250	5F40-408(*)
5F60	C, D, E, F, G	48 x 22 x 6	250	5F40-408(*)
5H40	E, F, G, H, J	56 x 25 x 8	440	5H40-598(*)
5H60	G, H, J, K, L	56 x 25 x 8	440	5H40-598(*)
5H80	H, J, K, L, M	75 x 32 x 10	625	5H60-974(*)
5H120	K, L, M, N	75 x 32 x 10	625	5H60-974(*)

(*)Select adjustable base code from chart above to complete part number.

For example, when 5F20-238A is selected the adjustable motor base will accept a 5 H.P., 184T frame motor.

CARLYLE OPEN DRIVE COMPRESSORS

Flywheel, Pulley, Belts



MOTOR						FLYWHEEL			PULLEY			BELTS		
COMPRESSOR MODEL	H. P.	FRAME SIZE	SHAFT DIA. (in.)	COMPRESSOR RPM	CENTER TO CENTER (in.)	P/N	PD	NO. OF GROOVES & TYPE	P/N	PD	NO. OF GROOVES & TYPE	P/N	PL	NO. OF BELTS
5F20	5	184T	01-01-2008	1750	19.3	5F20-394	7.5	2-B	5F20-861	7.4	2-B	5F20-851	61.8	2-B
5F20	7.5	213T	01-03-2008	1750	19.3	5F20-394	7.5	2-B	5F20-891	7.4	2-B	5F20-851	61.8	2-B
5F20	10	215T	01-03-2008	1750	19.3	5F20-394	7.5	2-B	5F20-891	7.4	2-B	5F20-851	61.8	2-B
5F30	7.5	213T	01-01-2008	1750	19.3	5F20-394	7.5	2-B	5F20-891	7.4	2-B	5F20-851	61.8	2-B
5F30	10	215T	01-03-2008	1750	19.3	5F20-394	7.5	2-B	5F20-891	7.4	2-B	5F20-851	61.8	2-B
5F30	15	254T	01-05-2008	1750	19.3	5F30-394	7.5	3-B	5F30-921	7.4	3-B	5F30-831	61.8	3-B
5F40	7.5	213T	01-05-2008	1750	26.6	5F40-394	9.5	3-B	5F30-881	9.4	3-B	5F40-841	82.8	3-B
5F40	10	215T	01-03-2008	1750	26.6	5F40-394	9.5	3-B	5F30-881	9.4	3-B	5F40-841	82.8	3-B
5F40	15	254T	01-05-2008	1750	26.6	5F40-394	9.5	3-B	5F40-871	9.4	3-B	5F40-841	82.8	3-B
5F40	20	256T	01-05-2008	1750	26.6	5F40-394	9.5	3-B	5F40-871	9.4	3-B	5F40-841	82.8	3-B
5F40	25	284T	01-07-2008	1750	26.6	5F40-394	9.5	3-B	5F40-881	9.4	3-B	5F40-841	82.8	3-B
5F60	10	215T	01-03-2008	1750	26.6	5F40-394	9.5	3-B	5F30-881	9.4	3-B	5F40-841	82.8	3-B
5F60	15	254T	01-05-2008	1750	26.6	5F40-394	9.5	3-B	5F40-871	9.4	3-B	5F40-841	82.8	3-B
5F60	20	256T	01-05-2008	1750	26.6	5F40-394	9.5	3-B	5F40-871	9.4	3-B	5F40-841	82.8	3-B
5F60	25	284T	01-07-2008	1750	26.6	5F40-394	9.5	3-B	5F40-881	9.4	3-B	5F40-841	82.8	3-B
5F60	30	286T	01-07-2008	1750	26.6	5F40-394	9.5	3-B	5F40-881	9.4	3-B	5F40-841	82.8	3-B
5H40	20	256T	01-05-2008	1750	32.2	5H40-394	11	3-C	5H40-811	11	3-C	5H40-861	92.9	3-C
5H40	25	284T	01-07-2008	1750	32.2	5H40-394	11	3-C	5H80-811	11	3-C	5H40-861	98.9	3-C
5H40	30	286T	01-07-2008	1750	32.2	5H40-394	11	3-C	5H80-811	11	3-C	5H40-861	98.9	3-C
5H40	40	324T	02-01-2008	1750	32.2	5H40-394	11	3-C	5H40-821	11	3-C	5H40-861	98.9	3-C
5H40	50	326T	02-01-2008	1750	32.2	5H40-394	11	3-C	5H40-821	11	3-C	5H40-861	98.9	3-C
5H60	30	286T	01-07-2008	1750	32.2	5H40-394	11	3-C	5H80-811	11	3-C	5H40-861	98.9	3-C
5H60	40	324T	02-01-2008	1750	32.2	5H40-394	11	3-C	5H40-821	11	3-C	5H40-861	98.9	3-C
5H60	50	326T	02-01-2008	1750	32.2	5H60-394	11	5-C	5H80-821	11	5-C	5H120-861	98.9	5-C
5H60	60	364T	02-03-2008	1750	32.2	5H60-394	11	5-C	5H120-821	11	5-C	5H120-861	98.9	5-C
5H60	75	365T	02-03-2008	1750	32.2	5H40-394	11	5-C	5H120-821	11	5-C	5H120-861	98.9	5-C
5H80	40	324T	02-01-2008	1750	36.7	5H60-394	11	5-C	5H80-821	11	5-C	5H40-871	107.9	5-C
5H80	50	326T	02-01-2008	1750	36.7	5H60-394	11	5-C	5H80-821	11	5-C	5H40-871	107.9	5-C
5H80	60	364T	02-03-2008	1750	36.7	5H60-394	11	5-C	5H120-821	11	5-C	5H40-871	107.9	5-C
5H80	75	365T	02-03-2008	1750	36.7	5H60-394	11	5-C	5H120-821	11	5-C	5H40-871	107.9	5-C
5H80	100	404T	02-07-2008	1750	36.7	5H120-394	11	9-C	5H120-831	11	9-C	5H120-871	107.9	9-C
5H120	60	364T	02-03-2008	1750	36.7	5H60-394	11	5-C	5H120-821	11	5-C	5H40-871	107.9	5-C
5H120	75	365T	02-03-2008	1750	36.7	5H60-394	11	5-C	5H120-821	11	5-C	5H40-871	107.9	5-C
5H120	100	404T	02-07-2008	1750	36.7	5H120-394	11	9-C	5H120-831	11	9-C	5H120-871	107.9	9-C
5H120	125	405T	02-07-2008	1750	36.7	5H120-394	11	9-C	5H120-831	11	9-C	5H120-871	107.9	9-C

PD - Pitch Diameter (in.)

PL - Pitch Length (in.)

CARLYLE OPEN DRIVE COMPRESSORS

Flywheel, Pulley, Belts

Flywheel

Part Number	PD	No. Of Grooves & Type	Used With
5F20-394	7.5	2-B	5F20
5F30-394	7.5	3-B	5F30
5F40-394	9.5	3-B	5F40
5H40-394	11	3-C	5H40
5H60-394	11	5-C	5H60
5H120-394	11	9-C	5H120

Pulley

Part Number	PD	No. Of Grooves & Type	Used With
5F20-861	7.4	2-B	5F20
5F20-891	7.4	2-B	5F20
5F30-921	7.4	3-B	5F30
5F30-881	9.4	3-B	5F40
5F40-871	9.4	3-B	5F40
5F40-881	9.4	3-B	5F60
5H40-811	11	3-C	5H40
5H80-811	11	3-C	5H60
5H40-821	11	3-C	5H60
5H80-821	11	5-C	5H60
5H120-821	11	5-C	5H80
5H120-831	11	9-C	5H80

Belts

Part Number	PD	No. Of Grooves & Type	Used With
5F20-851	61.8	2-B	5F20
5F30-831	61.8	3-B	5F30
5F40-841	82.8	3-B	5F40
5H40-861	92.9	3-C	5H40
5H120-861	98.9	5-C	5H60
5H40-871	107.9	5-C	5H80
5H120-871	107.9	9-C	5H80

COMPRESSOR CROSS-REFERENCE

BRAND	MODEL #	HP	NOTES	CARLYLE MODEL	BRAND	MODEL #	HP	NOTES	CARLYLE MODEL
Bristol	H2NG124	-	Hermetic	06DM824	Copeland	3DF3-0900	9	R-12 Med. Temp.	06DM/DR337
Bristol	H2NG144	-	Hermetic	06DX328	Copeland	3DF3-0900	9	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR337
Bristol	H2NG184	-	Hermetic	06DX537	Copeland	3DS3-1000	10	R-12 Med. Temp.	06DM/DR337
Bristol	H2NG244	-	Hermetic	06ET250	Copeland	3DS3-1000	10	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR337
Chrysler	2000-00	100	Open Drive	5H120	Copeland	3DS3-1500	15	R-502 Med. Temp.	06DM337
Chrysler	2020-00	20	Open Drive	5F60	Copeland	3DS3-1500	15	R-22 A/C Duty	06DM337
Chrysler	2025-00	25	Open Drive	5F60	Copeland	3RAI-0310	3	R-502 Med. Temp.	06DM313
Chrysler	2030-00	30	Open Drive	5H40	Copeland	3RAI-0310	3	R-22 A/C Duty	06DM313
Chrysler	2040-00	40	Open Drive	5H46	Copeland	3RK2-0310	3	R-12 Med. Temp.	06DR013
Chrysler	2050-00	50	Open Drive	5H60	Copeland	4DAI-1000	10	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06EY150
Chrysler	2060-00	60	Open Drive	5H66	Copeland	4DAI-1000	10	R-12 Med. Temp.	06EY/EZ150
Chrysler	2075-00	75	Open Drive	5H80	Copeland	4DAI-2000	20	R-502 Med. Temp.	06EZ150
Chrysler	3000-01	100	Semi-Hermetic	06LH228	Copeland	4DH1-2000	20	R-502 Med. Temp.	06EZ150
Chrysler	3004-01	4	Hermetic	06DM313	Copeland	4DH1-1500	15	R-12 Med. Temp.	06EY/EZ150
Chrysler	3005-01	5	Hermetic	06DM316	Copeland	4DH1-2500	25	R-22 A/C Duty	06ET250
Chrysler	3009-04	9	Hermetic	06DX328	Copeland	4DH1-2500	25	R-502 Med. Temp.	06ET265
Chrysler	3011-1	11	Hermetic	06DX328	Copeland	4DJ1-2000	20	R-12 Med. Temp.	06EY165
Chrysler	3013-01P	13	Hermetic	06DX328	Copeland	4DJ1-3000	30	R-22 A/C Duty	06ET265
Chrysler	3013-02	13	Hermetic	06DX328	Copeland	4DJ1-3000	30	R-502 Med. Temp.	06ET265
Chrysler	3015-1	15	Semi-Hermetic	06DX537	Copeland	4DL1-1500	15	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06EY150
Chrysler	3015-11	15	Semi-Hermetic	06DX537	Copeland	4DR1-3000	30	R-22 A/C Duty	06ET265
Chrysler	3019-OOR	19	Hermetic	06E()250	Copeland	4DT1-2200	22	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06EY165
Chrysler	3019-01A	19	Hermetic	06E()250	Copeland	4RA3-1000	10	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR337
Chrysler	3019-02	19	Hermetic	06E()250	Copeland	4RA3-1000	10	R-12 Med. Temp.	06DM337
Chrysler	3019-02R	19	Hermetic	06E()250	Copeland	4RA3-2000	20	R-22 A/C Duty	06ET250
Chrysler	3019-02Z	19	Hermetic	06E()250	Copeland	4RA3-2000	20	R-502 Med. Temp.	06EZ150
Chrysler	3025-00	25	Semi-Hermetic	06EZ175	Copeland	4RE2-2000	20	R-22	06D()537
Chrysler	3030-00	30	Semi-Hermetic	06ET275	Copeland	4RH1-1500	15	R-12 High Temp.	06EZ150
Chrysler	3030-02	30	Semi-Hermetic	06ET275	Copeland	4RH1-1500	15	R-12 Med. Temp.	06EY150
Chrysler	3040	40	Semi-Hermetic	06EX299	Copeland	4RH1-2500	25	R-22 A/C Duty	06ET250
Chrysler	3050	50	Semi-Hermetic	06LH214	Copeland	4RH1-2500	25	R-22 Med. Temp.	06EZ150
Chrysler	3060-01	60	Remove 1 Suction Ring 1st to Unload	06LH218	Copeland	4RH1-2500	25	R-502 Med. Temp.	06EZ150
Chrysler	3060-1	60	Remove 1 Suction Ring 1st to Unload	06LH218	Copeland	4RH2-2500	25	R-502 Med. Temp.	06EZ150
Chrysler	3075	75	Semi-Hermetic	06LH218	Copeland	4RJI-3000	30	R-22 A/C Duty	06ET265
Copeland	2DA3-0500	5	R-12 Med. Temp.	06DR718	Copeland	4RJ2-3000	30	R-22 A/C Duty	06ET265
Copeland	2DA3-0600	6	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR820	Copeland	4RK1-2500	25	R-22 A/C Duty	06ET250
Copeland	2DA3-0750	7.5	R-502 Med. Temp.	06DR820	Copeland	4RK2-1500	15	R-12 Med. Temp.	06EZ150
Copeland	2DA3-0750	7.5	R-22 A/C Duty	06DM818	Copeland	4RK2-2500	25	R-22 A/C Duty	06ET250
Copeland	2DB3-0500	5	R-12 Med. Temp.	06DR820	Copeland	4RL1-1500	15	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06EY150
Copeland	2DB3-0600	6	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR820	Copeland	4RR1-3000	30	R-22 A/C Duty	06ET265
Copeland	2DC3-0500	5	R-502 Med. Temp.	06DM313	Copeland	4RR2-3000	30	R-22 A/C Duty	06ET265
Copeland	2DC3-0500	5	R-22 A/C Duty	06DM313	Copeland	6DH1-2000	20	R-12 Med. Temp.	06EY/EZ175
Copeland	2DD3-0500	5	R-502 Med. Temp.	06DM313	Copeland	6DH1-3500	35	R-22 A/C Duty	06ET275
Copeland	2DD3-0500	5	R-22 A/C Duty	06DM313	Copeland	6DH1-3500	35	R-502 Med. Temp.	06EZ199
Copeland	2DF3-0300	3	R-12 Med. Temp.	06DM/DR316	Copeland	6DJ1-4000	40	R-22 A/C Duty	06ET299
Copeland	2DF3-0300	3	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR316	Copeland	6DJI-4000	40	R-502 Med. Temp.	06EZ199
Copeland	2DL3-0750	7.5	R-502 Med. Temp.	06DR820	Copeland	6DLI-2700	27	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06EY175
Copeland	2DL3-0750	8	R-22 A/C Duty	06DM818	Copeland	6DT1-3000	30	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06EY099
Copeland	3DA3-0500	5	R-12 Med. Temp.	06DR724	Copeland	6DRI-4000	40	R-22 A/C Duty	06ET299
Copeland	3DA3-0600	6	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR724	Copeland	6DS1-4000	40	R-22 A/C Duty	06ET299
Copeland	3DA3-0750	7.5	R-502 Med. Temp.	06DR724	Copeland	6RA4-2000	20	R-12 Med. Temp.	06EY165
Copeland	3DA3-0750	8	R-22 A/C Duty	06DM824	Copeland	6RA4-3000	30	R-502 Med. Temp.	06ET265
Copeland	3DB3-0750	7.5	R-12 Med. Temp.	06DR228	Copeland	6RE2-3000	30	R-22 A/C Duty	06ET265
Copeland	3DB3-0750	7.5	R-502 Low Temp. Cylinder Head Cooling Fan Req.	06DR228	Copeland	6RH1-2000	20	R-12 Med. Temp.	06EY175
Copeland	3DB3-1000	10	R-502 Med. Temp.	06DR228	Copeland	6RH1-3500	35	R-502 Med. Temp.	06EZ175
Copeland	3DB3-1000	10	R-22 A/C Duty	06DX328	Copeland	6RH1-3500	35	R-12 High Temp.	06EZ175

COMPRESSOR CROSS-REFERENCE

BRAND	MODEL#	HP	NOTES	CARLYLE MODEL
Copeland	6RH1-3500	35	R-502LowTemp.Cylinder HeadCooling Fan	06EY175
Copeland	6RH1-3500	35	R-22A/CDuty	06ET275
Copeland	6RJ1-4000	40	R-502Med.Temp.	06EZ175
Copeland	6RJ1-4000	40	R-502Med.Temp.	06EZ199
Copeland	6RJ1-4000	40	R-22A/CDuty	06ET299
Copeland	6RJ1-4000	40	R-22Med.Temp.	06EZ199
Copeland	6RK2-3500	35	R-22A/CDuty	06ET275
Copeland	6RL1-2500	25	R-502LowTemp.Cylinder HeadCooling Fan	06EY175
Copeland	6RN2-3000	30	R-22A/CDuty	06ET265
Copeland	6RP2-3500	35	R-22A/CDuty	06ET275
Copeland	6RR2-4000	40	R-22A/CDuty	06ET299
Copeland	6RS2-4000	40	R-22A/CDuty	06ET299
Copeland	6RT1-3000	30	R-502LowTemp.Cylinder HeadCooling Fan	06EY175
Copeland	9RAI-0500	5	R-12Med.Temp.	06DR820
Copeland	9RAI-0505	5	R-12Med.Temp.	06DR820
Copeland	9RAI-0760	7.5	R-12Med.Temp.	06DR820
Copeland	9RAI-0760	7.5	R-22Med.Temp.	06DR820
Copeland	9RBI-0500	5	-	06DR718
Copeland	9RBI-0760	7.5	R-502LowTemp.Cylinder HeadCooling Fan	06DR724
Copeland	9RBI-0760	7.5	R-12Med.Temp.	06DR228
Copeland	9RBI-0765	7.5	-	06DR228
Copeland	9RCI-0760	7.5	R-12Med.Temp.	06DM724
Copeland	9RCI-1010	10	R-502Med.Temp.	06DR724
Copeland	9RCI-1010	10	R-22A/CDuty	06DX328
Copeland	9RCI-1010	10	R-502Med.Temp.	06DR228
Copeland	9RCI-1015	10	R-502Med.Temp.	06DR724
Copeland	9RCI-1015	10	R-22A/CDuty	06DX328
Copeland	9RJ1-0500	5	R-12Semi-Hermetic	06DR724
Copeland	9RN1-0760	7.5	R-22A/CDuty	06DM818
Copeland	9RP2-0760	7.5	R-12Med.Temp.	06DM724
Copeland	9RP2-1010	10	R-22A/CDuty	06DX328
Copeland	9RS1-1500	15	R-22A/CDuty	06DX537
Copeland	9RS1-1500	15	R-502Med.Temp.	06DR228
Copeland	9RS2-0760	7.5	R-12Med.Temp., R-502LowTemp.	06DR337
Copeland	9RS3-0760	7.5	R-12Med.Temp.	06DR228
Copeland	9RS3-0760	7.5	R-502LowTemp.Cylinder HeadCooling Fan	06DR228
Copeland	9RS3-1010	10	R-12Med.Temp.	06DM337
Copeland	9RS3-1010	10	R-502LowTemp.Cylinder HeadCooling Fan	06DR228
Copeland	9RT1-1500	15	R-22A/CDuty	06DX537
Copeland	9RT1-1505	15	R-22A/CDuty	06DX537
Copeland	EADI-0200	2	R-502LowTemp.Cylinder HeadCooling Fan	06DR109
Copeland	EAL2-0200	2	R-12Med.Temp.	06DR109
Copeland	EAV1-0200	2	R-12Med.Temp.	06DR109
Copeland	EAV1-0200	2	R-502LowTemp.Cylinder HeadCooling Fan	06DR109
Copeland	ERCI-0200	2	R-502Med.Temp.	06DM808
Copeland	ERCI-0200	2	R-22Med.Temp.	06DM808
Copeland	ERC2-0200	2	R-502Med.Temp.	06DM808
Copeland	ERFI-0310	3	R-502Med.Temp.	06DM808
Copeland	ERFI-0310	3	R-22Med.Temp.	06DM808
Copeland	ERFI-0310	3	R-22A/CDuty	06DM808
Copeland	ERJ2-0200	2	R-12Med.Temp.	06DR109
Copeland	ERJ2-0200	2	R-502Med.Temp.	06DR109
Copeland	LAC1-0310	3	R-12Med.Temp.	06DR013
Copeland	LAC1-0310	3	R-502LowTemp.Cylinder HeadCooling Fan	06DR013
Copeland	LAHI-0310	3	R-12Med.Temp.	06DR013
Copeland	LAHI-0310	3	R-502LowTemp.Cylinder HeadCooling Fan	06DR109
Copeland	LAL1-0310	3	R-12Med.Temp.	06DR013
Copeland	MRA2-0500	5	R-502LowTemp.Cylinder HeadCooling Fan	06DR316
Copeland	MRA2-0500	5	R-12Med.Temp.	06DM316
Copeland	MRA2-0500	5	R-12Med.Temp.	06DR316
Copeland	MRBI-0500	5	R-12Med.Temp.	06DR718
Copeland	MRF2-0500	5	R-12HighTemp.	06DM316

BRAND	MODEL#	HP	NOTES	CARLYLE MODEL
Copeland	MRF2-0500	5	R-12Med.Temp.	06DR316
Copeland	MRH2-0760	7.5	R-22A/CDuty	06DM818
Copeland	MRH4-0760	7.5	R-502Med.Temp.	06DR718
Copeland	MRH4-0760	7.5	R-22Med.Temp.	06DR718
Copeland	MRH4-0760	8	R-22A/CDuty	06DM818
Copeland	NRA2-0500	5	R-22A/CDuty	06DM313
Copeland	NRB2-0310	3	R-12Med.Temp.	06DR109
Copeland	NRB2-0400	4	R-22A/CDuty	06DM313
Copeland	NRB2-0400	4	R-22Med.Temp.	06DM313
Copeland	NRDI-0310	3	R-12Med.Temp.	06DR013
Copeland	NRDI-0310	3	R-502LowTemp.Cylinder HeadCooling Fan Req.	06DR013
Copeland	NRMI-0500	5	R-12Med.Temp.	06DM316
Copeland	NRMI-0500	5	R-502Med.Temp.	06DM316
Dunham-Bush	100PHF	10	R-502Med.Temp.	06DM824
Dunham-Bush	100PHF	10	-	06DX824
Dunham-Bush	105DLN	-	Open Drive	5F60
Dunham-Bush	205DLFN	-	Open Drive	5F60
Dunham-Bush	111PHF/CF	10	R-22A/CDuty	06DX328
Dunham-Bush	1015BHF6V5HBJ6	-	-	06LH214
Dunham-Bush	1210BHF6L5HBJO	-	-	06LH218
Dunham-Bush	150PHF	15	-	06DX537
Dunham-Bush	151PHF	15	-	06DX537
Dunham-Bush	151PHFCF-BG	15	-	06DM537
Dunham-Bush	151PHF/CF	15	-	06DX537
Dunham-Bush	151UPHF/CF	15	-	06DX537
Dunham-Bush	154PHC/ELF	15	-	06DX537
Dunham-Bush	15C/ELF	-	-	06DR109
Dunham-Bush	200PHF	20	-	06DX537
Dunham-Bush	200UPHF	20	-	06ET250
Dunham-Bush	201PHF/CF	17.5	R-22A/CDuty	06ET250
Dunham-Bush	204PHF	20	R-502Med.Temp.	06EZ150
Dunham-Bush	204PHF	20	-	06ET250
Dunham-Bush	204PHF/CF	20	R-22A/CDuty	06ET250
Dunham-Bush	204PHF-CF-BZ	20	-	06ET250
Dunham-Bush	204PHF/BZ	20	-	06EX150
Dunham-Bush	20C/ELF	-	-	06DR109
Dunham-Bush	20H/CF/LF	-	-	06DM808
Dunham-Bush	20L	2	R-12LowTemp.Semi-Hermetic	06DR109
Dunham-Bush	20LF	2	R-502LowTemp.	06DR109
Dunham-Bush	255HNF	25	-	06ET250
Dunham-Bush	257LFN	25	R-502LowTemp.	06EY175
Dunham-Bush	306HF	30	R-22A/CDuty	06EX265
Dunham-Bush	307CFN	30	R-22Med.Temp.	06ET275
Dunham-Bush	308LFN	30	-	06ET275
Dunham-Bush	308DLFN	30	R-502LowTemp.Open Drive	5H40
Dunham-Bush	30C/ELF	3	-	06DR013
Dunham-Bush	30ELF	3	R-502LowTemp.	06DR316
Dunham-Bush	30HF	3	R-22A/CDuty, R-502Med.Temp.	06DM808
Dunham-Bush	30LF	3	R-502LowTemp.	06DR013
Dunham-Bush	32C	3	R-12Med.Temp.	06DR013
Dunham-Bush	32ELF	3	R-502Med.Temp.	06DM313
Dunham-Bush	32ELF	3	R-502LowTemp.	06DR316
Dunham-Bush	357HF	35	R-22A/CDuty	06EX275
Dunham-Bush	408HF	40	R-22A/CDuty	06ET299
Dunham-Bush	50C	5	R-12Med.Temp.	06DR824
Dunham-Bush	50DC/ELF	5	R-12Med.Temp., R-502LowTemp.	06DR718
Dunham-Bush	50H	5	R-12HighTemp.	06DM818
Dunham-Bush	50LF	5	R-502LowTemp.	06DR316
Dunham-Bush	509HEN	50	-	06EX299
Dunham-Bush	509HF	50	Semi-Hermetic	06EX299
Dunham-Bush	511DCLF	50	-	5H46
Dunham-Bush	511HF	50	-	06LH214

COMPRESSOR CROSS-REFERENCE

BRAND	MODEL #	HP	NOTES	CARLYLE MODEL
Dunham-Bush	75CF	7.5	-	06DM818
Dunham-Bush	75DPC/ELF	7.5	R-12 Med. Temp., R-502 Low Temp.	5F40
Dunham-Bush	75DPL	7.5	R-12 Low Temp.	5F40
Dunham-Bush	75HF	7.5	-	06DM818
Dunham-Bush	76PH/C/LF	7.5	R-502	06DR228
Dunham-Bush	76PH/C/LF	7.5	R-12	06DR724
Dunham-Bush	A5HH/C	-	Semi-Hermetic	06ET275
Dunham-Bush	B3HHC	-	Semi-Hermetic	06ET275
Dunham-Bush	B4HHC	-	-	06ET299
Frick	MCM-4A	-	Open Drive	5H46
Frick	MCM-4B	-	Open Drive	5H40
Frick	MCM-6A	-	Open Drive	5H80
Frick	MCM-6B	-	Open Drive	5H60
Frick	MCM-8A	-	Open Drive	5H86
Frick	MCM-8B	-	Open Drive	5H80
Lennox	L2AI8024G-A3	-	Hermetic	06DX537
Lennox	L2BI2724L-B3	-	Hermetic	06DX328
Lennox	L2BI2724L-B4	-	Hermetic	06DX328
Lennox	L2DI2724F-C4	-	Hermetic	06DX328
Lennox	L2DI2724L-C5	-	Hermetic	06DX328
Lennox	L2DI2724Z-Bi	-	Hermetic	06DX328
Lennox	L6AI8024G-A2	-	Hermetic	06DX537
Prestcold	E036C100	-	Open Drive	5H40
Prestcold	E2027C4	-	Open Drive	5H40
Prestcold	E2027X2	-	-	06ET265
Prestcold	E2050C1	-	Open Drive	5H46
Prestcold	R2120P	-	R-502 Low Temp.	06DR228
Prestcold	R2120P	-	R-12 Med. Temp.	06DM337
Tecumseh	CI	-	Open Drive	5F20
Tecumseh	CK	-	Open Drive	5F40
Tecumseh	CM	-	Open Drive	5F60
Trane	1 E5()48	30	R-12 Med. Temp. and A/C Duty,	06LH114
Trane	1 E5()58	40	R-12 Med. Temp. and A/C Duty	06LH114
Trane	1 E5()68	50	R-12 Med. Temp. and A/C Duty	06LH118
Trane	1 E5()88	60	R-12 Med. Temp. and A/C Duty,	06LH128
Trane	1 F5()88	25	R-12 Med. Temp. and A/C Duty	06EZ199
Trane	2B514	-	Open Drive	5F40
Trane	2B516	-	Open Drive	5F60
Trane	2B518	-	Open Drive	06ET275
Trane	2E5()48	50	R-22 A/C Duty, Remove 1 Suction	06LH214
Trane	2E5()58	60	Semi-Hermetic	06LH214
Trane	2E5()68	75	R-22 A/C Duty	06LH218
Trane	2E5F81	-	R-22 A/C Duty, Remove 2 Suction	06LH228
Trane	2E5J81N	-	R-22 A/C Duty, Remove 2 Suction	06LH228
Trane	2E5()88	100	R-22 A/C Duty, Remove 2 Suction	06LH228
Trane	2F5()38	15	Semi-Hermetic	06D()537
Trane	2F5()48	20	Semi-Hermetic	06ET250
Trane	2F5()58	25	Semi-Hermetic	06E()265
Trane	2F5()68	30	Semi-Hermetic	06ET275
Trane	2F5()69	30	R-22 Semi-Hermetic	06ET275
Trane	2F5()88	40	Semi-Hermetic	06ET299
Trane	3E5()40	-	Open Drive, Do Not Belt Drive	5H46
Trane	3E5()50	-	Open Drive	5H60
Trane	3E5()60	-	Open Drive	5H66
Trane	3E5()80	-	Open Drive	5H86
Trane	3F5()30	-	Open Drive	5F40
Trane	3F5()60	-	Open Drive	06ET275
Trane	3F5()80	-	Open Drive	5H40
Trane	A514	-	Open Drive, Do Not Belt Drive	5H46
Trane	A516	-	Open Drive, Do Not Belt Drive	5H66
Trane	CRHK-200A	-	R-22 Hermetic	06ET250
Trane	CRHK-300T	-	R-22 Hermetic	06ET275

BRAND	MODEL #	HP	NOTES	CARLYLE MODEL
Trane	CRHM100	10	R-12 Med. Temp. and A/C	06DM337
Trane	CRHM130	13	R-12 Med. Temp. and A/C	06EZ150
Trane	CRHM150	15	R-22 A/C Duty	06DX537
Trane	CRHM160	-	R-22	06ET250
Trane	CRHM170	17	R-12 Med. Temp. and A/C	06EY165
Trane	CRHM190	19	R-12 Med. Temp. and A/C	06EZ175
Trane	CRHM200	20	R-22 A/C Duty	06ET250
Trane	CAHM200A-2B	20	Semi-Hermetic	06ET250
Trane	CRHM200A-	20	Semi-Hermetic	06ET250
Trane	CRHM200A-2J	20	Semi-Hermetic	06ET250
Trane	CRHM200B-2G	20	Semi-Hermetic	06ET250
Trane	CRHM200C-2D	20	Semi-Hermetic	06ET250
Trane	CRHM250	25	R-22 A/C Duty	06ET265
Trane	CRHM250A-4G	25	Semi-Hermetic	06ET265
Trane	CRHM250B-3B	25	Semi-Hermetic	06ET265
Trane	CRHM300	30	R-22 A/C Duty	06ET275
Trane	CRHM300A-	30	Semi-Hermetic	06ET275
Trane	CRHM300C-4G	30	Semi-Hermetic	06ET275
Trane	CRHM300C-	30	Semi-Hermetic	06ET275
Trane	CRHM300W-	30	Semi-Hermetic	06ET275
Trane	CRHR260	26	R-1 Med. Temp. and A/C	06EZ199
Trane	CRHR320	32	R-12 Med. Temp. and A/C	06LH114
Trane	CRHR380	38	R-12 Med. Temp. and A/C	06LH114
Trane	CRHR400	40	R-22 A/C Duty	06ET299
Trane	CRHR400A-3H	40	Semi-Hermetic	06ET299
Trane	CRHR400C-3E	40	Semi-Hermetic	06ET299
Trane	CRH400D-30	40	Semi-Hermetic	06ET299
Trane	CRHR500	50	R-22 A/C Duty, Remove 1	06LH214
Trane	CRHR600	60	A/C Duty	06LH214
Westinghouse	CB065	7.5	-	06D()328
Westinghouse	CB094	7.5	-	06DM824
Westinghouse	CB101	8	-	06DM824
Westinghouse	CB127	10	R-22 Semi-Hermetic	06D()328
Westinghouse	CB127AIP	10	R-22 Semi-Hermetic	06D()328
Westinghouse	CB151	15	R-22 Semi-Hermetic	06DM537
Westinghouse	CB151AIQ	15	R-22 Semi-Hermetic	06DM537
Westinghouse	CB151W	15	R-22 Semi-Hermetic	06DM537
Westinghouse	CB151WIQ	15	R-22 Semi-Hermetic	06DM537
Westinghouse	CC035	35	-	06ET275
Westinghouse	CC040	40	R-12 Semi-Hermetic	06EZ199
Westinghouse	CC040	40	R-22 Semi-Hermetic	06ET299
Westinghouse	CC050	50	Remove 1 Suction Ring	06L()114
Westinghouse	CC055	55	Remove 1 Suction Ring	06LH214
Westinghouse	CC060	60	-	06LH214
Westinghouse	CC070	70	Remove 1 Suction Ring	06LH118
Westinghouse	CC080	80	-	06LH218
Westinghouse	CC095	95	Remove 2 Suction Rings	06LH128
Westinghouse	CC105	105	Remove 1 Suction Ring	06LH228
Westinghouse	CC115	115	-	06LH228
Westinghouse	CD090	7.5	-	06DM818
Westinghouse	CLS51	5	R-22 Semi-Hermetic	06DM818
Westinghouse	CLS108	25	R-12 Semi-Hermetic	06EZ199
Westinghouse	CLS125	30	R-22 Semi-Hermetic	06E()275
Westinghouse	CLS150	45	R-22 Semi-Hermetic	06ET299
Westinghouse	CLS185	60	-	06LH214
Westinghouse	CLS188	5	-	06DM818
Westinghouse	CLS282	7.5	Refrigeration Duty	06DR228
Westinghouse	CLS282	7.5	R-12 A/C Duty	06DR328
Westinghouse	CLS550	15	R-2/115ORPM	06EZ266
Westinghouse	CLS81	7.5	R-22 Semi-Hermetic	06DM818
Westinghouse	CLS850	25	R-12	06EZ199
Westinghouse	CLS86	20	-	06LH209

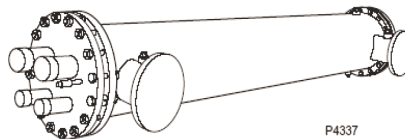
COMPRESSOR CROSS-REFERENCE

BRAND	MODEL #	HP	NOTES	CARLYLE MODEL
Worthington	23J5-10	10	-	06DX824
Worthington	23JF5-10	10	R-22 Semi-Hermetic	06DX824
Worthington	2HF3-7.5	7.5	R-22 Semi-Hermetic	06DM818
Worthington	2JF3	5	-	06DM313
Worthington	2JF5	10	-	06DM718
Worthington	2J F5-10	10	-	06DM818
Worthington	2JF5-7.5	7.5	R-22 Semi-Hermetic	06DM818
Worthington	2VC4	25	Open Drive	06DX537
Worthington	2VC5	30	Open Drive	5F60
Worthington	2VC6	30	Open Drive	06ET265
Worthington	2VC7	35	Open Drive	06ET265
Worthington	2VH4	20	R-22 Semi-Hermetic	06EX250
Worthington	2VH5	-	R-22 Semi-Hermetic	06ET265
Worthington	2VH7	30	R-22 Semi-Hermetic	06EX299
Worthington	2VXC6	-	Open Drive	5F60
Worthington	2VXC65A	-	Open Drive	5H40
Worthington	2VXC8	-	Open Drive	5H46
Worthington	2VXH3	17.5	Semi-Hermetic	06DX537
Worthington	2VXH4	25	Semi-Hermetic	06ET250
Worthington	2VXH5	30	Semi-Hermetic	06ET265
Worthington	2VXH6	35	Semi-Hermetic	06ET275
Worthington	2VXH7	40	Semi-Hermetic	06ET299
Worthington	2VXH8	45	Semi-Hermetic, Remove 1 Suction Ring	06L()214
Worthington	2VXHG4	25	Semi-Hermetic	06EX275
Worthington	2VXHJ6B	45	Semi-Hermetic	06EX275
Worthington	2VXHJ6BS2	45	Semi-Hermetic	06ET275
Worthington	2VXHM7A	40	Semi-Hermetic	06ET299
Worthington	2VXHM8	40	Remove 1 Suction Ring	06LH214
Worthington	3JF4	15	Open Drive	06E()299
Worthington	3JF6	25	Open Drive	06LH214
Worthington	3JFS4	7.5	-	06E()299
Worthington	3VC4	-	Open Drive	5H40
Worthington	3VC5HL	-	Open Drive	5H46
Worthington	3VC6	-	Open Drive	5H60
Worthington	3VC7HSK	-	Open Drive	5H66
Worthington	3VC8	-	Open Drive	5H50
Worthington	3VH05	50	Semi-Hermetic, Remove 1 Suction Ring	06LH214
Worthington	3VH06	60	Semi-Hermetic	06LH214
Worthington	3VHN4	40	Semi-Hermetic	06LH209
Worthington	3VHN4B	40	Semi-Hermetic	06LH209
Worthington	3VHP6	50	Semi-Hermetic	06LH214
Worthington	3VHP7R	70	Semi-Hermetic	06LH214
Worthington	3VHR8	-	R-22 Semi-Hermetic	06LH218
Worthington	3VHTB	-	Semi-Hermetic	06LH218
Worthington	3VXC8	-	Open Drive	5H86
Worthington	3VXH-8	100	Semi-Hermetic, Remove 2 Suction Ring Valves	06LH228
Worthington	3VXHTBR	100	Semi-Hermetic	06LH218
Worthington	3VXHVS3	100	Semi-Hermetic	06LH228
Worthington	4JF4	40	Open Drive	5H40
York	BF29	-	Open Drive	5H40
York	ES68S-25-AS	-	Semi-Hermetic	06DM818
York	ES68T-25-AS	-	Semi-Hermetic	06DM818
York	ES68T-46-AS	-	Semi-Hermetic	06DM818
York	F3049	-	Open Drive	5H60
York	F30696BE	-	Open Drive	5H60
York	F3089	-	Open Drive	5H120
York	F32S	-	Open Drive	5F40
York	F92S	40	Open Drive	5H46
York	G63SA	-	-	5H60
York	H256	25	-	06ET265
York	H256WC	25	-	06ET265
York	H256WW	25	-	06ET265

BRAND	MODEL #	HP	NOTES	CARLYLE MODEL
York	H306GC	30	-	06ET275
York	H32SM	15	Semi-Hermetic	06DX537
York	H459	45	Semi-Hermetic, Remove 1 Suction Ring Valve	06LH214
York	H615	25	-	06E()265
York	H615NF	-	R-22 A/C Duty	06ET265
York	H62SPDG	20	-	06EZ175
York	H62SODG	20	Semi-Hermetic	06EZ175
York	H92SRDG	45	Semi-Hermetic	06LH114
York	H92SRFS	45	-	06LH114
York	H92SSCG	45	-	06LH114
York	HS256W	25	-	06ET265
York	JS43L-46AS	-	-	06LH214
York	SS42A-F46-G	20	-	06EX250
York	SS42B-F17-G	20	-	06EX250
York	SS42F-25-A-G	20	Semi-Hermetic	06EX250
York	SS42F-46G	20	Semi-Hermetic	06EX250
York	SS62B-J28-G	30	-	06ET275
York	SS62B-J28-S	30	-	06ET275
York	SS62B-J46-S	30	-	06ET275
York	SS62H-46-A-S	30	-	06ET275
York	SS63C-L46S	30	R-22 Semi-Hermetic	06ET299
York	SS82B-L46S	40	-	06ET299

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Model Number Significance



Build your system on the best...10RT

Series DX coolers

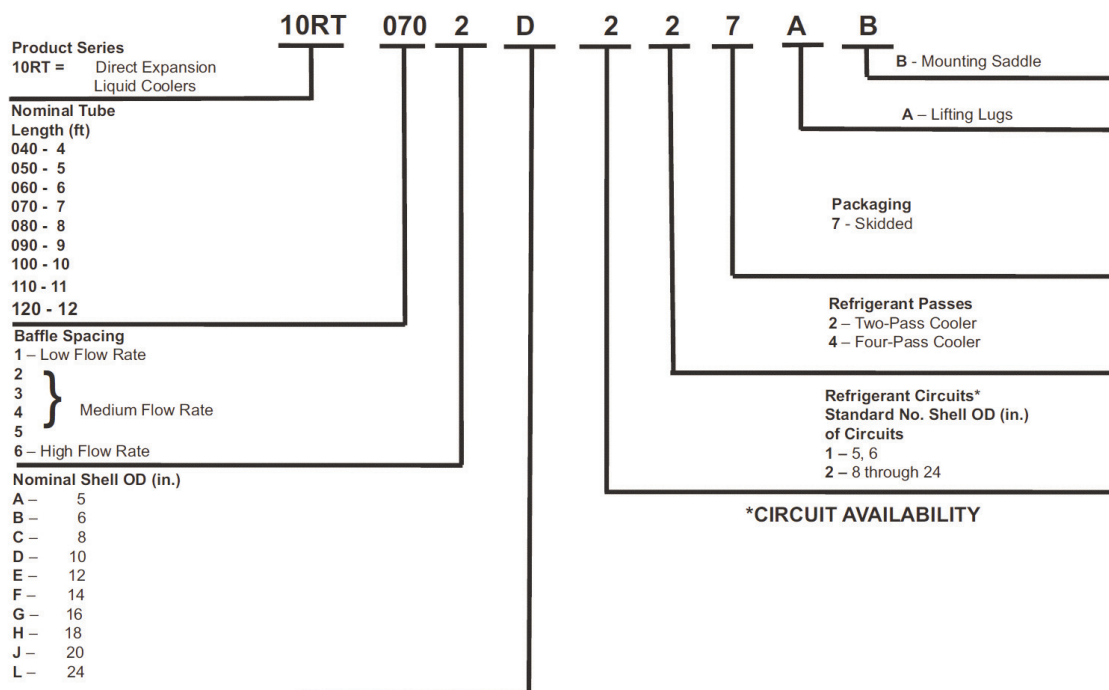
Choose Carrier 10RT Series directexpansion(DX) shell-and-tube liquid coolers for built-up systems in office buildings, hospitals, or any commercial applications where unique cooling requirements or space limitations dictate the need for separate location of the cooler from the condenser, compressors, or air-handling components.

Features/Benefits:

- Fifteen models, 7 1/2 through 350 tons normally carried in stock or with short shipping lead times.
- High performance tubes providing more economical cooling.
- Serviceable through-tube design and removable heads.
- Controlled refrigerant velocities for positive oil return and low refrigerant pressure drop.

With 10RT Series coolers, dimensional restrictions are no problem, since you select from a large assortment of shell diameters and lengths. And these compact coolers are available in 7 1/2 through 350 nominal tons capacity range. (Based on 44 F leaving water temperature; R-22 at 35 F evaporator temperature; 0.0001 fouling factor.) The 10RT is designed for optimum heat transfer rates and features rolled-in tubes and removable heads. Shell-side baffling is selected for high operating efficiency and minimal fluid pressure drops.

Model Number Nomenclature



Letter Designator	Shell OD(In.)	No. Of Circuits			
		1	2	3	4
A	5	Std	NA	NA	NA
B	6	Std	NA	NA	NA
C	8	SO	Std	NA	NA
D	10	SO	Std	SO	NA
E	12	SO	Std	SO	SO
F	14	SO	Std	SO	SO
G	16	SO	Std	SO	SO
H	18	SO	Std	SO	SO
J	20	SO	Std	SO	SO
L	24	SO	Std	SO	SO

LEGEND

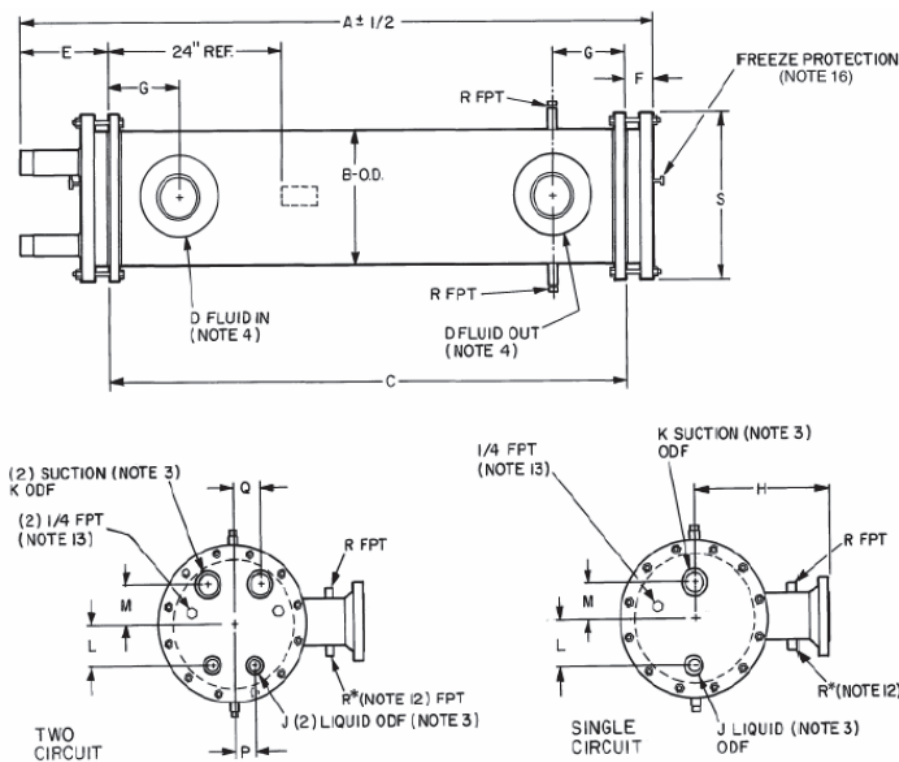
NA -- Not Available

SO -- Special Order

Std -- Standard

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Model Number Significance



1. Constructed and tested in accordance with ASME code Section VIII for unfired pressure vessels.
2. Maximum working pressures: 200 psi at 100 F tube side; 150 psi at 120 F shell side.
3. Connections J and K are steel welded to head and bored to ODS of copper tubing.
4. Fluid connections are MPT through 3 inches. Connections larger than 3 in. terminate in 150 lb flanges.
5. Shell baffles: hot-rolled steel,terne plate.
6. Heads: ASME specification SA-285, grade C, or cast steel heads, ASME specification SA-216, grade WCA or WCB.
7. Tube sheets: flange quality carbon steel, ASME specification SA-285 grade C.
8. Shell: Steel pipe shell, ASME specification SA-53, grade A or B.
9. Tubes: 3/4-in. OD seamless copper tubes per ASME specifications with internal and external enhanced surface.
10. One circuit standard with 5-in. and 6-in. pipe shell (optional for all others).Two circuits standard with 8-in. through 24-in. pipe shells.
11. Insulation: 3/4-in. Armaflex standard. Double layer of Armaflex available on special order.
12. Fitting R* used only on 3-in. MPT or smaller fluid connections.Fluid connections larger than 3-in. have both R and R*.
13. External equalizer connection.
14. Add 11/2-in. to dimension B; 3/4-in. to dimension F; and 11/2-in. to dimension S to take into account the standard 3/4-in. Armaflex insulation.
15. Finish: Grey enamel paint.
16. 1/4-FPT freeze protection connection.
17. Tube wall thickness: 0.028-in. finned; 0.056-in. plain.

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Dimensions - 2-Pass (in.)

Part Number	A	B	C	D	E	F	G	H	J (ODF)	K (ODF)	L	M	p	Q	R	S
10RT0401 A 127AB	55-3/4	5-9/16	47-5/8	2	6-13/16	1-5/16	3-3/16	8-5/8	7/8	1-3/8	1-1/4	1-3/8	-	-	3/4	8-1/2
10RT0501 A 127AB	67-3/4	5-9/16	59-5/8	2	6-13/16	1-5/16	3-3/16	8-5/8	7/8	1-3/8	1-1/4	1-3/8	-	-	3/4	8-1/2
10RT0501 B 127AB	67-3/4	6-5/8	59-5/8	2-1/2	6-13/16	1-5/16	3-7/16	9-3/16	1-1/8	2-1/8	1-9/16	1-9/16	-	-	3/4	9-3/4
10RT0601 B 127AB	79-3/4	6-5/8	71-5/8	2-1/12	6-13/16	1-5/16	3-7/16	9-3/16	1-1/8	2-1/8	1-9/16	1-9/16	-	-	3/4	9-3/4
10RT0401 C 227AB	56	8-5/8	47-5/8	3	6-15/16	1-7/16	3-7/8	10-3/16	1-3/8	2-1/8	2	1-5/8	1-1/2	1-3/4	3/4	11-3/4
10RT0501 C 227AB	68	8-5/8	59-5/8	3	6-15/16	1-7/16	3-7/8	10-3/16	1-3/8	2-1/8	2	1-5/8	1-1/2	1-3/4	3/4	11-3/4
10RT0602 C 227AB	80	8-5/8	71-5/8	3	6-15/16	1-7/16	3-7/8	10-3/16	1-3/8	2-1/8	2	1-5/8	1-1/2	1-3/4	3/4	11-3/4
10RT0702 C 227AB	92	8-5/8	83-5/8	3	6-15/16	1-7/16	3-7/8	10-3/16	1-3/8	2-1/8	2	1-5/8	1-1/2	1-3/4	3/4	11-3/4
10RT0503 D 227AB	69	10-3/4	59-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-3/8	2-5/8	2-3/4	1-3/4	2	2-1/2	3/4	14-3/8
10RT0604 D 227AB	81	10-3/4	71-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-3/8	2-5/8	2-3/4	1-3/4	2	2-1/2	3/4	14-3/8
10RT0702 D 227AB	93	10-3/4	83-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-3/8	2-5/8	2-3/4	1-3/4	2	2-1/2	3/4	14-3/8
10RT0704 D 227AB	93	10-3/4	83-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-3/8	2-5/8	2-3/4	1-3/4	2	2-1/2	3/4	14-3/8
10RT0804 D 227AB	105	10-3/4	95-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-3/8	2-5/8	2-3/4	1-3/4	2	2-1/2	3/4	14-3/8
10RT0904 D 227AB	117	10-3/4	107-5/8	5	7-7/16	1-15/16	5-1/16	11-5/8	1-3/8	2-5/8	2-3/4	1-3/4	2	2-1/2	3/4	14-3/8
10RT0804 E 227AB	105-1/2	12-3/4	95-5/8	5	7-11/16	2-3/16	5-3/4	12-5/8	1-5/8	2-5/8	3-1/4	1-3/4	2-1/2	2-3/4	3/4	16-3/8
10RT0806 E 227AB	105-1/2	12-3/4	95-5/8	6	7-11/16	2-3/16	5-3/4	12-5/8	1-5/8	2-5/8	3-1/4	1-3/4	2-1/2	2-3/4	3/4	16-3/8
10RT1004 F 227AB	130-1/2	14	119-5/8	6	8-3/16	2-11/16	5-3/4	13-1/4	1-5/8	3-1/8	3-3/4	3	2-5/8	2-7/8	3/4	17-1/2
10RT1104 F 227AB	142-1/2	14	131-5/8	6	8-3/16	2-11/16	5-3/4	13-1/4	1-5/8	3-1/8	3-3/4	3	2-5/8	2-7/8	3/4	17-1/2
10RT1004 G 227AB	131-1/2	16	119-5/8	8	8-11/16	3-3/16	7-1/16	14-1/4	2-1/8	3-1/8	4	3	3	3-1/4	3/4	19-1/2
10RT1104 G 227AB	143-1/2	16	131-5/8	8	8-11/16	3-3/16	7-1/16	14-1/4	2-1/8	3-1/8	4	3	3	3-1/4	3/4	19-1/2
10RT0903 H 227AB	119-1/2	18	107-5/8	8	8-11/16	3-3/16	7-1/16	15-1/4	2-1/8	3-5/8	4-3/4	3-1/2	3-1/4	3-3/4	3/4	21-1/2
10RT1003 H 227AB	131-1/2	18	119-5/8	8	8-11/16	3-3/16	7-1/16	15-1/4	2-1/8	3-5/8	4-3/4	3-1/2	3-1/4	3-3/4	3/4	21-1/2
10RT1205 H 227AB	155-1/2	18	143-5/8	8	8-11/16	3-3/16	7-1/16	15-1/4	2-1/8	3-5/8	4-3/4	3-1/2	3-1/4	3-3/4	3/4	21-1/2
10RT1003 J 227AB	132-1/2	20	119-5/8	8	9-3/16	3-11/16	8-3/8	16-1/4	2-1/8	3-5/8	5	4-1/4	3-1/2	4-3/8	3/4	23-1/2
10RT1104 J 227AB	144-1/2	20	131-5/8	10	9-3/16	3-11/16	8-3/8	16-1/4	2-1/8	3-5/8	5	4-1/4	3-1/2	4-3/8	3/4	23-1/2
10RT1204 J 227AB	156-1/2	20	143-5/8	10	9-3/16	3-11/16	8-3/8	16-1/4	2-1/8	3-5/8	5	4-1/4	3-1/2	4-3/8	3/4	23-1/2
10RT1206 J 227AB	155-1/2	20	143-5/8	10	8-11/16	3-11/16	8-3/8	16-1/4	2-1/8	3-5/8	5	4-1/4	3-1/2	4-3/8	3/4	23-1/2
10RT0902 L 227AB	120-1/2	24	107-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-5/8	4-1/8	6-1/4	3-5/8	4-3/4	4-7/8	3/4	27-1/2
10RT1002 L 227AB	132-1/2	24	119-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-5/8	4-1/8	6-1/4	3-5/8	4-3/4	4-7/8	3/4	27-1/2
10RT1103 L 227AB	144-1/2	24	131-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-5/8	4-1/8	6-1/4	3-5/8	4-3/4	4-7/8	3/4	27-1/2
10RT1203 L 227AB	156-1/2	24	143-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-5/8	4-1/8	6-1/4	3-5/8	4-3/4	4-7/8	3/4	27-1/2

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Dimensions - 4-Pass (in.)

Part Number	A	B	C	D	E	F	G	H	J (ODF)	K (ODF)	L	M	p	Q	R	S
10RT0401 A 147AB	56-3/8	5-9/16	47-5/8	2	7-1/16	1-5/16	3-3/16	8-5/8	5/8	1-1/8	1-3/4	1-3/4	-	-	3/4	8-1/2
10RT0501 A 147AB	68-3/8	5-9/16	59-5/8	2	7-1/16	1-5/16	3-3/16	8-5/8	5/8	1-1/8	1-3/4	1-3/4	-	-	3/4	8-1/2
10RT0501 B 147AB	67-3/4	6-5/8	59-5/8	2-1/2	6-13/16	1-5/16	3-7/16	9-3/16	7/8	1-3/8	2-1/8	2-1/8	-	-	3/4	9-3/4
10RT0601 B 147AB	79-3/4	6-5/8	71-5/8	2-1/2	6-13/16	1-5/16	3-7/16	9-3/16	7/8	1-3/8	2-1/8	2-1/8	-	-	3/4	9-3/4
10RT0401 C 247AB	56-5/8	8-5/8	47-5/8	3	7-9/16	1-7/16	3-7/8	10-3/16	1-1/8	1-3/8	3	3	1-25/64	1-25/64	3/4	11-3/4
10RT0501 C 247AB	68-5/8	8-5/8	59-5/8	3	7-9/16	1-7/16	3-7/8	10-3/16	1-1/8	1-3/8	3	3	1-25/64	1-25/64	3/4	11-3/4
10RT0602 C 247AB	80-5/8	8-5/8	71-5/8	3	7-9/16	1-7/16	3-7/8	10-3/16	1-1/8	1-3/8	3	3	1-25/64	1-25/64	3/4	11-3/4
10RT0702 C 247AB	92-5/8	8-5/8	83-5/8	3	7-9/16	1-7/16	3-7/8	10-3/16	1-1/8	1-3/8	3	3	1-25/64	1-25/64	3/4	11-3/4
10RT0503 D 247AB	69	10-3/4	59-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-1/8	2-1/8	4-1/16	3	1-1/8	2	3/4	14-3/8
10RT0604 D 247AB	81	10-3/4	71-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-1/8	2-1/8	4-1/16	3	1-1/8	2	3/4	14-3/8
10RT0702 D 247AB	93	10-3/4	83-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-1/8	2-1/8	4-1/16	3	1-1/8	2	3/4	14-3/8
10RT0704 D 247AB	93	10-3/4	83-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-1/8	2-1/8	4-1/16	3	1-1/8	2	3/4	14-3/8
10RT0804 D 247AB	105	10-3/4	95-5/8	4	7-7/16	1-15/16	4-1/2	11-5/8	1-1/8	2-1/8	4-1/16	3	1-1/8	2	3/4	14-3/8
10RT0904 D 247AB	117	10-3/4	107-5/8	5	7-7/16	1-15/16	5-1/16	11-5/8	1-1/8	2-1/8	4-1/16	3	1-1/8	2	3/4	14-3/8
10RT0804 E 247AB	105-1/2	12-3/4	95-5/8	5	7-11/16	2-3/16	5-3/4	12-5/8	1-3/8	2-1/8	4-3/8	3-1/2	2	2-1/2	3/4	16-3/8
10RT0806 E 247AB	105-1/2	12-3/4	95-5/8	6	7-11/16	2-3/16	5-3/4	12-5/8	1-3/8	2-1/8	4-3/8	3-1/2	2	2-1/2	3/4	16-3/8
10RT1004 F 227AB	130-1/2	14	119-5/8	6	8-3/16	2-11/16	5-3/4	13-1/4	1-3/8	2-5/8	5	4-1/8	1-7/8	2-5/8	3/4	17-1/2
10RT1104 F 247AB	142-1/2	14	131-5/8	6	8-3/16	2-11/16	5-3/4	13-1/4	1-3/8	2-5/8	5	4-1/8	1-7/8	2-5/8	3/4	17-1/2
10RT1004 G 247AB	131-1/2	16	119-5/8	8	8-11/16	3-3/16	7-1/16	14-1/4	1-5/8	2-5/8	6-1/4	3-7/8	1-5/8	3	3/4	19-1/2
10RT1104 G 247AB	143-1/2	16	131-5/8	8	8-11/16	3-3/16	7-1/16	14-1/4	1-5/8	2-5/8	6-1/4	3-7/8	1-5/8	3	3/4	19-1/2
10RT0903 H 247AB	119-1/2	18	107-5/8	8	8-11/16	3-3/16	7-1/16	15-1/4	1-5/8	2-5/8	6-3/8	4-1/2	2-5/8	3-3/8	3/4	21-1/2
10RT1003 H 247AB	131-1/2	18	119-5/8	8	8-11/16	3-3/16	7-1/16	15-1/4	1-5/8	2-5/8	6-3/8	4-1/2	2-5/8	3-3/8	3/4	21-1/2
10RT1205 H 247AB	155-1/2	18	143-5/8	8	8-11/16	3-3/16	7-1/16	15-1/4	1-5/8	2-5/8	6-3/8	4-1/2	2-5/8	3-3/8	3/4	21-1/2
10RT1003 J 247AB	132-1/2	20	119-5/8	8	9-3/16	3-11/16	8-3/8	16-1/4	1-5/8	3-1/8	7-1/4	5	3-5/16	4	3/4	23-1/2
10RT1104 J 247AB	144-1/2	20	131-5/8	10	9-3/16	3-11/16	8-3/8	16-1/4	1-5/8	3-1/8	7-1/4	5	3-5/16	4	3/4	23-1/2
10RT1204 J 247AB	156-1/2	20	143-5/8	10	9-3/16	3-11/16	8-3/8	16-1/4	1-5/8	3-1/8	7-1/4	5	3-5/16	4	3/4	23-1/2
10RT1206 J 247AB	155-1/2	20	143-5/8	10	8-11/16	3-11/16	8-3/8	16-1/4	1-5/8	3-1/8	7-1/4	5	3-5/16	4	3/4	23-1/2
10RT0902 L 247AB	120-1/2	24	107-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-1/8	3-5/8	8-3/4	6-1/4	3-3/4	4-3/4	3/4	27-1/2
10RT1002 L 247AB	132-1/2	24	119-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-1/8	3-5/8	8-3/4	6-1/4	3-3/4	4-3/4	3/4	27-1/2
10RT1103 L 247AB	144-1/2	24	131-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-1/8	3-5/8	8-3/4	6-1/4	3-3/4	4-3/4	3/4	27-1/2
10RT1203 L 247AB	156-1/2	24	143-5/8	10	9-3/16	3-11/16	8-9/16	18-1/4	2-1/8	3-5/8	8-3/4	6-1/4	3-3/4	4-3/4	3/4	27-1/2

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Water Ratings - R-22

6 F Water Temperature Range; 4 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	—	—	2.69	1.05	4.09	2.18	5.37	3.74	6.66	5.69	8.19	8.59	6.33	5.18
0501-A	2.24	0.99	3.67	2.23	5.12	4.32	6.58	7.08	8.17	10.89	6.52	7.08	8.20	10.89	—	—
0501-B	3.18	0.92	5.11	1.80	7.63	4.07	9.86	6.79	12.08	10.06	9.52	6.38	12.11	10.07	—	—
0601-B	5.63	2.79	8.17	5.87	10.51	9.67	7.79	5.33	10.90	10.37	—	—	—	—	—	—
0401-C	—	—	—	—	8.03	1.18	11.76	2.56	15.11	4.20	18.85	6.42	14.18	3.71	18.81	6.42
0501-C	6.59	1.09	10.24	2.40	14.42	4.81	18.54	7.85	13.24	4.05	18.05	7.38	—	—	—	—
0602-C	9.49	1.29	13.86	2.77	18.17	4.81	21.84	6.85	19.02	5.21	26.14	9.71	—	—	—	—
0702-C	13.65	3.12	17.62	5.14	21.42	7.59	21.40	7.59	—	—	—	—	—	—	—	—
0503-D	—	—	—	—	18.61	1.34	24.34	2.27	30.78	3.66	36.40	5.07	31.66	3.90	39.27	5.84
0604-D	—	—	16.99	0.96	23.71	1.52	29.52	2.32	35.26	3.28	31.87	2.69	42.97	4.91	—	—
0702-D	20.02	2.85	26.69	5.08	32.63	7.62	31.92	7.32	42.59	12.70	—	—	—	—	—	—
0704-D	16.67	1.01	23.34	1.69	29.40	2.66	26.61	2.21	37.26	4.30	—	—	—	—	—	—
0804-D	21.48	1.64	27.66	2.68	27.47	2.69	38.34	5.15	—	—	—	—	—	—	—	—
0904-D	25.06	2.70	25.84	2.89	37.99	6.16	50.16	10.53	62.38	15.91	—	—	—	—	—	—
0804-E	33.82	2.45	43.22	3.94	42.08	3.74	60.61	7.69	—	—	—	—	—	—	—	—
0806-E	26.99	1.30	37.34	2.38	45.78	3.44	46.94	3.61	65.56	6.76	84.26	10.82	102.82	15.66	—	—
1004-F	47.06	2.64	58.71	4.07	73.76	6.29	90.98	9.57	106.21	12.81	—	—	—	—	—	—
1104-F	52.60	3.74	70.01	6.55	86.25	9.76	102.57	13.60	—	—	—	—	—	—	—	—
1004-G	58.90	2.44	68.31	3.26	87.40	5.26	109.41	8.27	128.83	11.26	150.88	15.44	—	—	—	—
1104-G	61.88	3.16	82.55	5.54	103.33	8.56	124.27	12.20	147.95	17.38	—	—	—	—	—	—
0903-H	74.18	2.72	88.38	3.79	97.48	4.64	119.33	6.81	144.68	9.94	—	—	—	—	—	—
1003-H	80.75	3.71	93.28	4.96	117.17	7.66	144.82	11.65	—	—	—	—	—	—	—	—
1206-H	83.38	1.82	113.41	3.35	143.59	5.32	171.52	7.50	—	—	—	—	—	—	—	—
1003-J	100.08	3.30	116.03	4.41	150.12	7.35	180.40	10.36	—	—	—	—	—	—	—	—
1104-J	101.36	2.41	133.70	4.10	170.94	6.69	203.91	9.32	241.33	13.01	—	—	—	—	—	—
1204-J	120.62	4.04	158.17	6.88	193.50	10.10	233.48	14.73	—	—	—	—	—	—	—	—

8 F Water Temperature Range; 3 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	2.20	0.71	3.31	0.97	4.71	1.63	6.00	2.63	7.55	4.20	8.83	5.69	10.10	7.36
0501-A	2.87	0.95	4.48	1.88	6.11	3.50	7.57	5.34	8.99	7.52	7.39	5.06	9.78	8.89	11.51	11.97
0501-B	4.15	0.90	6.38	1.58	8.89	3.12	11.14	4.88	13.33	7.01	15.24	9.07	14.01	7.67	—	—
0601-B	7.02	2.42	9.70	4.68	12.02	7.22	13.97	9.67	13.22	8.66	—	—	—	—	—	—
0401-C	—	—	6.61	0.77	9.90	1.09	13.65	1.94	17.41	3.17	20.78	4.45	24.47	6.12	27.43	7.54
0501-C	8.97	1.11	13.14	2.26	16.86	3.68	20.97	5.72	24.50	7.73	21.66	6.03	27.63	9.63	—	—
0602-C	12.01	1.18	16.09	2.09	20.38	3.39	17.44	2.49	23.33	4.45	30.48	7.52	—	—	—	—
0702-C	16.24	2.48	20.12	3.80	18.87	3.34	25.77	6.21	34.12	10.77	—	—	—	—	—	—
0503-D	—	—	14.92	0.79	20.61	1.03	27.10	1.59	33.53	2.45	38.44	3.19	35.47	2.74	44.69	4.35
0604-D	13.05	0.66	19.29	0.84	26.00	1.10	31.75	1.52	27.20	1.12	36.30	1.99	47.49	3.40	56.77	4.79
0702-D	24.01	2.31	30.53	3.78	27.95	3.16	38.63	6.04	50.45	10.18	61.29	14.68	—	—	—	—
0704-D	19.94	0.92	26.55	1.25	31.99	1.79	31.86	1.80	42.56	3.17	53.36	4.94	—	—	—	—
0804-D	25.17	1.29	30.61	1.88	33.56	2.27	45.77	4.18	57.97	6.66	—	—	—	—	—	—
0904-D	28.13	1.92	31.27	2.35	44.97	4.86	58.59	8.25	69.47	11.24	82.68	15.92	—	—	—	—
0804-E	38.67	1.80	47.06	2.62	51.44	3.16	70.18	5.80	88.81	9.16	—	—	—	—	—	—
0806-E	30.55	1.06	40.82	1.66	48.21	2.22	53.85	2.74	70.53	4.50	89.37	7.00	108.16	10.01	126.64	13.45
1004-F	52.75	1.90	67.80	3.05	85.26	4.79	100.46	6.54	117.73	8.98	132.80	11.30	147.73	13.87	—	—
1104-F	63.66	3.10	80.11	4.79	98.73	7.29	115.03	9.76	130.97	12.58	—	—	—	—	—	—
1004-G	62.42	1.57	82.98	2.75	102.34	4.10	121.73	5.71	143.91	7.99	165.93	10.63	185.09	13.09	—	—
1104-G	76.24	2.72	98.76	4.51	119.65	6.52	140.64	8.89	161.51	11.62	181.96	14.68	—	—	—	—
0903-H	83.38	1.92	89.38	2.22	114.53	3.62	136.62	5.04	162.15	7.05	187.84	9.37	213.58	12.01	—	—
1003-H	84.43	2.30	112.03	4.04	136.20	5.84	164.03	8.43	191.93	11.46	—	—	—	—	—	—
1206-H	100.05	1.49	132.36	2.60	160.71	3.75	189.06	5.12	216.50	6.70	—	—	—	—	—	—
1003-J	104.93	2.05	139.37	3.59	173.80	5.55	208.49	7.92	243.33	10.69	—	—	—	—	—	—
1104-J	123.80	2.03	159.11	3.29	196.59	5.00	234.05	7.06	267.16	9.04	303.48	11.71	—	—	—	—
1204-J	145.33	3.29	185.85	5.37	221.35	7.48	261.01	10.45	295.33	13.29	—	—	—	—	—	—

Legend

Cap. — Capacity (Tons)
 EFT — Entering Fluid Temperature
 LFT — Leaving Fluid Temperature
 PD — Pressure Drop (PSIG)
 SST — Refrigerant Saturated Suction Temperature

Notes:

1. Ratings based on 35 F saturated suction Temperature. Fouling factor is 0.0001.
2. Shaded selections are 2-pass. All other selections are 4-pass.
3. LTD = LFT - SST
4. Range = EFT - LFT

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Water Ratings - R-22

10 F Water Temperature Range; 2.4 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	2.53	0.68	3.79	0.90	5.06	1.19	6.62	2.05	7.92	2.92	9.43	4.21	10.69	5.38
0501-A	3.66	0.98	5.12	1.55	6.74	2.71	8.19	3.99	9.61	5.53	8.61	4.41	10.67	6.75	13.09	10.07
0501-B	5.10	0.89	7.61	1.46	9.86	2.45	12.09	3.68	14.06	4.95	12.73	4.09	15.90	6.38	19.11	9.07
0601-B	8.50	2.31	10.85	3.76	13.15	5.56	11.68	4.33	15.52	7.71	19.37	11.86	—	—	—	—
0401-C	—	—	8.02	0.75	11.35	0.99	15.12	1.51	18.90	2.37	22.60	3.43	25.90	4.45	24.46	4.00
0501-C	10.80	1.07	15.01	1.87	19.16	3.08	22.78	4.36	20.35	3.49	26.26	5.78	31.26	7.95	—	—
0602-C	13.87	1.08	18.18	1.73	21.88	2.49	20.41	2.17	27.60	4.02	33.58	5.84	40.82	8.51	—	—
0702-C	18.01	1.94	21.85	2.87	23.12	3.22	30.80	5.74	37.80	8.43	—	—	—	—	—	—
0503-D	—	—	16.84	0.73	23.31	0.94	29.00	1.16	34.66	1.66	40.26	2.25	39.20	2.15	48.52	3.30
0604-D	14.79	0.63	21.51	0.77	27.27	0.93	32.97	1.11	29.59	1.00	40.68	1.61	49.98	2.40	61.27	3.60
0702-D	26.75	1.83	33.18	2.86	34.48	3.10	45.27	5.32	56.07	8.04	69.00	12.11	—	—	—	—
0704-D	22.01	0.83	28.06	1.02	33.94	1.30	34.77	1.36	47.78	2.58	58.67	3.84	69.47	5.33	—	—
0804-D	26.91	1.05	27.45	1.08	38.27	1.88	51.82	3.45	64.08	5.25	73.81	6.80	—	—	—	—
0904-D	25.92	1.13	38.07	2.25	51.82	4.16	64.10	6.30	76.11	8.81	86.81	11.25	—	—	—	—
0804-E	42.18	1.39	42.11	1.39	60.68	2.83	79.50	4.79	98.23	7.25	116.66	10.10	—	—	—	—
0806-E	33.85	0.96	42.26	1.16	42.22	1.16	60.64	2.28	79.26	3.75	97.97	5.57	116.58	7.71	131.45	9.54
1004-F	60.30	1.58	76.67	2.51	94.19	3.76	111.47	5.26	126.53	6.69	141.56	8.29	—	—	—	—
1104-F	73.24	2.64	90.89	4.00	108.4	5.65	124.48	7.38	140.41	9.34	—	—	—	—	—	—
1004-G	72.22	1.34	94.51	2.29	114.16	3.26	136.30	4.65	155.68	6.00	175.06	7.51	196.72	9.53	—	—
1104-G	90.28	2.46	111.46	3.67	132.49	5.11	155.99	7.15	176.56	9.10	—	—	—	—	—	—
0903-H	91.50	1.50	102.53	1.86	128.10	2.87	153.67	4.10	179.25	5.54	204.80	7.19	230.36	9.04	255.79	11.09
1003-H	100.66	2.11	126.90	3.29	154.87	4.86	182.60	6.74	210.23	8.90	234.70	10.92	—	—	—	—
1206-H	116.28	1.30	144.65	1.97	176.80	2.94	204.85	3.91	232.47	5.01	—	—	—	—	—	—
1003-J	127.35	1.96	162.22	3.13	197.05	4.58	231.65	6.29	266.21	8.26	300.60	10.49	—	—	—	—
1104-J	145.77	1.81	183.80	2.84	221.27	4.10	254.15	5.32	290.95	6.99	—	—	—	—	—	—
1204-J	171.88	2.99	207.67	4.27	247.43	6.09	282.29	7.85	—	—	—	—	—	—	—	—

12 F Water Temperature Range; 2 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PO	Cap.	PO	Cap.	PO	Cap.	PO	Cap.	PO	Cap.	PO	Cap.	PO	Cap.	PO
0401-A	—	—	2.99	0.68	4.12	0.82	5.66	1.11	6.95	1.57	8.49	2.37	9.78	3.12	11.05	3.99
0501-A	4.09	0.91	5.71	1.36	7.33	2.24	8.63	3.06	7.40	2.25	9.81	4.01	12.21	6.26	13.96	7.96
0501-B	5.75	0.84	8.27	1.20	10.77	2.04	12.77	2.84	11.40	2.30	14.04	3.44	17.76	5.58	20.45	7.23
0601-B	9.30	1.91	11.66	3.00	13.97	4.33	13.93	4.33	17.14	6.49	21.00	9.68	24.88	13.44	—	—
0401-C	6.13	0.61	9.41	0.74	13.14	0.97	16.89	1.33	20.65	1.99	24.36	2.79	27.32	3.48	26.47	3.25
0501-C	12.56	1.04	16.76	1.63	20.47	2.41	24.56	3.52	23.88	3.36	28.83	4.82	35.82	7.38	40.93	9.36
0602-C	15.32	1.00	19.64	1.40	23.35	1.97	23.34	1.97	30.57	3.41	37.77	5.21	43.82	6.85	52.18	9.71
0702-C	19.71	1.62	18.90	1.48	27.29	3.15	34.30	4.93	41.31	7.03	49.66	10.09	—	—	—	—
0503-D	13.03	0.60	18.66	0.70	24.35	0.84	30.78	1.04	36.44	1.28	33.60	1.14	41.29	1.64	52.26	2.66
0604-D	16.43	0.61	22.67	0.71	28.44	0.82	34.16	0.96	33.90	0.96	43.06	1.25	54.25	1.99	63.65	2.70
0702-D	29.34	1.54	27.94	1.41	38.65	2.68	50.62	4.62	61.44	6.75	74.32	9.84	85.14	12.71	—	—
0704-D	23.93	0.77	29.97	0.92	29.26	0.90	39.87	1.26	50.63	2.00	63.66	3.18	74.50	4.32	85.20	5.60
0804-D	29.10	0.95	30.66	1.00	42.83	1.64	55.11	2.70	67.43	4.02	79.58	5.60	91.51	7.36	—	—
0904-D	31.01	1.13	43.21	2.03	55.54	3.30	69.24	5.13	81.35	7.06	—	—	—	—	—	—
0804-E	45.56	1.14	47.05	1.20	65.75	2.30	84.61	3.76	105.37	5.82	122.10	7.70	140.47	10.10	—	—
0806-E	35.17	0.85	44.46	1.04	46.84	1.09	65.26	1.87	79.96	2.68	98.69	3.97	117.42	5.49	136.07	7.25
1004-F	67.48	1.39	85.01	2.18	100.44	2.96	118.00	4.07	135.16	5.35	—	—	—	—	—	—
1104-F	79.87	2.18	98.80	3.31	115.40	4.42	133.77	5.98	—	—	—	—	—	—	—	—
1004-G	83.08	1.25	102.65	1.86	125.18	2.75	147.57	3.81	167.05	4.82	188.92	6.19	—	—	—	—
1104-G	99.04	2.05	123.37	3.16	144.68	4.27	165.60	5.54	—	—	—	—	—	—	—	—
0903-H	89.75	1.01	115.25	1.64	144.20	2.57	169.88	3.53	195.47	4.64	221.10	5.89	246.71	7.29	272.24	8.83
1003-H	112.72	1.83	140.99	2.83	169.20	4.04	197.12	5.45	224.90	7.08	252.49	8.90	—	—	—	—
1206-H	127.44	1.09	159.96	1.71	188.37	2.32	216.63	3.03	—	—	—	—	—	—	—	—
1003-J	144.57	1.76	179.73	2.68	214.88	3.78	249.75	5.08	284.52	6.55	319.13	8.20	—	—	—	—
1104-J	164.31	1.61	202.48	2.41	240.45	3.37	273.54	4.29	310.50	5.54	—	—	—	—	—	—
1204-J	191.94	2.61	228.16	3.60	268.20	4.99	303.23	6.31	—	—	—	—	—	—	—	—

Legend

Cap. — Capacity (Tons)

EFT — Entering Fluid Temperature

LFT — Leaving Fluid Temperature

PD — Pressure Drop (PSIG)

SST — Refrigerant Saturated Suction Temperature

Notes:

1. Ratings based on 35 F saturated suction

Temperature. Fouling factor is 0.0001.

2. Shaded selections are 2-pass. All other selections are 4-pass.

3. LTD = LFT – SST

4. Range = EFT – LFT

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Water Ratings - R-134a

6 F Water Temperature Range; 4 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	—	—	2.37	0.93	3.46	1.56	4.42	2.53	5.52	3.97	6.47	5.43	7.41	7.07
0501-A	1.94	0.87	3.06	1.55	4.19	2.90	5.31	4.68	6.33	6.66	7.16	8.42	7.97	10.37	8.60	11.96
0501-B	2.86	0.84	4.46	1.38	6.20	2.68	7.93	4.42	9.27	5.96	10.66	7.89	11.82	9.56	12.73	11.12
0601-B	4.67	1.91	6.57	3.84	8.14	5.87	9.51	8.02	10.69	10.02	12.38	13.43	—	—	—	—
0401-C	—	—	—	—	7.05	1.03	9.86	1.80	12.66	3.00	15.07	4.20	17.48	5.54	19.79	7.05
0501-C	5.70	0.94	8.69	1.74	11.68	3.17	14.39	4.82	16.81	6.47	18.92	8.10	20.29	9.36	—	—
0602-C	8.00	1.04	10.94	1.72	13.80	2.77	16.08	3.72	18.18	4.82	21.82	6.85	—	—	—	—
0702-C	10.33	1.75	13.24	2.93	15.44	3.97	18.03	5.41	23.96	9.44	—	—	—	—	—	—
0503-D	—	—	10.33	0.74	14.97	1.00	19.59	1.48	23.47	2.10	27.54	2.93	30.82	3.67	33.50	4.35
0604-D	9.11	0.64	13.67	0.80	18.20	1.02	22.60	1.38	26.03	1.82	29.04	2.23	36.18	3.50	43.21	4.91
0702-D	15.67	1.75	20.00	2.86	23.64	4.01	26.71	5.10	34.81	8.54	44.04	13.48	—	—	—	—
0704-D	13.36	0.83	17.97	1.10	21.94	1.51	25.20	2.00	31.83	3.17	39.97	4.93	—	—	—	—
0804-D	21.64	0.66	20.32	1.47	23.43	1.94	32.19	3.65	41.38	6.00	—	—	—	—	—	—
0904-D	25.08	0.94	26.05	2.18	31.18	4.15	41.36	7.33	50.04	10.54	58.56	14.27	65.65	17.65	72.60	21.37
0804-E	33.14	0.72	31.52	2.13	36.23	2.79	49.33	5.06	63.39	8.26	—	—	—	—	—	—
0806-E	32.25	0.61	28.00	1.41	33.30	1.93	41.94	2.97	54.01	4.68	69.92	7.69	82.05	10.27	94.08	13.15
1004-F	43.61	2.03	54.46	3.5	67.59	5.35	79.55	7.31	91.41	9.57	102.79	12.13	113.10	14.59	63.00	17.28
1104-F	49.38	3.31	62.39	5.17	75.19	7.45	87.72	10.12	98.76	12.78	108.74	15.30	59.72	18.03	61.47	20.96
1004-G	55.60	1.73	64.71	2.92	81.53	4.61	98.15	6.68	113.42	8.83	128.42	11.26	141.85	13.62	154.99	16.18
1104-G	61.84	2.96	76.33	4.76	92.78	6.97	109.03	9.59	123.68	12.20	137.68	15.12	150.37	17.85	78.27	20.78
0903-H	58.37	1.70	72.39	2.57	93.21	4.25	111.04	5.89	131.93	8.30	152.70	11.10	—	—	—	—
1003-H	69.66	2.47	88.67	4.49	108.03	6.51	130.55	9.56	149.89	12.39	—	—	—	—	—	—
1206-H	83.23	1.71	102.44	2.74	124.56	4.01	144.62	5.32	163.64	6.81	180.67	8.23	102.67	9.78	105.64	11.45
1003-J	86.43	2.35	110.46	3.99	138.72	6.29	163.04	8.50	191.02	11.70	—	—	—	—	—	—
1104-J	98.00	2.27	126.47	3.73	152.49	5.32	178.43	7.19	205.72	9.61	228.35	11.71	250.39	14.02	—	—
1204-J	113.30	3.60	141.25	5.50	168.77	7.79	195.63	10.45	217.62	12.70	240.42	15.57	131.95	18.25	135.91	21.12

8 F Water Temperature Range; 3 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	—	—	2.84	0.85	3.80	1.11	4.90	1.75	5.99	2.63	6.94	3.53	7.86	4.57
0501-A	2.46	0.83	3.68	1.26	4.73	2.05	5.91	3.27	6.77	4.25	7.67	5.50	8.14	6.26	9.80	8.89
0501-B	3.66	0.81	5.40	1.15	7.02	1.92	8.61	2.90	10.15	4.08	11.42	5.18	11.50	5.19	14.06	7.67
0601-B	5.81	1.68	7.41	2.70	8.94	3.96	10.29	5.27	11.25	6.33	14.00	9.67	—	—	—	—
0401-C	—	—	5.67	0.70	8.46	0.94	11.28	1.32	14.08	2.08	16.49	2.84	18.82	3.71	21.10	4.64
0501-C	7.49	0.93	10.49	1.43	13.25	2.26	15.91	3.30	18.26	4.39	20.36	5.41	22.83	6.69	—	—
0602-C	9.80	0.96	12.71	1.32	15.22	1.90	17.42	2.49	19.67	3.16	24.82	5.02	30.57	7.52	36.31	10.50
0702-C	12.20	1.40	14.59	1.99	16.75	2.62	22.23	4.67	27.49	7.02	33.45	10.26	—	—	—	—
0503-D	—	—	12.60	0.71	16.86	0.86	21.46	1.08	25.24	1.38	28.94	1.82	32.26	2.26	37.23	3.04
0604-D	11.31	0.62	15.84	0.73	19.90	0.86	23.79	1.01	27.22	1.12	30.61	1.42	38.60	2.24	47.58	3.40
0702-D	18.34	1.36	22.08	1.94	25.63	2.65	32.05	4.13	41.29	6.89	50.47	10.18	58.55	13.48	—	—
0704-D	15.65	0.76	19.92	0.92	23.35	1.07	26.64	1.26	34.74	2.11	44.01	3.37	53.21	4.94	61.17	6.46
0804-D	18.44	0.91	22.13	1.09	27.62	1.53	36.83	2.69	46.07	4.19	55.11	6.01	62.81	7.71	—	—
0904-D	24.62	0.94	27.59	1.87	36.43	3.19	46.63	5.25	55.18	7.35	62.37	9.20	69.48	11.25	—	—
0804-E	28.70	1.09	34.02	1.41	42.34	2.13	58.38	4.06	72.48	6.19	84.54	8.27	97.96	11.08	—	—
0806-E	24.03	0.86	29.89	1.04	35.09	1.25	46.67	2.12	60.65	3.45	74.64	5.08	86.72	6.66	98.67	8.45
1004-F	49.83	1.70	61.99	2.56	76.19	3.87	88.01	5.12	98.66	6.35	109.18	7.71	120.21	9.42	—	—
1104-F	57.54	2.53	71.65	3.90	83.35	5.17	95.46	6.84	105.64	8.24	56.64	10.03	58.34	11.70	—	—
1004-G	60.41	1.48	75.94	2.29	92.89	3.39	109.43	4.72	123.22	5.89	136.89	7.19	151.35	8.83	—	—
1104-G	70.33	2.30	88.54	3.64	104.94	5.07	119.52	6.52	133.84	8.14	147.80	9.94	74.65	11.61	—	—
0903-H	65.99	1.23	85.33	2.02	106.46	3.11	127.37	4.44	145.41	5.67	165.81	7.41	183.42	8.96	200.91	10.65
1003-H	81.83	2.18	103.12	3.41	125.83	5.08	145.09	6.65	163.99	8.43	182.65	10.4	200.98	12.57	—	—
1206-H	93.90	1.33	116.23	2.00	137.99	2.81	157.44	3.63	176.41	4.55	96.94	5.42	99.80	6.37	102.61	7.21
1003-J	103.98	2.05	130.55	3.16	157.00	4.51	184.98	6.29	208.72	7.92	232.2	9.72	255.35	11.69	—	—
1104-J	117.08	1.83	145.75	2.79	171.97	3.82	197.25	5.00	222.01	6.34	244.65	7.63	—	—	—	—
1204-J	134.00	2.85	162.17	4.09	188.83	5.56	212.94	7.03	234.9	8.42	125.53	10.19	129.38	11.83	133.16	13.58

Legend

Cap. — Capacity (Tons)
EFT — Entering Fluid Temperature
LFT — Leaving Fluid Temperature
PD — Pressure Drop (PSIG)
SST — Refrigerant Saturated Suction Temperature

Notes:

1. Ratings based on 35 F saturated suction Temperature. Fouling factor is 0.0001.
2. Shaded selections are 2-pass. All other selections are 4-pass.
3. LTD = LFT – SST
4. Range = EFT – LFT

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Water Ratings - R-134a

10 F Water Temperature Range; 2.4 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	2.21	0.64	3.17	0.78	4.26	1.00	5.35	1.34	6.31	1.87	7.26	2.47	8.19	3.16
0501-A	3.06	0.83	4.11	1.09	5.30	1.68	6.32	2.39	7.19	3.06	8.15	4.00	9.00	4.85	10.66	6.75
0501-B	4.45	0.80	6.06	1.04	7.67	1.46	9.25	2.14	10.78	2.95	12.07	3.69	13.33	4.52	15.9	6.38
0601-B	6.60	1.39	8.17	2.11	9.69	3.00	11.04	3.90	13.16	5.57	15.61	7.71	18.68	10.96	—	—
0401-C	—	—	7.05	0.70	9.85	0.88	12.28	1.08	15.06	1.51	17.46	2.03	19.84	2.62	22.12	3.30
0501-C	9.00	0.90	11.98	1.19	14.69	1.80	17.32	2.53	19.51	3.18	21.53	3.92	26.33	5.78	31.19	7.95
0602-C	10.95	0.87	13.82	1.08	16.33	1.40	18.54	1.80	23.19	2.84	27.79	4.02	33.51	5.84	39.19	7.94
0702-C	13.34	1.12	15.86	1.51	18.94	2.14	25.67	3.98	30.93	5.74	36.81	8.07	42.01	10.36	—	—
0503-D	9.81	0.58	14.05	0.66	18.66	0.79	22.49	0.91	26.29	1.06	30.02	1.24	31.80	1.41	39.32	2.15
0604-D	12.51	0.59	17.02	0.67	21.02	0.76	24.93	0.86	28.37	0.96	33.92	1.13	40.97	1.62	49.93	2.40
0702-D	20.08	1.11	24.02	1.49	28.03	2.02	37.33	3.60	46.56	5.65	54.62	7.68	62.65	9.98	70.6	12.56
0704-D	17.28	0.71	21.27	0.81	24.71	0.91	29.43	1.07	39.78	1.80	47.90	2.58	56.02	3.50	64.04	4.57
0804-D	19.97	0.81	23.67	0.93	32.15	1.34	41.35	2.19	50.46	3.26	58.38	4.31	67.14	5.76	73.76	6.80
0904-D	24.22	0.97	31.28	1.52	41.48	2.68	50.23	3.89	58.85	5.34	67.17	7.01	—	—	—	—
0804-E	31.07	0.95	36.43	1.11	51.27	2.05	65.31	3.28	79.26	4.80	91.30	6.29	103.12	7.93	114.79	9.72
0806-E	25.76	0.77	31.59	0.90	37.4	1.05	51.31	1.68	63.36	2.45	77.25	3.55	89.29	4.62	102.90	6.08
1004-F	55.93	1.37	69.12	2.06	82.14	2.90	94.04	3.76	105.7	4.73	116.21	5.67	—	—	—	—
1104-F	65.21	2.11	78.08	2.98	90.70	4.00	102.13	5.02	113.11	6.15	—	—	—	—	68.28	9.76
1004-G	68.42	1.21	86.70	1.94	102.19	2.65	117.57	3.48	132.55	4.40	147.25	5.44	159.76	6.29	—	—
1104-G	80.50	1.95	98.52	2.92	113.61	3.8	128.38	4.81	143.79	6.09	—	—	—	—	87.46	9.51
0903-H	76.80	1.07	98.00	1.71	119.14	2.51	140.04	3.46	157.88	4.33	178.27	5.54	195.90	6.62	213.41	7.79
1003-H	93.92	1.83	116.89	2.83	136.47	3.78	158.56	5.15	177.46	6.40	196.09	7.78	—	—	—	—
1206-H	104.96	1.07	127.07	1.55	147.06	2.04	166.71	2.60	185.89	3.22	94.67	3.91	—	—	—	—
1003-J	119.04	1.71	145.72	2.51	174.18	3.59	200.07	4.71	225.57	5.99	249.05	7.24	—	—	—	—
1104-J	133.11	1.52	161.62	2.21	189.66	3.03	214.93	3.87	237.98	4.69	—	—	—	—	—	—
1204-J	151.02	2.33	178.80	3.23	205.72	4.27	228.20	5.14	119.42	6.26	123.21	7.48	—	—	—	—

12 F Water Temperature Range; 2 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	2.53	0.63	3.48	0.73	4.58	0.90	5.66	1.11	6.62	1.43	7.57	1.87	8.51	2.37
0501-A	3.47	0.80	4.52	0.99	5.71	1.36	6.73	1.88	7.59	2.37	8.15	2.78	9.82	4.01	11.49	5.48
0501-B	5.07	0.77	6.68	0.96	8.29	1.20	9.86	1.70	11.30	2.23	11.49	2.30	14.60	3.77	17.17	5.21
0601-B	7.20	1.15	8.91	1.76	10.31	2.34	11.60	3.00	14.69	4.84	17.14	6.50	20.21	9.00	23.26	11.86
0401-C	5.41	0.58	7.99	0.68	10.80	0.82	13.22	0.97	16.01	1.19	18.74	1.65	20.80	2.00	21.67	2.19
0501-C	10.18	0.86	13.17	1.09	15.88	1.46	18.51	2.01	20.71	2.49	23.97	3.36	28.78	4.82	33.62	6.47
0602-C	12.03	0.81	14.90	0.98	17.42	1.11	19.65	1.40	24.81	2.23	30.62	3.41	36.33	4.83	40.92	6.00
0702-C	14.59	1.02	17.09	1.23	22.25	2.07	28.26	3.35	34.22	4.94	39.46	6.48	44.67	8.19	49.84	10.09
0503-D	11.18	0.57	15.03	0.63	19.64	0.72	23.84	0.82	27.95	0.95	31.65	1.07	33.79	1.14	41.30	1.64
0604-D	13.62	0.58	18.12	0.64	22.13	0.70	26.05	0.78	29.49	0.85	36.18	1.02	43.22	1.26	52.15	1.83
0702-D	21.98	1.01	25.91	1.22	32.01	1.84	41.30	3.07	50.58	4.63	58.67	6.20	66.70	7.92	74.66	9.84
0704-D	18.58	0.67	22.59	0.75	26.04	0.82	32.13	0.98	42.44	1.43	50.57	2.01	58.71	2.68	66.83	3.46
0804-D	21.46	0.75	26.07	0.87	35.24	1.12	44.43	1.76	53.57	2.56	61.51	3.33	70.43	4.40	78.02	5.39
0904-D	25.92	0.94	34.76	1.32	44.97	2.19	53.75	3.10	62.40	4.17	70.85	5.40	—	—	—	—
0804-E	33.39	0.87	41.99	1.07	56.03	1.70	70.09	2.63	84.08	3.76	97.90	5.09	108.22	6.09	121.36	7.70
0806-E	27.00	0.71	32.89	0.81	39.88	0.94	53.78	1.30	65.83	1.87	79.75	2.68	93.54	3.62	105.50	4.52
1004-F	61.60	1.17	73.86	1.63	87.96	2.32	99.92	2.96	111.68	3.68	—	—	—	—	—	—
1104-F	70.31	1.70	83.33	2.35	96.09	3.10	108.48	3.96	—	—	—	—	—	—	—	—
1004-G	75.90	1.04	94.30	1.60	109.90	2.14	125.39	2.75	140.68	3.44	155.46	4.20	—	—	—	—
1104-G	88.68	1.66	106.81	2.39	123.25	3.16	138.16	3.92	—	—	—	—	—	—	—	—
0903-H	85.53	0.92	106.86	1.41	128.19	2.01	149.41	2.72	170.18	3.53	188.04	4.25	208.23	5.25	—	—
1003-H	105.26	1.62	126.78	2.30	149.66	3.21	169.03	4.04	188.12	4.96	206.91	5.97	—	—	—	—
1206-H	113.47	0.88	135.76	1.23	157.59	1.65	177.28	2.06	—	—	—	—	—	—	—	—
1003-J	133.15	1.50	162.06	2.20	190.64	3.03	214.92	3.78	238.91	4.62	265.64	5.79	—	—	—	—
1104-J	146.00	1.27	176.83	1.86	203.04	2.41	228.86	3.03	253.69	3.73	—	—	—	—	—	—
1204-J	165.03	1.94	193.05	2.61	220.34	3.39	244.79	4.15	—	—	—	—	—	—	153.43	7.48

Legend

Cap. — Capacity (Tons)
EFT — Entering Fluid Temperature
LFT — Leaving Fluid Temperature
PD — Pressure Drop (PSIG)
SST — Refrigerant Saturated Suction Temperature

Notes:

1. Ratings based on 35 F saturated suction Temperature Fouling factor is 0.0001.
2. Shaded selections are 2-pass. All other selections are 4-pass.
3. LTD = LFT – SST
4. Range = EFT – LFT

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Water Ratings - R507/440A 91

6 F Water Temperature Range; 4 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	2.20	0.87	3.31	1.42	4.72	2.90	6.01	4.67	7.29	6.78	8.80	9.90	7.26	6.78
0501-A	2.67	1.17	4.28	3.04	5.74	5.42	7.17	8.42	5.70	5.43	7.37	8.89	—	—	—	—
0501-B	3.98	1.11	6.33	2.82	8.57	5.15	10.77	8.12	8.26	4.79	10.83	8.12	—	—	—	—
0601-B	6.59	3.83	8.93	7.04	11.07	10.73	9.35	7.69	—	—	—	—	—	—	—	—
0401-C	—	—	6.57	0.97	9.88	1.80	13.24	3.22	16.95	5.25	20.65	7.70	16.90	5.25	20.79	7.70
0501-C	8.09	1.50	12.02	3.33	16.14	6.03	19.75	8.85	15.66	5.62	—	—	—	—	—	—
0602-C	10.95	1.72	15.28	3.38	18.95	5.20	16.77	4.07	23.24	7.75	—	—	—	—	—	—
0702-C	14.56	3.53	11.95	2.39	18.00	5.41	24.87	10.09	—	—	—	—	—	—	—	—
0503-D	—	—	14.90	1.00	20.59	1.62	27.02	2.82	32.60	4.12	27.97	3.03	35.55	4.82	44.83	7.55
0604-D	—	—	19.24	1.09	25.01	1.66	—	—	28.34	2.15	38.49	3.95	—	—	—	—
0702-D	21.94	3.45	—	—	26.65	5.09	37.27	9.84	—	—	—	—	—	—	—	—
0704-D	18.64	1.14	24.68	1.89	—	—	31.93	3.16	42.64	5.59	—	—	—	—	—	—
0804-D	22.90	1.87	—	—	32.19	3.64	44.36	6.89	—	—	—	—	—	—	—	—
0904-D	—	—	31.04	4.14	43.22	7.94	55.35	12.71	67.42	18.54	—	—	—	—	—	—
0804-E	35.15	2.61	32.81	2.29	51.30	5.54	67.93	9.46	—	—	—	—	—	—	—	—
0806-E	29.32	1.51	38.53	2.52	39.70	2.67	56.18	5.06	74.87	8.67	93.34	13.14	108.24	16.99	—	—
1004-F	43.98	2.33	58.76	4.07	73.66	6.29	88.60	8.98	105.54	12.81	—	—	—	—	—	—
1104-F	52.71	3.74	69.95	6.55	85.92	9.76	101.86	13.60	—	—	—	—	—	—	—	—
1004-G	—	—	68.42	3.26	87.37	5.26	106.43	7.72	128.21	11.26	147.30	14.70	—	—	—	—
1104-G	62.05	3.16	82.57	5.54	103.09	8.56	123.64	12.20	144.11	16.46	—	—	—	—	—	—
0903-H	72.00	2.57	74.51	2.72	97.52	4.64	119.21	6.81	144.29	9.94	—	—	—	—	—	—
1003-H	69.96	2.83	93.40	4.96	117.10	7.66	141.11	10.93	—	—	—	—	—	—	—	—
1206-H	85.71	1.94	113.38	3.35	141.19	5.12	166.77	7.04	—	—	—	—	—	—	—	—
1003-J	86.96	2.51	116.20	4.41	147.92	7.08	179.96	10.36	—	—	—	—	—	—	—	—
1104-J	101.64	2.41	133.79	4.10	170.59	6.69	202.99	9.32	235.46	12.36	—	—	—	—	—	—
1204-J	120.82	4.04	157.94	6.88	192.64	10.10	227.22	13.90	—	—	—	—	—	—	—	—

8 F Water Temperature Range; 3 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	2.68	0.81	3.94	1.14	5.35	2.10	6.65	3.21	8.17	4.93	6.62	3.22	8.22	4.93
0501-A	3.49	1.13	5.10	2.42	6.56	3.98	7.99	5.93	6.57	3.99	8.96	7.52	10.68	10.37	—	—
0501-B	5.10	1.10	7.34	2.10	9.59	3.58	11.80	5.46	10.14	4.08	12.74	6.38	15.93	9.81	—	—
0601-B	8.12	3.29	10.45	5.46	8.53	3.62	11.68	6.77	15.50	11.85	—	—	—	—	—	—
0401-C	5.18	0.67	8.44	0.94	11.77	1.44	15.52	2.52	18.88	3.71	22.55	5.25	19.74	4.07	24.45	6.12
0501-C	10.74	1.51	14.44	2.69	18.56	4.52	14.43	2.70	20.30	5.41	25.23	8.10	—	—	—	—
0602-C	13.47	1.47	17.48	2.49	14.57	1.73	20.44	3.40	27.58	6.21	33.59	8.95	—	—	—	—
0702-C	17.11	2.75	15.47	2.23	22.37	4.67	30.00	8.34	—	—	—	—	—	—	—	—
0503-D	—	—	16.90	0.86	23.35	1.18	29.04	1.82	24.19	1.28	31.75	2.19	41.00	3.68	48.74	5.07
0604-D	15.31	0.72	21.53	0.92	27.27	1.12	22.76	0.96	31.82	1.52	42.96	2.79	52.28	4.07	—	—
0702-D	25.39	2.58	22.69	2.06	33.34	4.48	45.15	8.22	55.92	12.33	—	—	—	—	—	—
0704-D	21.38	0.98	27.35	1.32	26.62	1.26	37.25	2.43	48.05	4.00	58.81	5.93	—	—	—	—
0804-D	—	—	27.50	1.53	39.63	3.15	51.85	5.36	62.75	7.70	—	—	—	—	—	—
0904-D	25.88	1.65	38.02	3.49	51.66	6.45	62.42	9.20	74.35	12.90	—	—	—	—	—	—
0804-E	—	—	42.17	2.13	60.78	4.38	79.45	7.41	97.95	11.07	—	—	—	—	—	—
0806-E	32.84	1.10	—	—	46.63	2.12	61.18	3.44	79.90	5.68	98.66	8.44	117.04	11.68	—	—
1004-F	52.92	1.90	67.87	3.05	85.11	4.79	100.04	6.54	114.99	8.55	—	—	—	—	—	—
1104-F	63.78	3.10	80.01	4.79	96.14	6.84	112.10	9.24	—	—	—	—	—	—	—	—
1004-G	64.12	1.67	83.10	2.75	102.27	4.10	121.39	5.71	140.58	7.59	159.71	9.71	—	—	—	—
1104-G	77.98	2.86	98.72	4.51	119.27	6.52	139.79	8.89	—	—	—	—	—	—	—	—
0903-H	68.15	1.31	89.59	2.22	114.59	3.62	136.49	5.04	161.69	7.05	186.96	9.37	212.18	12.01	—	—
1003H	86.53	2.43	112.16	4.04	136.09	5.84	163.49	8.43	187.70	10.93	—	—	—	—	—	—
1206-H	102.41	1.57	132.24	2.60	160.04	3.75	187.58	5.12	—	—	—	—	—	—	—	—
1003-J	109.80	2.27	139.57	3.59	173.66	5.55	207.83	7.92	238.10	10.20	—	—	—	—	—	—
0401-J	126.55	2.13	159.14	3.29	196.05	5.00	228.52	6.69	—	—	—	—	—	—	—	—
1204-J	148.04	3.44	185.40	5.37	220.09	7.48	—	—	—	—	—	—	—	—	—	—

Legend

Cap. — Capacity (Tons)
 EFT — Entering Fluid Temperature
 LFT — Leaving Fluid Temperature
 PD — Pressure Drop (PSIG)
 SST — Refrigerant Saturated Suction Temperature

Notes:

1. Ratings based on 35 F saturated suction Temperature. Fouling factor is 0.0001.
2. Shaded selections are 2-pass. All other selections are 4-pass.
3. LTD = LFT – SST
4. Range = EFT – LFT

10RT SERIES DX COOLERS (7-1/2 TO 350 NOMINAL TONS)

Water Ratings - R507/440A 91

10 F Water Temperature Range; 2.4 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	—	—	3.16	0.78	4.42	1.03	5.97	1.68	7.26	2.47	8.54	3.41	7.55	2.69	9.43	4.22
0501-A	4.28	1.10	5.74	1.95	7.33	3.23	5.74	1.95	7.79	3.61	9.85	5.77	12.26	8.89	14.68	12.63
0501-B	6.06	1.04	8.31	1.72	10.78	2.94	8.30	1.72	11.46	3.31	14.64	5.42	17.83	7.94	—	—
0601-B	9.13	2.64	11.27	4.03	10.13	3.24	13.98	6.24	17.82	10.09	—	—	—	—	—	—
0401-C	6.59	0.67	9.88	0.88	13.23	1.15	17.01	1.92	20.71	2.87	17.86	2.14	22.56	3.43	27.30	4.92
0501-C	12.60	1.31	16.75	2.35	20.36	3.48	17.97	2.71	23.89	4.82	28.88	6.82	—	—	—	—
0602-C	15.30	1.22	18.97	1.87	17.52	1.59	24.70	3.21	30.69	4.91	37.90	7.38	45.15	10.34	—	—
0702-C	12.87	1.08	19.70	2.33	27.39	4.53	34.36	7.02	42.70	10.77	—	—	—	—	—	—
0503-D	13.95	0.66	19.60	0.82	25.28	1.02	30.87	1.32	26.26	1.06	35.48	1.75	44.83	2.80	54.13	4.08
0604-D	17.07	0.67	23.70	0.83	28.89	0.98	27.12	0.93	36.20	1.28	45.46	1.99	56.73	3.09	67.89	4.43
0702-D	—	—	29.20	2.22	39.94	4.13	50.76	6.64	63.66	10.38	74.33	13.95	—	—	—	—
0704-D	23.88	0.89	—	—	30.66	1.12	42.47	2.04	53.29	3.18	64.17	4.56	74.78	6.14	—	—
0804-D	—	—	32.19	1.34	44.40	2.52	57.92	4.30	67.62	5.75	—	—	—	—	—	—
0904-D	31.17	1.52	44.83	3.13	57.09	5.02	69.04	7.35	—	—	—	—	—	—	—	—
0804-E	32.91	1.00	51.37	2.04	70.07	3.75	88.91	5.96	105.45	8.27	121.87	10.88	—	—	—	—
0806-E	35.15	0.98	35.13	0.98	51.42	1.68	69.93	2.97	88.55	4.62	103.41	6.07	121.78	8.30	—	—
1004-F	61.62	1.66	76.72	2.51	93.97	3.76	108.89	4.99	—	—	—	—	—	—	—	—
1104-F	73.33	2.64	89.57	3.87	105.65	5.33	—	—	—	—	—	—	—	—	—	—
1004-G	75.41	1.48	94.63	2.29	114.05	3.26	135.74	4.65	152.14	5.71	—	—	—	—	—	—
1104-G	90.45	2.46	111.36	3.67	131.89	5.11	152.03	6.79	—	—	—	—	—	—	—	—
0903-H	80.99	1.18	106.05	2.02	128.18	2.87	153.47	4.10	178.65	5.54	203.61	7.19	—	—	—	—
1003-H	102.77	2.21	130.49	3.53	154.66	4.86	178.64	6.40	205.59	8.52	—	—	—	—	—	—
1206-H	116.51	1.30	144.48	1.97	172.08	2.77	—	—	—	—	—	—	—	—	—	—
1003-J	127.77	1.96	162.38	3.13	196.80	4.58	226.78	5.99	260.51	7.92	—	—	—	—	—	—
1104-J	146.11	1.81	183.71	2.84	216.12	3.87	248.18	5.06	—	—	—	—	—	—	—	—
1204-J	171.92	2.99	206.87	4.27	241.04	5.76	—	—	—	—	—	—	—	—	—	—

12 F Water Temperature Range; 2 GPM/TON

UNIT 10RT	LEAVING TEMPERATURE DIFFERENCE (LTD) (F)															
	5		6		7		8		9		10		11		12	
	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD	Cap.	PD
0401-A	2.37	0.61	3.49	0.73	4.89	0.96	6.30	1.29	7.58	1.87	8.86	2.54	8.21	2.20	10.10	3.33
0501-A	4.71	1.04	6.17	1.55	7.76	2.50	6.93	2.00	8.99	3.36	11.40	5.46	13.15	7.09	15.57	9.87
0501-B	6.98	1.00	9.21	1.48	11.43	2.29	10.14	1.81	12.77	2.84	16.51	4.81	19.71	6.80	22.93	9.07
0601-B	10.05	2.25	8.56	1.61	12.39	3.42	15.61	5.35	19.45	8.34	23.31	11.86	—	—	—	—
0401-C	—	0.66	11.28	0.85	15.01	1.11	18.37	1.56	21.72	2.18	20.63	2.00	24.58	2.80	30.13	4.20
0501-C	14.33	1.19	18.01	1.87	15.56	1.40	21.49	2.71	26.47	4.07	33.45	6.47	38.54	8.34	—	—
0602-C	16.72	1.09	14.59	0.95	20.46	1.51	27.67	2.79	34.89	4.46	40.91	6.00	48.10	8.22	—	—
0702-C	16.25	1.11	23.15	2.23	30.87	3.98	37.86	5.95	46.13	8.80	53.07	11.47	—	—	—	—
0503-D	14.99	0.63	20.64	0.74	27.03	0.92	31.93	1.07	29.92	1.00	39.18	1.49	48.56	2.29	57.92	3.26
0604-D	18.22	0.64	24.83	0.75	—	—	29.48	0.85	38.61	1.09	49.76	1.68	59.11	2.33	70.36	3.31
0702-D	22.70	1.04	34.48	2.15	45.28	3.69	56.13	5.65	66.89	7.92	79.57	11.23	—	—	—	—
0704-D	25.25	0.80	24.06	0.77	34.63	1.06	45.33	1.61	56.14	2.44	69.08	3.73	79.70	4.95	—	—
0804-D	24.62	0.82	36.74	1.22	48.95	2.14	61.16	3.32	73.28	4.77	—	—	—	—	—	—
0904-D	36.28	1.44	48.52	2.53	62.08	4.16	72.91	5.65	—	—	—	—	—	—	—	—
0804-E	39.83	1.01	56.42	1.70	75.17	2.98	93.95	4.62	112.46	6.61	—	—	—	—	—	—
0806-E	36.43	0.87	39.75	0.94	56.07	1.41	72.59	2.26	89.25	3.29	107.76	4.70	—	—	—	—
1004-F	67.67	1.39	84.97	2.18	100.11	2.96	117.18	4.07	—	—	—	—	—	—	—	—
1104-F	79.88	2.18	98.39	3.31	114.47	4.42	—	—	—	—	—	—	—	—	—	—
1004-G	83.36	1.25	102.73	1.86	124.90	2.75	144.23	3.62	—	—	—	—	—	—	—	—
1104-G	99.15	2.05	121.59	3.06	143.75	4.27	—	—	—	—	—	—	—	—	—	—
0903-H	93.49	1.10	118.77	1.76	144.20	2.57	169.48	3.53	191.66	4.44	216.73	5.67	—	—	—	—
1003-H	116.59	1.98	141.01	2.83	168.72	4.04	195.94	5.45	—	—	—	—	—	—	—	—
1206-H	127.58	1.09	155.58	1.59	183.35	2.19	—	—	—	—	—	—	—	—	—	—
1003-J	145.01	1.76	179.78	2.68	214.32	3.78	244.50	4.85	—	—	—	—	—	—	—	—
1104-J	164.53	1.61	202.03	2.41	234.87	3.20	—	—	—	—	—	—	—	—	—	—
1204-J	186.76	2.44	226.80	3.60	—	—	—	—	—	—	—	—	—	—	—	—

Legend

Cap. — Capacity (Tons)
EFT — Entering Fluid Temperature
LFT — Leaving Fluid Temperature
PD — Pressure Drop (PSIG)
SST — Refrigerant Saturated Suction Temperature

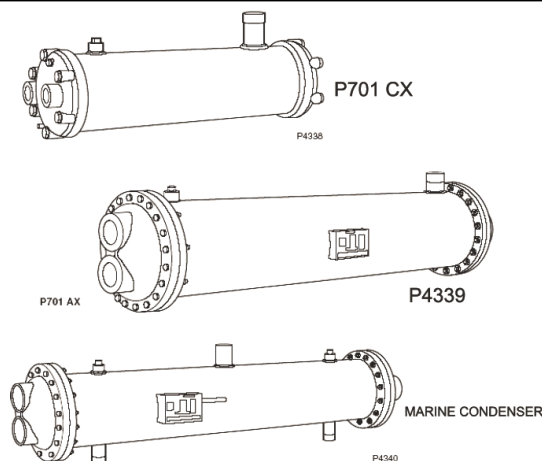
Notes:

1. Ratings based on 35 F saturated suction Temperature. Fouling factor is .0001.
2. Shaded selections are 2-pass. All other selections are 4-pass.
3. LTD = LFT - SST
4. Range = EFT - LFT

10RT SERIES DX COOLERS

Part Number	Condenser Head		Gasket
	Front	Rear	
10RT0401 A 147AB	HEAD0026223	HEAD0026216	GASKE010180
10RT0501 A 147AB	HEAD0026223	HEAD0026216	GASKE010180
10RT0501 B 147AB	HEAD0026111	HEAD0026135	GASKE010254
10RT0401 C 247AB	HEAD0025732	HEAD0025651	GASKE010247
10RT0501 C 247AB	HEAD0025732	HEAD0025651	GASKE010247
10RT0602 C 227AB	HEAD0025763	HEAD0025787	GASKE010247
10RT0702 C 227AB	HEAD0025763	HEAD0025787	GASKE010247
10RT0704 D 227AB	HEAD0025594	HEAD0025363	GASKE010216
10RT0804 D 227AB	HEAD0025594	HEAD0025363	GASKE010216
10RT0904 D 227AB	HEAD0025594	HEAD0025363	GASKE010216
10RT0804 E 227AB	HEAD0026142	HEAD0026166	GASKE010209
10RT1004 F 227AB	HEAD0026366	HEAD0026373	GASKE010223
10RT0601 B 147AB	HEAD0026111	HEAD0026135	GASKE010254
10RT0503 D 247AB	HEAD0010423	HEAD0025363	GASKE010216
10RT0604 D 247AB	HEAD0010423	HEAD0025363	GASKE010216
10RT0702 D 227AB	HEAD0025594	HEAD0025363	GASKE010216
10RT0806 E 227AB	HEAD0026142	HEAD0026166	GASKE010209
10RT1104 F 227AB	HEAD0026366	HEAD0026373	GASKE010223
10RT1004 G 227AB	HEAD0026492	HEAD0026511	GASKE016245
10RT1104 G 227AB	HEAD0026492	HEAD0026511	GASKE016245
10RT0903 H 227AB	HEAD0026528	HEAD0026454	GASKE016340
10RT1003 H 227AB	HEAD0026528	HEAD0026454	GASKE016340
10RT1205 H 227AB	HEAD0026528	HEAD0026454	GASKE016340
10RT1003 J 227AB	HEAD0011183	HEAD0021873	GASKE016238
10RT1104 J 227AB	HEAD0011183	HEAD0021873	GASKE016238
10RT1204 J 227AB	HEAD0011183	HEAD0021873	GASKE016238
10RT0902 L 227AB	HEAD0020906	COVER005369	GASKE015473
10RT1002 L 227AB	HEAD0026430	HEAD0026454	GASKE009930
10RT1103 L 227AB	HEAD0026430	HEAD0026454	GASKE009930
10RT1203 L 227AB	HEAD0026430	HEAD0026454	GASKE009930

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)



Totaline's water-cooled condensers are designed for a wide range of applications and are available in many models ranging from 5 to 400 nominal tons. Small and large condensers are available for fresh water applications while marine condensers can be special ordered for sea water applications.

Features/Benefits

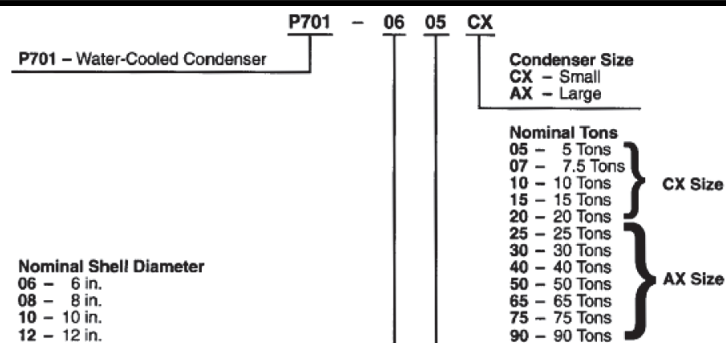
There are many standard condensers to choose from in small and large sizes. In addition, special ordered marine condensers for sea water applications can be ordered through Totaline's part stores. Totaline's condensers offer the following features and benefits:

- All condensers conform to ASME specifications.
- Shells are shot blasted and cleaned prior to assembly.
- Quality steel tube supports are made to close tolerance to minimize vibration.
- Exterior surfaces are cleaned and painted with a high quality enamel primer.
- Steel refrigerant connections are bored to accept outside diameter of sweat copper tubing.
- Relief, vent and drain connections are provided.

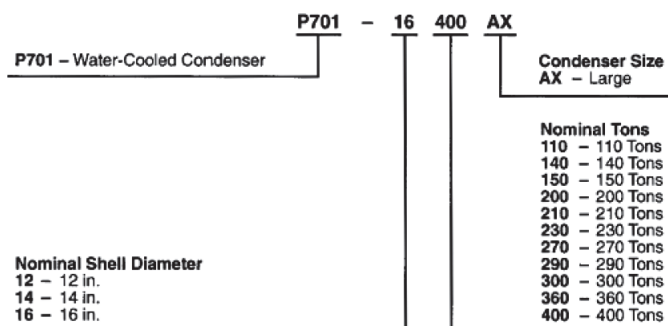
P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Model Number Nomenclature

05 To 09 Nominal Tons



110 TO 400 NOMINAL TONS

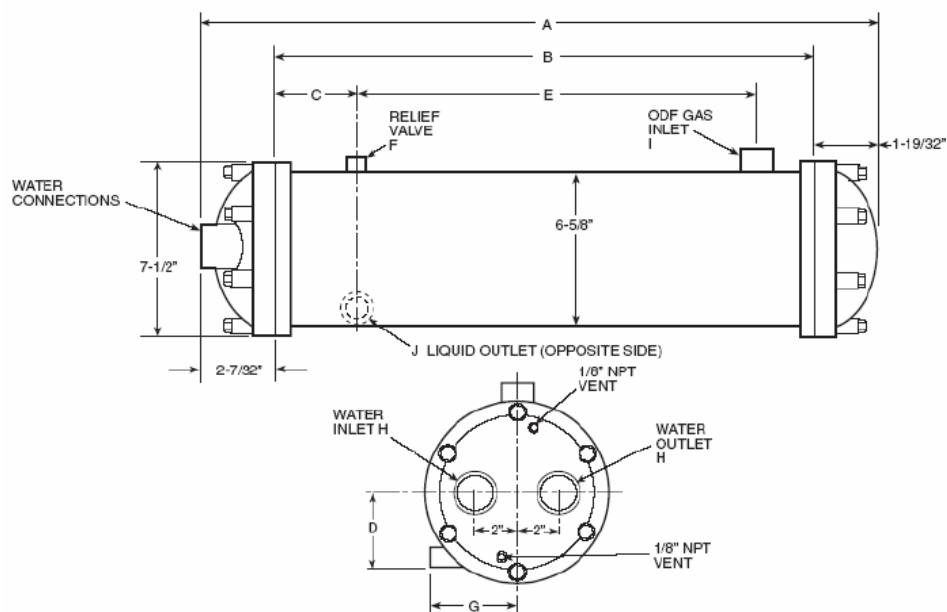


P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Physical Data and Dimensions

P701 CX Fresh Water Condensers

UNIT P701-CX



LEGEND

FPT -- Female Pipe Thread

NPT -- National Pipe Thread

ODF -- Outside Diameter Female

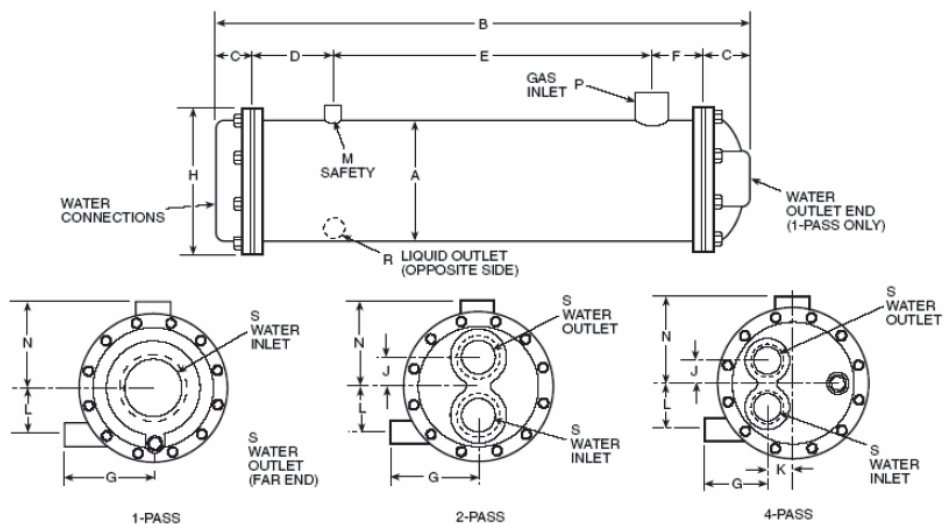
Part Number	Unit P701	A	B	C	D	E	F FPT	G	H FPT	I ODF	J ODF	Weight (lb)
P701-0605CX	0605CX	27-9/16	23-3/4	3-1/2	2	16-3/8	1/2	4-13/16	1	1-5/8	1-1/8	100
P701-0607CX	0607CX	27-9/16	23-3/4	3-1/2	2	16-3/8	1/2	4-13/16	1	1-5/8	1-1/8	105
P701-0610CX	0610CX	39-9/16	35-3/4	3-1/2	2	28-3/8	1/2	4-13/16	1-1/4	1-5/8	1-1/8	130
P701-0615CX	0615CX	51-9/16	47-3/4	3-1/2	2	40-3/8	1/2	4-13/16	1-1/4	1-5/8	1-1/8	160
P701-0620CX	0620CX	51-9/16	47-3/4	3-1/2	2	40-3/8	1/2	4-13/16	1-1/4	1-5/8	1-1/8	170

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Physical Data and Dimensions

P701 CX Fresh Water Condensers

UNIT P701-AX



FPT — Female Pipe Thread
 ODF — Outside Diameter Female
 *125 lb flat face flange.
 †150 lb raised face flange.

Part Number	A Dia	B	C	D	E	F	G	H	J	L	M FPT	N	P ODF	R ODF	S	Weight (lb)
P701-0625AX	6-5/8	63-13/16	2-1/32	3-1/2	52-3/8	3-7/8	4-13/16	7-1/2	1-1/2	2-5/8	2-5/8	6-5/16	1-5/8	1-1/8	2	170
P701-0630AX	6-5/8	63-13/16	2-1/32	3-1/2	52-3/8	3-7/8	4-13/16	7-1/2	1-1/2	2-5/8	2-5/8	6-5/16	2-1/8	1-3/8	2	195
P701-0840AX	8-5/8	66	3-1/8	3-1/2	52-3/8	3-7/8	5-13/16	9-11/16	1-7/8	3-13/32	3-13/32	7-5/16	2-1/8	1-3/8	2-1/2	300
P701-0850AX	8-5/8	78	3-1/8	3-1/2	64-3/8	3-7/8	5-13/16	9-11/16	1-7/8	3-13/32	3-13/32	7-5/16	2-1/8	1-3/8	2-1/2	340
P701-1065AX	10-3/4	69-1/8	4-11/16	3-3/4	52	4	6-7/8	13-3/4	2-1/4	4-1/4	4-1/4	8-3/8	2-5/8	1-5/8	3	460
P701-1075AX	10-3/4	81-1/8	4-11/16	3-3/4	64	4	6-7/8	13-3/4	2-1/4	4-1/4	4-1/4	8-3/8	2-5/8	1-5/8	3	475
P701-1290AX	12-3/4	69	4-5/8	4-3/16	50-15/16	4-5/8	7-7/8	15-3/4	2-5/8	5-1/4	5-1/4	9-3/8	2-5/8	1-5/8	4	590
P701-12110AX	12-3/4	81	4-5/8	4-3/8	62-7/16	4-15/16	7-7/8	15-3/4	2-5/8	5-1/16	5-1/16	9-3/8	3-1/8	2-1/8	4	665
P701-12140AX	12-3/4	108	6-1/8	4-3/8	86-7/16	4-15/16	7-7/8	15-3/4	—	5-1/16	5-1/16	9-3/8	3-1/8	2-1/8	6*	855
P701-12150AX	12-3/4	108	6-1/8	4-3/8	86-7/16	4-15/16	7-7/8	15-3/4	—	5-1/16	5-1/16	9-3/8	3-1/8	2-1/8	6*	890
P701-12200AX	12-3/4	132	6-1/8	4-3/8	110-3/16	5-3/16	7-7/8	15-3/4	—	5-1/16	5-1/16	9-3/8	3-5/8	2-1/8	6*	1060
P701-14140AX	14	69	5-1/8	4-3/8	50-7/16	4-15/16	8-1/2	17-7/8	4-1/2	5-9/16	5-9/16	10	3-1/8	2-1/8	4*	895
P701-14165AX	14	81	5-1/8	4-3/8	62-7/16	4-15/16	8-1/2	17-7/8	4-1/2	5-9/16	5-9/16	10	3-5/8	2-1/8	4*	1410
P701-14210AX	14	115-3/8	9-11/16	4-5/8	85-11/16	5-7/16	8-1/2	17-7/8	—	5-7/16	5-7/16	10	4-1/8	2-5/8	6†	1240
P701-14270AX	14	139-3/8	9-11/16	4-5/8	109-11/16	5-7/16	8-1/2	17-7/8	—	5-7/16	5-7/16	10	4-1/8	2-5/8	6†	1420
P701-14290AX	14	139-3/8	9-11/16	4-5/8	109-11/16	5-7/16	8-1/2	17-7/8	—	5-7/16	5-7/16	10	4-1/8	2-5/8	6†	1480
P701-16200AX	16	69	5-1/8	4-5/8	49-11/16	5-7/16	9-1/2	19-7/8	5	6-1/2	6-1/2	11	3-5/8	2-1/8	5*	1220
P701-16210AX	16	81	5-1/8	4-7/8	61-3/16	5-11/16	9-1/2	19-7/8	5	6-7/16	6-7/16	11	4-1/8	2-5/8	5*	1190
P701-16230AX	16	81	5-1/8	4-7/8	61-3/16	5-11/16	9-1/2	19-7/8	5	6-7/16	6-7/16	11	4-1/8	2-5/8	5*	1360
P701-16300AX	16	120-1/2	12-3/8	4-7/8	84-5/8	6-1/4	9-1/2	19-7/8	—	5-7/8	5-7/8	11	5-1/8	3-1/8	8†	1723
P701-16360AX	16	144-1/2	12-3/8	4-7/8	108-5/8	6-1/4	9-1/2	19-7/8	—	5-7/8	5-7/8	11	5-1/8	3-1/8	8†	1825
P701-16400AX	16	144-1/2	12-3/8	4-7/8	108-5/8	6-1/4	9-1/2	19-7/8	—	5-7/8	5-7/8	11	5-1/8	3-1/8	8†	2085

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Selection and Rating Notes

1. Condenser Tables:

Condenser Capacity and Flow Rate Tables are based on R-22, R-134a, and R507/404A refrigerant. Ratings include ARI standard .00025 fouling factor.

2. Ratings:

Ratings show conditions where fluid velocity, pressure drop, and tube sheet impingement are within acceptable range under continuous duty.

NOTE: To avoid reduction in service life, do not exceed flow rates shown in table.

3. Determine Total Heat of Compression:

Table ratings show total heat of rejection (THR) at 14,400 Btuh per ton. The THR is derived from the total heat load at the evaporator of 12,000 Btuh per ton plus 20% which is the average heat of compression (a.c. duty). To calculate Total Heat of Compression for semi-hermetic compressors, add the low side heat load to the heat produced by the compressor which equates to: Full load kW x 3413 kW per Btuh To calculate Total Heat of Compression for open-drive compressors, add the low side heat load to the heat produced by the compressor which equates to: Brake Horsepower x 2544 Btuh per HP

4. Greatest Temperature Difference (GTD):

GTD is the difference between the entering water temperature and saturated condensing temperature.

5. Condenser Water Flow:

Condenser water flow from cooling towers is typically based on 10 degree temperature change across the condenser. This equals 3 gallon per minute (GPM) per ton. Tower water temperatures are based on wet bulb and capacity of tower cell. Typical tower temperature is 85 F but can vary by geographic areas or tower cell design. City water cooling usually specifies less water with a 20 F temperature difference across the condenser, or 1.5 GPM per ton.

6. Fouling Factors:

Condenser Capacity and Flow Rate Tables include ARI standard .00025 fouling factor. The amount of fouling varies with the quality of cooling water and the velocity in which it moves through the tubes. The lower the velocity, the greater the chance is to produce tubeside fouling. For additional information on fouling factors or for applications that fall outside the values shown in the tables, contact Totaline Sales Representative.

UNIT P701-	NOMINAL TONS	THR (Btuh)	GPM	PRESSURE DROP	No. PASSES	SURFACE (sq ft)	PUMP DOWN (lb)
0605CX	5	87,846	15	4.8	6	6.1	17
0607CX	7.5	1,19,869	22.5	7.4	6	7.5	15.7
0610CX	10	1,74,765	30	5.1	4	11.8	24.1
0615CX	15	2,73,709	45	11	4	17.6	31.2
0620CX	20	3,53,820	60	13.5	4	21.9	27.1
0625AX	25	3,71,578	75	4.7	2	22.3	39.3
0630AX	30	4,37,433	90	5.2	2	26.1	35.9
0840AX	40	6,08,148	120	4.5	2	37.1	70.4
0850AX	50	7,70,641	150	7.5	2	45	84.8
1065AX	65	9,44,411	195	5.2	2	55.7	111.2
1075AX	75	11,55,961	225	7.6	2	67.5	134.2
1290AX	90	13,12,300	270	6	2	78	158.5
12110AX	110	16,45,759	330	9.6	2	94.5	191.5
12140AX	140	20,27,756	420	2.1	1	127.5	257.7
12150AX	150	21,87,086	450	2.1	1	139.6	246.6
12200AX	200	29,67,634	600	4.1	1	175.6	309.8
14140AX	140	20,37,996	420	5.6	2	120.7	160.7
14165AX	165	25,18,541	495	8.4	2	146.2	194.2
16200AX	200	29,02,774	600	5.5	2	170.9	201.9
14210AX	210	30,86,396	630	2.3	1	197.3	261.3
16210AX	210	31,96,081	630	7.9	2	184.5	264.7
16230AX	230	35,44,948	690	7.8	2	206.9	244
14270AX	270	39,22,026	810	4.8	1	229.2	345.8
14290AX	290	42,24,263	870	4.9	1	248.4	328.3
16300AX	300	43,74,171	900	2.2	1	279.2	328.3
16360AX	360	52,98,332	1080	4.2	1	313.3	447.4
16400AX	400	59,35,269	1200	4.2	1	351.5	412.5

Notes:

1. Nominal tons per ARI standards. ARI Standards include R-22 service at 105 F condensing temp, 85 F inlet cooling water, 14,400 Btuh/ton, .00025 total fouling factor.
2. P701-0615CX, P701-0620CX, P701-1290AX, P701-12110AX, P701-14165AX and P701-16210AX units have excessive velocity at ARI Standard flow rate. Flow rate shown is within acceptable velocity limits.
3. Pump down capacities based on 80% of free shell volume with R-22 at 90 F (per ARI standards).
4. Consult Totaline sales representative for marine condenser capacities

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Condenser Capacity And Flow Rates-R-22 (at 105 F)

Condensing Temperature With .00025 Total Fouling Factor

UNIT 701·	GPM	Δp	TOTAL HEAT OF REJECTION AT SPECIFIED GTD (F)					
			15° GTD	20° GTD	25° GTD	30° GTD	35° GTD	40° GTD
0605CX	4	0.4	25,876	34,346	42,623	50,894	59,047	67,175
	7	1.2	40,573	53,575	66,384	79,002	91,433	1,03,691
	10	2.3	52,268	68,835	85,046	1,00,906	1,16,676	1,31,981
	13	3.7	61,854	80,982	1,00,018	1,18,330	1,36,385	1,54,717
	16	5.5	69,544	91,211	1,12,212	1,32,917	1,53,006	1,72,113
	19	7.5	76,284	99,334	1,22,457	1,44,354	1,65,956	1,87,291
	22	9.9	81,725	1,06,541	1,30,963	1,53,913	1,77,705	2,00,067
0607CX	8	1.1	47,149	62,256	77,174	91,893	1,06,399	1,20,699
	11	2.0	59,478	78,384	96,924	1,15,096	1,33,011	1,50,692
	14	3.1	69,930	91,849	1,13,217	1,34,266	1,55,035	1,75,071
	17	4.4	78,722	1,03,175	1,26,925	1,50,325	1,73,419	1,95,531
	20	6.0	86,329	1,12,806	1,38,858	1,64,108	1,89,023	2,13,636
	23	7.8	92,626	1,21,152	1,48,694	1,76,400	2,02,651	2,28,576
	26	9.7	98,283	1,28,605	1,57,814	1,86,617	2,13,715	2,40,462
0610CX	10	0.7	62,373	82,660	1,02,457	1,22,287	1,41,818	1,60,973
	15	1.5	85,363	1,12,618	1,39,447	1,65,852	1,91,893	2,17,417
	20	2.5	1,04,246	1,37,064	1,69,356	2,01,201	2,32,648	2,63,167
	25	3.7	1,20,229	1,57,722	1,94,628	2,30,151	2,65,167	2,99,727
	30	5.2	1,33,498	1,74,765	2,15,383	2,54,191	2,92,454	3,30,227
	35	6.9	1,44,917	1,89,123	2,32,616	2,74,693	3,17,053	3,57,244
	40	8.8	1,54,191	2,02,443	2,48,020	2,92,947	3,37,309	3,79,093
0615CX	15	1.5	97,523	1,28,183	1,60,807	1,91,540	2,22,649	2,52,631
	20	2.6	1,22,585	1,61,948	2,00,943	2,39,541	2,77,305	3,14,905
	25	3.8	1,44,524	1,90,575	2,35,938	2,80,611	3,24,664	3,68,164
	30	5.4	1,63,696	2,15,528	2,66,356	3,16,465	3,65,659	4,14,241
	35	7.1	1,80,523	2,37,619	2,93,047	3,47,672	4,01,108	4,53,874
	40	9.0	1,95,650	2,56,985	3,16,774	3,74,406	4,32,610	4,88,748
	45	11.2	2,08,992	2,73,709	3,36,575	3,98,539	4,59,727	5,20,228
0620CX	15	1.1	1,01,136	1,34,027	1,66,805	1,99,111	2,31,647	2,63,717
	20	1.8	1,28,374	1,70,328	2,11,585	2,52,256	2,92,405	3,32,450
	25	2.8	1,53,231	2,02,435	2,51,179	2,99,427	3,46,631	3,93,631
	30	3.8	1,75,497	2,31,510	2,86,665	3,41,092	3,94,800	4,47,790
	35	5.1	1,95,393	2,57,457	3,18,265	3,78,366	4,37,215	4,95,867
	40	6.5	2,13,379	2,80,670	3,46,918	4,11,868	4,75,987	5,38,365
	45	8.1	2,29,519	3,01,699	3,72,792	4,41,714	5,09,707	5,76,875
0625AX	25	0.7	1,43,279	1,89,183	2,34,342	2,78,853	3,22,685	3,65,918
	35	1.2	1,82,367	2,39,870	2,96,448	3,52,230	4,07,298	4,60,716
	45	1.9	2,14,674	2,81,873	3,47,257	4,12,496	4,75,260	5,37,191
	55	2.7	2,41,762	3,16,860	3,89,648	4,62,572	5,32,195	6,00,918
	65	3.7	2,65,014	3,46,304	4,26,315	5,02,128	5,80,044	6,50,648
	75	4.8	2,83,919	3,71,578	4,56,014	539,267	6,17,577	6,94,849
	85	6.0	3,00,803	3,91,753	4,83,509	5,69,523	6,54,414	7,38,299
0630AX	30	0.7	1,70,758	2,25,374	2,79,128	3,32,028	3,84,176	4,35,634
	40	1.2	2,09,945	2,76,499	3,41,625	4,05,807	4,68,118	5,29,518
	50	1.8	2,42,650	3,19,222	3,93,855	4,66,584	5,37,416	6,09,117
	60	2.5	2,71,334	3,56,215	4,38,635	5,19,889	5,97,581	6,74,205
	70	3.4	2,95,532	3,86,982	4,77,015	5,64,243	6,47,069	7,32,076
	80	4.3	3,17,239	4,15,518	5,08,451	6,03,921	6,94,287	7,79,467
	90	5.3	3,35,480	4,37,433	5,37,756	6,36,707	7,29,719	8,26,329
0840AX	40	0.6	2,31,569	3,05,830	3,78,918	4,50,965	5,21,942	5,91,910
	60	1.3	3,09,640	4,08,013	5,04,258	5,97,595	6,89,529	7,80,189
	80	2.2	3,72,012	4,87,692	6,03,017	7,13,803	819,900	9,27,725
	100	3.3	4,22,189	5,52,832	6,81,449	8,06,061	924,384	10,45,822
	120	4.5	4,63,073	6,08,148	7,45,178	8,80,222	10,13,523	11,39,022
	140	6.0	5,00,930	6,51,392	7,99,425	9,41,663	10,82,025	12,20,703
	150	7.6	5,87,833	7,70,641	9,47,107	11,17,473	12,85,647	14,51,868
0850AX	50	1.1	2,96,824	3,92,331	4,86,264	5,78,850	6,70,228	7,60,485
	70	1.9	3,78,460	4,98,635	6,16,474	7,31,993	8,45,905	9,58,367
	90	3.0	4,45,812	5,85,635	7,23,306	8,57,721	9,87,383	11,18,374
	110	4.4	5,02,450	6,56,782	8,08,565	9,58,209	1,105,984	12,47,414
	130	5.9	5,48,504	7,17,949	8,84,783	10,46,484	12,00,062	13,57,777
	150	7.6	5,87,833	7,70,641	9,47,107	11,17,473	12,85,647	14,51,868
	160	8.6	6,25,460	8,25,222	9,94,734	11,74,993	13,42,905	15,10,374
1065AX	100	1.6	4,97,687	6,55,475	8,08,070	9,58,376	11,06,650	12,49,634
	120	2.2	5,58,019	7,31,538	9,04,525	10,70,705	12,29,850	13,91,588
	140	2.9	6,09,337	7,99,341	9,86,472	11,65,035	13,41,130	15,14,993
	160	3.7	6,55,460	8,56,550	10,54,440	12,49,623	14,34,672	16,17,293
	180	4.6	6,94,609	9,12,222	11,17,768	13,20,333	15,20,285	17,08,533
	200	5.6	7,31,968	9,55,731	11,70,825	13,88,102	15,92,145	17,93,632
	220	6.6	7,64,169	9,96,751	12,25,710	14,45,627	16,50,631	18,65,118

LEGEND

GPM- Gallons Per Minute
GTD- Greatest Temperature Difference(F)
ΔP- Change In Pressure (psi)

NOTES:

1. Total heat of rejection is in Btuh
2. GTD is the difference between the condensing temperature and the Inlet water temperature

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Condenser Capacity And Flow Rates-R-22 (at 105 F)

Condensing Temperature With .00025 Total Fouling Factor

UNIT P701-	GPM	Δp	TOTAL HEAT OF REJECTION AT SPECIFIED GTD (F)					
			15° GTD	20° GTD	25° GTD	30° GTD	35° GTD	40° GTD
1075AX	100	1.8	5,49,242	7,23,666	8,94,725	10,64,037	12,29,536	13,92,800
	120	2.5	6,20,641	8,16,646	10,08,988	11,95,572	13,79,434	15,60,856
	140	3.3	6,84,010	8,98,961	11,08,478	13,10,356	15,14,172	17,10,591
	160	4.2	7,40,636	9,70,480	11,93,714	14,13,701	16,30,852	18,38,835
	180	5.2	7,90,161	10,31,523	12,72,666	15,02,922	17,30,059	19,54,402
	200	6.2	8,32,768	10,91,177	13,41,161	15,87,674	18,21,717	20,52,717
	220	7.4	8,73,638	11,43,861	13,99,460	16,62,009	19,10,686	21,45,306
1290AX	125	1.5	6,47,708	8,51,897	10,52,844	12,47,755	14,43,202	16,32,703
	150	2.1	7,27,950	9,57,665	11,81,564	13,99,753	16,12,247	18,27,351
	175	2.7	8,01,122	10,50,925	12,93,509	15,29,077	17,64,923	19,97,960
	200	3.5	8,65,203	11,30,819	13,92,139	16,45,384	18,95,198	21,41,908
	225	4.4	9,20,475	12,02,857	14,80,758	17,54,871	20,14,720	22,71,172
	250	5.3	9,73,062	12,70,146	15,56,383	18,38,443	21,16,837	23,79,001
12110AX	125	1.7	7,09,443	9,35,822	11,58,675	13,78,012	15,93,021	18,06,411
	150	2.3	8,06,243	10,61,146	13,11,985	15,59,368	17,98,741	20,38,119
	175	3.1	8,91,444	11,72,494	14,49,312	17,17,584	19,82,106	22,43,254
	200	3.9	9,68,319	12,70,209	15,67,302	18,60,345	21,42,651	24,28,676
	225	4.8	10,36,223	13,62,848	16,76,315	19,85,238	22,90,194	25,82,240
	250	5.8	11,00,217	14,41,382	17,72,096	21,03,464	24,20,017	27,32,636
12140AX	200	0.6	10,01,127	13,15,969	16,25,774	19,31,178	22,29,385	25,16,832
	275	1.0	12,27,329	16,08,045	19,82,676	23,52,045	27,04,787	30,52,573
	350	1.6	14,09,736	18,45,046	2,265,246	26,87,795	30,87,802	34,82,486
	425	2.2	15,56,958	20,33,727	24,91,961	29,54,691	33,88,991	38,17,573
	500	2.9	16,79,131	21,98,496	26,82,488	31,73,108	36,57,631	41,08,083
	575	3.7	17,85,789	23,24,867	28,55,407	33,62,094	38,62,159	43,22,409
14140AX	150	0.9	8,37,468	11,04,779	13,67,476	16,25,473	18,80,768	21,30,479
	200	1.5	10,24,922	13,48,299	1,664,135	19,78,055	22,92,311	25,82,434
	250	2.2	11,80,023	15,50,353	19,15,099	22,65,790	26,11,549	29,52,835
	300	3.1	13,15,964	17,18,611	21,20,895	25,04,871	28,83,491	32,57,263
	350	4.1	14,29,599	18,68,143	22,99,754	27,08,794	31,29,046	35,27,334
	400	5.2	15,31,322	19,91,541	2,444,151	28,90,336	33,30,900	37,45,417
12150AX	450	6.5	16,15,835	21,12,964	25,78,846	30,49,759	34,90,559	39,37,867
	225	0.6	11,15,708	14,67,119	1,813,040	21,50,604	24,83,462	28,04,138
	300	1.0	13,40,371	17,56,172	21,65,306	25,68,678	29,53,928	33,47,060
	375	1.5	15,28,485	19,98,193	24,60,469	28,98,293	33,48,127	37,55,280
	450	2.1	16,76,685	21,87,086	2,689,272	31,84,458	36,49,584	41,32,598
	525	2.8	18,14,346	23,53,276	2,883,226	34,05,512	39,21,048	44,30,503
14165AX	600	3.5	19,25,912	24,97,970	30,60,678	35,98,318	41,28,647	46,52,365
	675	4.3	20,12,271	26,30,528	32,00,063	37,80,874	43,54,531	48,81,361
	100	0.5	6,53,019	8,63,988	1,075,136	12,84,549	14,88,236	16,94,373
	175	1.3	10,20,301	13,46,893	16,68,492	19,85,663	22,98,685	26,07,208
	250	2.5	13,11,461	17,23,877	21,32,322	25,26,493	29,21,219	33,04,471
	325	4.0	15,45,317	20,22,692	24,97,840	29,54,947	34,05,763	38,50,932
12200A X	400	5.8	17,34,022	22,73,809	27,88,416	32,95,339	37,95,567	42,89,800
	475	7.9	18,88,436	24,72,537	30,36,448	35,92,558	41,30,103	46,37,316
	175	0.5	10,36,407	13,70,530	1,699,143	20,22,971	23,42,462	26,57,876
	275	1.1	14,43,277	19,00,667	23,48,235	27,89,344	32,17,610	36,39,661
	375	1.8	17,61,534	23,14,216	28,45,078	33,67,805	38,83,355	43,92,400
	475	2.8	20,09,806	26,41,826	32,43,681	38,36,775	44,22,170	49,78,075
16200AX	575	3.9	22,16,727	29,11,067	35,66,859	42,13,194	48,51,251	54,51,971
	675	5.1	23,89,837	31,12,286	3,841,096	45,24,378	51,98,771	58,65,201
	175	0.6	10,24,624	13,54,070	16,78,702	19,98,149	23,13,249	26,23,657
	275	1.3	14,20,618	18,71,931	23,13,491	27,41,744	31,71,255	35,87,662
	375	2.4	17,34,267	22,73,442	27,97,067	33,12,944	38,21,973	43,09,151
	475	3.6	19,75,785	25,89,891	31,83,902	37,69,536	43,25,191	48,73,334
14210AX	575	5.1	21,76,714	28,48,763	34,96,108	41,34,381	47,34,756	53,27,175
	675	6.9	23,44,233	30,57,721	37,60,097	44,34,731	50,63,607	57,21,592
	300	0.6	15,17,254	19,93,877	24,62,665	29,20,225	33,71,081	38,15,758
	400	1.1	18,30,461	24,02,416	29,65,530	34,96,911	40,36,389	45,69,118
	500	1.6	20,83,261	27,32,006	33,59,473	39,77,847	45,88,129	51,66,653
	600	2.2	23,04,057	30,12,589	3,710,107	43,82,864	50,15,617	56,70,941
	700	2.9	24,80,970	32,50,710	39,90,250	47,00,497	54,01,112	60,92,993
	800	3.7	26,37,269	34,59,476	42,24,991	49,79,263	57,00,870	64,13,044
	900	4.5	27,85,070	36,25,707	4,453,153	52,43,277	60,23,187	67,40,668

LEGEND

GPM- Gallons Per Minute
GTD- Greatest Temperature Difference(F)
ΔP- Change In Pressure (psi)

NOTES:

1. Total heat of rejection is in Btu/h
2. GTD is the difference between the condensing temperature and the Inlet water temperature

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Condenser Capacity And Flow Rates-R-22 (at 105 F)

Condensing Temperature With .00025 Total Fouling Factor

UNIT 701·	GPM	ΔP	TOTAL HEAT OF REJECTION AT SPECIFIED GTD (F)					
			15° GTD	20° GTD	25° GTD	30° GTD	35° GTD	40° GTD
16210AX	200	1	11,94,350	15,78,641	19,56,273	23,29,709	26,98,111	30,62,287
	275	1.8	15,07,268	19,85,089	24,56,183	29,16,566	33,75,334	38,23,536
	350	2.8	17,70,094	23,23,697	28,68,324	34,00,202	39,24,854	44,42,995
	425	4	19,91,883	26,08,452	32,15,109	38,05,374	43,87,800	49,63,190
	500	5.3	21,73,887	28,50,585	35,06,490	41,53,270	47,80,925	53,78,156
	575	6.9	23,42,974	30,60,496	37,66,791	44,36,244	50,96,548	57,48,665
16230AX	650	8.5	24,86,054	32,32,073	39,65,846	46,89,412	54,04,144	60,77,054
	225	1.1	13,43,705	17,74,662	21,99,194	26,19,003	30,34,096	34,42,551
	300	1.8	16,58,124	21,86,147	27,04,940	32,12,311	37,17,051	42,10,543
	375	2.7	19,26,815	25,33,533	31,26,145	37,15,226	42,86,501	48,50,302
	450	3.7	21,54,179	28,34,521	34,89,889	41,35,715	47,64,872	53,85,954
	525	4.9	23,51,561	30,88,477	37,93,499	44,98,966	51,73,593	58,62,392
14270AX	600	6.2	25,28,836	33,10,041	40,79,235	47,97,247	55,32,731	62,59,915
	675	7.7	26,80,047	35,09,005	42,93,092	50,98,519	58,61,381	65,81,106
	300	0.8	16,59,847	21,89,338	27,09,603	32,18,407	37,24,199	42,18,564
	400	1.4	20,24,956	26,59,408	32,83,509	38,92,882	44,93,714	50,86,777
	500	2.1	23,25,370	30,48,255	37,68,927	44,61,273	51,24,368	57,98,307
	600	2.8	25,76,282	33,82,754	41,64,316	49,21,708	56,68,965	64,07,079
14290AX	700	3.7	28,07,096	36,55,656	45,06,963	53,12,992	61,08,043	68,93,203
	800	4.8	29,82,903	38,99,223	47,81,048	56,60,710	64,87,671	73,46,606
	900	5.9	31,63,790	41,19,905	50,36,865	59,40,587	68,32,761	76,64,767
	300	0.7	16,96,427	22,38,151	27,71,577	32,95,118	38,12,421	43,23,115
	425	1.4	21,63,318	28,46,526	35,19,423	41,71,405	48,14,028	54,48,155
	550	2.2	25,46,440	33,37,925	41,06,608	48,63,922	56,11,202	63,26,541
16300AX	675	3.1	28,51,064	37,33,082	46,01,424	54,42,767	62,41,750	70,61,758
	800	4.3	31,18,233	40,70,090	49,87,248	58,91,008	67,83,032	76,64,521
	925	5.5	33,31,512	43,56,253	53,41,138	63,12,257	72,46,436	81,69,269
	475	0.7	23,16,169	30,39,869	37,59,339	44,45,216	51,37,081	58,02,897
	625	1.2	27,49,165	36,04,853	44,34,163	52,64,683	60,57,206	68,38,959
	775	1.7	31,11,810	40,54,506	50,00,040	58,94,968	67,77,151	76,47,698
16360AX	925	2.3	33,95,270	44,58,625	54,58,362	64,43,346	73,90,511	83,25,127
	1075	3	36,59,895	47,83,503	58,60,457	69,22,151	79,09,981	88,84,406
	1225	3.8	38,72,697	50,32,227	61,73,035	72,98,037	83,73,584	94,36,001
	1375	4.7	40,74,876	52,86,951	64,79,584	76,15,195	87,35,819	98,01,754
	475	1	25,18,292	33,11,712	40,96,515	48,60,189	56,18,421	63,67,262
	625	1.6	30,13,394	39,54,287	48,80,307	57,71,694	66,72,864	75,40,194
16400AX	775	2.4	34,16,332	44,77,293	55,05,721	65,35,813	75,19,583	84,90,628
	925	3.2	37,69,142	49,24,974	60,62,656	71,40,653	82,48,700	92,52,776
	1075	4.2	40,56,344	53,08,452	65,14,437	76,48,327	88,22,102	99,25,908
	1225	5.3	43,11,940	56,15,111	68,64,968	80,96,719	93,12,672	105,14,506
	475	0.8	26,05,621	34,32,065	42,47,606	50,52,103	58,38,210	66,13,309
	625	1.4	31,39,915	41,24,948	51,03,101	60,50,035	69,83,882	79,05,841
16400AX	775	2	35,92,864	47,09,650	57,94,296	68,62,846	79,17,186	89,58,654
	925	2.7	39,65,169	51,86,929	64,09,377	75,75,035	87,25,168	98,18,054
	1075	3.6	42,84,368	56,11,293	69,18,043	81,55,234	93,75,599	105,80,803
	1225	4.5	45,69,570	59,88,678	73,24,212	86,71,764	99,38,639	112,54,399
	1375	5.5	48,39,239	63,01,762	77,04,446	90,86,817	104,51,466	118,00,277

Legend

GPM- Gallons Per Minute

GTD- Greatest Temperature Difference(F)

ΔP- Change In Pressure (psi)

Notes:

1. Total heat of rejection is in Btuh

2. GTD is the difference between the condensing temperature and the Inlet water temperature

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Condenser Capacity And Flow Rates-R-134A (at 105 F)

Condensing Temperature With .00025 Total Fouling Factor

UNIT P701-	GPM	TOTAL HEAT OF REJECTION AT SPECIFIED GTD (F)			
		15° GTD		40° GTD	
		ΔP	THR	ΔP	THR
0605CX	4	0.43	25,765	0.44	66,796
	22	9.69	80,103	10.06	1,94,621
0607CX	8	1.08	46,790	1.12	1,19,453
	26	9.55	96,365	9.90	2,34,015
0610CX	10	0.69	62,074	0.71	1,59,840
	40	8.57	1,51,198	8.93	3,69,084
0615CX	15	1.50	96,870	1.56	2,51,118
	42	9.64	1,97,657	10.04	4,90,954
0620CX	15	1.07	1,00,679	1.11	2,62,189
	45	7.88	2,26,118	8.18	5,65,547
0625AX	25	0.65	1,42,136	0.68	3,61,781
	85	5.83	2,94,664	6.12	7,17,671
0630AX	30	0.71	1,69,332	0.74	4,30,974
	90	5.16	3,28,979	5.41	8,04,474
0840AX	40	0.61	2,29,741	0.64	5,85,906
	140	5.83	4,87,215	6.10	11,86,682
0850AX	50	1.04	2,94,477	1.08	7,52,237
	150	7.41	5,76,477	7.77	14,14,060
1065AX	100	1.55	4,91,308	1.62	12,31,276
	220	6.44	7,48,299	6.75	18,11,718
1075AX	100	1.75	5,43,235	1.83	13,71,900
	220	7.21	8,57,022	7.56	20,89,682
1290AX	125	1.45	6,40,243	1.51	16,10,509
	250	5.17	9,49,116	5.38	23,31,313
12110AX	125	1.62	7,02,533	1.68	17,81,996
	250	5.71	10,81,660	5.95	26,70,390
12140AX	200	0.57	9,89,938	0.60	24,84,282
	575	3.61	17,46,399	3.84	42,22,703
14140AX	150	0.86	8,29,800	0.89	21,06,140
	450	6.32	15,83,375	6.60	38,28,377
12150AX	225	0.61	11,02,892	0.64	27,59,028
	675	4.20	19,66,220	4.46	47,25,153
14165AX	100	0.47	6,48,134	0.49	16,84,102
	475	7.74	18,52,532	8.09	45,17,159
12200AX	175	0.47	10,29,404	0.49	26,32,546
	675	4.97	23,40,751	5.27	57,00,528
16200AX	175	0.58	10,17,399	0.61	25,97,916
	675	6.71	22,95,546	7.02	55,57,759
14210AX	300	0.62	15,00,798	0.65	37,67,346
	900	4.42	27,23,529	4.65	65,31,613
16210AX	200	1.00	11,84,433	1.04	30,29,886
	650	8.25	24,21,220	8.66	59,12,984
16230AX	225	1.04	13,31,505	1.08	34,06,100
	675	7.48	26,29,070	7.83	64,10,453
14270AX	300	0.81	16,44,295	0.85	41,68,315
	900	5.68	30,74,944	6.00	74,95,165
14290AX	300	0.73	16,81,478	0.76	42,69,982
	925	5.37	32,64,221	5.66	79,43,303
16300AX	475	0.69	22,88,601	0.73	57,05,596
	1375	4.53	39,61,437	4.80	95,66,629
16360AX	475	0.97	24,90,601	1.03	62,70,314
	1225	5.13	41,91,020	5.45	1,02,15,657
16400AX	475	0.82	25,79,947	0.86	65,22,230
	1375	5.33	47,03,510	5.64	1,14,64,852

Legend

GPM- Gallons Per Minute

GTD- Greatest Temperature Difference(F)

ΔP- Change In Pressure (psi)

THR-Total Heat of Rejection

Notes:

1. Total heat of rejection is in Btuh

2. GTD is the difference between the condensing temperature and the Inlet water temperature

P701 WATER-COOLED CONDENSERS (5 TO 400 NOMINAL TONS)

Condenser Capacity And Flow Rates-R-507/404A (at 105 F)

Condensing Temperature With .00025 Total Fouling Factor

UNIT P701	GPM	TOTAL HEAT OF REJECTION AT SPECIFIED GTD (F)			
		15° GTD		40° GTD	
		ΔP	THR	ΔP	THR
0605CX	4	0.43	25,582	0.44	66,021
	22	9.69	76,649	10.07	1,86,012
0607CX	8	1.08	46,132	1.12	1,17,295
	26	9.56	92,293	9.91	2,23,811
0610CX	10	0.69	61,395	0.71	1,57,440
	40	8.57	1,45,885	8.93	3,53,223
0615CX	15	1.50	96,015	1.56	2,47,451
	42	9.64	1,91,905	10.05	4,71,557
0620CX	15	1.07	99,591	1.11	2,58,740
	45	7.88	2,20,172	8.19	5,47,035
0625AX	25	0.65	1,40,108	0.68	3,55,018
	85	5.83	283,698	6.13	6,80,343
0630AX	30	0.71	1,66,854	0.74	4,22,296
	90	5.17	3,17,371	5.41	7,64,927
0840AX	40	0.61	2,26,617	0.64	5,75,438
	140	5.83	4,69,123	6.12	11,33,013
0850AX	50	1.04	2,90,154	1.08	7,37,603
	150	7.41	5,56,359	7.78	13,46,139
1065AX	100	1.55	4,81,415	1.62	11,95,454
	220	6.44	7,19,947	6.75	17,27,631
1075AX	100	1.75	5,32,609	1.83	13,39,365
	220	7.21	8,27,576	7.57	20,01,385
1290AX	125	1.45	6,26,889	1.51	15,63,267
	250	5.17	9,16,892	5.39	22,35,009
12110AX	125	1.62	6,90,314	1.69	17,42,825
	250	5.71	10,48,796	5.96	25,58,547
12140AX	200	0.57	9,69,692	0.60	24,19,279
	575	3.61	16,75,473	3.84	40,13,472
14140AX	150	0.86	8,16,842	0.89	20,60,332
	450	6.32	15,13,513	6.61	36,55,576
12150AX	225	0.61	10,83,086	0.64	26,93,371
	675	4.20	18,83,280	4.46	44,81,024
14165AX	100	0.47	6,43,291	0.49	16,63,120
	475	7.74	17,88,919	8.10	43,26,399
12200AX	175	0.47	10,16,231	0.49	25,88,503
	675	4.97	22,53,177	5.28	54,02,854
16200AX	175	0.58	10,04,120	0.61	25,53,079
	675	6.71	22,08,564	7.02	52,99,788
14210AX	300	0.62	14,71,001	0.65	36,70,893
	900	4.42	26,12,665	4.65	62,58,033
16210AX	200	1.00	11,68,653	1.04	29,74,120
	650	8.25	23,33,933	8.67	56,53,432
16230AX	225	1.04	13,13,736	1.08	33,43,356
	675	7.48	25,30,572	7.84	61,39,566
14270AX	300	0.81	16,16,728	0.85	40,73,584
	900	5.69	29,58,091	6.01	71,49,523
14290AX	300	0.73	16,55,375	0.76	41,84,727
	925	5.37	31,44,178	5.67	75,86,650
16300AX	475	0.69	22,38,728	0.73	55,65,050
	1375	4.53	37,92,706	4.80	90,70,571
16360AX	475	0.98	24,41,137	1.03	61,23,263
	1225	5.14	40,31,866	5.45	97,74,892
16400AX	475	0.82	2,534,088	0.86	63,00,518
	1375	5.33	4,524,881	5.65	10,936,400

Legend

GPM- Gallons Per Minute
 GTD- Greatest Temperature Difference (F)
 ΔP- Change In Pressure (psi)
 THR-Total Heat of Rejection

Notes:

1. Total heat of rejection is in Btuh
2. GTD is the difference between the condensing temperature and the Inlet water temperature

CONDENSER, DX COOLER, AND MARINE REPLACEMENT PARTS

Condenser

Part Number	Front Condenser Head	Rear Condenser Head	Gasket
P701-0605CX	C10827A1	C10847A1	09C2616
P701-0607CX	C10827A1	C10847A1	09C2616
P701-0610CX	C10828A1	C10848A1	09C2416
P701-0615CX	C10828A1	C10848A1	09C2416
P701-0620CX	C10828A1	C10848A1	09C2416
P701-0625AX	01B200F6	01BCLLF6	01C1416
P701-0630AX	01B200F6	01BCLLF6	01C1416
P701-0840AX	01B2LLF8	01BCLLF8	01C1418
P701-0850AX	01B2LLF8	01BCLLF8	01C1418
P701-1065AX	01B2LLFA	01BCLLFA	01C141A
P701-1075AX	01B2LLFA	01BCLLFA	01C141A
P701-1290AX	01B2LLFB	01BCLLFB	01C141B
P701-12110AX	01B2LLFB	01BCLLFB	01C141B
P701-12140AX	01B100FB	01B100FB	01C141B
P701-14140AX	08B2H0FC	08B2LLFC	0RC141C
P701-12150AX	01B100FB	01B100FB	01C141B
P701-14165AX	08B2H0FC	08B2LLFC	0RC141C
P701-12200AX	01B100FB	01B100FB	01C141B
P701-16200AX	08B2H0FC	08B2LLFC	0RC141D
P701-14210AX	HD51120N0003ND2	HD51120N0003ND2	0RC141C
P701-16210AX	08B2H0FC	08B2LLFC	0RC141D
P701-16230AX	08B2H0FC	08B2LLFC	0RC141D
P701-14270AX	HD51120N0003ND2	HD51120N0003ND2	0RC141C
P701-14290AX	HD51120N0003ND2	HD51120N0003ND2	0RC141C
P701-16300AX	HD51120N0003NF2	HD51120N0003NF2	0RC141D
P701-16360AX	HD51120N0003NF2	HD51120N0003NF2	0RC141D
P701-16400AX	HD51120N0003NF2	HD51120N0003NF2	0RC141D

MARINE CONDENSER

ACME MHX Marine Condenser

ACME Type MHX condensers are manufactured with the latest technology marine condenser tubing to provide compact size and cost effective use.

STANDARD DESIGNS

ACME MHX condensers are available in standard designs for sea water duty. Standard MHX water condensers are available from 5 to 330 nominal tons of duty and are manufactured in large quantities to provide the lowest cost per ton available. Non-standard marine condensers are available to meet virtually any chiller application.

MODERN TUBE MATERIALS

ACME MHX condensers utilize the latest technology tubing. Years of research and development, combined with thorough testing in our own labs have resulted in the highest efficiency condensers available. All condensers are manufactured with 3/4" diameters 90/10 cupro-nickel tubing to provide heavy wall construction and ease of service from commonly available tube cleaning devices.

MODIFICATIONS

ACME refrigeration heat exchangers are available with special materials of construction as required. Fresh water condensers can be made from stainless steel for increased life with poor quality cooling water. Vessels can be equipped with cupro-nickel tubes and tube sheets or titanium tubes for sea water duty. If your application calls for something special, just ask.

- **Shells** – Steel pipe to ASME specification. Shells are shot blasted and cleaned prior to assembly.
- **Tubes** – 90/10 cupro-nickel high performance enhanced design roller expanded into grooved tube sheets.
- **Tube sheet** – 90/10 cupro-nickel to ASME specifications. Precision machined for excellent sealing.
- **Tube Supports** – Quality steel manufactured to close tolerance to minimize vibration.
- **Heads** – Cast bronze to withstand the corrosive effects of sea water duty. Single-pass 14" & 16" heads are fabricated from steel and epoxy coated.
- **Connections** – All water side connections are FPT except 12" 1-pass, 14" and 16" models which have flanges. Refrigerant connections are steel and bored to ODS of copper tubing. Relief, vent and drain connections are provided.
- **Codes** – The refrigerant side is constructed to the latest edition of the ASME Section VIII Div 1 code and stamped. Refrigerant side is dual-rated for 450 psi at 150°F or 305 psi at 250°F. Water side design pressure is 150°F at 150 psi. Shell side is tested at 1.1 times and tube side is tested 1.3 times the design pressure.
- **Finish** – Exterior surfaces are cleaned and painted with an enamel primer.

90/10 Cupro-Nickel Tubes & Tube sheets

Bronze or Epoxy Coated Heads

‡ = 125 Lb. FF Flange, § = 150 Lb. RF Flange

Nominal capacity based on:

14,400 BTUH per ton

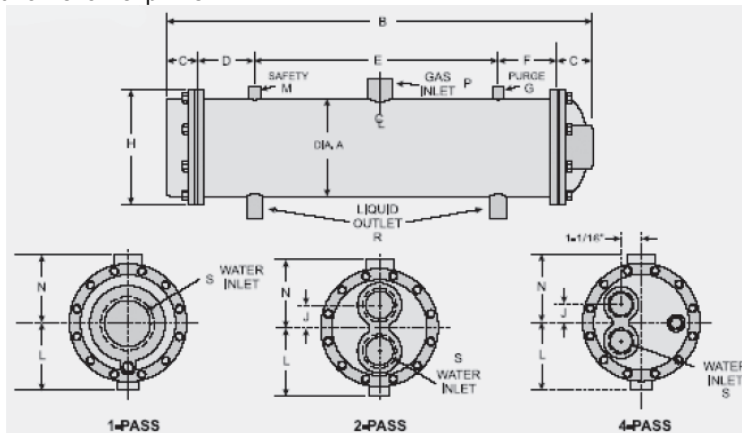
85°F condenser water

10°F range with R-22 service at 105°F condensing temp.

Comprehensive rating tables are available for R-22, R-134a and R-404a.

Pump-down capacity is based on 80% of free shell volume with R-22 at 90°F per ARI.

Capacity includes 0.00025 hr-ft²-°F/Btu additive fouling



Part Number	NOM	A	B	C	D	E	F	G	H	J	L	M	N	P	R	S	Pump	WGT
MHX-602D-4	7.5	6-5/8	27-13/16	2-1/32	5-7/8	12	5-7/8	1/2	7-1/2	1-7/16	6-5/16	1/2	6-5/16	1-3/8	5/8	1-1/2	16	107
MHX-604B-4	5	6-5/8	21-7/8	2-1/32	5-7/8	12	5-7/8	1/2	7-1/2	1-7/16	6-5/16	1/2	6-5/16	1-3/8	5/8	1-1/2	28	180
MHX-603D-4	15	6-5/8	39-13/16	2-1/32	5-7/8	24	5-7/8	1/2	7-1/2	1-7/16	6-5/16	1/2	6-5/16	1-3/8	7/8	1-1/2	21	142
MHX-604D-4	20	6-5/8	51-13/16	2-1/32	5-7/8	36	5-7/8	1/2	7-1/2	1-7/16	6-5/16	1/2	6-5/16	1-3/8	7/8	1-1/2	28	175
MHX-605D-2	25	6-5/8	63-13/16	2-1/32	5-7/8	48	5-7/8	1/2	7-1/2	1-1/2	6-5/16	1/2	6-5/16	1-3/8	7/8	2	36	210
MHX-606D-2	30	6-5/8	75-13/16	2-1/32	5-7/8	60	5-7/8	1/2	7-1/2	1-1/2	6-5/16	1/2	6-5/16	1-5/8	1-1/8	2	43	244
MHX-805A-2	35	8-5/8	66	3-1/8	7-7/8	44	7-7/8	1/2	9-11/16	1-7/8	7-5/16	1/2	7-5/16	2-1/8	1-1/8	2-1/2	70	310
MHX-806A-2	45	8-5/8	78	3-1/8	7-7/8	56	7-7/8	1/2	9-11/16	1-7/8	7-5/16	1/2	7-5/16	2-1/8	1-1/8	2-1/2	84	357
MHX-808A-2	60	8-5/8	102	3-1/8	7-7/8	80	7-7/8	1/2	9-11/16	1-7/8	7-5/16	1/2	7-5/16	2-1/8	1-1/8	2-1/2	313	455
MHX-1005A-2	50	10-3/4	69	4-11/16	7-7/8	44	7-7/8	1/2	13-3/4	2-1/4	8-3/8	3/4	8-3/8	2-1/8	1-5/8	3	111	480
MHX-1006A-2	65	10-3/4	81	4-11/16	7-7/8	56	7-7/8	1/2	13-3/4	2-1/4	8-3/8	3/4	8-3/8	2-5/8	1-5/8	3	134	550
MHX-1008A-2	85	10-3/4	105-1/8	4-11/16	7-7/8	80	7-7/8	1/2	13-3/4	2-1/4	8-3/8	3/4	8-3/8	2-5/8	1-5/8	3	180	695
MHX-1205A-2	70	12-3/4	69	4-5/8	7-7/8	44	7-7/8	1/2	15-3/4	2-5/8	9-3/8	1	9-3/8	2-5/8	1-5/8	3	158	670
MHX-1206A-2	90	12-3/4	81	4-5/8	7-7/8	56	7-7/8	1/2	15-3/4	2-5/8	9-3/8	1	9-3/8	2-5/8	1-5/8	3	191	765
MHX-1208A-1	110	12-3/4	108	6-1/8	7-7/8	80	7-7/8	1/2	15-3/4	--	9-3/8	1	9-3/8	3-1/8	2-5/8	6‡	257	990

MARINE CONDENSER

ACME MHX Marine Condenser

Part Number	NOM	A	B	C	D	E	F	G	H	J	L	M	N	P	R	S	Pump	WGT
MHX-1208A-2	130	12-3/4	105	4-5/8	7-7/8	80	7-7/8	1/2	15-3/4	2-5/8	9-3/8	1	9-3/8	3-1/8	2-5/8	3	257	960
MHX-1210A-1	150	12-3/4	132	6-1/8	7-7/8	104	7-7/8	1/2	15-3/4	--	9-3/8	1	9-3/8	3-1/8	2-5/8	6½	323	1155
MHX-1405B-2	130	14	69	5-1/8	7-7/8	44	7-7/8	1/2	17-7/8	4-1/2	10	1	10	3-1/8	1-5/8	4½	160	955
MHX-1406B-2	140	14	81	5-1/8	7-7/8	56	7-7/8	1/2	17-7/8	4-1/2	10	1	10	3-1/8	2-1/8	4½	194	1100
MHX-1408B-2	200	14	105	5-1/8	7-7/8	80	7-7/8	1/2	17-7/8	4-1/2	10	1	10	3-1/8	2-1/8	4½	261	1400
MHX-1410B-1	220	14	139-3/8	9-11/16	7-7/8	104	7-7/8	1/2	17-7/8	--	10	1	10	3-5/8	2-1/8	6	328	1740
MHX-1608B-1	230	16	120-1/2	12-3/8	7-7/8	80	7-7/8	1/2	19-7/8	--	11	1	11	3-5/8	2-1/8	8	328	1750
MHX-1608B-2	275	16	105	5-1/8	7-7/8	80	7-7/8	1/2	19-7/8	5	11	1	11	5-1/8	3-1/8	5½	328	1780
MHX-1610B-1	330	16	144-1/2	12-3/8	7-7/8	104	7-7/8	1/2	19-7/8	--	11	1	11	5-1/8	3-1/8	8½	412	2095

Capacity & Flow Rates

R-22 AT 105°F Condensing Temp With .00025 Total Fouling, Standard Models

M HX-602-B-4			TOTAL HEAT OF REJECTION AT SPECIFIED GTD					
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD	
12	0.8	50,560	66,626	81,948	97,593	1,12,508	1,26,670	
20	2.0	66,825	87,696	1,07,730	1,26,944	1,46,476	1,65,795	
28	3.8	77,766	1,01,822	1,24,708	1,47,305	1,69,643	1,90,880	
36	6.1	85,520	1,11,361	1,36,280	1,60,890	1,85,226	2,09,317	
44	9.0	91,140	1,19,312	1,46,403	1,71,745	1,96,800	2,23,038	

M HX-602-D-4			TOTAL HEAT OF REJECTION AT SPECIFIED GTD					
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD	
20	1.2	78,720	1,03,367	1,26,701	1,50,686	1,73,390	1,95,808	
30	2.5	96,607	1,26,441	1,55,862	1,84,923	2,11,918	2,38,587	
40	4.3	1,09,214	1,43,355	1,75,832	2,07,905	2,38,385	2,68,521	
50	6.6	1,19,083	1,55,068	1,91,346	2,24,040	2,59,517	2,91,464	
60	9.3	1,26,340	1,65,095	2,01,400	2,38,223	2,74,658	3,06,827	

M HX-603-D-4			TOTAL HEAT OF REJECTION AT SPECIFIED GTD					
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD	
20	1.5	1,02,983	1,35,900	1,68,158	2,00,005	2,30,951	2,62,055	
30	3.1	1,32,010	1,73,934	2,14,711	2,53,731	2,93,532	3,31,613	
40	5.3	1,53,507	2,02,020	2,47,938	2,93,264	3,38,066	3,82,394	
50	8.1	1,70,052	2,22,669	2,73,227	3,23,160	3,72,541	4,21,428	
60	11.4	1,82,485	2,38,527	2,95,556	3,48,481	4,00,827	4,52,652	

MHX-604-D-4			TOTAL HEAT OF REJECTION AT SPECIFIED GTD					
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD	
15	1.0	95,096	1,25,897	1,56,457	1,86,626	2,16,721	2,46,442	
25	2.7	1,39,443	1,84,108	2,28,181	2,71,618	3,14,547	3,56,667	
35	5.0	1,73,192	2,28,380	2,81,866	3,34,655	3,86,832	4,38,456	
45	7.9	1,99,783	2,62,021	3,23,403	3,84,060	4,44,081	5,01,583	
55	11.5	2,20,750	2,89,284	3,56,904	4,22,437	4,88,593	5,51,433	

M HX-605-D-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD					
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD	
30	0.7	1,57,494	2,07,766	2,57,037	3,05,624	3,53,588	4,00,977	
50	1.8	2,18,536	2,86,998	3,53,471	4,20,127	4,83,853	5,46,799	
70	3.3	2,60,399	3,42,055	4,22,636	5,00,471	5,73,746	6,49,852	
90	5.2	2,93,650	3,83,500	4,69,606	5,57,159	6,38,646	7,24,391	
110	7.6	3,18,342	4,14,779	5,09,908	6,00,638	6,93,646	7,79,121	

M HX-606-D-4			TOTAL HEAT OF REJECTION AT SPECIFIED GTD					
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD	
30	0.8	1,72,201	2,27,603	2,82,261	3,36,204	3,89,417	4,41,939	
50	2.0	2,44,144	3,21,521	3,97,086	4,71,664	5,45,360	6,18,251	
70	3.7	2,97,126	3,89,405	4,80,402	5,70,297	6,57,614	7,43,984	
90	5.9	3,35,097	4,40,092	5,43,725	6,43,869	7,38,219	8,36,228	
110	8.5	3,67,002	4,81,408	5,91,304	6,96,828	8,04,233	9,04,378	

GTD refers to the difference between the condensing temperature and the inlet water temperature.

MARINE CONDENSER

Capacity & Flow Rates

R-22 AT 105°F Condensing Temp With .00025 Total Fouling, Standard Models

MHX-805-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
50	0.9	2,49,925	3,28,949	4,07,492	4,83,645	5,58,788	6,33,002
75	1.9	3,20,218	4,21,353	5,19,530	6,14,799	7,08,870	8,01,845
100	3.2	3,71,999	4,88,650	6,03,766	7,14,959	8,19,637	9,28,360
125	4.8	4,14,926	5,40,920	6,65,167	7,87,913	9,02,239	10,22,379
150	6.7	4,45,131	5,83,150	7,14,968	8,45,183	9,69,526	10,97,021
175	9.0	4,73,587	6,16,221	7,56,928	8,90,652	10,22,879	11,53,756

MHX-806-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
50	1.0	2,75,113	3,63,351	4,50,183	5,35,892	6,19,855	7,03,531
75	2.1	3,59,908	4,73,088	5,84,665	6,94,854	8,01,137	9,08,864
100	3.6	4,24,466	5,56,293	6,86,288	8,14,711	9,39,448	10,62,834
125	5.4	4,72,736	6,19,956	7,65,215	9,08,803	10,41,226	11,78,598
150	7.6	5,14,247	6,70,757	8,31,203	9,81,706	11,30,552	12,69,519
175	10.1	5,49,195	7,14,953	8,83,450	10,40,014	11,94,826	13,48,059

MHX-808-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
40	0.8	2,59,592	3,44,395	4,27,997	5,11,705	5,93,226	6,75,860
60	1.7	3,57,202	4,72,291	5,85,824	6,98,276	8,09,362	9,19,204
80	2.9	4,37,612	5,77,396	7,14,751	8,50,868	9,85,522	11,17,411
100	4.4	504,942	6,65,206	8,22,042	9,76,917	11,28,593	12,78,582
120	6.1	5,61,765	7,39,048	9,09,767	10,82,625	12,49,229	14,14,041
140	8.1	6,08,184	7,99,040	9,87,383	11,73,603	13,51,843	15,28,174
160	10.4	6,51,529	8,52,808	10,51,343	12,47,568	14,34,131	16,26,415

MHX-1005-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
80	1.0	3,90,865	5,14,867	6,35,941	7,55,372	8,73,321	9,89,905
110	1.8	4,74,969	6,24,349	7,71,711	9,12,511	10,51,505	11,88,844
140	2.8	5,42,127	7,09,175	8,73,887	10,36,578	11,93,888	13,49,455
170	4.1	5,95,655	7,77,466	9,56,751	11,33,860	13,04,351	14,72,995
200	5.5	6,39,572	8,36,834	10,25,794	12,12,420	13,91,201	15,68,021
230	7.1	6,71,013	8,81,069	10,81,654	12,79,842	14,75,926	16,56,249
260	9.0	7,05,845	9,18,470	11,28,195	13,35,456	15,40,565	17,35,715

MHX-1006-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
80	1.1	4,31,633	5,69,721	7,05,354	8,39,857	9,71,394	11,01,292
110	2.0	5,31,412	7,00,221	8,66,804	10,29,625	11,86,757	13,41,899
140	3.2	6,12,681	8,04,445	9,90,694	11,77,509	13,56,232	15,32,877
170	4.6	6,79,512	8,86,714	10,94,941	13,00,749	14,96,037	16,89,135
200	6.2	7,30,974	9,61,529	11,84,002	13,93,373	16,10,762	18,15,363
230	8.0	7,79,794	10,21,033	12,52,812	14,81,772	17,08,253	19,32,515
260	10.0	8,18,554	10,65,666	13,16,760	15,50,175	17,95,994	20,09,348

GTD refers to the difference between the condensing temperature and the inlet water temperature.

MARINE CONDENSER

Capacity & Flow Rates

R-22 AT 105°F Condensing Temp With .00025 Total Fouling, Standard Models

MHX-1008-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
90	1.7	5,35,804	7,08,436	8,78,736	10,47,414	12,14,043	13,78,806
120	2.9	6,56,419	8,66,094	10,72,126	12,76,302	14,78,283	16,76,117
150	4.4	7,57,413	9,97,809	12,33,062	14,65,376	16,92,890	19,17,873
180	6.2	8,42,648	11,08,572	13,64,650	16,23,938	18,73,844	21,21,061
210	8.2	9,12,277	11,98,559	14,81,074	17,60,405	20,27,764	22,92,261
240	10.5	9,77,294	12,79,211	15,77,015	18,71,352	21,51,196	24,39,623

MHX-1205-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
80	0.6	4,34,571	5,73,741	7,10,936	8,45,169	9,78,847	11,09,526
120	1.3	5,71,765	7,54,067	9,32,006	11,03,516	12,76,982	14,44,098
160	2.3	6,79,982	8,91,367	11,03,245	13,05,515	15,05,281	17,02,756
200	3.4	7,64,993	10,02,033	12,35,811	14,61,698	16,84,917	19,05,710
240	4.8	8,32,453	10,94,730	13,40,702	15,90,011	18,36,637	20,74,119

MHX-1206-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
80	0.7	4,72,445	6,25,484	7,75,779	9,24,810	10,71,578	12,16,612
120	1.5	6,34,168	8,36,260	10,35,512	12,31,044	14,24,134	16,12,077
160	2.5	7,61,843	10,04,530	12,41,455	14,69,889	17,01,102	19,23,981
200	3.8	8,65,921	11,38,008	14,06,461	16,63,136	19,25,471	21,76,259
240	5.4	9,51,312	12,48,483	15,41,695	18,19,849	21,06,467	23,78,348

MHX-1208-A-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
80	0.8	5,23,016	6,93,742	8,62,100	10,32,353	1,97,741	13,61,242
120	1.8	7,22,907	9,56,246	11,86,950	14,15,556	16,41,222	18,64,225
160	3.0	8,88,914	11,73,608	14,53,886	17,29,713	20,03,129	22,73,696
200	4.5	10,27,834	13,55,820	16,77,335	19,94,985	23,03,852	26,14,736
240	6.4	11,45,318	15,09,619	18,65,391	22,08,661	25,56,246	28,91,670

MHX-1208-A-1			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
200	0.5	9,05,280	11,91,110	14,72,894	17,51,098	20,21,952	2,281,132
300	1.1	11,48,319	15,04,462	18,55,584	21,94,694	25,29,591	28,60,624
400	1.9	13,28,860	17,32,695	21,30,804	25,23,929	28,89,836	32,74,171
500	2.9	14,55,920	19,12,051	23,47,428	27,77,473	31,72,689	35,93,421
600	4.0	15,61,726	20,42,768	25,17,420	29,67,998	34,13,533	38,54,520
700	5.3	16,48,226	21,60,296	26,43,634	31,21,119	35,71,197	40,16,454

MHX-1210-A-1			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
200	0.7	10,30,031	13,59,449	16,82,245	20,00,819	23,10,308	26,21,212
300	1.4	13,32,726	17,48,748	21,58,811	25,63,686	29,63,912	33,46,811
400	2.3	15,57,675	20,47,303	25,20,735	29,78,336	34,30,373	38,77,338
500	3.4	17,32,282	22,78,035	27,89,808	32,94,993	37,94,293	42,88,265
600	4.8	18,81,939	24,50,200	30,10,605	35,64,278	40,94,544	46,19,196
700	6.3	19,89,677	25,98,260	31,98,740	37,71,317	43,37,588	48,76,960

GTD refers to the difference between the condensing temperature and the inlet water temperature.

MARINE CONDENSER

Capacity & Flow Rates

R-22 AT 105°F Condensing Temp With .00025 Total Fouling, Standard Models

MHX-1406-B-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
150	0.9	8,44,265	11,15,290	13,82,501	16,46,349	19,06,442	21,61,663
225	2	11,11,799	14,66,553	18,10,259	21,49,316	24,84,226	28,15,353
300	3.4	13,17,364	17,35,679	21,42,548	25,31,849	29,29,133	33,09,228
375	5.1	14,81,903	19,44,822	24,01,628	28,34,825	32,62,818	37,04,980
450	7.1	16,13,300	21,14,104	26,08,302	30,72,895	35,56,204	40,10,453

MHX-1408-B-2			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
150	1.1	9,48,750	12,56,947	15,60,851	18,63,828	21,62,891	24,58,387
225	2.4	12,86,854	17,00,402	21,08,041	25,10,253	29,07,315	32,99,741
300	4.1	15,59,979	20,57,068	25,47,705	30,29,294	34,97,968	39,68,908
375	6.1	17,83,975	23,45,473	28,99,375	34,40,257	39,81,802	45,04,254
450	8.6	19,70,847	25,86,912	31,85,472	37,86,115	43,61,224	49,30,105

MHX-1410-B-1			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
400	1.2	18,83,138	24,78,733	30,66,118	36,46,320	42,05,116	47,56,982
500	1.8	21,54,505	28,32,020	34,79,107	41,39,047	47,69,550	53,92,658
600	2.5	23,72,868	31,14,623	38,46,417	45,40,181	52,25,288	59,32,772
700	3.3	25,57,658	33,64,904	41,43,675	48,76,246	56,36,721	63,51,976
800	4.2	27,21,493	35,63,935	43,73,270	51,72,413	59,62,519	67,44,479
900	5.3	28,76,649	37,38,465	45,88,115	54,53,018	62,57,171	70,52,584
1000	6.4	29,77,533	39,00,628	48,11,657	56,82,896	65,44,668	73,38,160

MHX-1608-B-1			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
600	1	23,98,955	31,45,751	38,67,785	45,94,629	52,83,449	59,63,632
800	1.7	27,74,164	36,48,947	44,69,013	52,99,920	61,21,492	68,67,130
1000	2.6	30,82,744	40,22,197	49,48,606	58,34,513	67,09,853	75,75,562
1200	3.6	33,25,458	43,17,691	53,32,128	62,61,945	72,54,062	81,62,880
1400	4.8	35,06,522	45,84,370	56,26,152	66,11,761	76,29,849	85,49,796
1600	6.2	36,64,708	47,68,331	58,56,876	69,32,625	79,45,949	89,48,775

MHX-1610-B-1			TOTAL HEAT OF REJECTION AT SPECIFIED GTD				
GPM	ΔP	15° F GTD	20° F GTD	25° F GTD	30° F GTD	35° F GTD	40° F GTD
600	1.2	27,68,593	36,36,353	44,91,697	53,36,207	61,59,148	69,72,468
800	2	32,57,808	42,66,168	52,60,240	62,41,936	72,12,611	81,33,921
1000	3.1	36,43,228	47,67,579	58,76,502	69,45,772	80,29,306	90,48,047
1200	4.3	39,43,105	51,82,805	63,73,212	75,49,381	86,44,687	97,96,210
1400	5.7	42,23,696	55,21,123	67,60,535	79,84,712	91,95,424	103,94,057
1600	7.3	44,37,197	57,60,396	71,13,280	83,54,352	96,78,506	108,92,895

GTD refers to the difference between the condensing temperature and the inlet water temperature.

MARINE CONDENSER

Replacement Parts

REPLACEMENT PART NO			
MODEL NO	CONDENSER HEAD	CONDENSER REAR	GASKET
MHX-602B-4	HEAD0011457	HEAD0021178	GASKE020344
MHX-602D-4	HEAD0011457	HEAD0021178	GASKE020344
MHX-603D-4	HEAD0011457	HEAD0021178	GASKE020344
MHX-604D-4	HEAD0011457	HEAD0021178	GASKE020344
MHX-605D-2	HEAD0011457	HEAD0021178	GASKE020344
MHX-606D-2	HEAD0011457	HEAD0021178	GASKE020344
MHX-805A-2	HEAD0021323	HEAD0021330	GASKE020351
MHX-806A-2	HEAD0021323	HEAD0021330	GASKE020351
MHX-808A-2	HEAD0021323	HEAD0021330	GASKE020351
MHX-1005A-2	HEAD0021347	HEAD0021147	GASKE020368
MHX-1006A-2	HEAD0021347	HEAD0021147	GASKE020368
MHX-1008A-2	HEAD0021347	HEAD0021147	GASKE020368
MHX-1205A-2	HEAD0018960	HEAD0021161	GASKE020375
MHX-1206A-2	HEAD0018960	HEAD0021161	GASKE020375
MHX-1208A-1	HEAD0010742	HEAD0010742	GASKE020375
MHX-1208A-2	HEAD0018960	HEAD0021161	GASKE020375
MHX-1210A-1	HEAD0010742	HEAD0010742	GASKE020375
MHX-1405B-2	HEAD0010569	HEAD0011576	GASKE017655
MHX-1406B-2	HEAD0010569	HEAD0011576	GASKE017655
MHX-1408B-2	HEAD0010569	HEAD0011576	GASKE017655
MHX-1410B-1	HEAD0019682 EPOXY	HEAD0021435 EPOXY	0HC141D
MHX-1608B-1	HEAD0021435 EPOXY	HEAD0021435 EPOXY	0HC141D
MHX-1608B-2	HEAD0010711	HEAD0018946	GASKE017781
MHX-1610B-1	HEAD0021435 EPOXY	HEAD0019682 EPOXY	0HC141C

MARINE CONDENSER

Emerson 703RC Unloader Valve

- Application
- 3-Way Unloader Valves
 - Electrically operated valve for compressor unloading

- Features
- Stainless and brass construction
 - OEM drop-in replacement

- Specifications
- Maximum working pressure: 500 psig
 - MOPD 300 psig
 - Drop-in replacement for Copeland part umber 510-0212-00

Nomenclature

Example: 703RBVLC

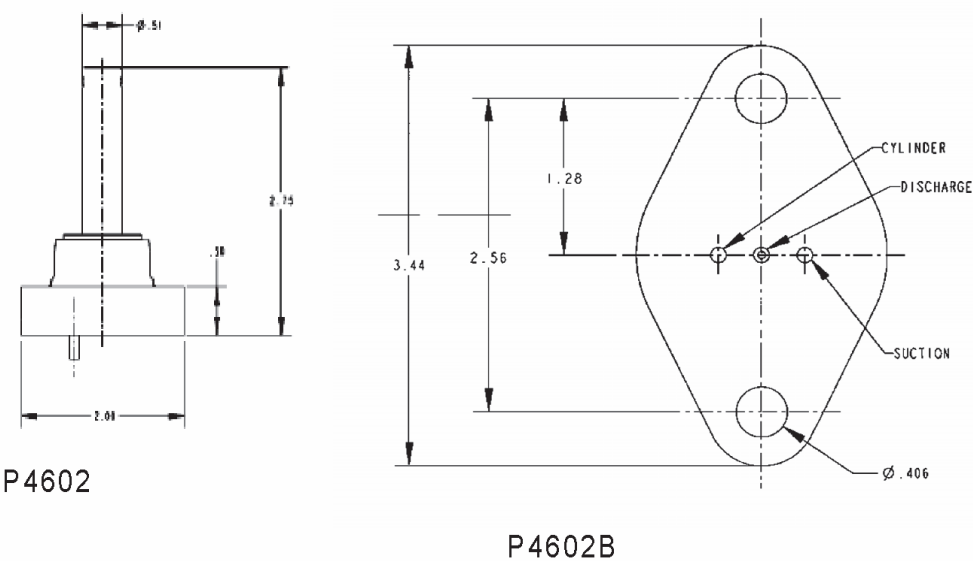
703RC	VLC
Valve Series	Coil*

Note: Valves are shipped without the solenoid coils (VLC= Valve Less Coil). See coil section of catalog for information.

PCN*	DESCRIPTION
065131**	703RC-001 AMC 120/50/60
65132	703RC-001 AMC 208-240/50-60
065126**	703RC-001 VLC

**Standard Product Offering.
 *Product Code Number.
Note: Body gasket not included. Consult compressor manufacturer for body gasket information.

DIMENSIONAL DATA



Note:Dimensions Shown are in inches.Fractions(decimal).
 Note:Coil sold separately.

MOTOR INFORMATION

Definitions

SHADED POLE MOTORS

- Single Phase

For use in light-duty appliances because of low efficiency, power factor and starting torque. These motors are only suitable for direct drive fan and blower applications.

PERMANENT-SPLIT CAPACITOR MOTORS

- Single Phase

This type motor is similar to the shaded pole type but has higher efficiency and power factor. Starting torques are relatively low which limits application only for direct drive fan and blower applications.

SPLIT-PHASE MOTORS

- Single Phase

Split-phase motors have moderate starting torque with low starting current. They are used where starting load is moderate and where there is frequent starting with relatively long running periods. Reversible.

CAPACITOR-START MOTORS

- Single Phase

This type motor produces greater locked-rotor and accelerating torque per amp than the split phase type. With a higher starting torque than the split-phase type it can be used for driving compressors, pumps, air conditioning equipment and many other hard-to-start applications.

POLYPHASE-SQUIRREL CAGE INDUCTION MOTORS

- Three Phase

Polyphase motors have a high starting torque combined with high efficiency and power factor which makes them suitable for use on larger compressors and commercial air conditioning units. Do not require capacitors or starting relays. Reversible.

DEFINITIONS FOR LISTING ON FOLLOWING MOTORS PAGES

HP: Horsepower - Power rating of the motor

FLA: Full Load Amps - Amperage drawn by a motor when operating at rated load and voltage.

NOTE: RCD may use several motor suppliers for any given part number. Therefore FLA listed represents maximum rating that could be encountered under a given part number.

RPM: Synchronous speed or full load speed

HZ: Frequency or Hertz

V : Voltage AC

C : Ambient Rating

CAP : Capacitor Rating (i.e. 5.0 μ f / 370 volts)

A : Amp rating at Full Load (i.e. 1.8A)

PSC : Permanent Split Capacitor motors single phase. This type of motor has high efficiency and power factor with starting torques relatively low, which limits the application only for direct drive fan and blower applications.

TE : Totally Enclosed Motor

OP : Open Enclosure

Speed: 1: Single Speed Motor

Mounting: Base, Stud, Strap

ROT. Rotation - Motors rotate in either a clockwise (CW) or counterclockwise (CCW) direction. Rotation listed is per NEMA, as viewed from the end of the motor opposite the shaft. In the case of double shaft motors, the rotation is viewed from the lead end of motor.

SF: Service Factor - A measure of the overload capacity designed into a motor. A 1.15 SF means the motor can deliver 15% more than a rated horsepower without injurious overheating. A 1.0 SF motor should not be overloaded beyond its rated horsepower.

BRGS: Bearings - SLV/BALL

FRAME: An (R), (S) or (T) may appear in this column adjacent to the NEMA frame designation and is defined as follows:

(R) - Resilient mounting rings included

(S) - Motor is mounted on rigid base

(T) - Motor is equipped with extended thru-bolts required for thru-bolt mounting

DIA: Diameter of motor in inches

SHAFT: Length/Diameter (i.e. 6.5" / 1/2").

First shaft length listed is at lead end of dual shaft motors.

NOTE: RCD may use several motor suppliers for any given part number. Therefore, shaft length(s) listed represent maximum length(s) available under a given part number.

Protector: Internal Thermally Protected

MOTOR DIMENSIONS:

- A Overall length of motor including shaft(s)
- B Diameter of mounting bolt circle on motors supplied with mounting ears
- C Shaft height - center of shaft to base on motors supplied with mounting base
- D Diameter of mounting hole on motors supplied with mounting lugs

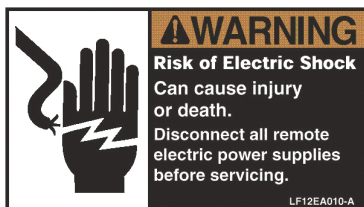
MOTOR INFORMATION

Motor Selection

When selecting either an indoor blower motor or outdoor condenser motor, always start with the following:

- **HP:** always try to use the same horsepower that was in the original equipment application, specifically within that frame size
- **RPM's:** selected should be in the $\pm 10\%$ range
- **AMPS:** never exceed the full load amps by more than $\pm 10\%$
- **Voltage:** should always be the same as the equipment
- **Capacitor:** may require a change to reflect the microfarads (μF) required by the motor (i.e. 5 μF to 7.5 μF)

INSTALLATION TIPS



Before installing motors always measure the approximate propeller fan, or blower wheel location to make sure your final installation ends up in the same area in condenser orifices or blower housings to maintain the same air flow.

Make sure the hubs of the old fans or blower wheels are not stripped and the set screws are tight to the flat of the shaft.

Outdoor propeller fan blades flex during operation. Make sure you have enough clearance so that the fan blades do not contact the mounting screws of the motors on the shaft end. (If necessary, cut the installation screws back to avoid a fan hit.)

Motor must be securely and adequately grounded by wiring per NEC and local codes.



MOTOR INFORMATION

Tips To Identify A Motor Without A Nameplate

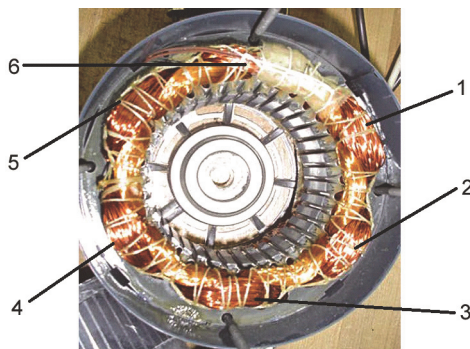
Motor Diameter: Measure diameter to confirm NEMA (National Electrical Manufacturers Association) frame size. Frame size: 4.9"= 42, 5.6"= 48, 6.5"= 56

Motor Type: Shaded Pole (SP), Permanent Split Capacitor (PSC), Split Phase, Capacitor Start/Capacitor Run, Three Phase, and DC.

Speed: RPM = 120 x Hz / # Poles

@ 60Hz	Full Load Speed			
# Poles	Syn	SP	PSC	General Purpose
2	3600	3000	-	3450
4	1800	1500	1625	1725
6	1200	1050	1075	1140
8	900	-	825	850

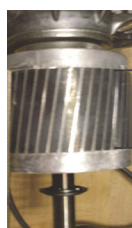
Count # of Poles



Horsepower & Stack Lengths:

4 & 6 Pole Open Motors		8 Pole Open Motors	
HP	Approx. Stack Length	HP	Approx. Stack Length
1/4	1.25"	1/8	1.13"
1/3	1.50"	1/6	1.25"
1/2	2.25"	1/4	1.62"
3/4	2.50"	1/3	2.25"

4 & 6 Pole Closed Motors		8 Pole Closed Motors	
HP	Approx. Stack Length	HP	Approx. Stack Length
1/4	1.25"	1/8	1.25"
1/3	1.75"	1/6	1.38"
1/2	2.50"	1/4	1.75"
3/4	3.00"	1/3	2.50"



Measure Stack Height For HP

Number Of Speeds:

- Number Speeds = number of power leads minus 1.
- For SP - **Do not count** the ground (green) lead.
- For PSC - **Do not count** the ground (green) lead or the capacitor (brown) lead.

Mechanical Features:

- Mounting Definition - Base, Belly band, Lugs, Studs, Face mount, etc.
- Enclosure - ODP (Open Drip Proof), TE (Totally Enclosed), etc.
- Shaft - Number, Length, Diameter, Flat-Keyway, etc.
- Unique Features - Leads, Conduit Box, Bearings, Brake, Rotation Arrow, Capacitor Cover, Slingers, etc.

Rotation:

- Most standard motors (except Single Phase and Threaded Shaft) are reversible from standstill by electrical re-connection.
- Three phase motors reversed by interchanging any two of the three power leads.

Note: Rotation of an unknown motor is often found by noting attached fan, blower or other device. Dirt accumulates on the side towards which the motor rotates.

Voltage: Common Voltage

	115	230	Dual	277	460	575
SP	X	X	-	X	-	-
PSC	X	X	-	X	X	X
Split Ph	X	X	-	-	-	-
Cap Start	X	X	115/230	-	-	-
3 Phase	-	X	230/460	-	X	X

Note: Voltage may be difficult to determine. **Ask the customer!**

Typical Color Schemes (Not a standard):

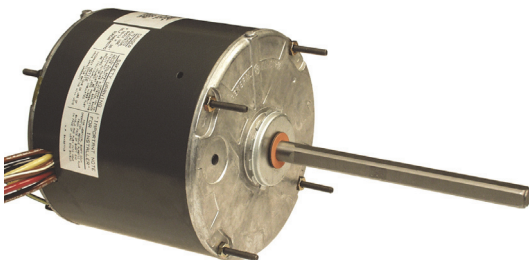
- White - Common lead (115 volt)
- Yellow or Purple - Common lead (230 volt)
- Brown - Capacitor leads (1 or 2)(PSC Only)
- When replacing PSC a good practice is to replace the capacitor, too.
- Replace based on horsepower not AMP rating.
- Do not replace manual overload with automatic overload motor.
- Motors with similar stator dimensions will have output (other features being equal). i.e. It takes a similar amount of iron and copper (D2L) for torque.

Some rules of thumb:	
Generally, if this is the original.....	This can be used as its replacement
Shaded Pole	Permanent Split Capacitor
Sleeve Bearings	Ball Bearing
Open or DP	Totally Enclosed
1 Speed	1, 2 or 3 Speed
2 Speed	2 or 3 Speed
370 Volt Capacitor	370 or 440 Volt Capacitor

CONDENSER FAN MOTORS

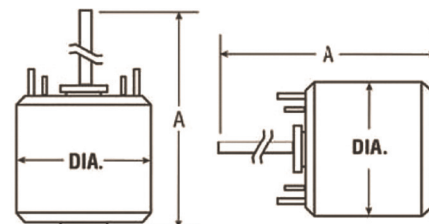
Totaline® Condenser Fan Motors

Totally Enclosed - All Position Mounting



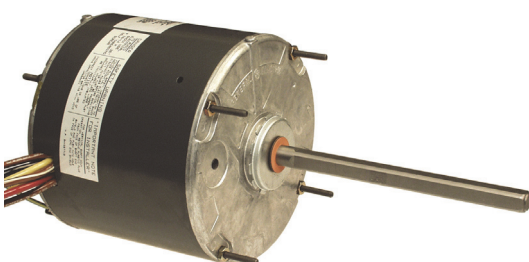
Features:

- Slinger protects bearing when motor is mounted in shaft up or horizontal position (remove slinger when motor is mounted in shaft down position)
- Rated continuous air over
- Automatic reset thermal protection
- Permanent split capacitor
- Class B Insulation
- Reversible by electrical reconnection
- 26" leads
- 6" shaft with 2 full flats, 90° apart
- NEMA 48 Frame
- Single Phase, 60 Hertz



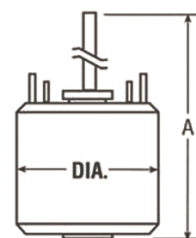
Part Number	HP	Voltage	FLA	RPM/Speed(s)	Bearing	Dimensions (In) A	Ambient	Capacitor	
								Mfd Volts	Part No
P257-8727	1/6	208-230	1.0	1075/1	Sleeve		60° C	5/370	P291-0503
P257-8728	1/4	208-230	1.8	1075/1	Sleeve	10.7"	60° C	5/370	P291-0503
P257-8729	1/3	208-230	2.4	1075/1	Sleeve	11"	60° C	7.5/370	P291-0753
P257-8730	1/2	208-230	3.5	1075/1	Sleeve	12.2"	60° C	10/370	P291-1003
P257-8731	3/4	208-230	5.5	1075/1	Sleeve		60° C	10/370	P291-1003
P257-8228	1/4	208-230	1.6	1075/2	Sleeve	11"	60° C	5/370	P291-0503
P257-8229	1/3	208-230	2.4	1075/2	Sleeve	11.5"	60° C	7.5/370	P291-0753
P257-8230	1/2	208-230	3.8	1075/2	Sleeve	12.5"	60° C	10/370	P291-1003

Three Phase



Features:

- Vertical shaft up mount
- Positioning screws in motor shell
- Water slinger for bearing protection
- Class B Insulation
- Reversible rotation
- NEMA 56 Frame
- 5/8" x 6" shaft with 5" flat and 5" long keyway – key not provided

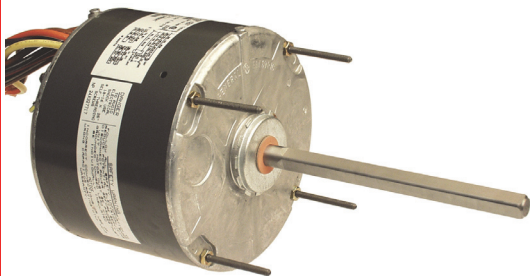


Part Number	HP	Voltage	FLA	RPM/Speed(s)	Bearing	Dimensions (In) A	Ambient
P257-E378	3/4	208-230/460	3.6/1.8	1140	Ball	16.8"	60° C
P257-E379	1	208-230/460	4.8/2.4	1140	Ball	16.8"	60° C
P257-E380	1-1/2	208-230/460	6.4/3.2	1140	Ball	16.8"	60° C

CONDENSER FAN MOTORS

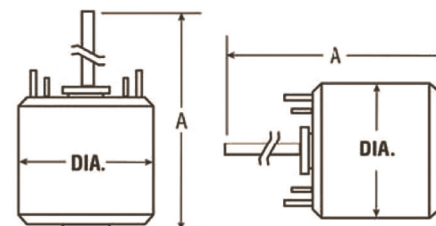
Totaline® Condenser Fan Motors

Single Phase



Features:

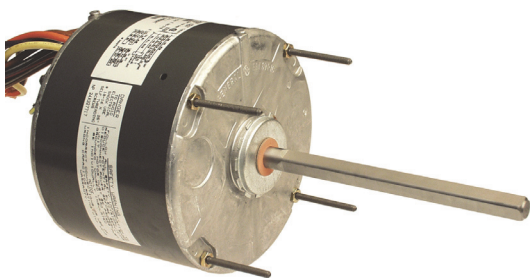
- Suitable for vertical shaft up or horizontal mounting
- Permanent split capacitor
- Automatic reset thermal protection
- Totally enclosed shaft end bracket, open opposite end
- Slinger for bearing protection
- 26" leads
- NEMA 48 Frame
- Reversible by electrical reconnection
- Class B Insulation



* Denotes high efficiency.

Part Number	HP	Voltage	FLA	RPM/Speed(s)	Bearing	Shaft Dia & Length (In)	Dimensions (In)		Ambient	Capacitor	
							DIA	A		Mfd Volts	Part No
P257-8328*	1/4	208-230	1.8	1075/1	Sleeve	1/2" x 6"	5.6"	11.1"	60° C	5/370	P291-0503
P257-8028	1/4	208-230	1.5	1075/2	Sleeve	1/2" x 6"	5.6"	11.1"	60° C	5/370	P291-0503
P257-8046	1/4	208-230	1.5	1075/2	Ball	1/2" x 6"	5.6"	11.1"	60° C	5/370	P291-0503
P257-8329*	1/3	208-230	2.4	1075/1	Sleeve	1/2" x 6"	5.6"	11.4"	60° C	7.5/370	P291-0753
P257-8029	1/3	208-230	2.1	1075/2	Sleeve	1/2" x 6"	5.6"	11.9"	60° C	7.5/370	P291-0753
P257-8031	1/3	208-230	2.1	1075/2	Ball	1/2" x 6"	5.6"	11.9"	60° C	7.5/370	P291-0753
P257-8026	1/3	208-230	2.2	825/1	Ball	1/2" x 6"	5.6"	12.1"	60° C	10/370	P291-1003
P257-8330*	1/2	208-230	3.6	1075/1	Sleeve	1/2" x 6"	5.6"	12.1"	60° C	10/370	P291-1003
P257-8030	1/2	208-230	3.5	1075/2	Sleeve	1/2" x 6"	5.6"	12.4"	60° C	10/370	P291-1003
P257-8032	1/2	208-230	3.5	1075/2	Ball	1/2" x 6"	5.6"	12.4"	60° C	10/370	P291-1003
P257-8048	3/4	208-230	4.1	1075/2	Ball	1/2" x 6"	5.6"	12.4"	60° C	15/370	P291-1503

Multi-Horsepower



Features:

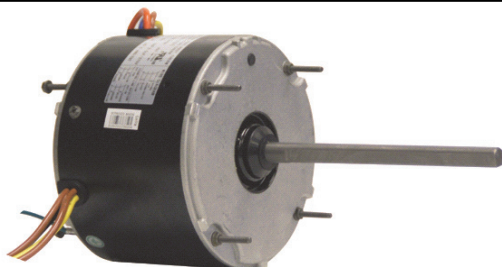
- Reversible rotation
- NEMA 48 Frame
- 36" leads
- All position mount
- Mounts with thru-bolts, shell holes or belly band

Part Number	HP	Voltage	FLA	RPM/Speed(s)	Bearing	Dimensions (In)	Ambient
P257-E5462	1/6-1/3	208/230	2.6	1075/2	Sleeve	3.75" x 1/2"	60° C
P257-E5465	1/5-1/2	208/230	3.25	1075/2	Ball	5" x 1/2"	60° C
P257-E5464	1/6-1/3	208/230	2.55	825/2	Ball	5" x 1/2"	60° C

CONDENSER FAN MOTORS

TotalSaver® Condenser Fan Motors

Totally Enclosed - All Position Mounting



Features:

- Suitable for vertical shaft up or horizontal mounting
- Permanent split capacitor
- Automatic reset thermal protection
- Totally enclosed shaft end bracket, open opposite end
- 26" leads
- NEMA 48 Frame
- Reversible by electrical reconnection
- Class B Insulation

TotalSaver™
by **TOTALINE**

Part Number	HP	Voltage	FLA	RPM	Bearing	Shaft Dia & Length (In)	Temp Rise	HZ	Capacitor	
									Mfd Volts	Part No
T257-3727	1/6	208-230	1.0	1075	Sleeve	1/2" x 6.5"	60° C	60	5/370	P291-0503
T257-3728	1/4	208-230	1.8	1075	Sleeve	1/2" x 6.5"	60° C	60	5/370	P291-0503
T257-3729	1/3	208-230	3.0	1075	Sleeve	1/2" x 6.5"	60° C	60	7.5/370	P291-0753
T257-3730	1/2	208-230	3.6	1075	Sleeve	1/2" x 6.5"	60° C	60	10/370	P291-1003
T257-3731	3/4	208-230	5.5	1075	Sleeve	1/2" x 6.5"	60° C	60	10/370	P291-1003

Multi-Horsepower



Features:

- Three models cover 208-230 Volt
- Applications from 1/6 to 1/2 HP
- Thru bolt or band mounting
- Class B Insulation
- Thermal overload protected

TotalSaver™
by **TOTALINE**

Part Number	HP	Voltage	FLA	RPM	Bearing	Shaft Dia & Length (In)	Temp Rise	HZ	Capacitor	
									Mfd Volts	Part No
T257-3465	1/6-1/3	208-230	2.6	1075	Sleeve	1/2" x 3.75"	60° C	60	5/7.5/370	P291-0503*
T257-3468	1/5-1/2	208-230	3.2	1075	Ball	1/2" x 5"	60° C	60	10/12.5/370	P291-1003**
T257-3469	1/6-1/3	208-230	2.5	825	Ball	1/2" x 5"	60° C	60	7.5/10/370	P291-0753***

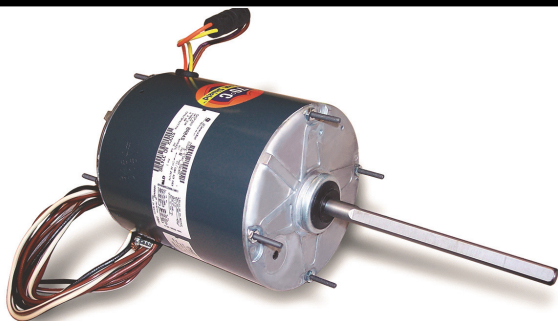
* At 208V a 7.5 mfd/370V capacitor should be used. Totaline Part Number P291-0753. Amps will be similar.

** At 208V a 12.5 mfd/370V capacitor should be used. Totaline Part Number P291-1253. Amps will be similar.

*** At 208V a 10 mfd/370V capacitor should be used. Totaline Part Number P291-1003. Amps will be similar.

HIGH TEMPERATURE CONDENSER FAN MOTOR

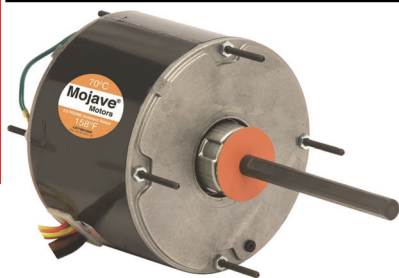
Totaline® 460V High Temperature Condenser Fan Motors


Features:

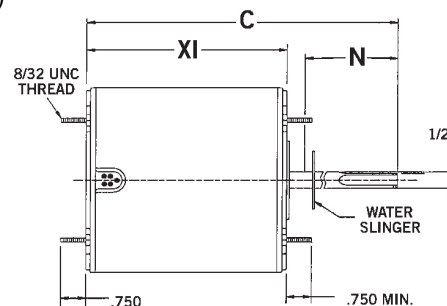
- Totaline Brand Packaging
- 70°C Ambient
- Runs cooler, Lower operating temperatures = improved life & reliability
- Increased lead length to 48"
- All Angle Mounting Position
- Rheem Mounting Holes
- Quick Connects on capacitor leads
- Extended thru bolts on both ends
- Drain holes in both end shields with plugs

Part Number	HP	Voltage	RPM	Frame	Rotation	Bearing
P257-3736HS	1/4	460	1075	48	REV	Ball
P257-3737HS	1/3	460	1075	48	REV	Ball
P257-3738HS	1/2	460	1075	48	REV	Ball
P257-3739HS	3/4	460	1075	48	REV	Ball

PSC Condenser Fan High Temperature Nidec® Mojave Series


Features:

- 158°F (70°C) Ambient Design
- Totally Enclosed Air Over (TEAO)
- Ball Bearings
- Class F Insulation
- Suitable for use with 370V Capacitors
- Extended Studs
- 48" Leads
- 5.6" Diameter
- Hubless Lead End
- Drain Holes Both Ends
- Reversible Rotation
- Automatic Reset Thermal Overload Protector
- Continuous Duty

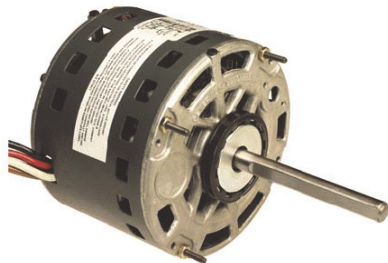


Part Number	HP	RPM	Voltage	Bearing	Capacitor MFD	Amps	Shaft N	Shell XI	Total C	Shipping Weight Lbs
1874H	1/4-- 1/8	825	208-230	Ball	5.0	2.1	6.0	4.4	10.9	13.0
1860H	1/4	1075	208-230	Ball	5.0	1.7	6.0	4.1	10.6	12.0
1861H	1/3	1075	208-230	Ball	7.5	2.1	6.0	4.6	11.1	14.0
1862H	1/2	1075	208-230	Ball	10.0	3.2	6.0	5.3	11.9	18.0
1868H	3/4	1075	208-230	Ball	10.0	4.7	6.0	5.8	12.4	20.0

DIRECT DRIVE BLOWER MOTORS

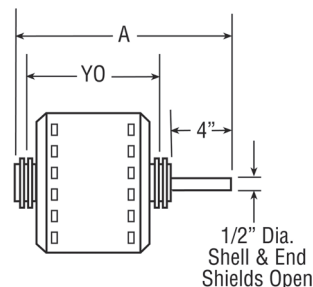
Totaline® Direct Drive Blower Motors

Two Speed



Features:

- Electrically reversible
- Continuous air over - 40°C
- All angle sleeve bearings
- NEMA 48 Frame
- Terminal connection for CW/CCW
- Automatic reset overload protection
- 1/2" extended thru bolts shaft end
- 1/2" diameter shaft 4 inches long with full flat
- 2-1/4" resilient rings with 2-1/2" snap rings
- Open construction, non-ventilated motors for exhaust, air circulators, unit heaters, unit coolers, and other air-over applications

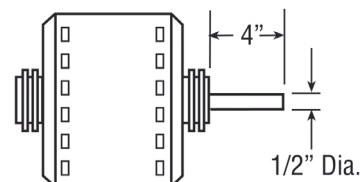


Part Number	HP	Voltage	FLA	RPM/Speed(s)	Dimensions (In)		HZ	Capacitor	
					A	YO		Mfd Volts	Part No
P257-8383	1/4	115	4.2	1075/2	9.1"	4.9"	60	5/370	P291-0503
P257-8384	1/4	208-230	2.0	1075/2	9.1"	4.9"	50/60	5/370	P291-0503
P257-8385	1/3	115	6.2	1075/2	9.4"	5.1"	60	5/370	P291-0503
P257-8386	1/3	208-230	2.9	1075/2	9.4"	5.1"	50/60	5/370	P291-0503
P257-8387	1/2	115	9.0	1075/2	10.4"	6.1"	50/60	5/370	P291-0503
P257-8388	1/2	208-230	4.3	1075/2	10.1"	5.9"	50/60	5/370	P291-0503
P257-8389	3/4	115	10.3	1075/2	10.4"	6.1"	60	15/370	P291-1503
P257-8390	3/4	208-230	4.4	1075/2	10.4"	6.1"	60	10/370	P291-1003

Three Speed - Standard Efficiency

Features:

- Open construction, non-ventilated motors for exhaust, air circulators, unit heaters, unit coolers, and other air-over applications
- High or standard efficiency
- 26" leads
- Permanent split capacitor
- Single phase, 60 hertz
- Sleeve bearings
- 2-1/4" to 2-1/2" resilient ring mount
- Automatic reset thermal protection
- Class A Insulation
- NEMA 48 Frame

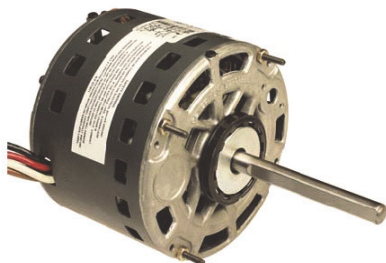


Part Number	HP	Voltage	RPM/Speed(s)	FLA	Capacitor	
					Mfd Volts	Part No
P257-8583	1/4	115	1075/3	4.2	5/370	P291-0503
P257-8584	1/4	208-230	1075/3	2.0	5/370	P291-0503
P257-8585	1/3	115	1075/3	6.1	5/370	P291-0503
P257-8586	1/3	208-230	1075/3	2.7	5/370	P291-0503
P257-8587	1/2	115	1075/3	9.0	5/370	P291-0503
P257-8588	1/2	208-230	1075/3	4.3	5/370	P291-0503
P257-8589	3/4	115	1075/3	11.2	15/370	P291-1503
P257-8590	3/4	208-230	1075/3	5.0	10/370	P291-1003

DIRECT DRIVE BLOWER MOTORS

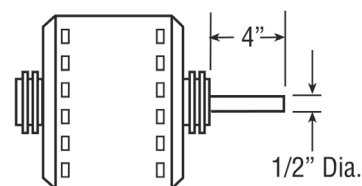
Totaline® Direct Drive Blower Motors

Three Speed - High Efficiency



Features:

- Open construction, non-ventilated motors for exhaust, air circulators, unit heaters, unit coolers, and other air-over applications
- High or standard efficiency
- 26" leads
- Permanent split capacitor
- Single phase, 60 hertz
- Sleeve bearings
- 2-1/4" to 2-1/2" resilient ring mount
- Automatic reset thermal protection
- Class A Insulation
- NEMA 48 Frame

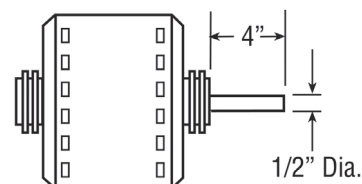


Part Number	HP	Voltage	RPM/Speed(s)	FLA	Capacitor	
					Mfd Volts	Part No
P257-8983	1/4	115	1075/3	3.7	7.5/370	P291-0753
P257-8984	1/4	208-230	1075/3	1.8	5/370	P291-0503
P257-8985	1/3	115	1075/3	4.9	7.5/370	P291-0753
P257-8986	1/3	208-230	1075/3	2.5	5/370	P291-0503
P257-8987	1/2	115	1075/3	7.3	10/370	P291-1003
P257-8988	1/2	208-230	1075/3	3.5	7.5/370	P291-0753
P257-8989	3/4	115	1075/3	10.3	15/370	P291-1503
P257-8990	3/4	208-230	1075/3	5.0	10/370	P291-1003

Multi-Horsepower

Features:

- Open construction, non-ventilated motors for exhaust, air circulators, unit heaters, unit coolers, and other air-over applications
- High or standard efficiency
- 26" leads
- Permanent split capacitor
- Single phase, 60 hertz
- Sleeve bearings
- 2-1/4" to 2-1/2" resilient ring mount
- Automatic reset thermal protection
- Class A Insulation
- NEMA 48 Frame

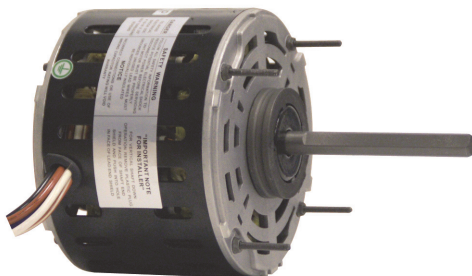


Part Number	HP	Voltage	RPM	FLA	Bearing	Dimensions (In)	Ambient
P257-E5460	1/6-1/2	115	1075	7.3	Sleeve	1/2-x 5	60° C
P257-E5461	1/6-1/2	208/230	1075	3.6	Sleeve	1/2-x 5	60° C
P257-E5470	1/5-3/4	115	1075	8.1	Ball	1/2-x 5	60° C
P257-E5471	1/5-3/4	208/230	1075	3.8	Ball	1/2-x 5	60° C

DIRECT DRIVE BLOWER MOTORS

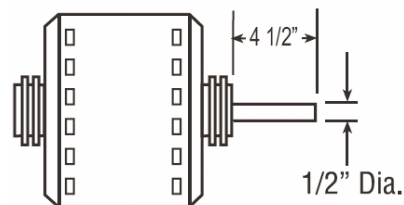
TotalSaver® Direct Drive Blower Motors

Single Speed



Features:

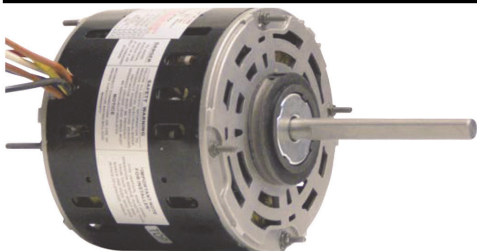
- Suitable for vertical shaft up or horizontal mounting
- 26" leads
- Permanent split capacitor
- Automatic reset protection
- Class B Insulation
- NEMA 48 Frame



TotalSaver
by **TOTALINE**

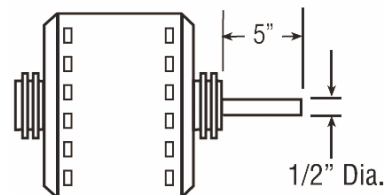
Part Number	HP	Voltage	FLA	RPM	Bearing	Shaft Dia & Length (In)	Temp Rise	HZ	Capacitor	
									Mfd Volts	Part No
T257-3583	1/4	115	3.7	1075	Sleeve	1/2" x 4.5"	60° C	60	5/370	P291-0503
T257-3584	1/4	208/230	1.8	1075	Sleeve	1/2" x 4.5"	60° C	60	5/370	P291-0503
T257-3585	1/3	115	6.1	1075	Sleeve	1/2" x 4.5"	60° C	60	5/370	P291-0503
T257-3586	1/3	208/230	2.9	1075	Sleeve	1/2" x 4.5"	60° C	60	5/370	P291-0503
T257-3587	1/2	115	9.0	1075	Sleeve	1/2" x 4.5"	60° C	60	5/370	P291-0503
T257-3588	1/2	208/230	3.8	1075	Sleeve	1/2" x 4.5"	60° C	60	5/370	P291-0503
T257-3589	3/4	115	10.0	1075	Sleeve	1/2" x 4.5"	60° C	60	15/370	P291-0503
T257-3590	3/4	208/230	5.2	1075	Sleeve	1/2" x 4.5"	60° C	60	10/370	P291-1003

Multi-Horsepower



Features:

- Four models cover applications from 1/6 through 3/4 HP
- Reversible rotation
- Class B Insulation
- Thermal overload protection
- NEMA 48 Frame



TotalSaver
by **TOTALINE**

Part Number	HP	Voltage	FLA	RPM	Bearing	Shaft Dia & Length (In)	Temp Rise	HZ	Capacitor	
									Mfd Volts	Part No
T257-3463	1/6-1/2	115	6.5	1075	Sleeve	1/2" x 5"	60° C	60	5/7.5/10/370	P291-0753*
T257-3464	1/6-1/2	208/230	3.1	1100	Sleeve	1/2" x 5"	60° C	60	5/7.5/10/370	P291-0753*
T257-3466	1/5-3/4	115	7.2	1075	Sleeve	1/2" x 5"	60° C	60	10/20/370	P291-1003**
T257-3467	1/5-3/4	208/230	4.6	1100	Sleeve	1/2" x 5"	60° C	60	10/20/370	P291-1003**

* Use Capacitor Part Number P291-1003 for 1/2 HP usage.

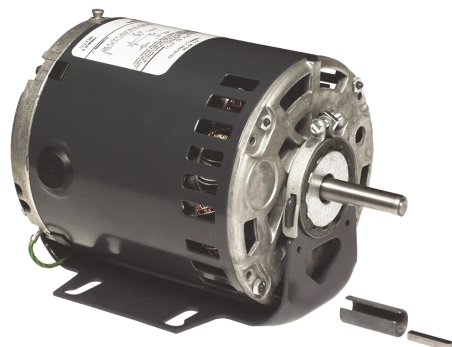
** Use Capacitor Part Number P291-2003 for 3/4 HP usage.

BELTED BLOWER MOTORS

Totaline® Belted Blower Motors

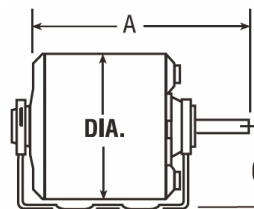
Split Phase

Motors



Features:

- Open drip-proof construction
- Reversible rotation by electrical reconnection
- Class A Insulation - 1/6 thru 1/2 HP
- Class B Insulation - 3/4 thru 1 HP
- Automatic reset thermal protection



Part Number	HP	Voltage	FLA	SF	Bearing	RPM/SPEED (S)	Frame	Shaft Dia & Length (In)	Temp Rise	Dimensions (In)			HZ
										DIA	A	C	
P267-9305	1/4	115	4.4	1.35	Sleeve	1725	48	1/2" x 1.5"	40° C	5.6	9.4	3.0	60
P267-9308	1/3	115	5.4	1.35	Sleeve	1725	48	1/2" x 1.5"	40° C	5.6	9.9	3.0	60
P267-9309	1/3	230	2.7	1.35	Sleeve	1725	48	1/2" x 1.6"	40° C	5.7	9.9	3.0	60
P267-9758	1/2	115	7.9	1.25	Ball	1725	48	1/2" x 1.5"	40° C	5.6	9.9	3.0	60
P267-9392	1/2	115	8.0	1.25	Sleeve	1725	56	5/8" x 2**	40° C	6.5	9.8	3.5	60
P267-9310	1/2	115/230	3.9	1.25	Sleeve	1725	48	1/2" x 1.6"	40° C	5.7	10.4	3.0	60
P267-D136	1/2	115/230	8.0/4.0	1.25	Sleeve	1725	56	5/8" x 2**	40° C	6.5	9.8	3.5	60
P267-D231	3/4	115	11.8	1.25	Sleeve	1725	56	5/8" x 2**	40° C	6.5	9.8	3.5	60
P267-D232	3/4	230	5.6	1.25	Sleeve	1725	56	5/8" x 2**	40° C	6.5	9.8	3.5	60

* Keyed motor shaft.

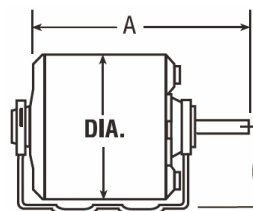
‡ Mounting holes are combination 48 and 56, shaft height is 3.0", includes 5/8" dia. shaft adapter.

Capacitor Start Belted Blower Motors



Features:

- Resilient mount
- Open drip-proof construction
- Class A Insulation - 1/2 HP
- Class B Insulation - 3/4 and 1 HP
- Reversible rotation by electrical reconnection
- Automatic reset thermal protection
- NEMA 56 Frame



Part Number	HP	Voltage	FLA	SF	Bearing	RPM/SPEED (S)	Shaft Dia & Length (In)	Temp Rise	Dimensions (In)			HZ
									DIA	A	C	
P268-E223	1/2	115/230	8.6/4.3	1.25	Ball	1725	5/8" x 2"	40° C	5.6	9.3	3.5	60
P268-E231	3/4	115/230	11.4/5.7	1.25	Ball	1725	5/8" x 2"	40° C	5.6	10.8	3.5	60
P268-E236	1	115/230	13.0/6.5	1.15	Ball	1725	5/8" x 2"	40° C	6.2	11.8	3.5	60

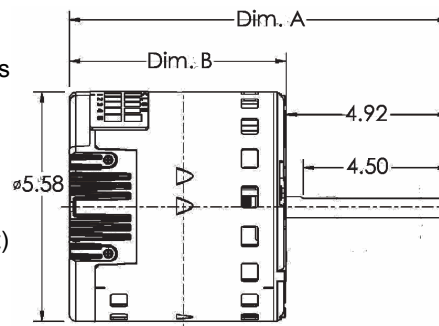
GENERIC REPLACEMENT MOTORS

Evergreen® EM X13 Aftermarket Replacement Motors By Regal/Genteq



Features:

- No distributor programming required
- Replaces Other Manufacturers OEM X13 ECM Models (does not replace premium ECM constant airflow products such as Eon, 3.0, 2.3 and Multi-Speed Constant Torque Brushless DC Motor)
- Automatically determines motor direction
- 5 discrete speeds using 24VAC (3 using 18VDC)
- NEMA 48 Frame (5.6 inch diameter Belly Band Mount)
- UL and CSA recognized
- Two Year Warranty



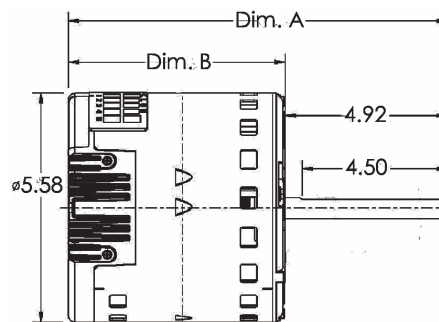
Part Number	HP	Voltage	Rotation	Max Current	Dimensions (In)		Weight
					A	B	
6103E	1/3	115	CCW/CW	4.8 A	10.17"	5.25"	8.4
6105E	1/2	115	CCW/CW	6.8 A	10.67"	5.75"	11.3
6107E	3/4	115	CCW/CW	8.4 A	11.42"	6.5"	15.6
6110E	1	115	CCW/CW	10.9 A	12.17"	7.25"	19.3
6203E	1/3	208-230	CCW/CW	2.8 A	10.17"	5.25"	8.4
6205E	1/2	208-230	CCW/CW	4.1 A	10.67"	5.75"	11.3
6207E	3/4	208-230	CCW/CW	6.0 A	11.42"	6.5"	15.6
6210E	1	208-230	CCW/CW	7.6 A	12.17"	7.25"	19.3

Evergreen® IM Aftermarket PSC Replacement By Regal/Genteq



Features:

- Replaces other Manufacturers OEM PSC Blower Motors
- Four speed selections for heating and cooling
- Optimized constant fan speed
- Two Year Warranty



Part Number	HP	Voltage	Rotation	Max Current	Dimensions (In)		Weight
					A	B	
6005	1/2	115/230	CCW/CW	6.7/4.0 A	11.26"	6.34"	12.0
6010	1	115/230	CCW/CW	11.0/6.7 A	12.76"	7.84"	20.0
6703	1/3	208-230/277	CCW/CW	2.8 A	9.17"	5.25"	8.3
6705	1/2	208-230/277	CCW/CW	4.1 A	9.67"	5.75"	11.3
6707	3/4	208-230/277	CCW/CW	6.0 A	10.42"	6.5"	15.5

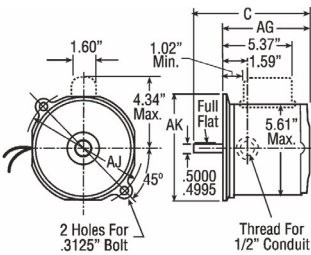
OIL BURNER MOTORS

Totaline® Oil Burner Motors

Single Phase



- Features:**
- Split phase
 - Class A Insulation
 - Manual reset thermal protection
 - Reversible rotation by electrical reconnection
 - 20" leads included
 - NEMA 48 Frame
 - 60 Hertz



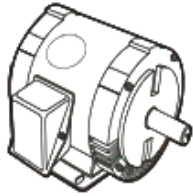
Part Number	HP	Voltage	FLA	Bearing	RPM	Temp Rise	Dimensions (In)				HZ
							C	AG	AJ	AK	
P267-9782*	1/8	115	2.9	Sleeve	1725	40° C	7.40	5.34	7.25	6.38	60
P267-9783**	1/7	115	2.4	Sleeve	3450	40° C	7.15	5.12	6.75	5.50	60
P267-9784*	1/6	115	3.3	Sleeve	1725	40° C	7.60	5.54	7.25	6.38	60

* Motor leads - 21 inches long, 18 gauge.
** Motor leads -24" long #18 50 2-conductor out shell at 11 o'clock position.

COMMERCIAL MOTORS

BALDOR® HVAC Integral Motors

Variable Torque, Totally Enclosed, Fan Cooled - Premium Efficiency



Features:

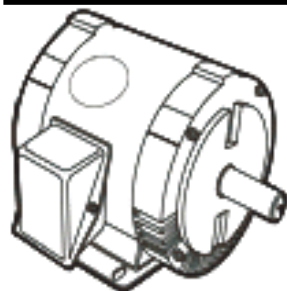
- Heavy Gauge Steel Frame Construction
- Balanced Rotors for Reduced Vibration and Quiet Operation
- Suitable Mounting For Any Position
- Available in 1-75 HP - ask us for a quote

Part Number	HP	Volts	PH	SF	RPM	Bearing	Enclosure	Shaft POS	Frame
EHM9110T	1	208-230/460	3	1.15	1800	BALL	TEFC	ALL	143T
EH3M9106	1	200/230/460	3	1.15	3600	BALL	TEFC	ALL	56
EH3M9110T	1	200/230/460	3	1.15	1800	BALL	TEFC	ALL	143T
EM3554T	1.5	208-230/460	3	1.15	1800	BALL	TEFC	ALL	145T
EH3M9112T	1.5	200/230/460	3	1.15	3600	BALL	TEFC	ALL	143T
EH3M9114T	1.5	200/230/460	3	1.15	1800	BALL	TEFC	ALL	145T
EH3M9117T	2	200/230/460	3	1.15	3600	BALL	TEFC	ALL	145T
EH3M9118T	2	200/230/460	3	1.15	1800	BALL	TEFC	ALL	145T
EHM9122T	3	208-230/460	3	1.15	1800	BALL	TEFC	ALL	182T
EH3M9121T	3	200/230/460	3	1.15	3600	BALL	TEFC	ALL	182T
EH3M9122T	3	200/230/460	3	1.15	1800	BALL	TEFC	ALL	182T
EM3615T	5	208-230/460	3	1.15	1800	BALL	TEFC	ALL	184T
EH3M9125T	5	200/230/460	3	1.15	3600	BALL	TEFC	ALL	184T
EH3M9126T	5	200/230/460	3	1.15	1800	BALL	TEFC	ALL	184T
EM3710T	7.5	208-230/460	3	1.15	1800	BALL	TEFC	ALL	213T
EH3M9128T	7.5	200/230/460	3	1.15	3600	BALL	TEFC	ALL	213T
EH3M9129T	7.5	200/230/460	3	1.15	1800	BALL	TEFC	ALL	213T
EHM3711T	10	208-230/460	3	1.15	1800	BALL	TEFC	ALL	215T
EH3M9131T	10	200/230/460	3	1.15	3600	BALL	TEFC	ALL	215T
37J543S518G1	10	200/230/460	3	1.15	1800	BALL	TEFC	ALL	215T
EM3714T	10	208-230/460	3	1.15	1770	BALL	TEFC	ALL	215T
EH3M9133T	15	200/230/460	3	1.15	3600	BALL	TEFC	ALL	254T
EH3M9135T	15	200/230/460	3	1.15	1800	BALL	TEFC	ALL	254T

COMMERCIAL MOTORS

BALDOR® HVAC Integral Motors

Variable Torque, Totally Enclosed, Fan Cooled - Standard Efficiency



Features:

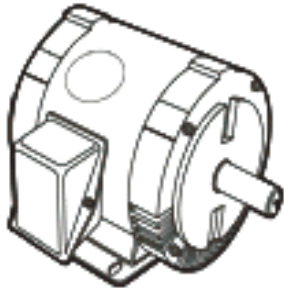
- Heavy Gauge Steel Frame Construction
- Balanced Rotors for Reduced Vibration and Quiet Operation
- Suitable Mounting For Any Position
- Available in 1-75 HP - ask us for a quote

Part Number	HP	Volts	PH	SF	RPM	Bearing	Enclosure	Shaft POS	Frame
HM9110T	1	208-230/460	3	1.15	1800	BALL	TEFC	ALL	56HZ
H3M9106	1	200/230/460	3	1.15	3600	BALL	TEFC	ALL	56
H3M9110T	1	200/230/460	3	1.15	1800	BALL	TEFC	ALL	56HZ
HM9114T	1.5	208-230/460	3	1.15	1800	BALL	TEFC	ALL	145T
H3M9112T	1.5	200/230/460	3	1.15	3600	BALL	TEFC	ALL	143T
H3M9114T	1.5	200/230/460	3	1.15	1800	BALL	TEFC	ALL	145T
H3M9117T	2	200/230/460	3	1.15	3600	BALL	TEFC	ALL	145T
H3M9118T	2	200/230/460	3	1.15	1800	BALL	TEFC	ALL	145T
HM9122T	3	208-230/460	3	1.15	1800	BALL	TEFC	ALL	182T
H3M9121T	3	200/230/460	3	1.15	3600	BALL	TEFC	ALL	182T
HM9126T	5	208-230/460	3	1.15	1800	BALL	TEFC	ALL	184T
H3M9125T	5	200/230/460	3	1.15	3600	BALL	TEFC	ALL	184T
H3M9126T	5	200/230/460	3	1.15	1800	BALL	TEFC	ALL	184T
37H810R224G1	7.5	200/230/460	3	1.15	3600	BALL	TEFC	ALL	213T
H3M9129T	7.5	200/230/460	3	1.15	1800	BALL	TEFC	ALL	213T
HM9132T	10	208-230/460	3	1.15	1800	BALL	TEFC	ALL	215T
H3M9131T	10	200/230/460	3	1.15	3600	BALL	TEFC	ALL	215T
HM9135T	15	208-230/460	3	1.15	1800	BALL	TEFC	ALL	254T
H3M9133T	15	200/230/460	3	1.15	3600	BALL	TEFC	ALL	254T

COMMERCIAL MOTORS

BALDOR® HVAC Integral Motors

Variable Torque, Open Drip Proof - Premium Efficiency



Features:

- Heavy Gauge Steel Frame Construction
- Balanced Rotors for Reduced Vibration and Quiet Operation
- Suitable Mounting For Any Position
- Available in 1-75 HP - ask us for a quote

Part Number	HP	Volts	PH	SF	RPM	Bearing	Enclosure	Shaft POS	Frame
EH3M9206	1	200/230/460	3	1.15	3600	BALL	ODP	ALL	56
EH3M9210T	1	200/230/460	3	1.15	1800	BALL	ODP	ALL	143T
EHM3154T	1.5	208-230/460	3	1.15	1800	BALL	ODP	ALL	145T
EH3M9212T	1.5	200/230/460	3	1.15	3600	BALL	ODP	ALL	143T
EH3M9214T	1.5	200/230/460	3	1.15	1800	BALL	ODP	ALL	145T
EM3154T	1.5	230/460	3	1.15	1755	BALL	OPSB	ALL	145T
EH3M9218T	2	200/230/460	3	1.15	1800	BALL	ODP	ALL	145T
EHM3211T	3	208-230/460	3	1.15	1800	BALL	ODP	ALL	182T
EH3M9221T	3	200/230/460	3	1.15	3600	BALL	ODP	ALL	145T
ERM3158TA	3	208-230/460	3	1.15	3450	BALL	ODP	ALL	145TY
EM3218T	5	208-230/460	3	1.15	1800	BALL	ODP	ALL	184T
35W928Q056G1	5	200/230/460	3	1.15	3600	BALL	ODP	ALL	182T
EHM9229T	7.5	208-230/460	3	1.15	1800	BALL	ODP	ALL	213T
EH3M9228T	7.5	200/230/460	3	1.15	3600	BALL	ODP	ALL	184T
EFM3311T	7.5	208-230/460	3	1.15	1770	BALL	OPSB	ALL	213T
EH3M9231T	10	200/230/460	3	1.15	3600	BALL	ODP	ALL	213T
EH3M9232T	10	200/230/460	3	1.15	1800	BALL	ODP	ALL	215T
EFM3313T	10	230/460	3	1.15	1770	BALL	OPSB	ALL	215T
EH3M9233T	15	200/230/460	3	1.15	3600	BALL	ODP	ALL	215T
93MS1005BA31090B	15	200/230/460	3	1.15	1800	BALL	ODP	ALL	254T
EM2513T	15	230/460	3	1.15	1765	BALL	OPSB	ALL	254T
EM2515T	20	230/460	3	1.15	1765	BALL	OPSB	ALL	256T
EM2531T	25	230/460	3	1.15	1770	BALL	OPSB	ALL	284T
EM2539T	40	230/460	3	1.15	1770	BALL	OPSB	ALL	324T

COMMERCIAL MOTORS

BALDOR® HVAC Integral Motors

Variable Torque, Open Drip Proof - Standard Efficiency



Features:

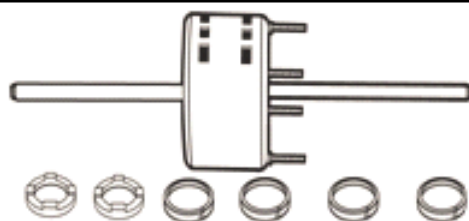
- Heavy Gauge Steel Frame Construction
- Balanced Rotors for Reduced Vibration and Quiet Operation
- Suitable Mounting For Any Position
- Available in 1-75 HP - ask us for a quote

Part Number	HP	Volts	PH	SF	RPM	Bearing	Enclosure	Shaft POS	Frame
HM9210	1	208-230/460	3	1.15	1800	BALL	ODP	ALL	56HZ
HM9214T	1.5	208-230/460	3	1.15	1800	BALL	ODP	ALL	145T
H3M9212T	1.5	200/230/460	3	1.15	3600	BALL	ODP	ALL	143T
HM9218T	2	208-230/460	3	1.15	1800	BALL	ODP	ALL	145T
H3M9217T	2	200/230/460	3	1.15	3600	BALL	ODP	ALL	143T
H3M9218T	2	200/230/460	3	1.15	1800	BALL	ODP	ALL	145T
RM3157	2	208-230/460	3	1.15	1740	BALL	ODP	ALL	56H
EM3211T	3	208-230/460	3	1.15	1800	BALL	ODP	ALL	182T
H3M9221T	3	200/230/460	3	1.15	3600	BALL	ODP	ALL	145T
H3M9222T	3	200/230/460	3	1.15	1800	BALL	ODP	ALL	182T
H3M9225T	5	200/230/460	3	1.15	3600	BALL	ODP	ALL	182T
EM3311T	7.5	208-230/460	3	1.15	1800	BALL	ODP	ALL	213T
93MR0827CA280X0	7.5	200/230/460	3	1.15	3600	BALL	ODP	ALL	184T
EM3313T	10	208-230/460	3	1.15	1800	BALL	ODP	ALL	215T
H3M9231T	10	200/230/460	3	1.15	3600	BALL	ODP	ALL	213T
H3M9233T	15	200/230/460	3	1.15	3600	BALL	ODP	ALL	215T

DOUBLE SHAFT FAN MOTORS

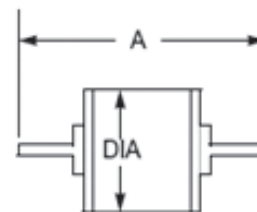
Totaline® Double Shaft Fan Motors

Permanent Split Capacitor



Features:

- Rated Continuous Air Over
- Automatic Thermal Protection
- Extended Thru-Bolts
- Double Shaft, 1/2" Diameter, 8" each side
- Class B Insulation
- 20" Leads
- Furnished without run capacitor
- Length Adapter Kit included to facilitate mounting in cradle type-base
- Rotation CCW



Part Number	HP	Volts	PH	HZ	FLA	RPM	Speed	Bearing	Frame	Shaft			DIA	A	Capacitor MFD/Volt
										POS	DIA	Length			
P257-8651	1/6	115	1	60	2.4	1075	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370
P257-8652	1/6	208-230	1	60	1	1075	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370
P257-8671	1/4	115	1	60	3.7	1075	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370
P257-8672	1/4	208-230	1	60	1.7	1075	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370
P257-8682	1/3	208-230	1	60	2.5	1075	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370
P257-8882	1/3	208-230	1	60	1.9	1625	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370
P257-8692	1/2	208-230	1	60	3.5	1075	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	7.5/370
P257-8892	1/2	208-230	1	60	3	1625	3	SLV	48Y	ALL	1/2	8.0/8.0	5.6	20.0	5/370

UNIVERSAL REPLACEMENT PROPELLERS

General Information

Universal Replacement Propellers Information GENERAL INFORMATION

The simplest form of an axial fan consists of a propeller, usually with three to five aluminum blades mounted in a venturi. This type of fan finds wide use in applications requiring high air volumes at low static pressures. The performance characteristics of propellers may vary in many ways. Some general guidelines are:

- Increased blade pitch increases CFM and HP
- Decreased blade pitch decreases CFM and HP
- Increasing the number of blades increases static pressure characteristics

ADVANTAGES OF PROPELLERS

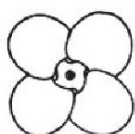
- Straight through air flow pattern
- Low cost
- Light weight
- High volume

TYPICAL APPLICATIONS

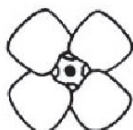
- Roof Top Unit Heaters
- Condensing Units
- Walk-In Refrigeration Units
- Pedestal Fans, Mancoolers, Ventilating Fans

BLADE SHAPE

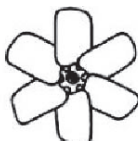
There are only three basic shapes that are of interest in the propeller selection - round, wide pressure blade and narrow pressure blade.



Round



Wide



Narrow

The round blades are used for free air delivery and low pressure applications, and are quieter.

The wide pressure blade is used in most applications operating at substantial static pressures. It has excellent pressure characteristics and reasonable noise levels.

The narrow pressure blade is generally used in applications where higher static pressure exists, such as multi-row coils or places where minimum axial depth is necessary.

Props for the replacement business

Both free air and condenser designs

- 2-, 3-, 4-, 5-, and 6-Blade Propellers
- Up to 60" in diameter, up to 40° pitches
- Hubs and Bushings: 1/4" to 1-7/16" bore

WHY INSTALL A NEW PROPELLER?

Propeller balance is sensitive and can be negatively affected by slight pressure. Simply resting the motor and propeller assembly on the ground after disassembly from a condensing unit may result in an unbalanced propeller. This is especially true of original equipment propellers, as they are constructed of lighter gauge material. If a puller must be used to remove a prop from a motor shaft, it is very likely that the propeller will be distorted from the pressure.



PROPELLER VIBRATION

Propellers are, by nature, rather flexible and subject to vibration. Commercially available propellers will have a number of natural frequencies occurring as different parts of the propeller vibrate, or as they vibrate in different modes. Lau exercises great care in designing propellers so natural frequencies do not occur at frequencies normally found in systems.

PITCH SELECTION

- A pitch gauge is used to measure the pitch and rotation of a propeller.
- Pitch is measured at the spider lobe
- Consult the chart for pitch selection to avoid motor overload
- Make certain that the propeller horsepower does not exceed the motor horsepower
- On "Free Air" type propellers, use the brake horsepower published under the RPM in the performance chart
- On "Condenser" type applications, where static pressure is unknown, use the brake horsepower published at .3" static pressure for the approx

IDENTIFYING PROPELLER ROTATION

- The direction of rotation of a propeller is determined to be clockwise (CW) or counter-clockwise (CCW) when viewed from the air discharge side (the cupped side of the blade)
- The discharge side is the concave ("cupped") side of the blade

EASY "SANDBOX METHOD" OF DETERMINING ROTATION

- Imagine standing in a sandbox and dropping the propeller face up or face down on the sand. Regardless of which side is up, the direction of rotation is the same as the direction required to turn the propeller into the sand

UNIVERSAL REPLACEMENT PROPELLERS

General Information

Universal Replacement Propellers Information

REPLACING A PROPELLER

1. Disconnect electrical power
2. Note the location of the current propeller in the unit. Remove current propeller from motor shaft with the proper type of puller
3. Remove burrs and/or rust from motor shaft
4. Locate interchangeable hub on desired side of propeller. Attach hub to propeller with three screws. Tighten screws to approximately 30 in-lbs
5. Place propeller on motor shaft in the unit, place the propeller in approximately the same position as the old propeller
6. Make sure that the propeller will be rotating in the correct direction
7. Fasten the propeller to the motor shaft by tightening set screws securely. Be sure to align setscrew on flat of the motor shaft
8. Rotate the propeller by hand to make sure that the blades clear any obstructions by at least 1/4"

▲ Safety Tips:

Avoid personal injury and/or equipment damage.

Do not exceed recommended RPM shown in charts.

Lau propellers are 100% inspected and precision balanced. Identification labels are applied to blades BEFORE balancing. Removal of a Lau label and/or adding additional labels to propeller blades can affect balance

HOW TO REPLACE A 3-BLADE PROPELLER WITH A 4 OR 5-BLADE PROPELLER

1. Find the closest match to current blade from the data in the catalog
 - Match number of blades of the original propeller you are replacing
 - Match diameter of the original blade you are replacing
 - Match pitch (as closely as possible) to the original blade you are replacing
 - Check direction of rotation
2. Check current motor RPM for the existing blade
3. Check the Lau catalog technical data for the closest matching 3-blade replacement propeller's CFM and HP required
4. Find a propeller with same diameter and a different number of blades
5. Following the row for the motor's speed, find a propeller with CFM closest to original blade
 - Make sure the CFM is equal or greater to CFM of the blade you are replacing
 - **DO NOT** replace existing blade with a propeller that has a lower CFM
6. Ensure new blade's HP required is less than the nameplate rating of the motor.
 - If BHP exceeds nameplate rating, use prop with less CFM until HP is under nameplate rating on motor

DID YOU KNOW?

You can replace a 3-blade condenser fan with a 4-blade or 5-blade fan. If you do this, choose a replacement that matches the CFM required as nearly as possible. Ensure the brake HP required **does not** exceed the nameplate rating of the motor.

NOTE: If minimum HP required for a fan blade is .501 the motor must be more than 1/2 HP motor

Horsepower Conversion Chart

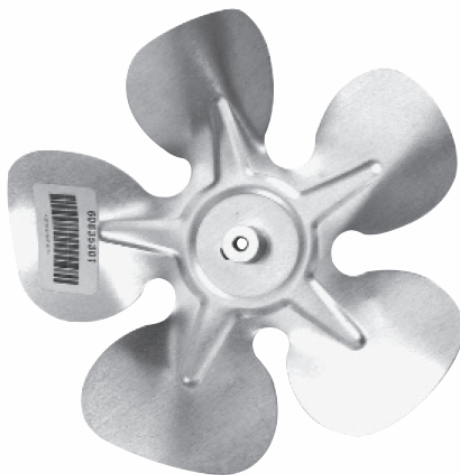
Use to convert decimal horsepower to commonly available fractional horsepower motors.
(For watt conversion, use the formula 745.7 watts = 1 HP)

Decimal	0.010	0.014	0.017	0.020	0.025	0.033	0.040	0.050	0.067	0.083	0.100	0.125	0.167	0.250	0.333	0.500	0.750	1.000
Fractional	1/100	1/70	1/60	1/50	1/40	1/30	1/25	1/20	1/15	1/12	1/10	1/8	1/6	1/4	1/3	1/2	3/4	1

UNIVERSAL REPLACEMENT PROPELLERS

Hub Type Propellers

Aluminum Fixed Hub



Features:

- 3, 5, and 6 Blade Designs
- 5 1/2" - 10" Diameters
- 1/4" and 5/16" Bores
- CW and CCW Rotations
- High Quality Aluminum Blades

Typical applications:

- Air Moving - heating or cooling
- Fan Coils
- Freezers
- Refrigerators
- Refrigerated Display Cases
- Heaters
- Ventilators
- Range Hoods
- Small Appliances

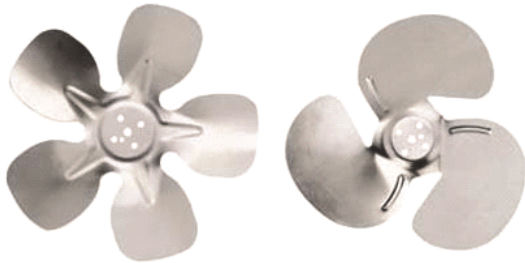
Part Number	Blades	Diameter	Bore	Pitch	Rotation	Depth	RPM	Max Pack	Standard Weight
60834601	6	5-1/2"	1/4"	45°	CW	1-1/2"	3450	4	1.0
60834701	6	5-1/2"	1/4"	45°	CCW	1-1/2"	3450	4	1.0
60834801	5	7"	1/4"	27°	CW	1-1/2"	3600	4	1.0
60834901	5	7"	1/4"	27°	CCW	1-1/2"	3600	4	1.0
60835001	5	7"	5/16"	27°	CW	1-1/2"	3600	4	1.0
60835101	5	7"	5/16"	27°	CCW	1-1/2"	3600	4	1.0
60835201	5	8"	1/4"	24°	CW	1-1/6"	3600	4	1.2
60835301	5	8"	1/4"	24°	CCW	1-1/6"	3600	4	1.2
60835401	5	8"	1/4"	30°	CW	1-5/8"	3600	4	1.2
60835501	5	8"	1/4"	30°	CCW	1-5/8"	3600	4	1.2
60835601	5	8"	5/16"	18°	CW	1-1/16"	3600	4	1.2
60835701	5	8"	5/16"	18°	CCW	1-1/16"	3600	4	1.2
60835801	5	8"	5/16"	23°	CW	1-5/16"	3600	4	1.2
60835901	5	8"	5/16"	23°	CCW	1-5/16"	3600	4	1.2
60836201	5	9"	5/16"	26°	CW	1-1/4"	3000	4	1.4
60836301	5	9"	5/16"	26°	CCW	1-1/4"	3000	4	1.4
60836601	5	10"	1/4"	31°	CW	1-5/8"	2400	4	2.0
60836701	5	10"	1/4"	31°	CCW	1-5/8"	2400	4	2.0
60836801	5	10"	5/16"	20°	CW	1-1/8"	2400	4	2.0
60836901	5	10"	5/16"	20°	CCW	1-1/8"	2400	4	2.0
60837001	5	10"	5/16"	31°	CW	1-5/8"	2400	4	2.0
60837101	5	10"	5/16"	31°	CCW	1-5/8"	2400	4	2.0

CW Rotation: Hub on Intake Side.

CCW Rotation: Hub on Discharge Side.

UNIVERSAL REPLACEMENT PROPELLERS

Hubless Type Propellers

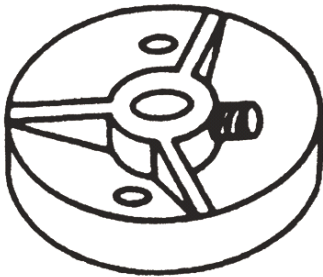


- Features:**
- 3, 5, and 6 Blade Designs
 - 5 1/2" - 10" Diameters
 - 1/4" and 5/16" Bores
 - CW and CCW Rotations
 - High Quality Aluminum Blades

Part Number	Blades	Diameter	Pitch	Rotation	Depth	RPM	Pack
60838201	3	7-3/4"	30°	CW	2-9/16"	1550	4
60839701	3	8-3/4"	23°	CW	2-1/4"	1550	4
60838301	3	8-3/4"	32°	CW	3"	1550	4
60838401	3	10"	24°	CW	2-5/8"	1550	4
60837201	5	7"	20°	CW	1"	3600	4
60837301	5	7"	31°	CW	1-1/2"	3600	4
60837401	5	7-3/4"	20°	CW	1-1/8"	3600	4
60837501	5	7-3/4"	31°	CW	1-11/16"	3600	4
60837601	5	8"	24°	CW	1"	3600	4
60837701	5	8"	31°	CW	1-5/8"	3600	4
60837801	5	9"	20°	CW	1"	3000	4
60837901	5	9"	31°	CW	1-5/8"	3000	4
60838001	5	10"	20°	CW	1"	2400	4
60838101	5	10"	31°	CW	1-5/8"	2400	4

CW Rotation: Hub on Intake Side.
Used on equipment manufactured by well known OEMs such as Copeland, Tecumseh, Larkin Coils, Witt, Whirlpool, G.E., Carrier, Heil-Quaker, Nutone, Borg-Warner, Tappan, Amana, BDP, Barber-Colman, Emerson, Scotsman, Vendo and Beverage Air.

Interchangeable Hubs For Hubless Propellers

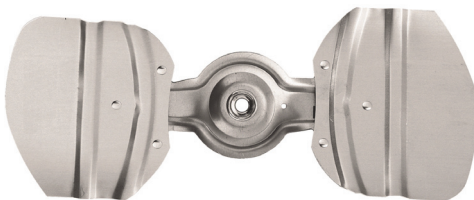


Part Number	Bore
05382501	1/4"
05382502	5/16"

UNIVERSAL REPLACEMENT PROPELLERS

Fixed Hub Propellers

2-Blade with 1/2" Bore



Features:

- 14" - 24" diameters
- 2 Per Pack
- High strength aluminum blades
- Each propeller clearly labeled as to pitch, diameter, rotation and maximum RPM
- Available for immediate delivery from stock
- Top quality, epoxy painted spiders with high salt spray characteristics
- Steel Fixed Hub - 1/2" bore – exact propellers supplied to OEMs (no need for interchangeable hub feature since all Lau OEMs use 1/2" bore only)

Typical Applications

- For lower static pressure condensing units
- Well-known OEMs such as, G.E., Rheem-Rudd, Singer- Climate Control, Trane, etc.

Part Number	Rot Hub Loc*	Diameter	Pitch	Pack
60743401	CW,D	14"	36°	2
60772501	CCW,I	18"	28°	2
60652101	CCW,I	18"	33°	2
60772601	CCW,I	20"	28°	2
60772701	CCW,I	22"	16°	2
60814201	CCW,I	22"	27°	2
60772801	CCW,I	24"	27°	2

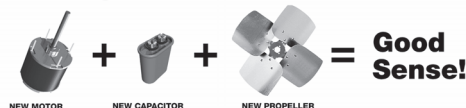
Part No.	RPM	Static Pressure									
		.0" WC		.1" WC		.2" WC		.3" WC		.4" WC	
		CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
60743401	825	1067	.27	689	.035	-	-	-	-	-	-
	1075	1391	.061	1145	.068	742	.083	-	-	-	-
	1140	1475	.072	1248	.080	913	.094	399	.120	-	-
	1550	2005	.0182	1850	.191	1667	.202	1442	.219	1134	.244
	1625	2102	.210	1956	.219	1785	.230	1582	.247	1321	.269
60772501	830	2003	.061	1569	.070	668	.082	-	-	-	-
	1075	2572	.122	2219	.131	1799	.146	984	.160	606	.197
	1140	2768	.144	2394	.155	2093	.174	1189	.177	814	.215
60652101	830	2217	.078	1758	.090	748	.103	-	-	-	-
	1075	2841	.154	2491	.165	2124	.189	1080	.201	707	.245
	1140	3015	.187	2667	.199	2380	.223	1310	.219	884	.268
60772601	830	2375	.085	1775	.095	1025	.100	400	.120		
	1000	2861	.148	2410	.161	1777	.168	1175	.184		
	1140	2774	.155	2376	.181	2019	.197	1607	.207		
60772701	830	2325	.060	1425	.070	450	.100	-	-		
	1000	2800	.105	2024	.110	1289	.138	452	.210		
	1140	3193	.155	2541	.158	1889	.181	1188	.218		
60814201	830	3250	.095	2650	.113	1815	.130	1250	.148		
	1000	3910	.160	3400	.188	2890	.210	2100	.226		
	1140	4450	.240	4020	.270	3570	.298	3060	.320		
60772801	830	4136	.151	3504	.175	2358	.186	899	.240	-	-
	1075	5299	.300	4753	.318	4346	.360	3785	.393	1845	.416
	1140	5647	.367	5015	.370	4645	.418	4202	.460	2254	.456

CW, D – Clockwise Rotation, hub on Discharge side of propeller.
CCW, I – Counter-Clockwise Rotation, hub on Intake side of propeller.

Safety Tips:

Avoid personal injury and/or equipment damage.
Do not exceed recommended RPM shown in charts. Lau propellers are 100% inspected and precision balanced. Identification labels are applied to blades BEFORE balancing. Removal of a Lau label and/or adding additional labels to propeller blades can affect balance.

Why Risk a Callback?

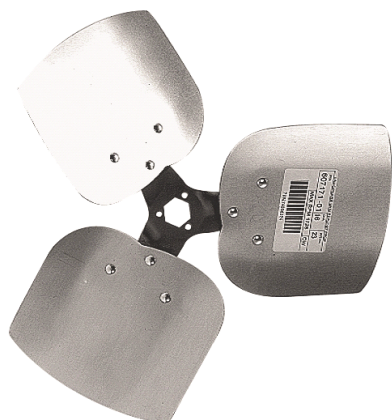


When replacing a PSC motor, always replace the capacitor and insist on a Lau Universal Replacement Propeller to assure years of service from the motor you install today!

UNIVERSAL REPLACEMENT PROPELLERS

Heavy Duty Condenser Type Propellers

3-Blade Propellers



Features:

- 3-blade configuration is normally used in low pressure applications
- 2 Per pack
- Square pressure-type blades are required for most condenser applications
- High quality aluminum blades
- Interchangeable hubs available from 1/4" through 3/4" bore, may be attached on either intake or discharge side (purchase separately)
- Pitches available for most common horsepower and motor speeds up to 1725 RPM in both CW and CCW rotations

Typical Applications

- Air Conditioning Condensers
- Power Roof Ventilators
- Heat Pumps
- Heat Exchangers
- Roof Top Air Conditioners
- Commercial and Industrial Equipment
- Unit Heaters
- Agricultural Ventilation Equipment
- Walk-in Refrigeration Units
- General Cooling/Heating Applications

Part Number	Rot Hub Loc*	Diameter	Pitch	Pack
60265201	CW	10"	27°	2
60265301	CCW	10"	27°	2
60716101	CW	12"	19°	2
60716201	CCW	12"	19°	2
60716301	CW	12"	23°	2
60716401	CCW	12"	23°	2
60716501	CW	14"	23°	2
60716601	CCW	14"	23°	2
60716701	CW	14"	27°	2
60716801	CCW	14"	27°	2
60716901	CW	16"	19°	2
60717001	CCW	16"	19°	2
60717101	CW	16"	23°	2
60717201	CCW	16"	23°	2
60556101	CW	18"	27°	2
60556201	CCW	18"	27°	2
60556301	CW	18"	30°	2
60556401	CCW	18"	30°	2
60556501	CW	18"	33°	2
60556601	CCW	18"	33°	2
60556701	CW, CCW	20	27°	2
60556901	CW	20"	30°	2
60557001	CCW	20"	30°	2
60557101	CW	20"	33°	2
60557201	CCW	20"	33°	2
60557301	CW	22"	27°	2
60557401	CCW	22"	27°	2
60557501	CW	22"	33°	2
60557601	CCW	22"	33°	2
60557701	CW	24"	27°	2
60557801	CCW	24"	27°	2
60557901	CW	24"	33°	2
60558001	CCW	24"	33°	2

UNIVERSAL REPLACEMENT PROPELLERS

Heavy Duty Condenser Type Propellers

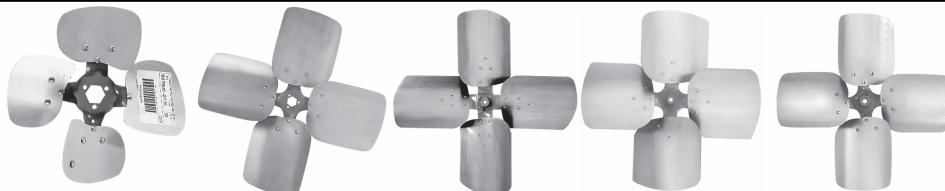
3-Blade Propellers Static Pressure Rating

Part No.	RPM	Static Pressure									
		.0" WC		.1" WC		.2" WC		.3" WC		.4" WC	
		CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
60265201 60265301	1075	443	.013	213	.018	96	.019				
	1140	471	.016	255	.020	115	.027				
	1550	632	.027	508	.034	335	.040	229	.048		
	1725	702	.036	593	.044	424	.050	312	.059	210	.065
60716101 60716201	1075	559	.015	309	.021	169	.026				
	1140	587	.017	378	.023	204	.028				
	1550	800	.032	674	.040	490	.047	353	.055	210	.061
	1725	886	.042	769	.050	630	.058	455	.068	369	.076
60716301 60716401	1075	720	.019	543	.027	263	.033				
	1140	769	.022	608	.029	327	.037	162	.041		
	1550	1037	.045	936	.053	792	.064	543	.075	407	.084
	1725	1147	.060	1064	.072	947	.082	725	.082	555	.105
60716501 60716601	1075	1060	.031	806	.041	499	.053				
	1140	1120	.035	893	.047	602	.058	397	.074		
	1550	1512	.071	1395	.086	1172	.102	927	.116	757	.134
	1725	1660	.099	1566	.115	1403	.132	1141	.148	947	.167
60716701 60716801	1075	1211	.037	951	.047	610	.060	338	.077		
	1140	1275	.046	1065	.057	723	.069	485	.087		
	1550	1717	.103	1586	.117	1388	.133	1116	.149	895	.169
	1725	1908	.134	1798	.150	1646	.166	1426	.180	1185	.199
60716901 60717001	1075	1415	.046	1218	.057	774	.071	518	.085		
	1140	1500	.053	1322	.063	962	.079	641	.093	413	.107
	1550	2014	.111	1890	.125	1751	.142	1555	.161	1187	.181
	1725	2212	.140	2105	.155	1988	.174	1844	.195	1620	.219
60717101 60717201	1075	1613	.054	1432	.068	1080	.083	689	.101	349	.112
	1140	1725	.062	1556	.076	1234	.091	806	.110	562	.128
	1550	2299	.140	2181	.158	2044	.178	1860	.200	1556	.222
	1725	2538	.184	2438	.204	2320	.225	2170	.247	1960	.271
60556101 60556201	830	2138	.068	1741	.083	970	.097	597	.122		
	1075	2736	.131	2489	.142	2182	.169	1464	.187	1057	.211
	1140	2910	.155	2664	.164	2399	.192	1900	.220	1269	.237
	1625	3957	.390	3776	.392	3595	.417	3409	.454	3189	.495
	1725	4404	.537	4243	.536	4078	.559	3916	.595	3742	.638
60556301 60556401	825	2236	.080	1820	.093	1028	.110	640	.138		
	1075	2908	.164	2596	.166	2256	.199	1582	.220	1136	.244
	1140	3066	.189	2804	.195	2524	.226	2022	.257	1351	.274
	1625	4370	.548	4192	.540	4003	.564	3817	.605	3612	.652
	1725	4639	.656	4475	.644	4293	.666	4119	.706	3936	.754
60556501 60556601	825	2453	.095	2032	.105	1209	.122	746	.149		
	1075	3127	.197	2857	.193	2534	.223	1802	.249	1252	.271
	1140	3321	.229	3063	.229	2765	.259	2174	.292	1483	.306
	1625	4588	.570	4448	.583	4292	.605	4109	.637	3882	.676
	1725	4870	.682	4740	.695	4595	.717	4432	.784	4237	.786
60556701	850	2500	.072	2100	.085	1460	.105	950	.122		
	1000	2970	.115	2600	.135	2170	.155	1600	.175		
	1140	3360	.170	3070	.200	2700	.230	2280	.250		
60556901 60557001	850	2750	.100	2400	.110	1740	.125	1150	.150		
	1000	3250	.140	3000	.157	2400	.190	1850	.210		
	1140	3700	.220	3480	.240	3150	.253	2660	.300		
60557101 60557201	850	2950	.110	2570	.120	1850	.140	1300	.170		
	1000	3500	.175	3170	.190	2550	.217	2000	.240		
	1140	4000	.250	3700	.270	3400	.300	2860	.350		
60557301 60557401	850	3930	.200	3650	.220	3200	.240	2500	.275		
	1000	4700	.340	4400	.360	4050	.380	3600	.400		
	1140	5330	.500	5100	.530	4800	.570	4500	.620		
60557501 60557601	850	4600	.300	4250	.330	3800	.360	3100	.380		
	1000	5450	.490	5150	.510	4800	.522	4380	.553		
	1140	6200	.720	5950	.753	5600	.810	5300	.850		
60557701 60557801	825	4844	.237	4302	.241	3855	.286	1819	.315	1247	.384
	1075	6277	.492	5834	.492	5518	.537	5195	.590	4769	.643
	1140	6632	.583	6170	.584	5872	.633	5588	.688	5267	.742
	1625	9151	1.533	8669	1.481	8427	1.536	8229	1.605	8049	1.679
60557901 60558001	825	5335	.300	4708	.307	4244	.364	1931	.395	1444	.472
	1075	6956	.640	6432	.635	6092	.688	5758	.747	5346	.803
	1140	7538	.747	6889	.725	6550	.780	6233	.848	5877	.919
	1625	10072	1.857	9698	1.885	9421	1.949	9194	2.017	8985	2.087

UNIVERSAL REPLACEMENT PROPELLERS

Heavy Duty Condenser Type Propellers

4-Blade Propellers Static Pressure Rating



Features:

- 4- 5 blade configurations are suited for Higher stand pressure
- 2 Per Pack

Part Number	Rot Hub Loc*	Diameter	Pitch	Pack
60717301	CW	10"	19°	2
60717401	CCW	10"	19°	2
60717501	CW, CCW	10"	23°	2
60717701	CW	10"	27°	2
60717801	CCW	10"	27°	2
60759901	CW	10"	33°	2
60760001	CCW	10"	33°	2
60717901	CW	12"	19°	2
60718001	CCW	12"	19°	2
60718101	CW	12"	23°	2
60718201	CCW	12"	23°	2
60718301	CW	12"	27°	2
60718401	CCW	12"	27°	2
60760101	CW	12"	33°	2
60760201	CCW	12"	33°	2
60718501	CW	14"	19°	2
60718601	CCW	14"	19°	2
60718701	CW	14"	23°	2
60718801	CCW	14"	23°	2
60718901	CW	14"	27°	2
60719001	CCW	14"	27°	2
60760301	CW	14"	33°	2
60760401	CCW	14"	33°	2
60719101	CW	16"	19°	2
60719201	CCW	16"	19°	2
60719301	CW	16"	19°	2
60719401	CCW	16"	19°	2
60719501	CW	16"	27°	2
60719601	CCW	16"	27°	2
60760501	CW	16"	33°	2
60760601	CCW	16"	33°	2
60800201	CW	18"	23°	2
60800301	CCW	18"	23°	2
60558101	CW	18"	27°	2
60558201	CCW	18"	27°	2
60558301	CW	18"	30°	2
60558401	CCW	18"	30°	2
60558501	CW	18"	33°	2
60558601	CCW	18"	33°	2
60800401	CW	20"	23°	2
60800501	CCW	20"	23°	2

UNIVERSAL REPLACEMENT PROPELLERS

Heavy Duty Condenser Type Propellers

4-Blade Propellers Static Pressure Rating

Part Number	Rot Hub Loc*	Diameter	Pitch	Pack
60558701	CW	20"	27°	2
60558801	CCW	20"	27°	2
60558901	CW	20"	30°	2
60559001	CCW	20"	30°	2
60559101	CW	20"	33°	2
60559201	CCW	20"	33°	2
60804101	CW	22"	23°	2
60804201	CCW	22"	23°	2
60559301	CW	22"	27°	2
60559401	CCW	22"	27°	2
60559501	CW	22"	33°	2
60559601	CCW	22"	33°	2
60804301	CW	24"	23°	2
60804401	CCW	24"	23°	2
60559701	CW	24"	27°	2
60559801	CCW	24"	27°	2
60559901	CW	24"	33°	2
60560001	CCW	24"	33°	2
60760701	CW	26"	24°	1
60760801	CCW	26"	24°	1

UNIVERSAL REPLACEMENT PROPELLERS

Heavy Duty Condenser Type Propellers

4-Blade Propellers Static Pressure Rating

Motor Accessories

Part No.	RPM	Static Pressure									
		.0" WC		.1" WC		.2" WC		.3" WC		.4" WC	
		CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
60717301 60717401	825	432	.012	309	.017	-	-	-	-	-	-
	1075	563	.027	477	.033	361	.038	-	-	-	-
	1140	597	.033	516	.039	416	.044	-	-	-	-
	1550	812	.082	754	.091	692	.099	623	.107	536	.113
	1625	857	.095	796	.104	738	.113	624	.121	598	.128
60717501	1075	402	.012	220	.017	132	.023				
	1140	429	.016	271	.021	154	.026				
	1550	580	.025	479	.032	333	.038	252	.046	193	.054
	1725	646	.033	557	.041	422	.047	330	.056	277	.064
60717701 60717801	1140	580	.011	366	.023	209	.018				
	1550	788	.027	600	.029	440	.033	350	.040		
	1725	877	.037	723	.039	587	.042	462	.049		
60759901 60760001	1075	535	.019	334							
	1140	564	.022	365	.027	231	.035				
	1550	771	.045	635	.050	497	.058	398	.069		
	1725	856	.057	771	.064	607	.069	519	.080	437	.092
60717901 60718001	1075	586	.019	410	.025	273	.031	168	.035		
	1140	623	.020	471	.027	318	.033	228	.039		
	1550	839	.042	746	.051	613	.060	495	.069	415	.077
	1725	929	.054	841	.064	725	.074	612	.085	537	.094
60718101 60718201	1075	731	.022	569	.029	345	.037	28	.044		
	1140	773	.024	640	.033	414	.042	290	.049		
	1550	1045	.048	969	.061	824	.074	644	.086	534	.095
	1725	1162	.065	1095	.088	994	.089	831	.105	690	.117
60718301 60718401	1075	822	.023	683	.032	422	.040	272	.048		
	1140	872	.030	725	.039	489	.048	341	.057		
	1550	1171	.060	1100	.071	983	.084	762	.100	610	.122
	1725	1302	.081	1233	.092	1136	.107	973	.124	794	.139
60760101 60760201	1075	953	.032	808	.041	488	.052	326	.062		
	1140	1015	.040	902	.047	565	.060	408	.071		
	1550	1369	.087	1292	.096	1161	.110	919	.129	745	.144
	1725	1508	.119	1447	.127	1356	.140	1172	.163	943	.184
60718501 60718601	1075	970	.023	772	.035	492	.045	344	.055		
	1140	1030	.029	853	.040	576	.050	413	.063	264	.073
	1550	1380	.066	1281	.080	1134	.095	899	.108	731	.123
	1725	1523	.088	1445	.104	1332	.119	1134	.133	926	.149
60718701 60718801	1075	1143	.035	982	.047	628	.059	448	.072	252	.081
	1140	1216	.043	1075	.054	741	.069	535	.081	386	.093
	1550	1643	.089	1564	.103	1452	.119	1248	.136	972	.154
	1725	1810	.123	1740	.139	1644	.155	1488	.171	1211	.190
60718901 60719001	1075	1286	.046	1131	.055	737	.071	525	.087		
	1140	1370	.054	1225	.064	843	.081	624	.096	440	.113
	1550	1838	.125	1754	.138	1629	.153	1376	.173	1090	.198
	1725	2036	.167	1963	.180	1863	.197	1702	.218	1418	.244
60760301 60760401	1075	1448	.061	1241	.069	858	.089	596	.105		
	1140	1531	.076	1341	.085	940	.108	709	.125	517	.143
	1550	2077	.179	1972	.185	1811	.200	1521	.228	1240	.255
	1725	2298	.234	2208	.245	2086	.260	1891	.282	1598	.312
60719101 60719201	1075	1405	.045	1231	.059	919	.075	646	.089	490	.102
	1140	1482	.049	1332	.065	1098	.079	766	.093	562	.109
	1550	1960	.113	1864	.131	1740	.151	1564	.171	1324	.192
	1725	2161	.142	2077	.166	1975	.189	1841	.213	1657	.235
60719301 60719201	1075	1671	.064	1527	.078	1251	.096	845	.113	637	.133
	1140	1774	.072	1638	.087	1410	.107	1018	.126	784	.144
	1550	2365	.169	2268	.189	2156	.210	2016	.233	1815	.258
	1725	2602	.218	2518	.239	2422	.263	2307	.290	2158	.321

UNIVERSAL REPLACEMENT PROPELLERS

Heavy Duty Condenser Type Propellers

4-Blade Propellers Static Pressure Rating

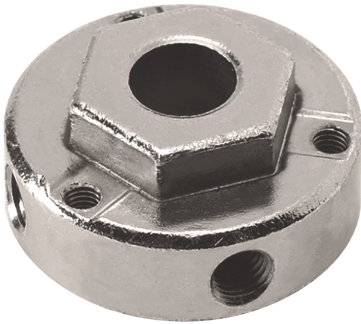
Part No.	RPM	Static Pressure									
		.0" WC		.1" WC		.2" WC		.3" WC		.4" WC	
		CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
60719501 60719601	1075	1896	.087	1747	.099	1498	.120	1018	.140	754	.158
	1140	1997	.100	1872	.115	1653	.133	1237	.154	934	.175
	1550	2677	.229	2593	.244	2488	.263	2348	.288	2123	.319
	1725	2959	.314	2879	.327	2789	.346	2682	.369	2547	.397
60760501 60760601	1075	2013	.110	1852	.119	1469	.139	1123	.164	873	.188
	1140	2134	.123	1963	.131	1611	.154	1277	.183	1038	.209
	1550	2882	.299	2782	.308	2655	.327	2501	.355	2296	.390
	1725	3201	.397	3107	.405	2988	.422	2851	.449	2684	.483
60800201 60800301	825	1918	.053	1678	.068	1027	.085	663	.103		
	1075	2491	.105	2291	.121	2060	.147	1595	.173	1117	.190
	1140	2614	.126	2450	.142	2252	.168	1900	.199	1325	.217
	1625	3624	.319	3508	.335	3388	.361	3259	.393	3111	.431
	1725	3847	.382	3738	.398	3626	.424	3508	.456	3377	.494
60558101 60558201	825	2115	.068	1855	.082	1205	.102	765	.124		
	1075	2690	.136	2502	.157	2240	.188	1657	.216	1212	.236
	1140	2873	.167	2702	.179	2495	.205	2174	.239	1465	.263
	1625	3960	.408	3855	.426	3740	.451	3609	.484	3454	.523
	1725	4204	.488	4105	.507	3998	.532	3880	.565	3745	.603
60558301 60558401	825	2241	.078	1942	.093	1244	.114	799	.138		
	1075	2886	.172	2699	.179	2461	.204	1954	.238	1289	.259
	1140	3045	.194	2869	.206	2654	.234	2295	.270	1521	.290
	1625	4231	.487	4122	.503	4003	.529	3873	.563	3727	.603
	1725	4491	.583	4389	.599	4278	.625	4160	.659	4029	.699
60558501 60558601	825	2433	.100	2055	.113	1391	.135	862	.157		
	1075	3130	.208	2934	.214	2648	.240	2047	.274	1513	.297
	1140	3309	.247	3089	.242	2828	.272	2458	.316	1750	.340
	1625	4623	.638	4501	.634	4350	.650	4188	.683	4001	.730
	1725	4907	.763	4796	.758	4655	.771	4506	.802	4341	.846
60800401 60800501	850	2235	.056	1830	.075	1400	.090	1060	.105		
	1000	2630	.091	2280	.117	1930	.135	1560	.160		
	1140	3000	.135	2700	.160	2400	.190	2100	.207		
60558701 60558801	850	2590	.090	2180	.103	1700	.130	1300	.142		
	1000	3000	.150	2680	.162	2300	.180	1900	.200		
	1140	3420	.196	3120	.230	2800	.255	2450	.280		
60558901 60559001	850	2800	.110	2490	.128	1900	.145	1500	.170		
	1000	3300	.180	3020	.200	2650	.220	2150	.240		
	1140	3770	.260	3510	.290	3215	.310	2830	.335		
60559101 60559201	850	3120	.130	2700	.150	2040	.165	1610	.195		
	1000	3660	.210	3330	.235	2850	.260	2300	.282		
	1140	4160	.315	3900	.340	3520	.360	3020	.390		
60804101 60804201	850	3300	.150	3070	.175	2760	.200	2340	.220		
	1000	3870	.245	3700	.275	3450	.305	3150	.330		
	1140	4410	.360	4270	.395	4090	.430	3850	.460		
60559301 60559401	850	3900	.208	3650	.230	3280	.255	2800	.280		
	1000	4580	.330	4400	.365	4100	.395	3780	.427		
	1140	5220	.500	5050	.520	4840	.565	4580	.600		
60559501 60559601	850	4460	.300	4200	.322	3830	.350	3100	.375		
	1000	5250	.480	5050	.520	4780	.552	4400	.580		
	1140	6000	.710	5800	.760	5600	.800	5320	.830		
60804301 60804401	825	4188	.187	3829	.213	3415	.258	2262	.292	1550	.334
	1075	5457	.413	5112	.408	4857	.453	4611	.508	4322	.567
	1140	5728	.484	5466	.506	5217	.550	4962	.601	4662	.655
	1625	7742	1.266	7504	1.252	7296	1.290	7124	1.345	6964	1.408
60559701 60559801	825	4958	.262	4570	.281	4103	.328	2761	.365	1904	.414
	1075	6329	.535	6081	.565	5829	.607	5546	.657	5183	.711
	1140	6735	.627	6450	.673	6194	.723	5930	.774	5629	.825
	1625	9042	1.548	8848	1.642	8670	1.705	8496	1.769	8323	1.835
60559901 60560001	825	5879	.376	5526	.402	5041	.444	3560	.484	2322	.522
	1075	7519	.806	7293	.827	7029	.864	6700	.919	6235	.988
	1140	7943	.935	7669	.965	7391	1.103	7089	1.071	6733	1.137
	1625	10763	2.312	10586	2.359	10412	2.416	10237	2.481	10059	2.553
60760701 60760801	850	5440	.333	5200	.375	4900	.412	4500	.448		
	1000	6400	.540	6200	.590	6000	.630	5700	.680		
	1140	7300	.810	7120	.860	6930	.910	6720	.9601		

UNIVERSAL REPLACEMENT PROPELLERS

Propeller Accessories

Interchangeable Hubs

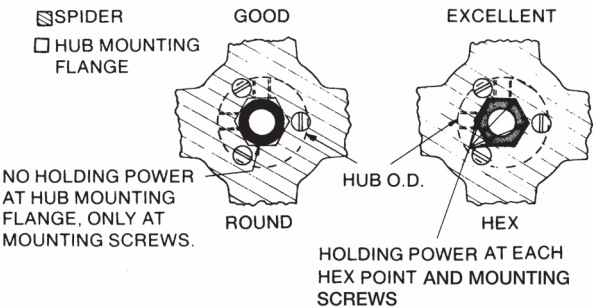
HEX/Round Hubs



- Features:**
 - For use on all 3-Blade, 4-Blade and 5-Blade propellers Includes set and mounting screws
 - All steel with extra metal in the two mounting surfaces (hex and round) for more secure fit in multiple applications
 - Hex on one side, round on the other (may use either side) – one inventory for all propellers
 - Zinc-plated, coated with gold chromate for double protection
 - Setscrews are heat-treated, black oxide
 - Mounting screws: zinc-plated, heat-treated, pan-slotted – with locking serrations under the head - with nylock patch for added locking strength (double locking device designed to grip into the threads without backing out)
 - 5/8" and 3/4" have keyway with extended body length for increased strength
 - Can be ordered in boxes of 12 or individually

Part Number	Bore	Set Screws
60765801	1/4"	1
60765802	5/16"	1
60765803	3/8"	1
60765804	1/2"	2
60765805	5/8"	2
60765806	3/4"	2

*with keyway



Setscrews

Allen Head Setscrews



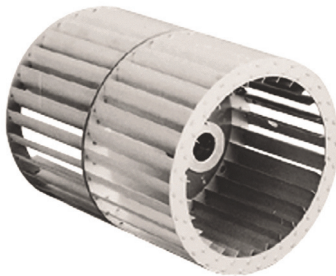
Part Number	Recommended Description	Seting Torque	Pkg.
05055001	1/4-28 x 1/2"	70 In-lbs.	12
05055002	5/16-24 x 5/8"	130 In-lbs.	12

Technical tip:
 Lau HEX design takes the torque off the screws and puts it on the hub and spider - where it belongs!

BLOWER WHEELS

Double Inlet Blower Wheels

Aluminum With Steel Hubs (4-3/4" - 7-1/2" Diameter)



Note: To determine rotation for double wheels, view from hub.

- Technical Tips:**
- For other sizes: Double inlet wheels may be duplicated in the field by:
 - Using one CW and one CCW single wheel – may be different widths to make up space required, but diameters must be the same.
 - For wheels too close to apparatus to reach with driver, tighten wheels to shaft by using extended "T" Allen wrench inserted through a notch in one of the blades in each wheel.

Caution:
To avoid potential vibration, allow slight air gap (min. 1/32") between wheels.

Part Number	Diameter	Width	Rotation	Bore	RPM
02895808	4-3/4"	5-1/8"	CW	1/2"	3450
02895814	4-3/4"	5-1/8"	CCW	1/2"	3450
02895801	4-3/4"	6-7/8"	CW	1/2"	3450
02895815	4-3/4"	6-7/8"	CCW	1/2"	3450
02895802	5-1/4"	5-7/8"	CW	1/2"	3450
02895816	5-1/4"	5-7/8"	CCW	1/2"	3450
02895817	5-1/4"	6-3/4"	CCW	1/2"	3450
02895818	5-1/4"	6-3/4"	CW	1/2"	3450
02895803	5-1/4"	6-7/8"	CW	1/2"	3450
02895819	5-1/4"	6-7/8"	CCW	1/2"	3450
02895804	5-3/4"	5-7/8"	CW	1/2"	3450
02895820	5-3/4"	5-7/8"	CCW	1/2"	3450
02895805	5-3/4"	6-7/8"	CW	1/2"	3450
02895821	5-3/4"	6-7/8"	CCW	1/2"	3450
02895822	5-3/4"	7-5/8"	CW	1/2"	3450
02895823	5-3/4"	7-5/8"	CCW	1/2"	3450
02895824	5-3/4"	8"	CW	1/2"	3450
02895825	5-3/4"	8"	CCW	1/2"	3450
02895806	5-3/4"	8-1/2"	CW	1/2"	3450
02895826	5-3/4"	8-1/2"	CCW	1/2"	3450
02895827	6-5/16"	6-3/8"	CW	3/4"	3450
02895828	6-5/16"	6-3/8"	CCW	3/4"	3450
02895807	6-5/16"	7-5/8"	CW	1/2"	3450
02895829	6-5/16"	7-5/8"	CCW	1/2"	3450
02895832	7-1/2"	4"	CW	3/4"	2500
02895833	7-1/2"	4"	CCW	3/4"	2500
02895834	7-1/2"	5"	CW	3/4"	2500
02895835	7-1/2"	5"	CCW	3/4"	2500
02895836	7-1/2"	6-11/32"	CW	3/4"	1800
02895837	7-1/2"	6-11/32"	CCW	3/4"	1800

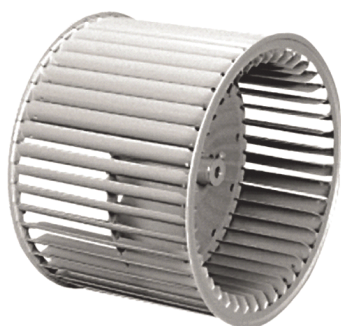
Notes: Blower Wheels Sorted By Diameter Size

BLOWER WHEELS

Double Inlet Blower Wheels

Direct Drive Wheels (9" - 11" Diameter)

Lau Universal Replacement "DD" Preslok Wheels For Direct Drive Blowers



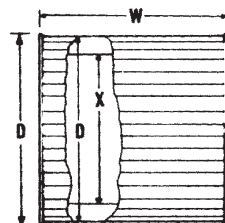
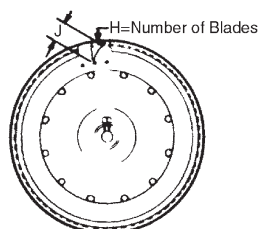
Features:

- 9" - 11" Double Inlet features a new design ensuring more precise blade spacing and improved consistency in alignment and balance
- Dynamically balanced, forward curved
- Incorporates Preslok® center disc construction for positive blade retention
- Provides higher RPM capability and industry proven reliability
- Offering the same outstanding features and high quality as Lau "A Series" Preslok® Wheels, "DD" Preslok® Wheels have a special hub for use with direct drive blowers
- All Standard Replacement Wheels are galvanized, cold-rolled steel
- Standard center disc arrangements shown

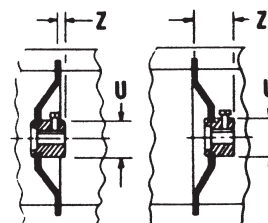
Rotation determined by viewing from hub side.

J = 1" on all models thru 11"

J = 11 5/16" on 12" models Rotation determined by viewing from hub side.



Concave



Convex

Temperature: Due to temperature limitations of most motors, these wheels are recommended for application temperatures not exceeding 135°F (60°C). Wheels are rated to 200°F.

Service Tip: If opposite rotation is required, mount motor on hub side. Setscrew must be converted to Allen-head screw and then tightened through the blades, using "T" Allen wrench. (You may have to notch blade above setscrew to provide access for "T" Allen wrench.)

Part Number	Bore Size	Rotation	Center Disc	Max RPM	Dimension (In)					
					D	W	X	U	Z	H
01333401	1/2"	CW	Convex	1750	9-1/2	4-1/2	7-11/16	1-1/4	1-25/32	43
01333501	1/2"	CW	Convex	1750	9-1/2	6	7-11/16	1-1/4	1-25/32	43
01333602	1/2"	CW	Convex	1750	9-1/2	7-1/8	7-11/16	1-1/4	1-25/32	43
01333603	1/2"	CCW	Convex	1750	9-1/2	7-1/8	7-11/16	1-1/4	1-25/32	43
01333701	1/2"	CW	Convex	1750	9-1/2	8	7-11/16	1-1/4	1-25/32	43
01333703	1/2"	CCW	Convex	1750	9-1/2	8	7-11/16	1-1/4	1-25/32	43
01333201	1/2"	CW	Concave	1750	9-1/2	9-1/2	7-11/16	1-1/4	7/32	43
01333203	1/2"	CCW	Concave	1750	9-1/2	9-1/2	7-11/16	1-1/4	7/32	43
01332701	1/2"	CW	Convex	1750	11-1/8	4-1/2	8-7/8	1-1/4	1-15/16	48
01332601	1/2"	CW	Convex	1750	11-1/8	6	8-7/8	1-1/4	1-15/16	48
01332602	1/2"	CCW	Convex	1750	11-1/8	6	8-7/8	1-1/4	1-15/16	48
01332614	5/8"	CW	Convex	1750	11-1/8	6	8-7/8	1-1/4	1-15/16	48
01332501	1/2"	CW	Convex	1750	11-1/8	7-1/8	8-7/8	1-1/4	1-15/16	48
02710204	1/2"	CCW	Convex	1750	11-1/8	7-1/8	8-7/8	1-1/4	1-15/16	48
01332401	1/2"	CW	Convex	1750	11-1/8	8	8-7/8	1-1/4	1-15/16	48
01332402	1/2"	CCW	Convex	1750	11-1/8	8	8-7/8	1-1/4	1-15/16	48
01331701	1/2"	CW	Concave	1750	11-1/8	9-1/2	8-7/8	1-1/4	1/16	48
01331704	1/2"	CCW	Concave	1750	11-1/8	9-1/2	8-7/8	1-1/4	1/16	48
01332301	1/2"	CW	Convex	1750	11-1/8	9-1/2	8-7/8	1-1/4	1/16	48
01331602	1/2"	CW	Concave	1750	11-1/8	10-5/8	8-7/8	1-1/4	1/16	48
01332203	1/2"	CW	Convex	1750	11-1/8	10-5/8	8-7/8	1-1/4	1/16	48

BLOWER WHEELS

Double Inlet Blower Wheels

Direct Drive Wheels (9" - 11" Diameter)

Lau Universal Replacement "DD" Preslok Wheels For Direct Drive Blowers

Part Number	Bore Size	Rotation	Center Disc	Max RPM	Dimension (In)					
					D	W	X	U	Z	H
01331606	1/2"	CCW	Concave	1750	11-1/8	10-5/8	8-7/8	1-1/4	1/16	48
02694003	1/2"	CW	Convex	1550	12-1/4	6	10	1-1/4		53
02694005	1/2"	CW	Convex	1550	12-1/4	7-1/8	10	1-1/4		53
02694007	1/2"	CW	Convex	1550	12-1/4	8	10	1-1/4		53
02694107	1/2"	CW	Concave	1550	12-1/4	8	10	1-1/4		53
02694008	1/2"	CCW	Convex	1550	12-1/4	8	10	1-1/4		53
02694009	1/2"	CW	Convex	1550	12-1/4	9-1/2	10	1-1/4		53
02694010	1/2"	CCW	Convex	1550	12-1/4	9-1/2	10	1-1/4		53
02694111	1/2"	CW	Concave	1550	12-1/4	10-5/8	10	1-1/4		53
02694112	1/2"	CCW	Concave	1550	12-1/4	10-5/8	10	1-1/4		53
01369325	1/2"	CW	Convex	1200	13-3/16	9-1/2	10-5/16	1-1/4	2	43
01369315	5/8"	CW	Convex	1200	13-3/16	9-1/2	10-5/16	1-1/4	2	43
01556507	1/2"	CW	Concave	1200	13-3/16	12-5/8	10-5/16	1-1/4	1/16	43
01556504	5/8"	CW	Concave	1200	13-3/16	12-5/8	10-5/16	1-1/4	1/16	43

Notes: Blower Wheels Sorted By Diameter Size

BLOWER WHEELS

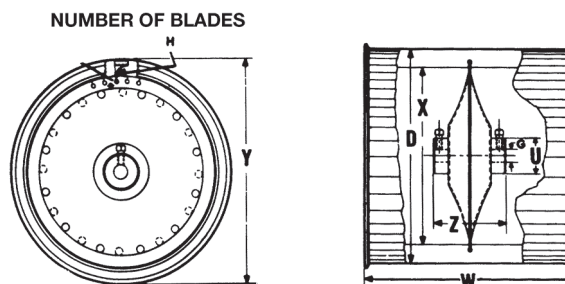
Double Inlet Blower Wheels

Belt Drive - A Series (9" - 20" Diameters)



Features:

- Galvanized, Universal Replacement Preslok® wheels with two hubs for CW or CCW rotation
- Highest quality blower wheel available for heating and air conditioning use
- Each blade is mechanically attached to the center disc by four steel fingers pressed through the hole in the blade for positive locking action
- End rings are of deep section and center disc is airflow shaped with increased hub spread. Highest maximum speed in the Lau wheel line
- **Maximum Operating Temperature - 200°F**



- These wheels are a special order with 6-8 weeks lead time required and CANNOT ship by UPS.
- * 1-3/16" and above diameter Clamplok hubs include tapped holes at 90° to keyway for accepting 2nd SS (supplied by installer).

Part Number	G (Bore)	Set screws	Key Way	Dimension (In)							Max Wheel Cage RPM
				Y	W	D	X	U	Z	H	
00866612	3/4"	1	.19 x .09	9-1/2	6	9-1/2	7-11/16	1-1/4	2.94	43	4000
00862112	3/4"	1	.19 x .09	9-1/2	7-1/8	9-1/2	7-11/16	1-1/4	2.94	43	3300
00851912	3/4"	1	.19 x .09	9-1/2	9-1/2	9-1/2	7-11/16	1-1/4	2.94	43	2400
00851916	1"	1	.25 x 12	9 1/2	9-1/2	9-1/2	7-11/16	1-3/4	2.875	43	2400
01223712	3/4"	1	.19 x .09	10-5/8	4-1/2	10-5/8	8-7/8	1-1/4	3.28	48	3900
00836412	3/4"	1	.19 x .09	10-5/8	6	10-5/8	8-7/8	1-1/4	3.28	48	3900
00836312	3/4"	1	.19 x .09	10-5/8	7-1/8	10-5/8	8-7/8	1-1/4	3.28	48	3100
00836112	3/4"	1	.19 x .09	10-5/8	8	10-5/8	8-7/8	1-1/4	3.28	48	3000
00836212	3/4"	1	.19 x .09	10-5/8	9-1/2	10-5/8	8-7/8	1-1/4	3.28	48	2300
00836012	3/4"	1	.19 x .09	10-5/8	10-5/8	10-5/8	8-7/8	1-1/4	3.28	48	2100
00836010	5/8"	1	.19 x .09	10-5/8	10-5/8	10-5/8	8-7/8	1-1/4	3.28	48	2100
00836016	1"	1	.25 x 12	10-5/8	10-5/8	10-5/8	8-7/8	1-3/4	3.25	48	2100
00897116	1"	1	.25 x 12	13-3/16	6	12-5/8	10-5/16	1-3/4	3.5	43	3800
02757515	3/4"	1	.19 x .09	13-3/16	9-1/2	12-5/8	10-5/8	1-3/4	3.25	48	2100
00850716	1"	1	.25 x 12	13-3/16	9-1/2	12-5/8	10-5/16	1-3/4	3.5	43	2500
00850758	1-3/16"	1	.25 x 12	13-3/16	9-1/2	12-5/8	10-5/16	1-3/4	3.5	43	2500
00850723	1-7/16"	2	.38 x .19	13-3/16	9-1/2	12-5/8	10-5/16	2-1/2	3.88	43	2500
00986716	1"	1	.25 x 12	13-3/16	11-1/8	12-5/8	10-5/16	1-3/4	3.5	43	2000
00840310	5/8"	1	.19 x .09	13-3/16	12-5/8	12-5/8	10-5/16	1-1/4	3.375	43	1800
00840301	3/4"	1	.19 x .09	13-3/16	12-5/8	12-5/8	10-5/16	1-1/4	3.375	43	1800
00840316	1"	1	.25 x 12	13-3/16	12-5/8	12-5/8	10-5/16	1-3/4	3.5	43	1800
00840393	1-3/16"	1	.25 x 12	13-3/16	12-5/8	12-5/8	10-5/16	2-1/2	3.88	43	1800
00840379	1-7/16"	2	.38 x .19	13-3/16	12-5/8	12-5/8	10-5/16	2-1/2	3.88	43	1800
00874716	1"	1	.25 x 12	13-3/16	15	12-5/8	10-5/16	1-3/4	3.5	43	1100
00954816	1"	1	.25 x 12	15-1/2	9-1/2	15	12-5/8	1-3/4	4.12	51	2500
00954870	1-3/16"	2	.25 x 12	15-1/2	9-1/2	15	12-5/8	2-1/2	4.5	51	2500

BLOWER WHEELS

Double Inlet Blower Wheels

Belt Drive - A Series (9" - 20" Diameters)

Part Number	G (Bore)	Set screws	Key Way	Dimension (In)							Max Wheel Cage RPM
				Y	W	D	X	U	Z	H	
00954823	1-7/16"	2	.38 x .19	15-1/2	9-1/2	15	12-5/8	2-1/2	4.5	51	2500
00841816	1"	1	.25 x 12	15-1/2	11-1/8	15	12-5/8	1-3/4	4.125	51	2100
00841877	1-3/16"	1	.25 x 12	15-1/2	11-1/8	15	12-5/8	1-3/4	4.125	51	2100
00841880	1-7/16"	2	.38 x .19	15-1/2	11-1/8	15	12-5/8	2-1/2	4.5	51	2100
00874616	1"	1	.25 x 12	15-1/2	12-5/8	15	12-5/8	1-3/4	4.125	51	1900
00827616	1"	1	.25 x 12	15-1/2	15	15	12-5/8	1-3/4	4.125	51	1550
01767137	1-3/16"	1	.25 x 12	15-1/2	15	15	12-5/8	1-3/4	4.125	51	1550
00827672	1-7/16"	2	.38 x .19	15-1/2	15	15	12-5/8	2-1/2	4.5	51	1550
00865916	1"	1	.25 x 12	18-5/8	13-1/2	18-1/8	14-11/16	1-3/4	5	48	1500
00865960	1-7/16"	1	.25 x 12	18-5/8	13-1/2	18-1/8	14-11/16	1-3/4	5	48	1500
00865816	1"	1	.25 x 12	18-5/8	18	18-1/8	14-11/16	1-3/4	5	48	1200
00865874	1-3/16"	1	.25 x 12	18-5/8	18	18-1/8	14-11/16	1-3/4	5	48	1200
00865887	1-7/16"	2	.38 x .19	18-5/8	18	18-1/8	14-11/16	2-1/2	5.375	48	1200

Notes: Blower Wheels Sorted By Diameter Size

Reducing Bushings



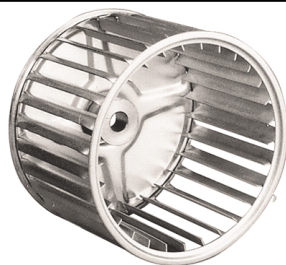
- Used to reduce wheel bore sizes. A 1" bore wheel can be reduced to a 3/4" bore by using bushings with a 1" O.D. and a 3/4" I.D.
- **Important:** Order the quantity of bushings to match number of hubs in the wheel.
- **Service Tip:** Use reducer bushings (one for each hub) if a smaller bore size is required.

Part Number	Description
027502-03	Bushing, 1" O.D. x 3/4" I.D. x 1 1/8" long

BLOWER WHEELS

Single Inlet Blower Wheels

Galvanized - 3 3/16" - 10" Diameter



Features:

- Galvanized steel construction (for plastic wheels, see Page 29)
- Replaces several OEM designs, as shown, and more
- Many can be bored to fit odd/larger sizes up to 5/8"
- Add bushings for smaller bore sizes (see Page 28)
- Allen head setscrews for easy reversibility
- Can combine two to replace double inlet wheels (see Technical Tips at the bottom, right of this page)
- **Maximum Operating Temperature - 200°F**

Typical Applications

- Fan Coil Units
- Room Air Conditioners
- Draft Inducers
- Power Burners
- Heaters
- Packaged Terminal vAir Conditioners (PTAC) systems

Part Number	Max RPM	Diameter	Width	Rotation	Bore
02895766	4500	3-13/16"	1-1/32"	CW	1/4"
02895767	4500	3-13/16"	1-1/32"	CCW	1/4"
02895768	4500	3-13/16"	1-7/8"	CW	5/16"
02895769	4500	3-13/16"	1-7/8"	CCW	5/16"
02895770	4500	3-13/16"	2-1/2"	CW	5/16"
02895771	4500	3-13/16"	2-1/2"	CCW	5/16"
02895772	4500	3-27/32"	1-1/4"	CW	1/4"
02895773	4500	3-27/32"	1-1/4"	CCW	1/4"
02895774	4500	4"	1-1/2"	CCW	5/16"
02895775	4500	4"	2-1/2"	CCW	1/4"
02895776	4500	4-1/4"	2"	CCW	1/4"
02895721	4500	4-1/4"	2-1/2"	CW	3/8"
02895722	4500	4-1/4"	2-1/2"	CCW	3/8"
02895777	4500	4-1/4"	2-15/16"	CCW	1/4"
02895725	3450	4-3/4"	2-1/16"	CW	1/2"
02895726	3450	4-3/4"	2-1/16"	CCW	1/2"
02895727	3450	4-3/4"	2-1/2"	CW	1/2"
02895728	3450	4-3/4"	2-1/2"	CCW	1/2"
02895729	3450	4-3/4"	2-15/16"	CW	1/2"
02895730	3450	4-3/4"	2-15/16"	CCW	1/2"
02895731	3450	4-3/4"	3-7/16"	CW	1/2"
02895732	3450	4-3/4"	3-7/16"	CCW	1/2"
02895733	3450	5-1/4"	2-1/16"	CW	1/2"
02895734	3450	5-1/4"	2-1/16"	CCW	1/2"
02895735	3450	5-1/4"	2-1/2"	CW	1/2"
02895736	3450	5-1/4"	2-1/2"	CCW	1/2"
02895737	3450	5-1/4"	2-15/16"	CW	1/2"

02895738	3450	5-1/4"	2-15/16"	CCW	1/2"
02895739	3450	5-1/4"	3-7/16"	CW	1/2"
02895740	3450	5-1/4"	3-7/16"	CCW	1/2"
02895778	3450	5-5/8"	1-9/16"	CCW	15/16"
02895753	3450	5-3/4"	2-1/16"	CW	1/2"
02895754	3450	5-3/4"	2-1/16"	CCW	1/2"
02895755	3450	5-3/4"	2-1/2"	CW	1/2"
02895756	3450	5-3/4"	2-1/2"	CCW	1/2"
02895757	3450	5-3/4"	2-15/16"	CW	1/2"
02895758	3450	5-3/4"	2-15/16"	CCW	1/2"
02895759	3450	5-3/4"	3-7/16"	CW	1/2"
02895760	3450	5-3/4"	3-7/16"	CCW	1/2"
02895761	3450	5-3/4"	3-13/16"	CW	1/2"
02895762	3450	5-3/4"	3-13/16"	CCW	1/2"
02895779	3450	5-3/4"	4"	CW	1/2"
02895780	3450	5-3/4"	4"	CCW	1/2"
02895781	3450	6-1/4"	4"	CW	1/2"
02895782	3450	6-1/4"	4"	CCW	1/2"
02895741	3450	6-5/16"	2-1/16"	CW	1/2"
02895742	3450	6-5/16"	2-1/16"	CCW	1/2"
02895743	3450	6-5/16"	2-1/2"	CW	1/2"
02895744	3450	6-5/16"	2-1/2"	CCW	1/2"
02895745	3450	6-5/16"	15/16"	CW	1/2"
02895746	3450	6-5/16"	15/16"	CCW	1/2"
02895747	3450	6-5/16"	3-7/16"	CW	1/2"
02895748	3450	6-5/16"	3-7/16"	CCW	1/2"
02895749	3450	6-5/16"	13/16"	CW	1/2"
02895750	3450	6-5/16"	13/16"	CCW	1/2"
02895751	3450	6-1/4"	4-1/4"	CW	1/2"
02895752	3450	6-1/4"	4-1/4"	CCW	1/2"
02049153	2500	7-3/32"	3-5/32"	CW	1/2"
02049154	2500	7-3/32"	3-5/32"	CCW	1/2"
02049155	2500	7-3/32"	4"	CW	1/2"
02049156	2500	7-3/32"	4"	CCW	1/2"
02049157	2500	7-1/2"	2"	CW	1/2"
02049158	2500	7-1/2"	2"	CCW	1/2"
02049115	2500	7-7/16"	2-1/4"	CW	1/2"
02049142	2500	7-7/16"	2-1/4"	CCW	1/2"
02049159	2500	7-1/2"	2-1/2"	CW	1/2"
02049160	2500	7-1/2"	2-1/2"	CCW	1/2"
02049161	2000	7-1/2"	2-3/4"	CW	1/2"
02049162	2000	7-1/2"	2-3/4"	CCW	1/2"
02049163	1800	7-1/2"	3-5/32"	CW	1/2"
02049164	1800	7-1/2"	3-5/32"	CCW	1/2"
02049124	1650	7-7/16"	2-3/4"	CW	1/2"
02049125	1650	7-7/16"	2-3/4"	CCW	1/2"
02049137	1650	7-7/16"	3-1/4"	CW	1/2"
02049120	1650	7-7/16"	3-1/4"	CCW	1/2"
02049165	1650	7-1/2"	4"	CW	1/2"
02049166	1650	7-1/2"	4"	CCW	1/2"
02048763	1650	8"	3-3/16"	CW	1/2"
02048764	1650	8"	3-3/16"	CCW	1/2"
02048765	1650	8"	4"	CW	1/2"
02048766	1650	8"	4"	CCW	1/2"
02048767	1650	8-1/2"	3-3/16"	CW	1/2"
02048768	1650	8-1/2"	3-3/16"	CCW	1/2"
02048705	1650	8-1/2"	3-3/4"	CW	1/2"

BLOWER WHEELS

Single Inlet Blower Wheels

Galvanized - 3 3/16" - 10" Diameter

Part Number	Max RPM	Diameter	Width	Rotation	Bore
02048706	1650	8-1/2"	3-3/4"	CCW	1/2"
02048769	1650	8-1/2"	4"	CW	1/2"
02048770	1650	8-1/2"	4"	CCW	1/2"
02048771	1400	8-1/2"	4-1/4"	CW	1/2"
02048772	1750	8-1/2"	4-1/4"	CCW	1/2"
02048738	1750	8-1/2"	4-1/4"	CW	1/2"
02048739	1750	8-1/2"	4-1/4"	CCW	1/2"
02055338	1750	9"	5"	CW	1/2"
02055339	1750	9"	5"	CCW	1/2"
02055301	1750	9-1/8"	3-3/4"	CW	1/2"
02055303	1750	9-1/8"	3-3/4"	CCW	1/2"
02055302	1750	9-1/8"	4-1/4"	CW	1/2"
02055304	1750	9-1/8"	4-1/4"	CCW	1/2"
01351110	1750	9-15/16"	6"	CCW	5/8"
02055340	1750	10"	4"	CW	1/2"
02055341	1750	10"	4"	CCW	1/2"

Note: Blower Wheels Sorted By Diameter Size



ROTATION

Single inlet wheels from closed end (backplate)

TECHNICAL TIP: Shaft adapters shown are used when a smaller bore diameter is required but not readily available. Use only one bushing for each hub.

Steel Shaft Adapter Bushings*

Zinc Finish



For use with single inlet wheels

Part Number	Diameter		Length
	OD	ID	
029421-01	5/16"	1/4"	1"
029421-02	3/8"	1/4"	1-1/16"
029421-03	3/8"	5/16"	1-1/16"
029421-04	1/2"	5/16"	1-1/16"
029421-05	1/2"	3/8"	1-1/16"
029421-06	5/8"	1/2"	1-15/16"
029421-07	3/4"	5/8"	1-1/4"

* Must be ordered in multiples of 6.

TECHNICAL TIP:

Shaft adapters shown are used when a smaller bore diameter is required but not readily available. Use only one bushing for each hub.

Plastic - 5 3/8" - 8 3/8" Diameter



Features:

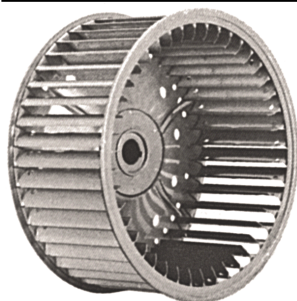
- Steel hub clamps
- Molded from high strength polymer material
- Superior acoustic characteristics
- **Maximum Operating Temperature - 150°F**

Part Number	Max. RPM	Diameter	Width	Rotation	Bore
05379408	2500	7-1/2"	2-29/32"	CW	1/2"
05379413	1650	8-3/8"	3-5/32"	CCW	1/2"

BLOWER WHEELS

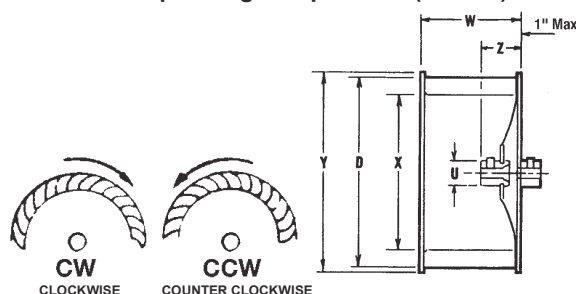
Galvanized Single Inlet

For Lau FGP & BD Series Blowers



Features:

- All steel galvanized construction
- Forward curved fan blades for quiet, efficient performance
- All wheels are dynamically balanced
- 10" - 18" diameter wheels are spun assembled construction
- 22" - 30" diameter wheels are precision-riveted construction
- **Maximum Operating Temperature (- 200°F)**



Rotation determined by viewing closed end of wheel (backplate)

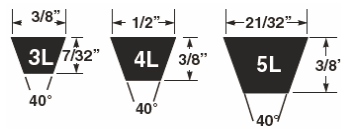
Part Number	Wheel Model	Bore Size	Rotation	Max Wheel Cage RPM ¹	Dimension(In)						No. Hubs	Hub Loc.	No Setscrews Per Hub	Key Way
					Y	W	D	X	U	Z				
012398-57	SI 10-6A	3/4"	CW	1650	11-1/8	6	10-5/8	8-7/8	1-3/4	2-29/32	1	In	2	None
012398-58	SI 10-6A	3/4"	CCW	1650	11-1/8	6	10-5/8	8-7/8	1-3/4	2-29/32	1	In	2	None
014747-08	SI 12-6A	3/4"	CW	1350	13-3/16	6	12-5/8	10-5/16	1-3/4	2-29/32	1	In	2	None
014747-09	SI 12-6A	3/4"	CCW	1350	13-3/16	6	12-5/8	10-5/16	1-3/4	2-29/32	1	In	2	None
014528-01	SI 15-6A	1"	CW	1200	15-1/2	6	15	12-5/8	1-3/4	3-7/32	1	In	2	None
014528-03	SI 15-6A	1"	CCW	1200	15-1/2	6	15	12-5/8	1-3/4	3-7/32	1	In	2	None
020740-01	SI 15-9A	1"	CW	1050	15-1/2	9-1/2	15	12-5/8	1-3/4	3-7/32	2	In-Out	2-0	None
020740-04	SI 15-9A	1"	CCW	1050	15-1/2	9-1/2	15	12-5/8	1-3/4	3-7/32	2	In-Out	2-0	None
020202-03	SI 18-9A	1"	CW	1050	18-5/8	9	18-1/8	14-11/16	2-3/4	2-25/32	2	In-Out	1-0	1/4 x 1/8
020202-04	SI 18-9A	1"	CCW	1050	18-5/8	9	18-1/8	14-11/16	2-3/4	2-25/32	2	In-Out	1-0	1/4 x 1/8
026186-01	SI 18-13A	1"	CW	960	18-5/8	13-1/2	18-1/8	14-11/16	2-3/4	3-5/16	2	In-Out	1-1	1/4 x 1/8
026186-02	SI 18-13A	1"	CCW	960	18-5/8	13-1/2	18-1/8	14-11/16	2-3/4	3-5/16	2	In-Out	1-1	1/4 x 1/8

* Braced + Must ship via common carrier. A Special Order Only – allow 6 to 8 weeks lead time.

Note: Blower Wheels Sorted by diameter Size

TOTALINE® FAN BELTS

Fractional HP V-Belts



TOTALINE FHP V-Belts are built for maximum tension control, drive uniformity and long life, with minimum heat build-up and stretching on low horsepower electric motors and gasoline engines. They are designed for high speed operation and drive center distances as short as pulleys will allow.

3L Sizes

Part Number	Outside Length (In)
P465-3L150	15"
P465-3L160	16"
P465-3L170	17"
P465-3L180	18"
P465-3L190	19"
P465-3L200	20"
P465-3L210	21"
P465-3L220	22"
P465-3L230	23"
P465-3L240	24"
P465-3L250	25"
P465-3L260	26"
P465-3L270	27"
P465-3L280	28"
P465-3L290	29"
P465-3L300	30"
P465-3L310	31"
P465-3L320	32"
P465-3L330	33"
P465-3L340	34"
P465-3L350	35"
P465-3L360	36"
P465-3L370	37"
P465-3L380	38"
P465-3L390	39"
P465-3L400	40"
P465-3L410	41"
P465-3L420	42"
P465-3L430	43"
P465-3L440	44"
P465-3L450	45"
P465-3L460	46"
P465-3L470	47"
P465-3L480	48"

P465-3L490	49"
P465-3L500	50"
P465-3L510	51"
P465-3L520	52"
P465-3L530	53"
P465-3L540	54"
P465-3L550	55"
P465-3L560	56"
P465-3L570	57"
P465-3L580	58"
P465-3L590	59"
P465-3L600	60"
P465-3L610	61"
P465-3L620	62"
P465-3L630	63"

4L Sizes

Part Number	Outside Length (In)
P465-4L160	16"
P465-4L170	17"
P465-4L180	18"
P465-4L190	19"
P465-4L200	20"
P465-4L210	21"
P465-4L220	22"
P465-4L230	23"
P465-4L240	24"
P465-4L250	25"
P465-4L260	26"
P465-4L270	27"
P465-4L280	28"
P465-4L290	29"
P465-4L300	30"
P465-4L310	31"
P465-4L320	32"
P465-4L330	33"
P465-4L340	34"
P465-4L350	35"
P465-4L360	36"
P465-4L370	37"
P465-4L380	38"
P465-4L390	39"
P465-4L400	40"
P465-4L410	41"
P465-4L420	42"
P465-4L430	43"
P465-4L440	44"
P465-4L450	45"
P465-4L460	46"
P465-4L470	47"
P465-4L480	48"
P465-4L490	49"
P465-4L500	50"
P465-4L510	51"
P465-4L520	52"
P465-4L530	53"
P465-4L540	54"
P465-4L550	55"
P465-4L560	56"
P465-4L570	57"
P465-4L580	58"
P465-4L590	59"
P465-4L600	60"
P465-4L610	61"
P465-4L620	62"
P465-4L630	63"
P465-4L640	64"
P465-4L650	65"
P465-4L660	66"
P465-4L670	67"
P465-4L680	68"

P465-4L690	69"
P465-4L700	70"
P465-4L710	71"
P465-4L720	72"
P465-4L730	73"
P465-4L740	74"
P465-4L750	75"
P465-4L760	76"
P465-4L770	77"
P465-4L780	78"
P465-4L790	79"
P465-4L800	80"
P465-4L810	81"
P465-4L820	82"
P465-4L830	83"
P465-4L840	84"
P465-4L850	85"
P465-4L860*	86"
P465-4L870*	87"
P465-4L880*	88"
P465-4L890*	89"
P465-4L900*	90"
P465-4L910*	91"
P465-4L920*	92"
P465-4L930*	93"
P465-4L940*	94"
P465-4L950*	95"
P465-4L960*	96"
P465-4L970*	97"
P465-4L980*	98"
P465-4L990*	99"
P465-4L1000*	100"
P465-5L230	23"
P465-5L240	24"
P465-5L250	25"
P465-5L260	26"
P465-5L270	27"
P465-5L280	28"
P465-5L290	29"
P465-5L300	30"
P465-5L310	31"
P465-5L320	32"
P465-5L330	33"
P465-5L340	34"
P465-5L350	35"

*All belts are smooth

TOTALINE® FAN BELTS

Fractional HP V-Belts

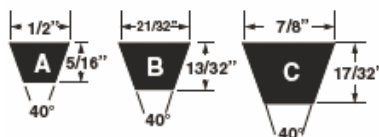
5L Sizes

Part Number	Out Side Length (In)
P465-5L360	36"
P465-5L370	37"
P465-5L380	38"
P465-5L390	39"
P465-5L400	40"
P465-5L410	41"
P465-5L420	42"
P465-5L430	43"
P465-5L440	44"
P465-5L450	45"
P465-5L460	46"
P465-5L470	47"
P465-5L480	48"
P465-5L490	49"
P465-5L500	50"
P465-5L510	51"
P465-5L520	52"
P465-5L530	53"
P465-5L540	54"
P465-5L550	55"
P465-5L560	56"
P465-5L570	57"
P465-5L580	58"
P465-5L590	59"
P465-5L600	60"
P465-5L610	61"
P465-5L620	62"
P465-5L630	63"
P465-5L640	64"
P465-5L650	65"
P465-5L660	66"
P465-5L670	67"
P465-5L680	68"
P465-5L690	69"
P465-5L700	70"
P465-5L710	71"
P465-5L720	72"
P465-5L730	73"
P465-5L740	74"
P465-5L750	75"
P465-5L760	76"
P465-5L770	77"
P465-5L780	78"
P465-5L790	79"
P465-5L800	80"
P465-5L810	81"
P465-5L820	82"
P465-5L830	83"

P465-5L840	84"
P465-5L850	85"
P465-5L860	86"
P465-5L870	87"
P465-5L880	88"
P465-5L890	89"
P465-5L900	90"
P465-5L910	91"
P465-5L920	92"
P465-5L930	93"
P465-5L940	94"
P465-5L950	95"
P465-5L960	96"
P465-5L970	97"
P465-5L980	98"
P465-5L990	99"
P465-5L1000	100"

TOTALINE® FAN BELTS

Multiple V-Belts



For multiple drive, high speed and high torque operation on light or heavy industrial or automotive machinery, TOTALINE Multiple V-Belts boast exceptional length, stability, and drive uniformity. Rigorous testing has shown these premium quality belts to have twice the service life or significantly greater transmission capacity than other multiple V-Belts.

A Sizes

Part Number	Outside Length (In)
P463-A20	22"
P463-A21	23"
P463-A22	24"
P463-A23	25"
P463-A24	26"
P463-A25	27"
P463-A26	28"
P463-A27	29"
P463-A28	30"
P463-A29	31"
P463-A30	32"
P463-A31	33"
P463-A32	34"
P463-A33	35"
P463-A34	36"
P463-A35	37"
P463-A36	38"
P463-A37	39"
P463-A38	40"
P463-A39	41"
P463-A40	42"
P463-A41	43"
P463-A42	44"
P463-A43	45"
P463-A44	46"
P463-A45	47"
P463-A46	48"
P463-A47	49"
P463-A48	50"
P463-A49	51"
P463-A50	52"
P463-A51	53"
P463-A52	54"
P463-A53	55"
P463-A54	56"
P463-A55	57"

P463-A56	58"
P463-A57	59"
P463-A58	60"
P463-A59	61"
P463-A60	62"
P463-A61	63"
P463-A62	64"
P463-A63	65"
P463-A64	66"
P463-A65	67"
P463-A66	68"
P463-A67	69"
P463-A68	70"
P463-A69	71"
P463-A70	72"
P463-A71	73"
P463-A72	74"
P463-A73	75"
P463-A74	76"
P463-A75	77"
P463-A76	78"
P463-A77	79"
P463-A78	80"
P463-A79	81"
P463-A80	82"
P463-A81	83"
P463-A82	84"
P463-A83	85"
P463-A84	86"
P463-A85	87"
P463-A86	88"
P463-A87	89"
P463-A88	90"
P463-A89	91"
P463-A90	92"
P463-A91	93"
P463-A92	94"
P463-A93	95"
P463-A94	96"
P463-A95	97"
P463-A96	98"
P463-A97	99"
P463-A98	100"
P463-A102	104"
P463-A105	107"
P463-A110	112"
P463-A116	118"
P463-A112	114"
P463-A120	122"
P463-A128	130"
P463-A136	138"
P463-A144	146"
P463-A158	160"
P463-A173	175"
P463-A180	182"
P463-AX20	22"
P463-AX22	24"

P463-AX23	25"
P463-AX25	27"
P463-AX26	28"
P463-AX27	29"
P463-AX28	30"
P463-AX29	31"
P463-AX30	32"
P463-AX31	33"
P463-AX32	34"
P463-AX33	35"
P463-AX34	36"
P463-AX35	37"
P463-AX36	38"
P463-AX37	39"
P463-AX38	40"
P463-AX39	41"
P463-AX40	42"
P463-AX41	43"
P463-AX42	44"
P463-AX43	45"
P463-AX44	46"
P463-AX45	47"
P463-AX46	48"
P463-AX47	49"
P463-AX48	50"
P463-AX49	51"
P463-AX50	52"
P463-AX51	53"
P463-AX52	54"
P463-AX53	55"
P463-AX54	56"
P463-AX55	57"
P463-AX58	58"
P463-AX60	62"
P463-AX62	64"
P463-AX63	65"
P463-AX64	66"
P463-AX66	68"
P463-AX67	69"
P463-AX70	72"
P463-AX71	73"
P463-AX78	80"
P463-AX80	82"
P463-AX90	92"
P463-AX112	114"

TOTALINE® FAN BELTS Multiple V-Belts

B Sizes

Part Number	Outside Length (In)
P463-B25	28"
P463-B26	29"
P463-B27	30"
P463-B28	31"
P463-B29	32"
P463-B30	33"
P463-B31	34"
P463-B32	35"
P463-B33	36"
P463-B34	37"
P463-B35	38"
P463-B36	39"
P463-B37	40"
P463-B38	41"
P463-B39	42"
P463-B40	43"
P463-B41	44"
P463-B42	45"
P463-B43	46"
P463-B44	47"
P463-B45	48"
P463-B46	49"
P463-B47	50"
P463-B48	51"
P463-B49	52"
P463-B50	53"
P463-B51	54"
P463-B52	55"
P463-B53	56"
P463-B54	57"
P463-B55	58"
P463-B56	59"
P463-B57	60"
P463-B58	61"
P463-B59	62"
P463-B60	63"
P463-B61	64"
P463-B62	65"
P463-B63	66"
P463-B64	67"
P463-B65	68"
P463-B66	69"
P463-B67	70"
P463-B68	71"
P463-B69	72"
P463-B70	73"
P463-B71	74"

P463-B72	75"
P463-B73	76"
P463-B74	77"
P463-B75	78"
P463-B76	79"
P463-B77	80"
P463-B78	81"
P463-B79	82"
P463-B80	83"
P463-B81	84"
P463-B82	85"
P463-B83	86"
P463-B84	87"
P463-B85	88"
P463-B86	89"
P463-B87	90"
P463-B88	91"
P463-B89	92"
P463-B90	93"
P463-B91	94"
P463-B92	95"
P463-B93	96"
P463-B94	97"
P463-B95	98"
P463-B96	99"
P463-B97	100"
P463-B100	103"
P463-B101	104"
P463-B103	105"
P463-B104	107"
P463-B105	108"
P463-B108	111"
P463-B111	114"
P463-B112	115"
P463-B115	118"
P463-B116	119"
P463-B120	123"
P463-B123	126"
P463-B124	127"
P463-B126	129"
P463-B129	132"
P463-B128	131"
P463-B133	136"
P463-B134	137"
P463-B136	139"
P463-B140	143"
P463-B142	145"
P463-B144	147"
P463-B148	151"
P463-B153	156"
P463-B154	157"
P463-B158	161"
P463-B162	165"
P463-B173	176"
P463-B180	183"
P463-B195	198"
P463-B210	213"

P463-B225	228"
P463-B240	243"
P463-B255	258"
P463-B270	273"
P463-B285	288"
P463-B300	303"
P463-B315	318"
P463-BX27	30"
P463-BX28	31"
P463-BX29	32"
P463-BX30	33"
P463-BX31	34"
P463-BX32	35"
P463-BX34	37"
P463-BX35	38"
P463-BX37	40"
P463-BX38	41"
P463-BX39	42"
P463-BX40	43"
P463-BX41	44"
P463-BX42	45"
P463-BX43	46"
P463-BX44	47"
P463-BX45	48"
P463-BX46	49"
P463-BX47	50"
P463-BX48	51"
P463-BX49	52"
P463-BX50	53"
P463-BX51	54"
P463-BX52	55"
P463-BX53	56"
P463-BX54	57"
P463-BX55	58"
P463-BX56	59"
P463-BX57	60"
P463-BX58	61"
P463-BX59	62"
P463-BX60	63"
P463-BX61	64"
P463-BX62	65"
P463-BX63	66"
P463-BX64	67"
P463-BX65	68"
P463-BX66	69"
P463-BX67	70"
P463-BX68	71"
P463-BX69	72"
P463-BX71	74"
P463-BX72	75"
P463-BX73	76"
P463-BX75	78"
P463-BX76	79"
P463-BX77	80"
P463-BX78	81"
P463-BX80	83"
P463-BX81	84"

P463-BX82	85"
P463-BX83	86"
P463-BX85	88"
P463-BX86	89"
P463-BX88	91"
P463-BX90	93"
P463-BX93	96"
P463-BX95	98"
P463-BX97	100"
P463-BX99	102"
P463-BX100	103"
P463-BX103	106"
P463-BX105	108"
P463-BX106	109"
P463-BX108	111"
P463-BX112	115"
P463-BX116	119"
P463-BX124	127"
P463-BX126	129"
P463-BX128	131"
P463-BX133	136"
P463-BX136	139"
P463-BX144	147"

C Sizes

Part Number	Outside Length (In)
P463-C51	55"
P463-C60	64"
P463-C68	72"
P463-C75	79"
P463-C81	85"
P463-C85	89"
P463-C90	94"
P463-C96	100"
P463-C100	104"
P463-C105	109"
P463-C109	113"
P463-C112	116"
P463-C115	119"
P463-C120	124"
P463-C128	132"
P463-C136	140"
P463-C144	148"
P463-C150	154"
P463-C158	162"
P463-C162	166"
P463-C173	177"
P463-C180	184"
P463-C195	199"
P463-C210	214"
P463-C225	229"
P463-C240	244"
P463-C255	259"
P463-C270	274"
P463-C285	289"
P463-C300	304"
P463-C315	319"
P463-C330	334"
P463-C345	349"
P463-C360	364"
P463-C390	394"
P463-C420	424"
P463-C450	454"
P463-C480	484"
P463-CX162	166"

TOTALINE® FAN BELTS

Narrow V-Belts - Cogged

The unique design and superior quality of the TOTALINE Narrow V-Belt allow you to build or redesign drive systems using smaller pulleys, with shorter center distances (reducing system weight and space) and increased horsepower capacity exceeding RMA standards by 23.6% average). NOTE: The TOTALINE Narrow V-Belt in three section sizes is ideal for all applications covered by five section sizes of multiple V-belts. For multiple or single drives, the 3V replaces A, B, and C belts; the 5V replaces C and D belts; and the 8V replaces D and E belts.

3V Sizes

Part Number	Outside Length (In)
P464-3V215	22.63"
P464-3V250	25.63"
P464-3V265	27.63"
P464-3V280	28.63"
P464-3V300	30.63"
P464-3V315	32.63"
P464-3V335	34.63"
P464-3V355	36.63"
P464-3V375	38.63"
P464-3V400	40.63"
P464-3V425	43.13"
P464-3V450	45.63"
P464-3V475	48.13"
P464-3V500	50.63"
P464-3V530	53.63"
P464-3V560	56.63"
P464-3V600	60.63"
P464-3V630	63.63"
P464-3V670	67.63"
P464-3V710	71.63"
P464-3V750	75.63"
P464-3V800	80.63"
P464-3V850	85.63"
P464-3V900	90.63"
P464-3V950	95.63"
P464-3V1000	100.63"
P464-3V1060	106.63"
P464-3V1120	112.63"
P464-3V1180	118.63"

P464-3V1250	125.63"
P464-3V1320	132.63"
P464-3V1400	140.63"
P464-3VX215	21.5"
P464-3VX250	25"
P464-3VX265	26.5"
P464-3VX280	28"
P464-3VX300	30"
P464-3VX315	31.5"
P464-3VX335	33.5"
P464-3VX355	35.5"
P464-3VX375	37.5"
P464-3VX400	40"
P464-3VX425	42.5"
P464-3VX450	45"
P464-3VX475	47.5"
P464-3VX500	50"
P464-3VX530	53"
P464-3VX560	56"
P464-3VX600	60"
P464-3VX630	63"
P464-3VX670	67"
P464-3VX710	71"
P464-3VX750	75"
P464-3VX800	80"
P464-3VX850	85"
P464-3VX900	90"
P464-3VX950	95"
P464-3VX1000	100"
P464-3VX1060	106"
P464-3VX1120	112"
P464-3VX1180	118.35"
P464-3VX1250	125"
P464-3VX1320	132"
P464-3VX1400	140"

5V Sizes

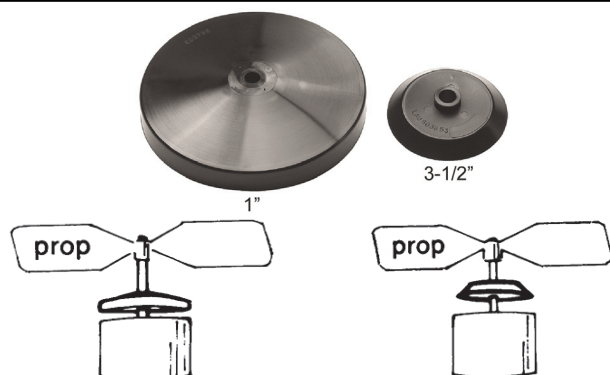
Part Number	Outside Length (In)
P464-5V500	50.75"
P464-5V530	53.75"
P464-5V560	56.75"
P464-5V600	60.75"
P464-5V630	63.75"
P464-5V670	67.75"
P464-5V710	71.75"
P464-5V750	75.75"
P464-5V800	80.75"
P464-5V850	85.75"
P464-5V900	90.75"
P464-5V950	95.75"
P464-5V1000	100.75"
P464-5V1060	106.75"
P464-5V1120	112.75"
P464-5V1180	118.75"
P464-5V1250	125.75"
P464-5V1320	132.75"
P464-5V1400	140.75"
P464-5V1500	150.75"
P464-5V1600	160.75"
P464-5V1700	170.75"
P464-5V1800	180.75"
P464-5V1900	190.75"
P464-5V2000	200.75"
P464-5V2120	212"
P464-5V2240	224"
P464-5V2360	236"
P464-5V2500	250"
P464-5V2650	265"
P464-5V2800	280"
P464-5V3000	300"
P464-5V3150	315"
P464-5V3350	335"
P464-5V3550	355"
P464-5VX450	45"
P464-5VX470	47"
P464-5VX490	49"
P464-5VX500	50"
P464-5VX510	51"
P464-5VX530	53"
P464-5VX540	54"
P464-5VX550	55"
P464-5VX560	56"
P464-5VX570	57"
P464-5VX580	58"
P464-5VX590	59"
P464-5VX600	60"
P464-5VX610	61"
P464-5VX630	63"
P464-5VX650	65"
P464-5VX660	66"
P464-5VX670	67"

P464-5VX680	68"
P464-5VX690	69"
P464-5VX710	71"
P464-5VX730	73"
P464-5VX740	74"
P464-5VX750	75"
P464-5VX780	78"
P464-5VX800	80"
P464-5VX830	83"
P464-5VX840	84"
P464-5VX850	85"
P464-5VX860	86"
P464-5VX880	88"
P464-5VX900	90"
P464-5VX930	93"
P464-5VX950	95"
P464-5VX960	96"
P464-5VX1000	100"
P464-5VX1030	103"
P464-5VX1060	106"
P464-5VX1080	108"
P464-5VX1120	112"
P464-5VX1150	115"
P464-5VX1180	118"
P464-5VX1230	123"
P464-5VX1250	125"
P464-5VX1320	132"
P464-5VX1400	140"
P464-5VX1500	150"
P464-5VX1600	160"
P464-5VX1700	170"
P464-5VX1800	180"
P464-5VX1900	190"
P464-5VX2000	200"
P464-BX64	65.8"

PARTS & ACCESSORIES

Propeller Accessories

Rainshield



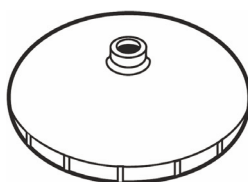
Interior cooling blades force air over motor. Use 7" diameter for open type motors. Position rainshield between propeller and motor. Use 3-1/2" diameter for closed motors.

An inexpensive way to reduce the potential of rain getting into the motor bearings on vertical shaft motor applications. Use primarily for vertical shaft motors on outdoor condensing units, but can also be used in any position to keep water from migrating along the shaft.

- Simple press fit on the 1/2" to 5/8" shafts
- 7" with interior cooling blades effectively reduces motor winding temperature and protects open motors
- 3-1/2" for closed motors to protect bearings
- Used as original equipment on many new air conditioners

Part Number	Single Size
60385303	3-1/2" x 1/2"
60379501	7" x 1/2"
60379502	7" x 5/8"

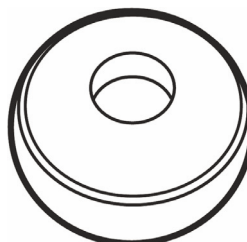
Finned Plastic



Finned plastic rainshield provides additional motor cooling by drawing air through motor. For use with vertically mounted condenser motors in shaft up position.

Part Number	Bore Size	Outside Diameter
P251-0056	1/2"	7-1/2"
P251-0057	5/8"	7-1/2"

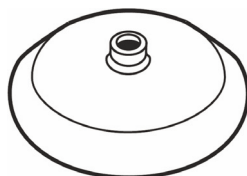
Plastic



Plastic rainshield for use with vertically mounted condenser motors in shaft up position.

Part Number	Bore Size	Outside Diameter
P251-0052	5/8"	7-3/10"

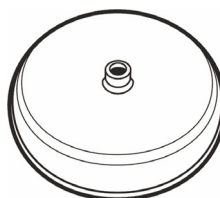
Plastic Slinger



Plastic slinger for use with vertically mounted condenser motors in shaft up position.

Part Number	Bore Size	Outside Diameter
P251-0058	1/2"	3-1/2"
P251-0059	5/8"	3-1/2"

Metal



Metal rainshield with rubber grommet to fit bearing hub protects motor windings only. Bearing slinger P251-0059 is also required for shaft bearing protection. Aluminum rainshield for use with vertically mounted condenser motor in shaft up position.

Part Number	Bore Size	Outside Diameter
P251-0051	1/2"	6-3/10"

Hub Pullers

05214101



Metal rainshield with rubber grommet to fit bearing hub protects motor windings only. Bearing slinger P251-0059 is also required for shaft bearing protection. Aluminum rainshield for use with vertically mounted condenser motor in shaft up position.

Part Number	Replacement Fingers (set of 4)	Main Center Shaft	Centering Sleeve
05214101	05221101	05221201	05221301

PARTS & ACCESSORIES

Hub Pullers

05380401



GENERAL DUTY APPLICATIONS

- Precision machined
- 5/8" steel bolt machined and tapered on one end
- 1 1/4" threading into body resists stripping
- Standard 7/8" wrench fitting
- Four grab bolts for maximum holding power
- Torque Limit: 75 ft. lbs

Part Number	Replacement Fingers (set of 4)	Main Center Shaft	Centering Sleeve
05380401	05249901	05249701	05249801

Pitch Gauge



Every Toolbox Needs A Lau Pitch Gauge. Eliminate the guesswork when replacing old propellers. Lau's pitch gauge measures the correct pitch and direction of rotation.

Part Number	Description
05099801	LAU PITCH GAUGE

Follow these 3 steps to measure propeller rotation and pitch:



STEP 1

- Position the faceplate of the gauge on the blade of the fan

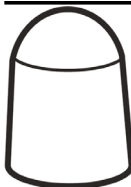
STEP 2

- Place the foot of the wire body of the pitch gauge on the center section (spider) of the fan

STEP 3

- The pointer gives a direct reading of the pitch in degrees, and the clockwise / counter-clockwise markings indicate the rotation

Rubber Fan Hub Cap



Rubber fan hub cap prevents vertical mounted condenser fan from seizing to motor shaft.

Part Number	Description
P251-0061	Rubber Fan Hub Cap

Tecinspect



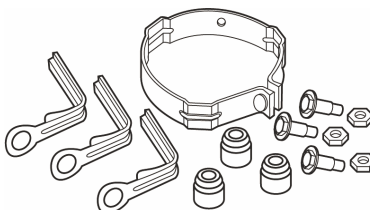
- 16-Pin and 4-Pin Connector for diagnostics on Genteq Variable Speed Models
- Works with ECM models: 2.0, 2.3, Eon, 3.0,
- Comes with ECM Service Guide

Part Number	Description
GE-A447	TECINspect 16-Pin and 4-Pin Connector

Bracket Kits

Totaline® Bracket Kits

Motor Mount Kit

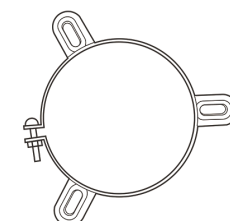


Stamped steel motor mounting kits for 42 and 48 frame direct drive blower motors.

Kits contain belly band, mounting arms, rubber isolation grommets and 1/4-20 sleeved bolts and nuts for attaching mount to fan housing.

Part Number	Motor Diameter	Bolt Circle
P251-0074	5.3"	11.6"
P251-0075	5"	11"

Adjustable Motor Mount Kit



Use when replacing motors which originally had welded on mounting ears. Mounting ears have 5/16" slots and 3/4" knockouts which are adaptable to a wide range of mounting dimensions.

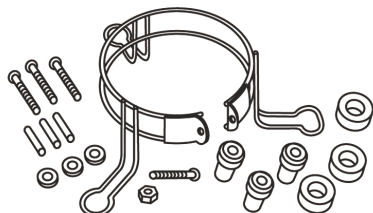
Part Number	Description
P251-0015	Adjustable Motor Mount Kit

PARTS & ACCESSORIES

Bracket Kits

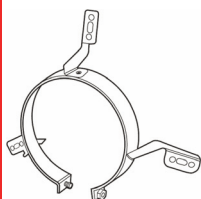
Totaline® Bracket Kits

Torsion Flex Bracket



Part Number	Bolt Circle	Motor Frame	Emerson No
P251-0010	9-9/32"	42	16
P251-0011	10"	48	17

Torsion Flex Bracket for 5-1/2" Motos



An economical alternative to conventional mounts that require rubber grommets.

- Fits 9" or 10" blowers
- Maximum motor weight is 16 lbs
- Used with 5 1/2" diameter direct drive blower motors

Part Number

P251-0073

Direct Drive Motor Mounting Brackets

Flexible Mount Belly" Band Adapter



Adapts either to a 5" diameter motor (42-frame), or a 5 5/8" (48-frame) to mount on 9" and 10" blowers.

Part Number	Fits
05407401	5" Motor
05407402	5-5/8" Motor

Motor Mounting Bracket



Supported from the housing venturi, mounting brackets are adjusted for motors 3 1/2" to 6 1/8" in length and accommodates a 48-frame motor. Adjusts to various wheel widths with the necessary hardware furnished.

Part Number	Blower Size
38251401	9"
38251501	10"
02612601	11" & 12"

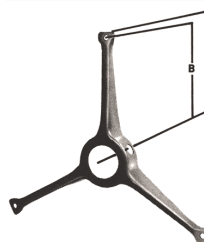
Universal Motor Mounting Brackets



Lau's universal motor mounting Brackets accommodate 10" and 12" Blowers (includes mounting hardware).

Part Number	Diameter	Motor Frame	Blower Size
02869101	5"	42	10"
02869201	5-5/8"	48	10"
05409101	5-5/8"	48	12"

Bearing Brackets For Belt Drive Blowers



NOTE - 18" version has 2 belt holes on each bracket leg. One-Piece Bracket (Sold individually)

Part Number	Belt Drive Blower (1)	A	B	OD*
00896004	18"	9-5/16"	8 13/16"	2-1/2"
01443102	15"	7-13/16"	7-7/16"	2-1/2"
01573001	12"	6-5/16"	6"	2-1/2"

Knock Down Bracket Kit



For easier installation. Accommodates bearings that have 1 13/16" O.D. (Fits up to 18 1/2" bolt circle.)

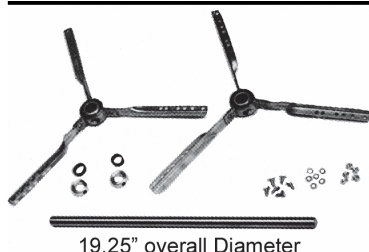
NOTE - When combined with a pair of 3/4" Lau bearings, can also replace obsolete flange bearing #38208201.

Part Number	OD of Rubber Cushion
38269901	1-13/16"

PARTS & ACCESSORIES

Bracket Kits

Sleeve Bearing Bracket Kit



- Ideal for replacing obsolete pillow blocks and streamlined bearings
- Can also be used in some evaporative cooler applications
- Specially designed to fit most blowers from 9" to 16" sizes
- Sturdy, compact, 10-gauge steel bearing and bracket – completely assembled and ready to mount
- Sintered bronze ball assembly securely held in a spherical rubber isolating liner to assure maximum vibration absorption, quiet operation, constant self-alignment and long life
- Packaged in pairs with shaft and hardware group

Part Number	Shaft Diameter	Maximum HP	Shaft Length
02917501*	3/4"	3/4 HP	20"
02917601	1"	1 HP	25"

*02917501 also replaces obsolete Part Number 38208201.

Bearings

Lau-Pak" - Sleeve Sealed Type Bearings With Insulator



Self-aligning, factory-packed with a supply of plastic petroleum assuring proper lubrication during the long life of the bearing. Self-aligning, porous bronze sleeve pressed in housing.

Note: Temperature Range for Sleeve Bearing 40°-135°

Part Number	Shaft Diameter	OD*
38244301	5/8"	1-13/16"
38244302	3/4"	1-13/16"
38244303	1"	2-1/2"

Sealed Sleeve Bearings (Replaces Brundage)



Self-aligning, factory-packed with a supply of plastic petroleum assuring proper lubrication during life of bearing.

Note - Temperature Range for Sleeve Bearings: 40° - 135°.

Part Number	Shaft Diameter	OD*
38269401	3/4"	2-1/16"
38269501	1"	2-1/16"

* O.D. as measured over rubber cushion.

Sealed Type Ball Bearings With Insulator



For use when operating conditions exceed the limits of sleeve bearings or where repetitive failures occur. These bearings are pre-lubricated at the factory and require no further lubrication or attention. They are equipped with seals for positive grease retention and protection against contaminants.

Note - Temperature Range for Sleeve Bearings: 40° - 135°.

Part Number	Temp Range °F	Shaft Diameter w/ interlocking thrust collar	OD*
38258801	-20° +180°	3/4"	1-13/16"
38259001	-20° +180°	1"	2-17/32"
38256201	-20° +180°	1-3/16"	2-17/32"

*O.D. as measured over rubber cushion.

Lau Oil Type - Sleeve Bearings With Insulator



Self-aligning, self-oiling, with bronze bushing held in housing under light, uniform spring presser, providing uniform distribution of lubricant through pores of bushing. Drive type oil cup.

Note - Shipped dry. Lubricate at time of installation with SAE 20 or 30 weight oil.

Part Number	Shaft Diameter	OD*
38240401	5/8"	1-13/16"
38244201	3/4"	1-13/16"
38244202	1"	2-1/2"

* O.D. as measured over rubber cushion.

PARTS & ACCESSORIES

Bearings

Oil Sleeve Bearings (Replaces Brundage)



Self-oiling with sintered bronze bushings and drive type oil cups.

Part Number	Shaft Diameter	OD*
38269601	3/4"	2-1/16"
38269701	1"	2-1/16"

*O.D. as measured over rubber cushion.

Oil Type - Sleeve Bearings With Insulator



Self-aligning, self-oiling with sintered bronze bushings and drive type oil cups.

Note - Re-lubricate with SAE 20 or 30 weight oil. (Due to wicking, may need to oil at time of installation.)

Part Number	Shaft Diameter	OD*
38245001	3/4"	1-27/32"
38244901	1"	1-27/32"
38209401	1" Heavy Duty	2-1/2"

*O.D. as measured over rubber cushion.

Totaline® Bronze Bearing

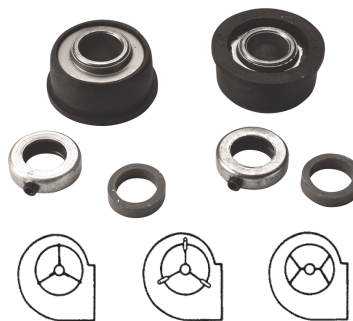


- Porous bronze sleeve
- Oil cup

Part Number	Diameter		Width
	Outside	Bore	
P461-2301*	1-11/16"	3/4"	1-1/4"

*Requires Isolator P461-2001.

Cartridge Type Sleeve Bearings



Types of "Spider" Brackets

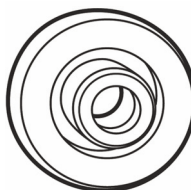
This cartridge type bearing has been designed to give you fast, easy interchangeability. It will fit any "spider type" bracket used on 9", 10", and 12" blowers. Sintered bronze bushing pressed into steel bearing caps and cushioned in heavy neoprene conductive rubber. Factory packed with lubricant for many years of quiet, trouble-free service. The cartridge bearing with a journal may permit use of old shaft.

Bearings shipped in pairs

Part Number	Shaft Diameter	(Pair)	OD*
38209101	3/4" w/ thrust & spacer	Mark IV	1-13/16"
38227201	3/4" w/ journal	Mark III	1-13/16"
38209001	1"		1-13/16"

*O.D. as measured over rubber cushion.

Ball Bearing Cartridge Units



Features:

- Light duty series
- Molded rubber outer liner
- Eccentric self-locking collar
- Permanently lubricated
- Quiet operation
- Width: 1"

Part Number	Diameter	
	Outside	Bore
P461-2202	2.5"	1/2"
P461-2502	2.5"	5/8"
P461-2302	1.8"	3/4"
P461-2304	2.5"	3/4"
P461-2201	1.7"	1/2"
P461-2102	2.5"	1"
P461-2103*	2.5"	1"
P461-2901	2.5"	1-3/16"

*Width 3/4 inch.

PARTS & ACCESSORIES

Bearings

Ball Bearing Cartridge Units - Bronze Sleeve



Features:

- Porous bronze sleeve
- Sealed type
- Self-aligning

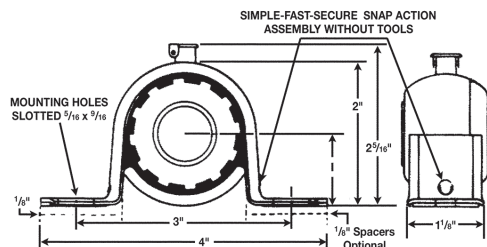
Part Number	Diameter		Width
	Outside	Bore	
P461-2303	1-13/16"	3/4"	1"
P461-2101	2-1/2"	1"	1-3/8"

*Width 3/4 inch.

Pillow Block Sleeve Bearings



Heavy neoprene cushioned, re-oilable porous bronze bushing in a pressed steel ball unit held firmly in a housing of two-piece interlocking steel. This high quality self-aligning, static-free, pillow block will assure quiet operation and many years of trouble free performance. Two 1/8" rubber spacers provided for use, if needed.



For use on horizontal shaft applications only

Part Number	Shaft Diameter
38220401	5/8"
38208601	3/4"
38208701	1"
38209301*	1" Heavy Duty

Dimensions for the heavy duty pillow block are: mounting holes on center 3 1/2"; base to shaft center 1 3/16"; width 1 1/2".

Pillow Block Ball Bearings



Features:

- Durable cast-iron construction
- Pre-lubricated bearings
- Re-greasable

Note - Temperature Range: -30 to 200°F.

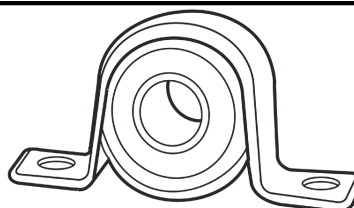
Technical tip:

Pillow block ball bearings are pre-lubricated at the factory. Normal operating temperature is from -30°F to 200°F. Under normal operating conditions (clean environment and RPM under 1500) re-lubrication is recommended at 6-12 month intervals. When re-greasing, care should be taken not to over grease as seal blow out and/or bearing burnout can occur.

Part Number	Shaft Diameter	Spread		Hole Size	OD*
		Min	Max		
38256701	3/4"	3-5/8"	3-7/8"	9/16" x 13/32"	3-5/16"
38256801	1"	3-7/8"	4-1/8"	9/16" x 13/32"	1-7/16"
38256901	1-3/16"	4-1/2"	4-3/4"	3/4" x 9/16"	1-11/16"
38257001	1-7/16"	4-3/5"	5"	3/4" x 9/16"	1-7/8"

*O.D. as measured over rubber cushion.

Pillow Block Light Duty Series



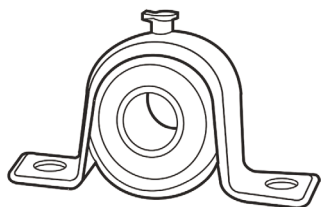
- Permanently lubricated
- Rubber cushion interliner
- Eccentric locking collar
- Two-piece pressed steel housing
- Self-aligning

Part Number	Base to Shaft Center	Mounting Center Distance	Bore Diameter	Type
P461-2203	9/16"	2"	1/2"	SLV
P461-2503	.70"	3"	5/8"	SLV
P461-2501	1"	3"	5/8"	BALL
P461-2306	1-1/8"	3-3/8"	3/4"	BALL
P461-2104	1-5/16"	3-3/4"	1"	BALL
P461-2904	1-5/16"	3-3/4"	1-3/16"	BALL

PARTS & ACCESSORIES

Bearings

Pillow Block Bronze Bearing



- Porous bronze sleeve
- Self-aligning
- Spherical bearing cartridge
- Quiet operation
- Oil cup for re-lubrication

Part Number	Base to Shaft Center	Mounting Center Distance	Bore Diameter
P461-2504	1"	3-1/8"	5/8"
P461-2305*	1"	3-1/8"	3/4"
P461-2106	1"	4-1/16"	1"
P461-2107	1-3/8"	3-5/16"	1"

Flange Ball Bearings



Permanently sealed and lubricated, two-bolt flange unit, rubber-mounted oil resistant, rubber isolator. Stamped steel housing.

Part Number	Shaft Diameter	Spread	Hole Size	OD*
38256501	3/4"	3-5/8"	7/16"	2-41/64"
38256502	1"	3-5/8"	7/16"	2-41/64"

*O.D. as measured over rubber cushion.

Other Accessories

Thrust Sleeve & Spacer Kit



Developed to eliminate end-play on sleeve bearing blowers. Replaces old style spring design. Plastic sleeve with assortment of spacers make adjustment easy on any size blower. Easy-to-follow instructions included. Available in 3/4" shaft size only.

Part Number	Shaft Diameter
38220301	3/4"

Thrust Collar Kit



Sheet metal thrust collar in 3/4", 5/8" and 1" size. All with hollow head (Allen) setscrews. Kit consists of one pair packaged with thrust washers. Order by part number.

Part Number	Shaft Diameter
38243101	5/8"
38220601	3/4"
38220701	1"

Thrust Spacer Kit



Packaged 12 per bag.

Part Number	Shaft Diameter
38249101	5/8"
38249102	3/4"
38249103	1"

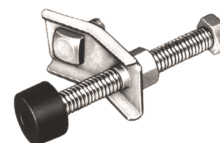
Motor Mounting Hardware Kit



Motor attachment and adjustment hardware for 9", 10", 12" and 15" blowers.

Part Number	Description
38252101	Motor Attachment And Adjustment Hardware Kit

Motor Adjustment Kit



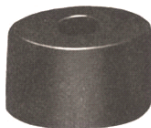
Tailpiece assembly for proper belt tension adjustment.

Part Number	Description
38252301	Motor Adjustment Kit

PARTS & ACCESSORIES

Other Accessories

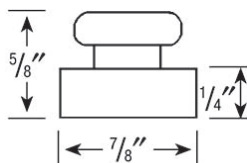
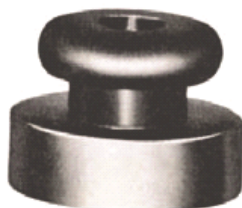
Motor Adjustment Grommets



Resilient rubber tips for use with tailpiece assembly to reduce motor vibration and noise.

Part Number	Pack	Description
38252501	6	Motor Adjustment Rubber Grommets

Vibro-Pads



Resilient rubber pads snap easily into place. Reduces vibration, wear and noise on blowers, fans, motors, etc. (packaged 12 per bag).

Part Number	Hole Size
38220901	5/16"

Shafts

Generic Blower Shafts

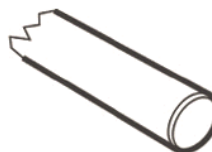


When a bearing fails, the shaft is inevitably scored. If not replaced, it will destroy the new bearings. Premium shafting is ground and polished 1018 cold-rolled steel. Excess shaft may be cut off. (Keyways and/or flats are to be added as required in the field.)

NOTE - When replacing bearings, be sure to replace the shaft.

Part Number	Diameter	Length	Shaft
38220501	5/8"	20"	Solid
38209601	3/4"	20"	Solid
38269301	3/4"	35"	Solid
38209501	1"	25"	Solid
38249201	1"	35"	Solid

Totaline® Blower Shafts



- Solid cold-rolled steel
- Ground and polished shaft
- Universal sizes
- Can be cut to proper length

NOTE - When replacing bearings, be sure to replace the shaft.

Part Number	Diameter	Length	Shaft
P461-4520	5/8"	20"	Solid
P461-4320	3/4"	20"	Solid
P461-4335	3/4"	35"	Solid
P461-4125	1"	25"	Solid
P461-4135	1"	35"	Solid

Steel Shaft Bushings



Part Number	Diameter		Length
	Outside	Inside	
P251-0062	3/8"	5/16"	1-1/64"
P251-0063	1/2"	5/16"	1-1/8"
P251-0064	1/2"	3/8"	1-1/8"
P251-0076	5/8"	1/2"	1-1/8"
P251-0065	3/4"	1/2"	1-1/4"
P251-0066	3/4"	5/8"	1-1/4"
P251-0067	1"	5/8"	1-1/4"
P251-0068	1"	3/4"	1-1/4"
P251-0069	1-3/16"	1"	1-1/4"

PARTS & ACCESSORIES

Pulleys

Totaline® Adjustable Motor Pulleys



- Quality cast iron key way
- Designed for long belt life
- Corrosion resistant

Part Number	Pulley Size	Shaft Size	Pitch Diameter
P461-3201	3"	1/2"	1.9 - 2.9"
P461-3503	3"	5/8"	1.9 - 2.9"
P461-3301	3"	3/4"	1.9 - 2.9"
P461-3202	4"	1/2"	2.4 - 3.4"
P461-3505	4"	5/8"	2.4 - 3.4"
P461-3302	4"	3/4"	2.4 - 3.4"
P461-3710	4"	7/8"	2.4 - 3.4"
P461-3203	4-1/4"	1/2"	2.8 - 3.8"
P461-3507	4-1/4"	5/8"	2.8 - 3.8"
P461-3303	4-1/4"	3/4"	2.8 - 3.8"
P461-3708	4-1/4"	7/8"	2.8 - 3.8"
P461-3204	5"	1/2"	3.4 - 4.4"
P461-3504	5"	5/8"	3.4 - 4.4"
P461-3304	5"	3/4"	3.4 - 4.4"
P461-3706	5"	7/8"	3.4 - 4.4"

Electrical Components

The following section contains information on common electrical components, including:

- Totaline® Capacitors
- Totaline® Capacitor and Accessories
- Totaline® Relays
- Totaline® Contactors
- Totaline® Control Transformers
- Totaline® Protection Controls
- Fuses and Accessories
- Totaline® Wiring Accessories

TOTALINE® CAPACITORS

General Information



This capacitor series is designed specifically for the motor run applications where the capacitors are used in conjunction with permanent split capacitor type motors. They may be used on either 50 or 60-Hertz systems but should not be used at higher frequencies or in applications where higher frequency harmonics are present. For those types of applications the General Purpose AC Capacitors should be used.

Features And Benefits

- Reliability tested to meet 60,000 service hours, per United Technologies application parameters
- High grade metallized Polypropylene Film (5 to 12 microns thick)
- RoHS Compliant
- UL Approved with Pressure Sensitive interrupter of 1000 AFC
- Performance tested per United Technologies reliability requirements for capacitance ratings, power factor, dissipation factor and high voltage testing

Product Range

- Capacitance: 5uF to 80uF
- Tolerance: +/- 6%
- Voltage: 370 to 440 VAC
- Op Temp: -29o to +68o C

Note: Distributors that have historically stocked 440 volt and 370 volt capacitors round and / or oval designs can standardize inventory to use a 440 volt capacitors as replacement for a 370 volt capacitor provided the capacitance in (Mfd.) stays exactly the same.

Warning Note: Under no circumstances are we recommending usage of a 370 volt capacitor to replace a 440 volt capacitor. Also our capacitor straps are designed to secure and ground the capacitor, so we don't recommend mixing oval or round capacitor designs.

TOTALINE® CAPACITORS

Oval Motor Run Capacitor - Dual

Part Number	Cap Grp	Voltage (VAC)	Capacitance (µF) MFD	Dia	Height
P291-0553	Oval Dual	370	5/5	1.8	2.6
P291-0773	Oval Dual	370	7.5/7.5	1.8	3.1
P291-1013	Oval Dual	370	10/10	1.8	3.3
P291-1513	Oval Dual	370	15/10	1.8	3.3
P291-1543	Oval Dual	370	15/4	1.8	3.1
P291-1554	Oval Dual	440	15/5	1.8	3.1
P291-1573	Oval Dual	370	15/7.5	1.8	3.3
P291-2053	Oval Dual	370	20/5	1.8	3.3
P291-2054	Oval Dual	440	20/5	1.8	3.5
P291-2074	Oval Dual	440	20/7.5	1.8	3.9
P291-2513	Oval Dual	370	25/10	1.8	3.7
P291-2543	Oval Dual	370	25/4	1.8	3.5
P291-2553	Oval Dual	370	25/5	1.8	3.5
P291-2554	Oval Dual	440	25/5	1.8	3.9
P291-2573	Oval Dual	370	25/7.5	1.8	3.5
P291-2574	Oval Dual	440	25/7.5	1.9	3.7
P291-3013	Oval Dual	370	30/10	1.9	3.5
P291-3014	Oval Dual	440	30/10	1.9	4.1
P291-3053	Oval Dual	370	30/5	1.8	3.7
P291-3054	Oval Dual	440	30/5	1.9	4.1
P291-3073	Oval Dual	370	30/7.5	1.8	3.7
P291-3074	Oval Dual	440	30/7.5	1.9	4.1
P291-3514	Oval Dual	440	35/10	1.9	4.5
P291-3523	Oval Dual	370	35/12.5	1.9	3.7
P291-3543	Oval Dual	370	35/4	1.9	3.7
P291-3553	Oval Dual	370	35/5	1.9	3.7
P291-3554	Oval Dual	440	35/5	1.9	4.5
P291-3554S	Oval Dual	440	35/5	1.8	4.9
P291-3573	Oval Dual	370	35/7.5	1.9	3.7
P291-3574	Oval Dual	440	35/7.5	1.9	4.5
P291-4014	Oval Dual	440	40/10	1.9	4.7
P291-4053	Oval Dual	370	40/5	1.9	4.1
P291-4053S	Oval Dual	370	40/5	1.9	4.3
P291-4054	Oval Dual	440	40/5	1.9	4.5
P291-4073	Oval Dual	370	40/7.5	1.9	4.1
P291-4074	Oval Dual	440	40/7.5	1.9	4.7
P291-4513	Oval Dual	370	45/10	1.9	4.3
P291-4553	Oval Dual	370	45/5	1.9	4.3
P291-4554	Oval Dual	440	45/5	1.9	4.7
P291-4554S	Oval Dual	440	45/5	1.9	5.5
P291-4573	Oval Dual	370	45/7.5	1.9	4.3
P291-4574	Oval Dual	440	45/7.5	1.9	4.9
P291-5014	Oval Dual	440	50/10	1.9	5.1
P291-5053	Oval Dual	370	50/5	1.9	4.7
P291-5054	Oval Dual	440	50/5	1.9	4.9
P291-5074	Oval Dual	440	50/7.5	1.9	4.9
P291-5513	Oval Dual	370	55/10	1.9	5.3
P291-5553	Oval Dual	370	55/5	1.9	5.3
P291-5554	Oval Dual	440	55/5	1.9	5.3
P291-5574	Oval Dual	440	55/7.5	1.9	5.3
P291-6013	Oval Dual	370	60/10	1.9	5.5
P291-6014	Oval Dual	440	60/10	1.9	5.5

P291-6053	Oval Dual	370	60/5	1.9	5.3
P291-7053	Oval Dual	370	70/5	1.9	5.7
P291-8013	Oval Dual	370	80/10	1.9	6.3
P291-8053	Oval Dual	370	80/5	1.9	6.3
P291-8054	Oval Dual	440	80/5	1.9	6.3
P291-8073	Oval Dual	370	80/7.5	1.9	6.3

TOTALINE® CAPACITORS

Oval Motor Run Capacitor - Single

Part Number	Cap Grp	Voltage (VAC)	Capacitance (µF) MFD	Dia	Height
P291-0203	Oval Single	370	2	1.2	2.6
P291-0303	Oval Single	370	3	1.2	2.6
P291-0304	Oval Single	440	3	1.2	2.6
P291-0403	Oval Single	370	4	1.2	2.8
P291-0404	Oval Single	440	4	1.2	2.8
P291-0503	Oval Single	370	5	1.2	2.8
P291-0504	Oval Single	440	5	1.2	3.1
P291-0603	Oval Single	370	6	1.2	3.1
P291-0604	Oval Single	440	6	1.2	3.1
P291-0753	Oval Single	370	7.5	1.2	3.5
P291-0754	Oval Single	440	7.5	1.2	3.5
P291-1003	Oval Single	370	10	1.2	3.5
P291-1004	Oval Single	440	10	1.2	4.1
P291-1253	Oval Single	370	12.5	1.2	3.5
P291-1254	Oval Single	440	12.5	1.2	4.5
P291-1503	Oval Single	370	15	1.2	3.7
P291-1504	Oval Single	440	15	1.2	4.5
P291-1753	Oval Single	370	17.5	1.2	4.1
P291-1754	Oval Single	440	17.5	1.8	3.1
P291-2003	Oval Single	370	20	1.2	4.3
P291-2004	Oval Single	440	20	1.8	3.1
P291-2503	Oval Single	370	25	1.8	3.1
P291-2503S	Oval Single	370	25	1.2	4.9
P291-2504	Oval Single	440	25	1.8	3.5
P291-3003	Oval Single	370	30	1.8	3.3
P291-3003S	Oval Single	370	30	1.2	5.3
P291-3004	Oval Single	440	30	1.8	3.9
P291-3503	Oval Single	370	35	1.8	3.7
P291-3504	Oval Single	440	35	1.8	4.3
P291-4003	Oval Single	370	40	1.8	3.9
P291-4004	Oval Single	440	40	1.9	3.5
P291-4503	Oval Single	370	45	1.9	3.5
P291-4504	Oval Single	440	45	1.9	3.7
P291-5003	Oval Single	370	50	1.9	3.5
P291-5004	Oval Single	440	50	1.9	3.9
P291-5503	Oval Single	370	55	1.9	3.5
P291-5504	Oval Single	440	55	1.9	4.1
P291-6003	Oval Single	370	60	1.9	3.7
P291-6004	Oval Single	440	60	1.9	4.3
P291-6503	Oval Single	370	65	1.9	3.7
P291-6504	Oval Single	440	65	1.9	4.5
P291-7003	Oval Single	370	70	1.9	3.9
P291-7004	Oval Single	440	70	1.9	4.7
P291-8003	Oval Single	370	80	1.9	4.3
P291-8004	Oval Single	440	80	1.9	4.9

TOTALINE® CAPACITORS

Round Motor Run Capacitor - Dual

Part Number	Cap Grp	Voltage (VAC)	Capacitance (µF) MFD	Dia	Height
P291-1553RS	Round Dual	370	15/5	2.0	3.5
P291-1554RS	Round Dual	440	15/5	2.0	4.3
P291-2053R	Round Dual	370	20/5	2.0	3.7
P291-2054RS	Round Dual	440	20/5	2.0	4.6
P291-2513R	Round Dual	370	25/10	2.5	4.3
P291-2534R	Round Dual	440	25/3	2.0	4.4
P291-2553RS	Round Dual	370	25/5	2.0	3.9
P291-2554R	Round Dual	440	25/5	2.5	4.3
P291-2554RS	Round Dual	440	25/5	2.0	4.8
P291-2573R	Round Dual	370	25/7.5	2.5	3.7
P291-2573RS	Round Dual	370	25/7.5	2.0	4.3
P291-3013RS	Round Dual	370	30/10	2.0	4.4
P291-3033R	Round Dual	370	30/3	2.0	4.1
P291-3053RS	Round Dual	370	30/5	2.0	4.1
P291-3054R	Round Dual	440	30/5	2.5	4.3
P291-3054RS	Round Dual	440	30/7.5	2.0	5.2
P291-3073R	Round Dual	370	30/7.5	2.5	3.7
P291-3073RS	Round Dual	370	35/10	2.0	4.4
P291-3513RS	Round Dual	370	35/3	2.0	4.8
P291-3533R	Round Dual	370	35/3	2.0	4.4
P291-3534R	Round Dual	440	35/5	2.5	4.3
P291-3553RS	Round Dual	370	35/5	2.0	4.4
P291-3554RS	Round Dual	440	35/7.5	2.0	5.2
P291-3573R	Round Dual	370	35/7.5	2.5	3.7
P291-3573RS	Round Dual	370	35/7.5	2.0	4.8
P291-3574RS	Round Dual	440	35/7.5	2.0	5.2
P291-4033R	Round Dual	370	40/3	2.0	4.6
P291-4034R	Round Dual	440	40/3	2.5	4.3
P291-4053RS	Round Dual	370	40/5	2.0	4.6
P291-4054RS	Round Dual	440	40/5	2.0	5.8
P291-4073RS	Round Dual	370	40/7.5	2.0	5.0
P291-4074RS	Round Dual	440	40/7.5	2.0	5.6
P291-4513RS	Round Dual	370	45/10	2.0	5.2
P291-4533R	Round Dual	370	45/3	2.0	4.8
P291-4553RS	Round Dual	370	45/5	2.0	4.8
P291-4554RS	Round Dual	440	45/5	2.5	4.4
P291-4573RS	Round Dual	370	45/7.5	2.0	5.2
P291-4574RS	Round Dual	440	45/7.5	2.5	4.8
P291-5053RS	Round Dual	370	50/5	2.0	5.2
P291-5054RS	Round Dual	440	50/5	2.5	4.8
P291-5073RS	Round Dual	370	50/7.5	2.0	5.4
P291-5513R	Round Dual	370	55/10	2.5	4.6
P291-5514RS	Round Dual	440	55/10	2.5	5.2
P291-5553RS	Round Dual	370	55/5	2.5	4.3
P291-5554RS	Round Dual	440	55/5	2.5	4.4
P291-5573RS	Round Dual	370	55/7.5	2.5	4.3
P291-5574RS	Round Dual	440	55/7.5	2.5	5.2
P291-6013R	Round Dual	370	60/10	2.5	4.8
P291-6053RS	Round Dual	370	60/5	2.5	4.6
P291-6054R	Round Dual	440	60/5	2.5	5.2
P291-6073RS	Round Dual	370	60/7.5	2.5	4.6
P291-6074R	Round Dual	440	60/7.5	2.5	5.2

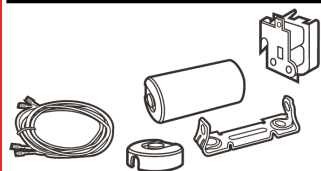
P291-7013RS	Round Dual	370	70/10	2.5	5.2
P291-7053RS	Round Dual	370	70/5	2.5	4.8
P291-7054R	Round Dual	440	70/5	2.5	5.4
P291-7073RS	Round Dual	370	70/7.5	2.5	4.8
P291-7554R	Round Dual	440	75/5	2.5	5.6
P291-8013RS	Round Dual	370	80/10	2.5	5.4
P291-8053RS	Round Dual	370	80/5	2.5	5.2
P291-8054RS	Round Dual	440	80/5	2.5	5.8
P291-8073RS	Round Dual	370	80/7.5	2.5	5.2

Round Motor Run Capacitor - Single

Part Number	Cap Grp	Voltage (VAC)	Capacitance (µF) MFD	Dia	Height
P291-0503R	Round Single	370	5	1.8	2.9
P291-0753R	Round Single	370	7.5	1.8	2.9
P291-1003R	Round Single	370	10	1.8	2.9
P291-1004R	Round Single	440	10	1.8	2.9
P291-1253R	Round Single	370	12.5	1.8	2.9
P291-1503R	Round Single	370	15	1.8	3.3
P291-1504R	Round Single	440	15	1.8	3.3
P291-2003R	Round Single	370	20	1.8	3.5
P291-2004R	Round Single	440	20	1.8	3.5
P291-2503R	Round Single	370	25	1.8	3.5
P291-2503RS	Round Single	370	25	1.8	3.5
P291-2504R	Round Single	440	25	1.8	4.1
P291-3003R	Round Single	370	30	1.8	4.3
P291-3004R	Round Single	440	30	1.8	4.3
P291-3504R	Round Single	440	35	1.8	4.6
P291-4003R	Round Single	370	40	2.0	3.9
P291-4004R	Round Single	440	40	1.8	5.2
P291-4503R	Round Single	370	45	2.5	4.3
P291-4504RS	Round Single	440	45	2.0	4.8
P291-5003R	Round Single	370	50	2.5	4.3
P291-5004R	Round Single	440	50	2.5	4.3
P291-5504R	Round Single	440	55	2.5	4.4
P291-6004R	Round Single	440	60	2.5	4.4
P291-6503R	Round Single	370	65	2.5	4.3
P291-8003R	Round Single	370	80	2.5	5.2

TOTALINE® CAPACITOR ACCESSORIES

Start Kit



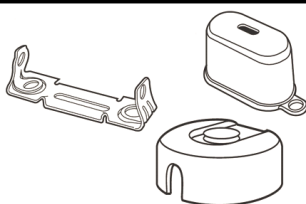
Totaline Start Kits are for use with PSC compressors requiring additional starting torque. Totaline Start Kits are available for the most popular Copeland, Tecumseh, Bristol, and Carlyle compressors.

The Kit contains the following:

- Start Capacitor
- Start Relay
- Wire Kit
 - (1) Black Wire 54" Long
 - (1) Brown Wire 16" Long
 - (1) Blue Wire 38" Long
 - (1) Brown Wire 30" Long
- End Cap
- Bracket
- Instruction Sheet

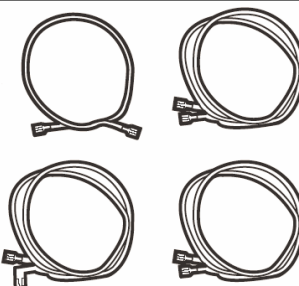
Part Number	Start Capacitor		Contact Rating	Start Relay		
	Mfd Range	Volts		Max Oper Volts	Pickup Volts	Dropout Volts
P296-0007	21-25	330	50 AMP	336	162-175	55-115
P296-0006	43-53	320	35 AMP	336	162-175	40-90
P296-0001	43-53	320	50 AMP	395	180-195	40-105
P296-0012	72-88	330	35 AMP	336	162-175	40-90
P296-0005	88-108	330	35 AMP	336	162-175	40-90
P296-0002	88-108	330	50 AMP	420	195-224	60-123
P296-0004	88-108	330	50 AMP	395	180-195	40-105
P296-0009	88-108	330	50 AMP	336	162-175	55-115
P296-0010	108-130	330	50 AMP	420	195-224	70-140
P296-0003	135-155	320	50 AMP	420	195-224	60-123
P296-0008	145-175	330	50 AMP	395	180-195	40-105
P296-0011	189-227	330	50 AMP	420	262-290	60-121

Bracket, End Cap, Boot



Part Number	Part Name	Use With Capacitor
P281-0017	Start Capacitor Bracket	3-3/8" Long
P281-0016	Start Capacitor Bracket	4-3/8" Long
P281-0011	Capacitor End Cap	1-13/16" Diameter
P281-0012	Capacitor End Cap	2-1/16" Diameter
P281-0013	Capacitor End Cap	2-9/16" Diameter
P281-0002	Terminal Boot	Single Oval Top Outlet
P281-0003	Terminal Boot	Single Oval (2) Side Outlets
P281-0006	Terminal Boot	Single Round
P281-0004	Terminal Boot	Dual Oval

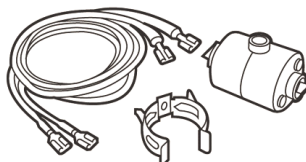
Wire Kit



An assortment of wires to be used to connect a Start Relay and Start Capacitor to a unit for hard start capability.

Part Number	Description
P421-4012	(1) Black Wire 44 IN. Long, (1) Blue Wire 22 IN. Long, (1) Black Wire 14 IN. Long, (1) Yellow Wire 29 IN. Long
P421-4013	(1) Black Wire 54 IN. Long, (1) Brown Wire 16 IN. Long, (1) Blue Wire 38 IN. Long, (1) Brown Wire 30 IN. Long

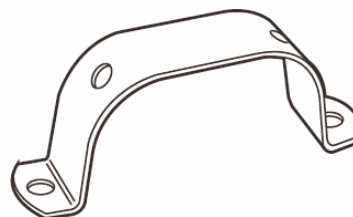
Start Thermister



This 25 ohm PTC device provides additional starting torque for compressors. Connects in parallel to run capacitor.

Part Number	Part Name
P421-4006	Start Thermistor

Strap



Part Number	Part Name	Use With Capacitor
P281-0031	Mounting Strap	1.21 x 2.06 Oval
P281-0021	Mounting Strap	1.81 x 2.81 Oval
P281-0028	Mounting Strap	1.87 x 3.56 Oval
P281-0025	Mounting Strap	15 Fit All

TOTALINE® RELAYS

Relay Application Data - Control Relays

The main function of any relay is switching electrical circuits. Selection depends on load characteristics which should be matched closely to the rating of the relay to avoid contact point deterioration. Relay ratings in amperes are listed in this brochure as inductive or resistive.

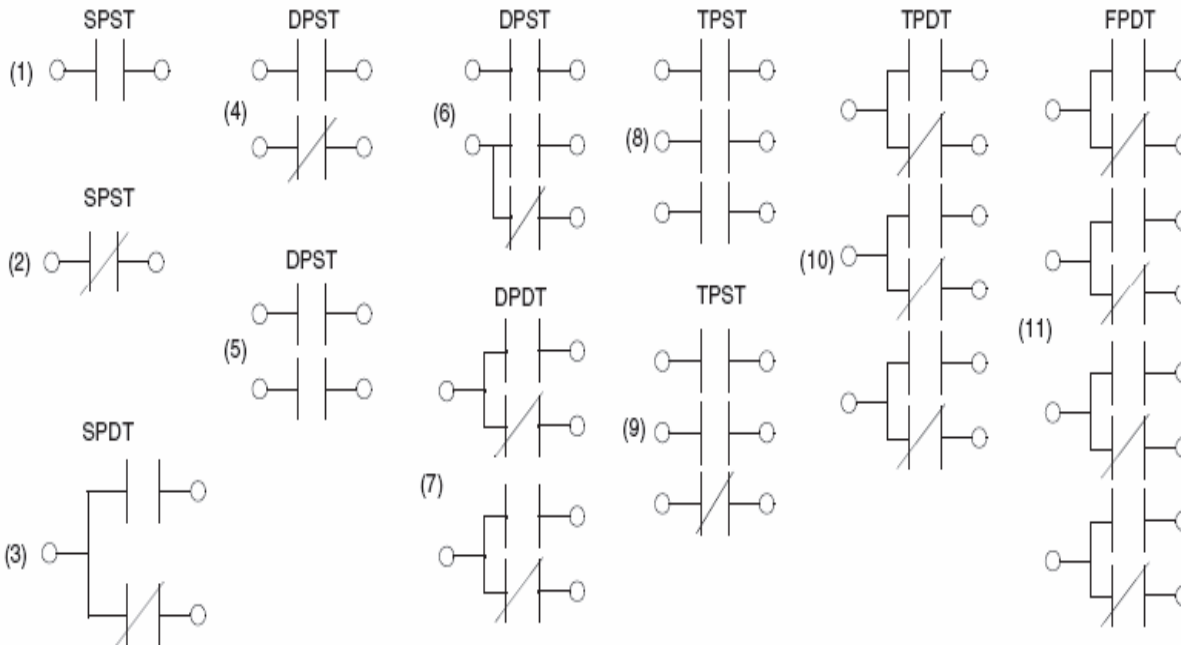
Inductive Rating - applies to switching of motors and coils for contactors and relays.

Resistive Rating - applies to switching of electric resistance heating elements. The relays shown on the following pages have been classified into two major categories, power rated relays for intermediate loads and pilot duty relays for low level switching.

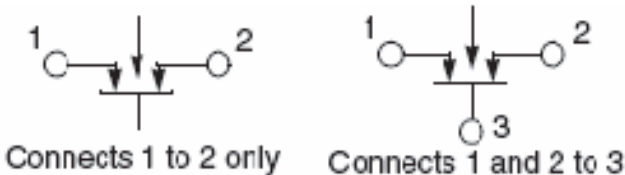
Pilot duty relays: Contacts are made of a fine silver alloy and are shaped and sized for low level current switching. The fine silver alloy contact provides a very low surface resistance for the best possible contact life. Use on higher or intermediate loads would melt the relay points causing a welded contact.

Power Rated Relays: Contacts are generally made of silver cadmium oxide with a very high surface resistance. They are sized larger than pilot duty contacts to handle switching of intermediate loads during which a slight arc may occur. Due to being larger in size, they must operate with a lower unit pressure on the contacts and, for satisfactory performance, depend on the makebreak arc process to break down the resistance of deposits formed on the contacts. Use of this type relay to switch low level loads is not recommended by Carrier or its suppliers due to the lower contact pressure, the high surface resistance of the contacts and the absence of the slight arc during switching. A continuing build-up of deposits on contact points will cause a nonconductive surface and a failed relay. In some instances a power rated relay will fail to switch a pilot duty load on initial use. For reliable relay operation, it's advisable not to use a power rated relay for a pilot duty relay or vice versa.

CONTACT ARRANGEMENT DIAGRAMS



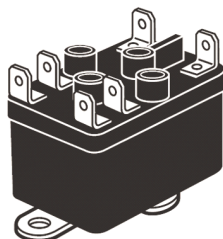
DB - Indicates contacts are Double Break type in which stationary contacts are connected by a bridging bar. Two examples of a double break arrangement are shown with contacts #1 and #2 stationary. Both are SPST, normally closed, double break arrangements.



TOTALINE® RELAYS

Fan & Power Relays

General Purpose Relay



Dependable, low cost solution for air conditioning and heating switching.

Insulating Material -

Constructed of UL recognized Class B insulating material

Temperature Range -

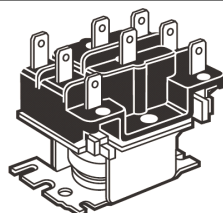
-40° to 150° Fahrenheit

Single Pole Fan Relays- Similar To Type 84 Fan Relays

- Fan control
- Appliances
- Business Machines
- Photoelectric control and general purpose switching

Part Number	Contact Rating 125/250 Vac	Description
P283-0290	8 Amps (Ind.) 16 Amps (Res.)	SPST, 24 V Coil
P283-0291	Continuous	SPST, 110 V/120 V Coil
P283-0292	25 Amps Inrush	SPST, 208/240 V Coil
P283-0293	8 Amps (ind.) 8 Amps (res.)	SPDT, 24 V Coil
P283-0294	Continuous	SPDT, 110/120 V Coil
P283-0295	18 Amp Inrush	SPDT, 208/240 V Coil

Two Pole Fan Relays



Features:

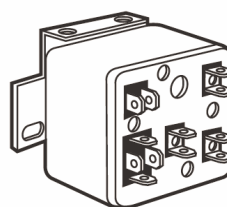
- Vending machines
- Appliances
- Safety control
- Fan control
- Heating
- Air conditioning and general purpose switching

Part Number	Terminals		Description
	1-2-3	4-5-6	
P283-0340	Power	Power	24 V Coil
P283-0341	Power	Power	110 V/120 V Coil
P283-0342	Power	Power	208/240 V Coil
P283-0343	Power	Pilot	24 V Coil
P283-0344	Power	Pilot	110 V/120 V Coil
P283-0345	Power	Pilot	208/240 V Coil
P283-0346	Pilot	Pilot	24 V Coil
P283-0347	Pilot	Pilot	110 V/120 V Coil
P283-0348	Pilot	Pilot	208/240 V Coil

Heavy Duty Fan Relays

Part Number	Contact Arrangement	Description
P283-0360	SPDT - NO	24 V Coil
P283-0370	SPDT - NO	24 V Coil
P283-0380	SPNO - SPNC	24 V Coil

Start Relays

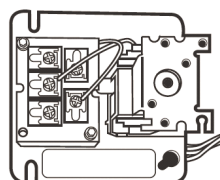


Features:

- Single pole, NC relays
- Totally Enclosed
- Contacts rated for a max. arc rupturing capacity at 600 vac and under.
- 1/4" Quick connects
- G.E. 3arr3 type & rbm 128000 type
- 50/60 hz

Part Number	Contact Rating	Volts		
		Pickup	Dropout	Max Oper
P283-9924	35 Amp	162 -175	40 - 90	336
P283-9928	15 Amp	180 -195	40 - 105	375
P283-9926	25 Amp	111 -124	20 - 45	170
P283-9916	50 Amp	140 -152	33 - 77	253
P283-9917	50 Amp	162 -175	55 - 115	336
P283-9919	50 Amp	171 -184	40 - 90	336
P283-9921	50 Amp	180 -193	55 - 115	336
P283-9923	50 Amp	180 -195	40 - 105	395
P283-9915	50 Amp	195 -224	60 - 123	420
P283-9913	50 Amp	204 -233	60 - 121	420
P283-9922	50 Amp	223 -254	60 - 140	395
P283-9918	50 Amp	239 -268	60 - 135	495
P283-9914	50 Amp	262 -290	60 - 121	420
P283-9912	50 Amp	277 -305	75 - 150	495
P283-9911	50 Amp	295 -324	60 - 135	495

Fan Control Center Relays



Features:

- 40 VA transformer
- 24 volt secondary
- Fits standard 4" Junction box.
- Self-contained unit requires no additional closure.
- Unit imprinted with wiring diagram

Resistive contact rating: 15a @ 277v

Relay coil volts: 24

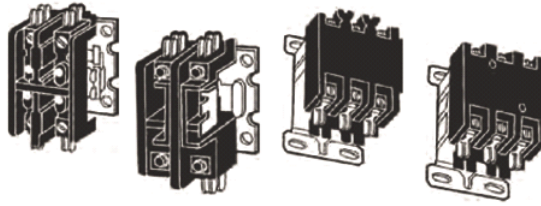
Inductive contact rating:

3/4 h.p., 12a @ 120v; 3/4 h.p., 6a @ 240v

Part Number	Contact Arrangement	Transformer Primary	Plug-In Relay
P211-4010	DPDT	120/208/240	Semi-Enclosed
P211-4012	SPNO/SPNC	120	Semi-Enclosed
P211-4013	SPDT	120	Semi-Enclosed
P211-4014	SPST	120	Semi-Enclosed
P211-4015	SPDT	240	Semi-Enclosed
P211-4020	SPDT	120	Semi-Enclosed

TOTALINE® CONTACTORS

General Information



Design Construction: 50/60 Hz

Meets specifications for devices up to 600 VAC in accordance with U/L bulletin no. 508 "Industrial Control Equipment"

Coil Insulation: Standard Class B insulation.

Terminals:

Power #10-32 combination hex washer head screw, #10-32 combination hex head with pressure plate or box lug for 4 - 14 CU/AL wire.

Quick Connects - 2) 0.250 male push-ons available on each pole

Coil - (2) 0.250 male push-ons.

Covers: Standard on 40 amp and larger.

Mounting Panel mount and straight thru wiring.

Application: Designed for use in residential and commercial refrigeration, air conditioning, & heating applications.

Also:

- Water pump motors
- Blower or fans
- Compressor motors
- Resistance heating & other similar applications.

UL / CSA recognized

Part Number	Pole	Amps	Terminal Type	Coil Vac	Aux Contact	Length In	Height In
P282-0311	Single Pole	30	(Screw Term. & Shunt)	24	-	3.3 (8.38)	2.3 (5.84)
P282-0312	Single Pole	30	(Screw Term. & Shunt)	120	-	3.3 (8.38)	2.3 (5.84)
P282-0313	Single Pole	30	(Screw Term. & Shunt)	208/240	-	3.3 (8.38)	2.3 (5.84)
P282-0321	Two Pole	30	(Screw Terminals)	24	-	3.3 (8.38)	2.5 (6.35)
P282-0322	Two Pole	30	(Screw Terminals)	120	-	3.3 (8.38)	2.5 (6.35)
P282-0323	Two Pole	30	(Screw Terminals)	208/240	-	3.3 (8.38)	2.5 (6.35)
P282-0421	Two Pole	40	(Lug Terminals)	24	-	3.3 (8.38)	2.6 (6.60)
P282-0422	Two Pole	40	(Lug Terminals)	120	-	3.3 (8.38)	2.6 (6.60)
P282-0423	Two Pole	40	(Lug Terminals)	208/240	-	3.3 (8.38)	2.6 (6.60)-
P282-0331A	Three Pole	30	(Screw Terminals)	24	P282-X98220	3.4 (8.64)	2.6 (6.60)
P282-0332A	Three Pole	30	(Screw Terminals)	120	P282-X98220	3.4 (8.64)	2.6 (6.60)
P282-0333A	Three Pole	30	(Screw Terminals)	208/240	P282-X98220	3.4 (8.64)	2.6 (6.60)
P282-0431A	Three Pole	40	(Lug Terminals)	24	P282-X98220	3.4 (8.64)	2.6 (6.60)
P282-0432A	Three Pole	40	(Lug Terminals)	120	P282-X98220	3.4 (8.64)	2.6 (6.60)
P282-0433A	Three Pole	40	(Lug Terminals)	208/240	P282-X98220	3.4 (8.64)	2.6 (6.60)
P282-0531	Three Pole	50	(Lug Terminals)	24	P282-X34300	4.2 (10.67)	3.6 (9.14)
P282-0532	Three Pole	50	(Lug Terminals)	120	P282-X34300	4.2 (10.67)	3.6 (9.14)
P282-0533	Three Pole	50	(Lug Terminals)	208/240	P282-X34300	4.2 (10.67)	3.6 (9.14)
P282-0631	Three Pole	60	(Lug Terminals)	24	P282-X34300	4.2 (10.67)	3.6 (9.14)
P282-0632	Three Pole	60	(Lug Terminals)	120	P282-X34300	4.2 (10.67)	3.6 (9.14)
P282-0633	Three Pole	60	(Lug Terminals)	208/240	P282-X34300	4.2 (10.67)	3.6 (9.14)
P282-0731	Three Pole	75	(Lug Terminals)	24	P282-X34300	5	4.06
P282-0732	Three Pole	75	(Lug Terminals)	120	P282-X34300	5	4.06
P282-0733	Three Pole	75	(Lug Terminals)	208/240	P282-X34300	5	4.06
P282-0931	Three Pole	90	(Lug Terminals)	24	P282-X34300	5	4.06
P282-0932	Three Pole	90	(Lug Terminals)	120	P282-X34300	5	4.06
P282-0933	Three Pole	90	(Lug Terminals)	208/240	P282-X34300	5	4.06

TOTALINE® CONTROL TRANSFORMERS

General Information



Figure A

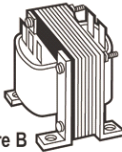


Figure B

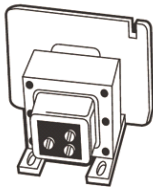


Figure C

Features:

- For low and medium VA requirements.
- Use to step down voltage for control circuits.
- Large selection of ratings and mounting.

Part Number	Fig	VA Rating	Primary Volts	Hz	Secondary Volts
P201-2201*	A	20	120	50/60	24
P201-3401*	A	40	120/208/240	50/60	24
P201-3402*	C	40	120/208/240	50/60	27/12/2.5
P201-3403*	C	40	120/208/240	50/60	24
P201-35150*	C	50	120/208/240	50/60	12/24
P201-4701	B	75	120/208/240/480	50/60	24
P201-4901	B	100	120/208/240/480	50/60	24

*Supplied with 9 inch leads.

TOTALINE® PROTECTION CONTROLS

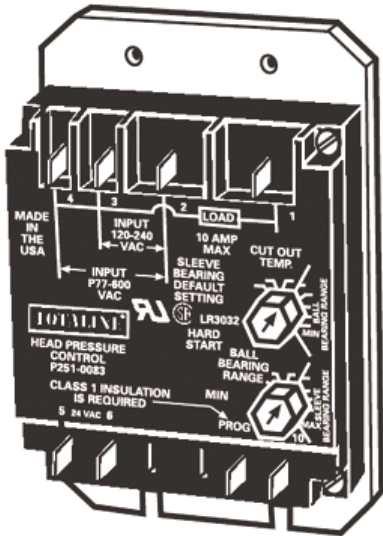
Head Pressure Control With Optional Heat Pump Override

Head Pressure Controls - Temperature sensitive fan motor control which regulates head pressure at low ambients by varying the air volume through the condenser. Its unique construction permits exceptionally quick response times to changes in liquid line temperatures.

Application

Ideal for low ambient conditions found in:

- Supermarkets - Frozen Storage
- Computer rooms
- Temperature/ Humidity Sensitive Environments



FEATURES / APPLICATIONS

- Integral Heat Pump Bypass circuitry allows electronic bypass of speed control during heat pump operation.
- Eliminates overshoots common to on/off and pressure switch controls.
- Helps prevent evaporator freeze-ups, low pressure cut-outs and liquid-slugged compressors in low ambient conditions.
- One model covers 120-480 VAC
- Features: hard start, low temperature cutoff, high temperature bypass, isolated 24VAC supply.
- Controls up to 3 refrigerant circuits.
- Typical application: heat pumps.

Specs

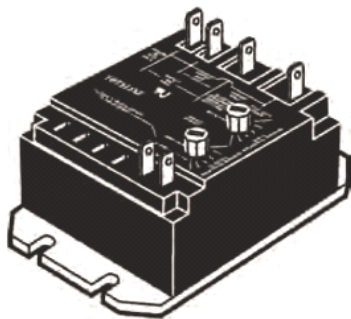
Input: Control: 18-30 VAC
Line Input: 120-480 VAC
Output: Triac
max: 10 amps
min: 100 ma
Output: Range: 120-480 VAC

Replaces

Hoffman:
800/800A/800ASA/814-50
RANCO: E31 Series
Johnson Controls: P66
ACT: FM2000

Part Number	Volts	Description
P251-0083H	120-480 VAC	HPC w/optional,HP override
P251-0083C	120-600 VAC	HPC (Canada)

TOTALINE® PROTECTION CONTROLS
Head Pressure Control With Optional Heat Pump Override-line Voltage



- P251-0094H, P251-0095H FEATURES / APPLICATIONS**
 - Built-in transformer eliminates cost, reduces installation time and simplifies wiring. Direct set up from line voltage.
 - Helps prevent evaporator freezeups, low pressure cut-outs and liquid-slugged compressors in low ambient conditions.
 - Features: hard start, low temperature cutoff, high temperature bypass, isolated 24 VAC supply is built into the control.
 - Mechanical dimensions: 4.5" L x 3" W x 2" H.
 - Ideal for heat pumps, line voltage, air conditioning and refrigeration

SPECS

Input: Frequency: 50/60 Hz
Power Consumption: 4 VA @ 24 VAC
Output Type: Triac
Output Voltage:
P251-0094H: 120 or 208/240 VAC
P251-0095H: 480 VAC
Output Current:
max: 10 amps
min: 100 ma

REPLACES

Hoffman:
800/800A/800ASA/814-50
RANCO: E31 Series
Johnson Controls: P66
Integral transformer
reduces inventory

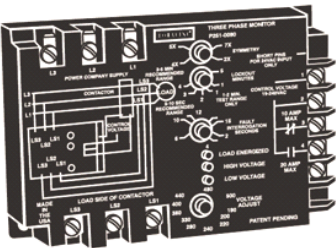
Part Number	Volts	Description
P251-0094H	120 or 240 VAC	Line Voltage,HPC w/Optional,HP Override
P251-0095H	480 VAC	Line Voltage,HPC w/Optional,HP Override

*Supplied with 9 inch leads.

TOTALINE® PROTECTION CONTROLS

Monitors

Three Phase Monitor

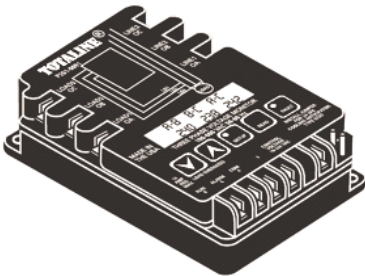


- Features / Application
- Lower cost, full performance protection.
 - Monitors front and back sides of system.
 - 190-630 VAC operation.
 - Bright LED indicators.
 - Identifies front and back side faults.
 - Knob-adjustable features.
 - Reset-auto or manual (1 trial).
 - Built-in short cycle protection.
 - Monitors: voltage unbalance, high/low voltage, phase loss, reversal, incorrect sequencing, rapid short cycling.

- Specs
- Input:
- Line Voltage: 190-630 VAC
- Unbalance: adj. 2-25%
- Control: 18-240 VAC
- Frequency: 50/60 Hz
- Output:
- Relay,SPDT
- n.o.: 10amps
- n.c.: 6 amp
- Replaces
- Diversified: AC-2020 AC-301, 302
- Motorsaver: 455
- SSAC: QLM/QLV
- TmeMark: 265
- Wagoner: WPC-800
- WATSCO: EAC-800, EAC-8000

Part Number	Volts	Control Voltage
P251-0090	190-630	18 - 240 VAC

Three Phase Programmable Monitor



- P251-0091 Features / Application
- Monitors front and back side of system.
 - Programmable-25-fault memory storage.
 - Independent high/low voltage settings for dual voltage compressor applications.
 - Identifies front & back side faults.
 - High temperature LCD to 167° F
 - 190-630 VAC operation
 - Simultaneous voltage display-no scrolling.
 - Line voltage programmable.
 - Reset-auto or manual.
 - Non-volatile memory.
 - Monitors: voltage unbalance, high/low voltage, phase loss, reversal, incorrect sequencing, rapid short cycling.
 - Does not require control voltage for operation.

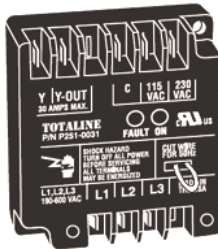
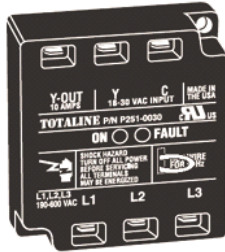
- Specs
- INPUT:
- Voltage: 190-630VACI
- Frequency: 50/60 Hz
- Voltage Unbalance: adj. 2-25%
- Control: 18-240 VAC
- OUTPUT:
- Relay, SPDT
- n.o.: 10 amps
- n.c.: 6 amps
- Replaces
- Diversified: AC-2020, AC-301, 302
- Motorsaver: 455
- SSAC: QLM / QLV
- TimeMark: 265
- Wagner: WPC-800
- Watsco: EAC-800, EAC-8000

Part Number	Volts	Description
P251-0091	190-630	Programmable Three Phase 18-240VAC

TOTALINE® PROTECTION CONTROLS

Monitors

Three Phase Line Voltage Monitor



P251-0030 & P251-0031 Features / Application

- Low cost, single side 3-phase protection
- Bright LED indications for faults and loads energized
- Easy to install, no adjustments
- Wide operating range: 190-600 VAC
- Less than 1 second phase loss response
- Automatic reset from a fault condition
- Compact packaging: fits almost anywhere
- Rugged, epoxy-encapsulation for extreme conditions
- Works great with the Totaline P251-0091 for load side monitoring of part winding start and multiple compressor systems.

Specs

Line Voltage: 190-600 VAC
Frequency: 50/60 Hz
Control Voltage:
P251-0030: 18-30 VAC
P251-0031: 115- 230 VAC

Output:

Relay: SPST
P251-0030: N.O. 10 amps
P251-0031: N.O. 30 amps
Case Dimensions:3.1" x 3.2" x 1.4" h

Part Number	Volts	Control Voltage	Description
P251-0030	190-600	18 - 30 VAC	Low Cost Three Phase
P251-0031	190-600	115 - 230 VAC	Low Cost Three Phase

Single Phase Monitor

Features / Application

- Low cost single phase motor protection.
- Built-in anti-short cycle protection.
- Detects high/low voltage conditions.
- Helps prevent rapid system recycling.
- LED indicator: red for fault, green for normal conditions.
- Heavy duty SPDT, isolated relay output.
- 5-second interrogation delay prevents nuisance trips.

Specs

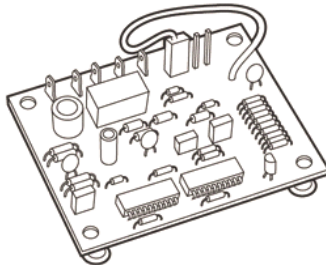
Input:
Line: 95-270 VAC
Output:
Relay,SPDT
n.o.: 5 amps
n.c.: 5 amps
Time delay
Range: adj. 0-600 sec.

Replaces

Diversified:
CV-100-RS
CV-200-RS15
CV-200-RS20
WATSCO:
EAC-401
EAC-402
EAC-403
EAC-404

Part Number	Volts	Description
P251-0092-B	95-270	95-270 VAC Single Phase Monitor

Defrost Control



Features / Application

- Direct replacement for OEM type 621
- Low cost, time/temperature defrost.
- 24 VAC operation (18-30 VAC).
- 10 min. defrost interval. Pin-selectable interval times (30/60/90).
- Test pins reduce test time by 256x.
- HOLD input accumulates actual compressor run times.
- Sensor input for defrost terminate.
- Conformally coated.

Specs

18-30 VAC
50/60 Hz
Output:
Relay,output
Form:SPDT
n.o.: 2 amps
Defrost: 10min. fixed
Time delay
Interval times:
Pin selectable
30/60/90 min.

Replaces

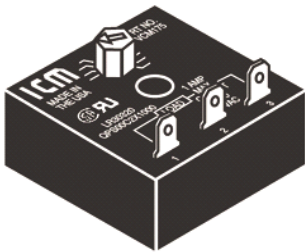
Amana C6431001
ARCO 343214
Avion DFT100
Coleman 30130B3741
ICM DFOS
Intertherm 6208800
Janitrol B12260-06
Lennox 66G950
Ranco DT2-1000
Rheem/Ruud
47-21776-02-00
Snyder General
1052757, 1395-329
Weatherking 840-5548

Part Number	Description
P284-2590	18-30 Vac Defrost Control

TOTALINE® PROTECTION CONTROLS

Timers and Delays

Bypass Timer



Designed to bypass a control or device during startup. Typically used to bypass a low pressure switch during compressor heat pump startup or to bypass an oil pressure switch upon startup. Helps to eliminate nuisance lockouts.

Features / Application

- Designed to bypass a low pressure switch or other device during startup.
- Ideal for low ambient startups. Integral component for “winter start” kits.
- Helps to reduce nuisance lockouts.
- Universal AC voltage operation.
- Knob-adjustable time delays. Epoxy-encapsulated circuitry.

Specs

18-240 VAC
1 Amp
10 Amp inrush
Knob-adjustable time
Delays: 10-1,000 sec.

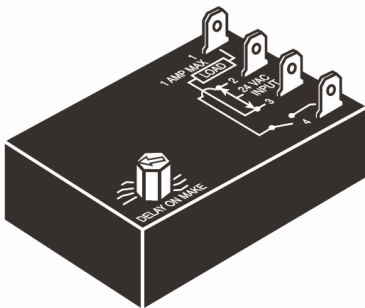
Replaces

Mars: 32395
Supco: TDP68

Part Number	Description
P284-2397	18-240 VAC, 1 Amp Bypass Timer

Post Purge Fan Delay Timers

Model P284-2395



Controls the circulating fan in heat pump, air conditioning and forced air systems. OFF delay timing function continues to run the fan at the end of the heating/cooling cycle, thereby purging ducts of residual air and increasing system efficiency.

Features / Application

- Designed to bypass a low pressure switch and other device during startup
- Ideal for low ambient startups. Integral component for “winter start” kits
- Helps to reduce nuisance lockouts
- Universal AC voltage operation
- Knob-adjustable time delays
- Epoxy-encapsulated circuitry

Specs

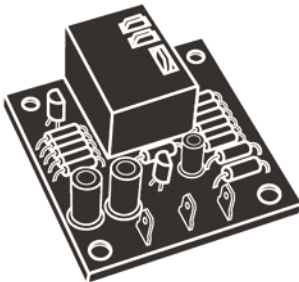
Input: 18-30 VAC
1 Amp, 10 Amp inrush
SPST, N.O.
Time Delays: fixed or adj
ON: 1-180 sec
OFF: 12-390 sec

Replaces

Mars: 32393
Gemline: 1C216

Part Number	Description
P284-2395	18-30 VAC, 1 Amp, 10 Amp Inrush

Model P284-1216



Controls the circulating fan in heat pump, air conditioning and forced air systems. OFF delay timing function continues to run the fan at the end of the heating/cooling cycle, thereby purging ducts of residual air and increasing system efficiency.

Features / Application

- Low cost open board design.
- High power, relay output.
- Dual function fan delay timer.
- Controls the circulating fan in heat pump and A/C and forced systems.
- OFF delay purges ducts of residual air.
- ON delay allows air to reach the proper comfort level prior to energizing the fan.

Specs

Input: 18-30 VAC
N.O. -20 amps @240 VAC
N.C. - 10 amps @240 VAC
Time delays fixed at:
ON: 1 sec.
OFF: 60 sec.

Replaces

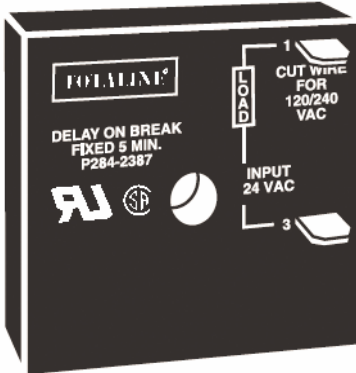
EMI
WATSCO: AHBC-060, AHBC-090

Part Number	Description
P284-1216	18-240 VAC, 1 Amp Post Purge Fan Delay Timer

TOTALINE® PROTECTION CONTROLS

Timers and Delays

Delay-On-Break Timer - Not Adjustable



Helps to protect air conditioning, refrigeration and heat pump equipment from damage which may be caused by the rapid short-cycling of compressor.

Features / Application

- Higher 1.5 amp power rating.
- Compressor lockout/anti-short cycle timer.
- Helps to protect compressors from damage caused by rapid short cycling
- Simple, 2-wire hookup.
- Compact 2" x 2" package.

Specs

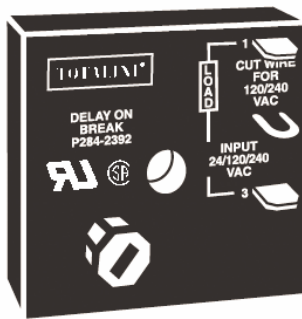
Input: 18-30 VAC
1.5 amps
15 amp inrush
Voltage drop
3.5 V typical
4.5 V max

Replaces

Diversified:
ASC-500, SC 501,
SC 505-5
Gemline: IC321, IC322
WATSCO: EAC-500,
EAC501-180-W,
EAC501-300-W

Part Number	Description
P284-2387	18-30 VAC, 1.5 amps, Delay-On-Break Timers

Delay-On-Break Timer - Adjustable Delay



Helps to protect air conditioning, refrigeration and heat pump equipment from damage which may be caused by the rapid short-cycling of compressor.

Features / Application

- Universal voltage operation.
- Higher 1.5 amp power rating.
- Compressor lockout/anti-short cycle timer.
- Helps to protect compressors from damage caused by rapid short cycling.
- Simple, 2-wire hookup.
- Compact 2" x 2" package.

Specs

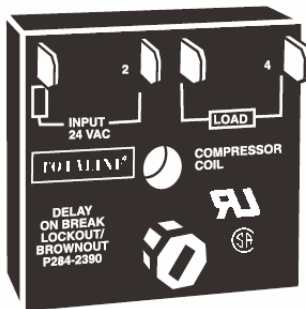
Input: 18-240 VAC
1.5 amps
15 amp inrush
Voltage drop
3.5 V typical
4.5 V max
knob adjustable
delays .03-10 min

Replaces

Diversified: ASC-500,
ASC 501 ASC502,
ASC 505-5
Gemline: IC320
WATSCO: EAC501-ADJ,
EAC501-ADJ-X
MARS: 32392
Robertshaw: 3310-072
Supco: TD-73

Part Number	Description
P284-2392	18-30 VAC, 1.5 amps, Delay-On-Break Timers

Delay-On-Break Timer - Fixed and Adjustable Delay



Helps to protect air conditioning, refrigeration and heat pump equipment from damage which may be caused by the rapid short-cycling of compressor.

Features / Application

- UL 873 recognition as compressor controller.
- Help to prevent scroll compressors from reversing.
- Fast response time: 16 ms.
- Compressor lockout/anti-short cycle timer.
- Prevents low voltage starts.
- Eliminates relay chatter due to thermostat bounce or tampering.
- Works with anticipator-type thermostats.

Specs

Input: 18-30 VAC
1.5 amps
15 amp inrush
3 or 5 min. fixed or 10 min. adjustable time delays

Replaces

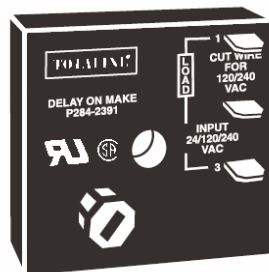
Gemline: IC243
MARS: 32381 & 32382
Robertshaw: 3310-183, 3310-305
WATSCO: EAC-511, EAC-426-180, EAC-426-180, EAC-426-300, EAC-426-ADJ

Part Number	Description
P284-2390	18-30 VAC, 1.5 amps, Delay-On-Break Timers

TOTALINE® PROTECTION CONTROLS

Timers and Delays

Delay-On-Make Timer



Helps to protect air conditioning, refrigeration and heat pump equipment from damage which may be caused by the rapid short-cycling of compressor.

Features / Application

- Universal voltage operation.
- Higher 1.5 amp power rating.
- Knob-adjustable time delays.
- Work with anticipator-type thermostats.
- One model replaces many in field. Ideal for compressor staging.
- Simple 2-wire hookup.
- Compact 2" x 2" package.

Specs

Input: 18-240 VAC
1.5 amps
15 amp inrush
SPST, N.O.
Adjustable delays
.03-10 min.(1.8-600 sec.)
Voltage drop:
2.5V @ 1.5 amps

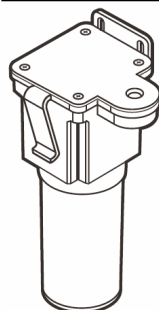
Replaces

Diversified: AC-800 fixed
volt: ASC-00/601
Gemline: IC310/ICS213
Mars: 32391/32367
Robertshaw: 3310-068
Supco: TD-68 D-69
WATSCO: EAC-701-ADJ.,
X, EAC-700-A

Part Number	Description
P284-2391	18-240 VAC, 1.5 amps, Delay-On-Break Timers

Start Kits

Smart Start Kits - "Current Sensing"

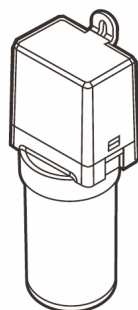


By monitoring the compressor "current" upon start-up, the Smart Start is able to engage the hard start capacitor for precisely the correct amount of time, ensuring maximum starting torque without the risk of supplying too much current into the start winding.

- A timed safety circuit is provided in the event the motor fails to start within 600ms.
- Current sensing Hard Start precisely increases starting torque.
- Operates from 95 - 288 VAC
- Max Input Voltage: 502 VAC
- Patented current sensing circuitry
- Self-Adjusting to voltage fluctuation
- Easy to install, 2 wires, clips or screws
- Bos starting torque
- Disengages upon start

Part Number	HP Rating	Replaces
P290-0803	1/2 - 3 HP	Supco : SPP-8 Kickstart : TO-5 A-1 : WSX-1
P290-0805	3 - 5 HP	Kickstart : KS1
P290-0810	5 - 10 HP	--

Smart Start Kits - "Voltage Sensing"



Products employ patented circuitry which monitors differential compressor auxiliary voltage, determines the state of the motor and precisely engages and disengages the start capacitor.

- Not Effected by Ambient temperature
- Recycles instantly (less than 1 second)
- Multi-voltage operation - either 115 or 230 VAC Ideally suited for:
- Water Coolers
- Vending Machines
- Household Refrigerators (115 or 230 VAC)
- Commercial Refrigeration (115 or 230 VAC)
- Air Conditioners and Heat Pumps

Part Number	Voltage	Replaces	Voltages	MFD	Oper Temp Range	Max Input Voltage	Range	Recommended Range
P290-0850	90-277 VAC	Supco : SPP-5 MARS : 32701 A-1 : WSX-5	330 capacitor	44-52	-40° C to + 65° C	390 VAC	1/12 - 10 HP	1/12 - 1 HP
P290-0860	90-277 VAC	Supco : SPP-6 MARS : 32703 A-1 : WSX-6	330 capacitor	88-106	-40° C to + 65° C	390 VAC	1/12 - 10 HP	1/2 - 1 HP

FUSES AND ACCESSORIES

Fuses

ATO TYPE - 32V AC



PATOFUSE

Part Number	Min Order	Description
0ATO003.V	100	Auto Blade3 AMP
0ATO004.V	5	Auto Blade4 AMP
0ATO005.V	100	Auto Blade5 AMP
ATO 7-1/2	5	Auto Blade7.5 AMP
0ATO010.V	5	Auto Blade10 AMP
0ATO015.V	5	Auto Blade15 AMP
ATO20	5	Auto Blade20 AMP
ATO25	5	Auto Blade25 AMP
ATO30	5	Auto Blade30 AMP

FLNR-ID TYPE - 250V



PFLNR-ID

Part Number	Min Order	Description RK5 Dual Elem.
FLNR035.TXID	10	35 AMP
FLNR040.TXID	10	40 AMP
FLNR045.TXID	10	45 AMP
FLNR050.TXID	10	50 AMP
FLNR060.TXID	10	60 AMP
FLNR 70 ID	5	70 AMP
FLNR 80 ID	5	80 AMP
FLNR 90 ID	5	90 AMP
FLNR100.VXID	5	100 AMP
FLNR 200 ID	0	200 AMP

FLM TYPE - 250V



PFLMFUSE

Part Number	Min Order	Description
FLM 3/10	10	Midget TD 3/10 AMP
0FLM.600T	10	Midget TD 6/10 AMP
FLM 1	10	Midget TD 1 AMP
FLM 2	10	Midget TD 2 AMP
FLM 3	10	Midget TD 3 AMP
FLM 5	10	Midget TD 5 AMP
0FLM008.T	10	Midget TD 8 AMP
0FLM010.T	10	Midget TD 10 AMP
0FLM015.T	10	FUSETRON 15A
0FLM020.T	10	Midget TD 20 AMP
0FLM030.T	10	Midget TD 30 AMP

FLQ TYPE - 500V



PFLQFUSE

Part Number	Min Order	Description Time Delay Midget
FLQ 1/2	10	1/2 AMP
0FLQ02.5T	10	2 1/2 A
0FLQ003.T	10	3 AMP
FLQ 4	10	4 AMP
0FLQ005.T	10	5 AMP
FLQ 7	10	7 AMP
0FLQ008.T	10	8 AMP
0FLQ010.T	10	10 AMP
0FLQ015.T	10	15 AMP
0FLQ020.T	10	20 AMP
FLQ 25	10	25 AMP
0FLQ030.T	10	30 AMP

FLNR TYPE - 250V



PFLNRFUS

Part Number	Min Order	Description RK5 Dual Elem.
FLNR3	10	3 AMP
FLNR04.5T	10	4 1/2 AMP
FLNR005.T	10	5 AMP
FLNR010.T	10	10 AMP
FLNR015.T	10	15 AMP
FLNR020.T	10	20 AMP
FLNR025.T	10	25 AMP
FLNR030.T	10	30AMP
FLNR035.T	10	35 AMP
FLNR040.T	10	40AMP
FLNR045.T	10	45 AMP
FLNR050.T	10	50 AMP
FLNR060.T	10	60 AMP
FLNR70	10	70 AMP
FLNR90	10	90 AMP
FLNR100.V	10	100 AMP

312 TYPE - 250V



P312FUSE

Part Number	Min Order	Description
312.100	5	3AG Glass 1/10 AMP
312.250	5	3AG Glass 1/4 AMP
312.500	5	3AG Glass 1/2 AMP
312.750	5	3AG Glass 3/4 AMP
31201.5	5	3AG Glass 1.5 AMP
0312001.VXP	5	3AG Glass 1 AMP
031202.5VXP	5	3AG Glass 2.5 AMP
0312002.VXP	5	3AG Glass 2 AMP
0312004.VXP	5	3AG Glass 4 AMP
0312005.VXP	5	3AG Glass 5 AMP
0312006.VXP	5	3AG Glass 6 AMP
0312007.VXP	5	3AG Glass 7 AMP
0312008.VXP	5	3AG Glass 8 AMP
0312010.VXP	5	3AG Glass 10 AMP

FUSES AND ACCESSORIES

Fuses

312 TYPE - 32V



P312FUSE

Part Number	Min Order	Description
312012	5	3AG Glass 12 AMP
0312015.VXP	5	3AG Glass 15 AMP
0312020.VXP	5	3AG Glass 20 AMP
0312025.VXP	5	3AG Glass 25 AMP
312030	5	3AG Glass 30 AMP

313 TYPE - 250V



P313FUSE

Part Number	Min Order	Description 3AG Glass
313.100	5	3AG Glass 1/10 AMP
0313.125VXP	5	3AG Glass 1/8 AMP
313.200	5	3AG Glass 2/10 AMP
313.250	5	3AG Glass 1/4 AMP
313.400	5	3AG Glass 4/10 AMP
313.600	5	3AG Glass 6/10 AMP
313.700	5	3AG Glass 7/10 AMP
313.750	5	3AG Glass 3/4 AMP
0313001.VXP	5	3AG Glass 1 AMP
0313015.VXP	5	3AG Glass 1.5 AMP
0313025.VXP	5	3AG Glass 2.5 AMP
313002	5	3AG Glass 2 AMP
0313003.VXP	5	3AG Glass 3 AMP
313004	5	3AG Glass 4 AMP
0313005.VXP	5	3AG Glass 5 AMP
313007	5	3AG Glass 7 AMP
313008	5	3AG Glass 8 AMP

313 TYPE - 32V



P313FUSE

Part Number	Min Order	Description
0313010.VXIDP	5	3AG Glass 10 AMP
313015	5	3AG Glass 15 AMP

314 TYPE - 250V



P314FUSE

Part Number	Min Order	Description
314001	5	3AB Ceramic 1 AMP
314002	5	3AB Ceramic 2 AMP
0314003.VXP	5	3AB Ceramic 3 AMP
0314004.VXP	5	3AB Ceramic 4 AMP
0314005.VXP	5	3AB Ceramic 5 AMP
0314006.VXP	5	3AB Ceramic 6 AMP
0314008.VXP	5	3AB Ceramic 8 AMP
0314010.VXP	5	3AB Ceramic 10 AMP
0314015.VXP	5	3AB Ceramic 15 AMP
0314020.VXP	5	3AB Ceramic 20 AMP

362 TYPE - 250V



P362FUSE

Part Number	Min Order	Description
362.250	5	8AG Glass 1/8 AMP
362.400	5	8AG Glass 3/16 AMP
362.500	5	8AG Glass 1/4 AMP
0362015.V	5	8AG Glass 1/2 AMP
MDA2	5	8AG Glass 1 AMP
0362025.V	5	8AG Glass 2.5 AMP
0362005.V	5	8AG Glass 3 AMP

FLSR-ID TYPE - 600V



PFLSR-ID

Part Number	Min Order	Description RK5 Dual Elem.
FLSR 10 ID	10	10 AMP
FLSR015.TXID	10	15 AMP
FLSR020.TXID	10	20 AMP
FLSR025.TXID	10	25 AMP
FLSR030.TXID	10	30 AMP
FLSR035.TXID	10	35 AMP
FLSR040.TXID	10	40 AMP
FLSR045.TXID	10	45 AMP
FLSR050.TXID	10	50 AMP
FLSR060.TXID	10	60 AMP
FLSR070.VXID	5	70 AMP
FLSR080.VXID	5	80 AMP
FLSR090.VXID	5	90 AMP

FUSES AND ACCESSORIES

Fuses

FLSR TYPE - 600V



PFLSRFUS

Part Number	Min Order	Description RK5 Dual Element
FLSR010.T	10	10 AMP
FLSR015.T	10	15 AMP
FLSR020.T	10	20 AMP
FLSR025.T	10	25 AMP
FLSR030.T	10	30 AMP
FLSR035.T	10	35 AMP
FLSR040.T	10	40 AMP
FLSR045	10	45 AMP
FLSR050.T	10	50 AMP
FLSR060.T	10	60 AMP
FLSR070.V	5	70 AMP
FLSR 80	5	80 AMP
FLSR 100	5	100 AMP

KLK TYPE - 600V



PKLKFUSE

Part Number	Min Order	Description
OKLK.300T	10	Midget 3/10 AMP
KLK 1/2	10	Midget 1/2 AMP
KLK 1	10	Midget 1 AM.
OKLK01.5T	10	Midget 1-1/2 AMP
KLK 2	10	Midget 2 AMP
OKLK02.5T	10	Midget 2-1/2 AMP
OKLK003.T	10	Midget 3 AMP
OKLK03.5T	10	Midget 3-1/2 AMP
OKLK004.T	10	Midget 4 AMP
OKLK005.T	10	Midget 5 AMP
OKLK007.T	10	Midget 7 AMP
OKLK008.T	10	Midget 8 AMP
OKLK010.T	10	Midget 10 AMP
OKLK020.T	10	Midget 20 AMP
KLK 25	10	Midget 25 AMP
OKLK030.T	10	Midget 30 AMP

JLLS TYPE - 600V AC



PJLLSFUS

Part Number	Min Order	Description
JLLS015.T	10	15 AMP
JLLS025.T	10	25 AMP
JLLS030.T	10	30 AMP
JLLS035.T	10	35 AMP
JLLS050.T	10	50 AMP
JLLS060.T	10	60 AMP

KLKR TYPE - 600 V



PKLKRFS

Part Number	Min Order	Description
KLKR 1-1/2	10	Midget 1-1/2 AMP
KLKR002.T	10	Midget 2 AMP
KLKR 3-1/2	10	Midget 3-1/2 AMP
KLKR 5	10	Midget 2 AMP
KLKR006.T	10	Midget 3-1/2 AMP
KLKR010.T	10	Midget 4 AMP
KLKR015.T	10	Midget 5 AMP
KLKR020.T	10	Midget 6 AMP
KLKR030.T	10	Midget 10 AMP

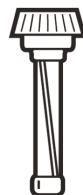
KLDR TYPE - 600V



PKLDRFUS

Part Number	Min Order	Descriptionn UL Glass
KLDR.250T	10	1/4A
KLDR.500T	10	1/2A
KLDR 1	10	1A
KLDR 1-1/2	10	1.5A
KLDR002.T	10	2A
KLDR02.5T	10	2.5A
KLDR003.T	10	3A
KLDR03.5T	10	3.5A
KLDR 4	10	4A
KLDR005.T	10	5A
KLDR008.T	10	8A
KLDR010.T	10	10A

LGR TYPE - 300V



PLGRFUSE

Part Number	Min Order	Description Knob Assm
OLGR003.V	5	3 AMP
OLGR004.V	5	4 AMP
LGR 10	5	10 AMP

NLN TYPE - 250V



PNLNFUSE

Part Number	Min Order	Description UL Class K5
ONLN010.T	10	10 AMP
NLN 15	10	15 AMP
NLN030	10	30 AMP
NLN 40	10	40 AMP
ONLN060.T	10	60 AMP

FUSES AND ACCESSORIES

Fuses

SLC TYPE - 600V



PSLCFUSE

Part Number	Min Order	Description Class G Medium TD
0SLC002.T	10	2 AMP
0SLC003.T	10	3 AMP
0SLC005.T	10	5 AMP
0SLC006.T	10	6 AMP
SLC 8	10	8 AMP
0SLC010.T	10	10 AMP
0SLC015.T	10	15 AMP
0SLC020.T	10	20 AMP

SLC TYPE - 480V



PSLCFUSE

Part Number	Min Order	Description Class G Medium TD
0SLC025.T	10	25 AMP
0SLC030.T	10	30 AMP
0SLC035.T	10	35 AMP
0SLC040.T	10	40 AMP

SLO TYPE

Part Number	Min Order	Description Medium Time Delay
0SLO015.Z	4	15 AMP

SOO TYPE

Part Number	Min Order	Description Dual Element TD
0SOO010.Z	4	10 AMP
SOO 1-1/4	4	1 1/4 AMP
0SOO012.Z	4	12 AMP
0SOO015.Z	4	15 AMP
0SOO020.Z	4	20 AMP
SOO 30	4	30 AMP
SOO 5	4	5 AMP
0SOO6.25Z	4	6 1/4 A
SOO 8	4	8 AMP

TLO TYPE

Part Number	Min Order	Description Medium Time Delay
TLO 15	4	20 AMP
TLO 20	4	25 AMP
TLO 30	4	15 AMP

TOO TYPE

Part Number	Min Order	Description Dual Element TD
TOO 10	4	10 AMP
TOO 12	4	12 AMP
0TOO015.Z	4	15 AMP
0TOO020.Z	4	20 AMP
TOO 25	4	25 AMP
0TOO030.Z	4	30 AMP
TOO 3-1/2	4	3-1/2 AMP
TOO 5	4	5 AMP
TOO 6-1/4	4	6-1/4 AMP

Littelfuse Fuse Accessories

Panel Mounted Fuse Holders

Standard For 1-13/32" - 1-1/2" Diameter Midget And Class CC Fuses

Part Number	Fuse Length Range	For Use With
057100CCL	1-1/2"	Class CC Fuses

Standard For 13/32" Diameter Midget And Class CC Fuses

Part Number	Fuse Length Range	For Use With
571027	1-5/16 - 1-3/8	Midget Fuses
571007	1-13/32 - 1-1/2	Midget Fuses

Standard For 3AG 1-1/4" x 1/4" Fuses With Low Profile Fingertip Knob

Part Number	AMPS	VOLTS
03453LF8X	15	250

In-Line Fuse Holders

Model 155 020U

For Type Sfe Fuses

Unassembled: For Assembly to #14 AWG Wire

Part Number	For Fuse Size
155020U	1/4 in. x 1-1/4 in. 20A

*Comes with GLQ 10A fuse.

**Comes with GMQ 3-1/2A fuse.

Model 01550020ZXA

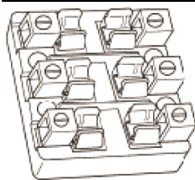
ASSEMBLED: Includes SFE 20 and 19" LOOP of #14 AWG Red Vinyl Insulated Wire

Part Number	Fuse Installed
01550020ZXA	SFE 20

FUSES AND ACCESSORIES

Littelfuse Fuse Accessories

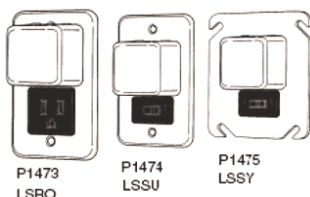
Midget Fuse Blocks



- 3 Poles
- Pressure plate/Q.C. terminals
- Max wire size of #10 CU
- Rated for 30 Amperes, 600 Volts (Amperage Range: 2/10–60)

Part Number	Amperage Range:
L60030M-3PQ	2/10–60

Box Cover Units For Plug Fuses



Part Number	Features	To Be Mounted On
LSRU	One Edison-Base Fuse Holder & Grounding Receptacle	2-1/4 in. Handy Box
LSSU	One Edison-Base Fuse Holder & Single Pole Switch	2-1/4 in. Handy Box
LSSY*	One Edison-Base Fuse Holder & Single Pole Switch	4 in. Square Box

* Do not use on DC.

Universal In-Line Fuseholder

Supplied with 15" loop of #14 AWG wire and 3 springs to accommodate SFE sized fuses.

Part Number
01500145Z

Heavy Duty In-line Fuseholder For ATO Fuses

Use with ATO 25 and 30 amp fuses. Supplied with two 4" wire leads of 12 gauge orange wire.

Part Number	Description
FHA 2	Heavy Duty In-line Fuseholder

Fuse Pullers Midget Fuse Pullers

For use with 3/16" to 1/2" diameter Fuses.

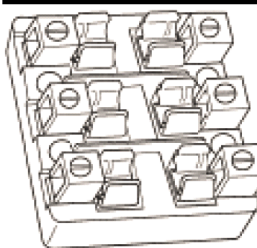
Part Number	Description
MFP	Midget Fuse Puller

Pocket Fuse Puller

For use with:
0 – 200 A 250V
0 – 100 A 600V
(9/16" – 1-19/32" diameter Fuses)

Part Number	Description
LPFP	Pocket Fuse Puller

Class T Fuse Blocks



- For use with JLLS (600 V) type fuses
- 3 Poles
- Box lug connector type
- Max wire size of #2 CU-AL

Part Number	Amp rating
LT600303CR	30
LT600603CR	60

3 AG Omni Blok

- Molded base type fuse block
- 1 Pole
- NEMA Style 1/4" Q.C. terminal
- Anti-rotation boss
- Rated for 30 A, 300 V

Part Number	Description
354921BL	300V, 3 Ag Omni Blok

Class H Fuse Blocks

- For use with NLN (600 V) Type uses
- 3 Poles

Part Number	Amp rating	Connecror Type	Max Wire Size
LH25030-3S	30	SCREW	#10 CU
LH25060-3S	60	SCREW	#10 CU
LH60060-3C	30	BOX LUG	#2 CU-AL

TOTALINE® WIRING ACCESSORIES

Terminal Kits

Terminal & Tool Organizer



A 21 compartment, metal box with a sturdy plastic tray insert and a metal latch.

This Terminal Kit Box provides organized storage for solder less terminals, connectors and your crimping tool. The lid features a matrix chart for part number identification.

Part Number	Color	Size	Description
P298-TKBOX	Black	13.5" x 9.5" x 2"	Terminal Kit Box

HVAC Electrical Repair Kit

TOTALINE HVAC Electrical Repair Kit contains 400 of the most popular terminals & connectors as well as a crimping tool for the 22-10 AWG wire ranges. The terminals are stored in a metal terminal box with a sturdy plastic 21 compartment insert and a metal latch for securing the lid. TOTALINE graphics appear on the label set, with a matrix chart on the inside lid describing the parts, including illustrations and individual TOTALINE re-order part numbers.

Part Number	Color	Size	Description
P298-HVACKIT	Black	13.75" x 9" x 2.25"	AC Electrical Repair Kit

Cable Ties - Natural Color

Standard Ties



- Versatile, multiple purpose
- Extra Strong For Move Demanding Application

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF3	18 lbs. (8.2 kg)	7/8" (22.2 mm)	.095" (2.4 mm)	4.1" (10.4 cm)	100
P298-TF3B	18 lbs. (8.2 kg)	7/8" (22.2 mm)	.095" (2.4 mm)	4.1" (10.4 cm)	1000
P298-TF4	40 lbs. (18.1 kg)	1-7/16" (36.5 mm)	.140" (3.5 mm)	5.8" (14.8 cm)	100
P298-TF4B	40 lbs. (18.1 kg)	1-7/16" (36.5 mm)	.140" (3.5 mm)	5.8" (14.8 cm)	1000
P298-TF5	50 lbs. (22.7 kg)	1-7/8" (47.6 mm)	.180" (4.5 mm)	7.5" (19.2 cm)	100
P298-TF5B	50 lbs. (22.7 kg)	1-7/8" (47.6 mm)	.180" (4.5 mm)	7.5" (19.2 cm)	1000
P298-TF6	50 lbs. (22.7 kg)	3-1/16" (77.7 mm)	.180" (4.5 mm)	11.3" (28.5 cm)	50
P298-TF6B	50 lbs. (22.7 kg)	3-1/16" (77.7 mm)	.180" (4.5 mm)	11.3" (28.5 cm)	1000
P298-TF8	50 lbs. (22.7 kg)	4-1/8" (104.7 mm)	.180" (4.5 mm)	14.5" (36.9 cm)	50
P298-TF8B	50 lbs. (22.7 kg)	4-1/8" (104.7 mm)	.180" (4.5 mm)	14.5" (36.9 cm)	1000

Heavy Duty Ties

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF7	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.300" (7.6 mm)	15" (38.3 cm)	25
P298-TF7B	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.300" (7.6 mm)	15" (38.3 cm)	500

TOTALINE® WIRING ACCESSORIES

Cable Ties - Natural Color

Heavy Duty Duct Straps



- For use with flexible air ducts and air connectors

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF12	175 lbs. (79.3 kg)	11" (279.4 mm)	.340" (8.6 mm)	37.3" (94.6 cm)	25
P298-TF48	175 lbs. (79.3 kg)	14.5" (368.3mm)	.340" (8.6 mm)	48.5" (123.1 cm)	25
P298-TF488	175 lbs. (79.3 kg)	14.5" (368.3mm)	.340" (8.6 mm)	48.5" (123.1 cm)	(Gray)25

Mounting Cable Ties One Piece

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF3H	30 lbs. (13.6 kg)	1-1/4" (31.7 mm)	.138" (3.5 mm)	5.8" (14.9 cm)	100
P298-TF3HB	30 lbs. (13.6 kg)	1-1/4" (31.7 mm)	.138" (3.5 mm)	5.8" (14.9 cm)	1000
P298-TF5H	50 lbs. (22.7 kg)	1-3/4" (44.4 mm)	.177" (4.4 mm)	8.0" (20.3 cm)	50
P298-TF5HB	50 lbs. (22.7 kg)	1-3/4" (44.4 mm)	.177" (4.4 mm)	8.0" (20.3 cm)	1000
P298-TF7H	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.298" (7.5 mm)	15.7" (39.8 cm)	50
P298-TF7HB	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.298" (7.5 mm)	15.7" (39.8 cm)	500

Cable Ties - Black

Standard Ties



- Versatile, multiple purpose

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF3X	18 lbs. (8.2 kg)	7/8" (22.2 mm)	.095" (2.4 mm)	4.1" (10.4 cm)	100
P298-TF3XB	18 lbs. (8.2 kg)	7/8" (22.2 mm)	.095" (2.4 mm)	4.1" (10.4 cm)	1000
P298-TF4X	40 lbs. (18.1 kg)	1-7/16" (36.5 mm)	.140" (3.5 mm)	5.8" (14.8 cm)	100
P298-TF4XB	40 lbs. (18.1 kg)	1-7/16" (36.5 mm)	.140" (3.5 mm)	5.8" (14.8 cm)	1000
P298-TF5X	50 lbs. (22.7 kg)	1-7/8" (47.6 mm)	.180" (4.5 mm)	7.5" (19.2 cm)	100
P298-TF5XB	50 lbs. (22.7 kg)	1-7/8" (47.6 mm)	.180" (4.5 mm)	7.5" (19.2 cm)	1000
P298-TF6X	50 lbs. (22.7 kg)	3-1/16" (77.7 mm)	.180" (4.5 mm)	11.3" (28.5 cm)	50
P298-TF6XB	50 lbs. (22.7 kg)	3-1/16" (77.7 mm)	.180" (4.5 mm)	11.3" (28.5 cm)	1000
P298-TF8X	50 lbs. (22.7 kg)	4-1/8" (104.7 mm)	.180" (4.5 mm)	14.5" (36.9 cm)	50
P298-TF8XB	50 lbs. (22.7 kg)	4-1/8" (104.7 mm)	.180" (4.5 mm)	14.5" (36.9 cm)	1000

Heavy Duty Ties



- For use with flexible air ducts and air connectors

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF7X	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.300" (7.6 mm)	15" (38.3 cm)	25
P298-TF7XB	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.300" (7.6 mm)	15" (38.3 cm)	500

TOTALINE® WIRING ACCESSORIES

Cable Ties - Black

Heavy Duty Duct Straps



- For use with flexible air ducts and air connectors

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF12X	175 lbs. (79.3 kg)	11" (279.4 mm)	.340" (8.63 mm)	37.3" (94.6 cm)	25
P298-TF48X	175 lbs. (79.3 kg)	14.5" (368.3 mm)	.340" (8.63 mm)	48.5" (123.1 cm)	25

Mounting Cable Ties

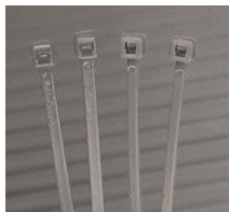


- One piece for quick, simple bundling and mounting

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-TF3HX	30 lbs. (13.6 kg)	1-1/4" (31.7 mm)	.138" (3.50 mm)	5.8" (14.9 cm)	100
P298-TF3HXB	30 lbs. (13.6 kg)	1-1/4" (31.7 mm)	.138" (3.50 mm)	5.8" (14.9 cm)	1000
P298-TF5HX	50 lbs. (22.7 kg)	1-3/4" (44.4 mm)	.177" (4.49 mm)	8.0" (20.3 cm)	50
P298-TF5HXB	50 lbs. (22.7 kg)	1-3/4" (44.4 mm)	.177" (4.49 mm)	8.0" (20.3 cm)	1000
P298-TF7HX	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.298" (7.56 mm)	15.7" (39.8 cm)	50
P298-TF7HXB	120 lbs. (54.4 kg)	4-1/16" (103.1 mm)	.298" (7.56 mm)	15.7" (39.8 cm)	500

Other Wiring Accessories

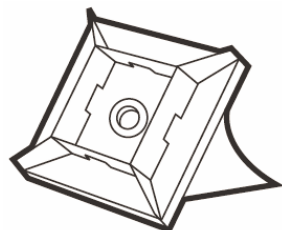
Halar & Tefzel Cable Ties



HALAR TIES feature low smoke density and high flame resistance and are ideal for plenum areas where smoke generation is a concern.

Part Number	Minimum Tensile Unlocking Strength	Maximum Bundle Diameter	Width	Length	Qty/Pkg
P298-CT0418HL	18 lbs. (8.2 kg)	7/8" (22.2 mm)	.094" (2.4 mm)	4.0" (10.1 cm)	100
P298-CT0750HL	50 lbs. (22.7 kg)	2.0" (50.8 mm)	.178" (4.5 mm)	8.0" (20.3 cm)	100
P298-CT0418TZ	12 lbs. (5.4 kg)	7/8" (22.2 mm)	.094" (2.4 mm)	4.0" (10.1 cm)	100
P298-CT0750TZ	50 lbs. (22.7 kg)	1-7/8" (47.6 mm)	.178" (4.5 mm)	7.0" (17.7 cm)	100

Cable Tie Mounting Base



Part Number	Dimensions In (mm)	Qty/Pkg
P298-CTMB	1" x 1"(25.1 x 25.1)	25

TOTALINE[®] WIRING ACCESSORIES

Other Wiring Accessories

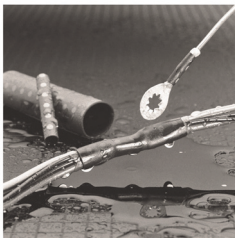
Cable Clamps • Natural Nylon



Part Number	Maximum Bundle dia.		Qty/Pkg
	(in)	(mm)	
P298-CC0125	1/8"	-3.18	50
P298-CC01875	3/16"	-4.76	50
P298-CC0250	1/4"	-6.35	45
P298-CC0375	3/8"	-9.53	40
P298-CC0500	1/2"	-12.7	35
P298-CC0750	3/4"	-19.1	20
P298-CC01000	1"	-25.4	15

Shrink Tubing

DWA Dual Wall Heat Shrinkable Tubing



Flame-retardant, adhesive-lined, (semi-rigid) Olyoletin

Features / Benefits

- Tubing environmentally seals and protects components and splices
- DWA has a high shrink ratio, only a few sizes are needed to cover a wide range of splice and component diameters
- Adhesive bonds to a wide variety of plastics, rubber, & metals, including polyethylene, neoprene, & steel
- Offers rugged protection against abrasion, vibration, and flexing
- Extended temperature range

Product Characteristics

Shrink Ratio Approximately: 4:1

Minimum shrink temperature: 230°F (110°C)

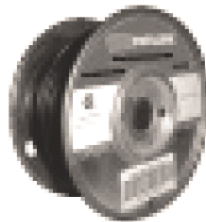
Continuous operating temperature: -40°F to 266°F (-40°C to 130°C)

Part Number	Diameter Before Shrinking	Suitable For This Diameter Range	Length	Qty/Pkg
P298-DWA1	.225"	(1/16"-3/16")	6"	6
P298-DWA2	.293"	(3/16"-1/4")	6"	6
P298-DWA3	.427"	(1/4"-3/8")	6"	4
P298-DWA4	.700"	(1/2"-5/8")	6"	2

TOTALINE® WIRING ACCESSORIES

TEW Thermoplastic Equipment Wire

18 AWG (16 Strands) TEW Wire 100' Spools


Features:

- Material is TEW bare copper strand voltage: 600 volts
- Temperature rating: -22°F to 221°F (-30°C to 105°C)
- UL Listed & CSA approved
- Spooled on metal spools
- Totaline label with part description and part nomenclature

Part Number	Description
P298-TEW18/16-BLACK	18 AWG TEW Wire - Black
P298-TEW18/16-WHITE	18 AWG TEW Wire - White
P298-TEW18/16-RED	18 AWG TEW Wire - Red
P298-TEW18/16-BLUE	18 AWG TEW Wire - Blue
P298-TEW18/16-GREEN	18 AWG TEW Wire - Green

16AWG (26 Strands) TEW Wire 100' Spools

Part Number	Description
P298-TEW16/26-BLACK	16 AWG TEW Wire - Black
P298-TEW16/26-WHITE	16 AWG TEW Wire - White
P298-TEW16/26-RED	16 AWG TEW Wire - Red
P298-TEW16/26-BLUE	16 AWG TEW Wire - Blue
P298-TEW16/26-GREEN	16 AWG TEW Wire - Green

14 AWG (41Strands) TEW Wire 100' Spools

Part Number	Description
P298-TEW14/41-BLACK	14 AWG TEW Wire - Black
P298-TEW14/41-WHITE	14 AWG TEW Wire - White
P298-TEW14/41-RED	14 AWG TEW Wire - Red
P298-TEW14/41-BLUE	14 AWG TEW Wire - Blue
P298-TEW14/41-GREEN	14 AWG TEW Wire - Green

12 AWG (65 Strands) TEW Wire 100' Spools

Part Number	Description
P298-TEW12/65-BLACK	12 AWG TEW Wire - Black
P298-TEW12/65-WHITE	12 AWG TEW Wire - White
P298-TEW12/65-RED	12 AWG TEW Wire - Red
P298-TEW12/65-BLUE	12 AWG TEW Wire - Blue
P298-TEW12/65-GREEN	12 AWG TEW Wire - Green

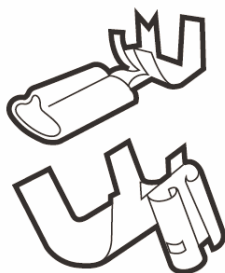
10 AWG (104 Strands) TEW Wire 100' Spools

Part Number	Description
P298-TEW10/104-BLACK	10 AWG TEW Wire - Black
P298-TEW10/104-WHITE	10 AWG TEW Wire - White
P298-TEW10/104-RED	10 AWG TEW Wire - Red
P298-TEW10/104-BLUE	10 AWG TEW Wire - Blue
P298-TEW10/104-GREEN	10 AWG TEW Wire - Green

TOTALINE® WIRING ACCESSORIES

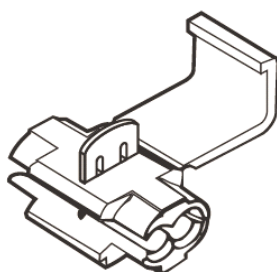
Terminals And Connectors

Compressor Terminal



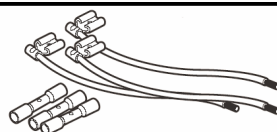
Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-COM1208	.250 (6.35)	12-8 (4.0-6.75)	20

Self-Stripping Tap Connectors



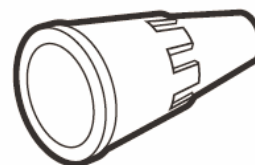
Part Number	Wire Range AWG (mm2)	Qty/Pkg
P298-SSTCR	22-16 (0.5-1.0) Red	25
P298-SSTCB	18-14 (.75-2.5) Blue	25
P298-SSTCY	12-10 (4.0-6.0) Yellow	20

Compressor Hook-up Lead Kit



Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-LEADS-10	.250 (6.35)	10 (6.0)	3-8" Leads With Flags 3-Heat Shrinkable Butt Connectors

Closed End Connectors - Nylon Insulated



Part Number	Wire Range-AWG	Qty/Pkg
P298-CES2214	22-14 (0.5-2.5)	50
P298-CES1810	18-10 (1.0-6.0)	40

Twist-On Wire Connectors



UL Listed/CSA Approved 221°F/105°C (Available in Blister Boxes, TOTALINE Boxes or Bulk Packs)

Part Number	AWG	(mm2)	Color/Voltage	Qty/Pkg
P298-WC/GREY	22-14 (0.5-2.5)	Min. 2 #22	Grey	100 (Blister Box)
P298-WC/GREY/M	22-14 (0.5-2.5)	Max. 2 #16	300 Volt	1,000 (Bulk Pack)
P298-29	22-14 (0.5-2.5)	Min. 2 #18	Blue	100 (Blister Box)
P298-29B	22-14 (0.5-2.5)	Max. 3 #16	300 Volt	100 (Totaline Box)
P298-WC/BLUE/M	22-14 (0.5-2.5)	--	--	1,000 (Bulk Pack)
P298-31	22-14 (0.5-2.5)	Min. 2 #18	Orange	75 (Blister Box)
P298-31B	22-14 (0.5-2.5)	Max. 2 #14	600 Volt	100 (Totaline Box)
P298-WC/ORANGE/D	22-14 (0.5-2.5)	--	--	500 (Bulk Pack)
P298-33	18-10 (1.0-6.0)	Min. 3 #18	Yellow	
P298-33B	18-10 (1.0-6.0)	Max. 4 #14 and 1 #18	600 Volt	100 (Totaline Box)
P298-WC/YELLOW/D	18-10 (1.0-6.0)	--	--	500 (Bulk Pack)
P298-35	18-8 (1.0-8.0)	Min. 2 #14	Red	35 (Blister Box)
P298-35B	18-8 (1.0-8.0)	Max. 4 #12	600 VOLT	100 (Totaline Box)
P298-WC/RED/D	18-8 (1.0-8.0)	--	--	500 (Bulk Pack)

TOTALINE® WIRING ACCESSORIES

Terminals And Connectors

Ring Terminals



- Vinyl Insulated

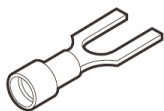
Part Number	Wire Range AWG (mm2)	In / Ga	(mm)	Qty/Pkg
P298-RR6	22-18 (0.5-1.0) Red	#6	-3.5	100
P298-RR8	22-18 (0.5-1.0) Red	#8	-4.16	100
P298-RR10	22-18 (0.5-1.0) Red	#10	-4.82	100
P298-RR0250	22-18 (0.5-1.0) Red	1/4"	-6.35	75
P298-RR0375	22-18 (0.5-1.0) Red	3/8"	-9.53	65
P298-BR6	16-14 (1.5-2.5) Blue	#6	-3.5	100
P298-BR8	16-14 (1.5-2.5) Blue	#8	-4.16	100
P298-BR10	16-14 (1.5-2.5) Blue	#10	-4.82	100
P298-BR0250	16-14 (1.5-2.5) Blue	1/4"	-6.35	75
P298-BR0315	16-14 (1.5-2.5) Blue	5/16"	-7.94	65
P298-BR0375	16-14 (1.5-2.5) Blue	3/8"	-9.53	65
P298-YR6	12-10 (4.0-6.0) Yellow	#6	-3.5	75
P298-YR8	12-10 (4.0-6.0) Yellow	#8	-4.16	75
P298-YR10	12-10 (4.0-6.0) Yellow	#10	-4.82	75
P298-YR0250	12-10 (4.0-6.0) Yellow	1/4"	-6.35	60
P298-YR0315	12-10 (4.0-6.0) Yellow	5/16"	-7.94	60
P298-YR0375	12-10 (4.0-6.0) Yellow	3/8"	-9.53	60
P298-YR0500	12-10 (4.0-6.0) Yellow	1/2"	-12.7	40

Heavy Duty Ring Terminals

- Vinyl Insulated

Part Number	Wire Range Awg (mm2)	In / Ga	(mm)	Qty/Pkg
P298-8R0250	8 (8.0) Red	1/4"	-6.35	20
P298-8R0315	8 (8.0) Red	5/16"	-7.94	20
P298-8R0375	8 (8.0) Red	3/8"	-9.53	20
P298-8R0500	8 (8.0) Red	1/2"	-12.7	15
P298-6R0250	6 (14.0) Blue	1/4"	-6.35	15
P298-6R0315	6 (14.0) Blue	5/16"	-7.94	15
P298-6R0375	6 (14.0) Blue	3/8"	-9.53	15
P298-6R0500	6 (14.0) Blue	1/2"	-12.7	10

Block Spade Terminals



- Vinyl Insulated

Part Number	Wire Range Awg (mm2)	In / Ga	(mm)	Qty/Pkg
P298-RS6	22-18 (0.5-1.0) Red	#6	-3.5	100
P298-RS8	22-18 (0.5-1.0) Red	#8	-4.16	100
P298-RS10	22-18 (0.5-1.0) Red	#10	-4.82	100
P298-BS6	16-14 (1.5-2.5) Blue	#6	-3.5	100
P298-BS8	16-14 (1.5-2.5) Blue	#8	-4.16	100
P298-BS10	16-14 (1.5-2.5) Blue	#10	-4.82	100

P298-YS6	12-10 (4.0-6.0) Yellow	#6	-3.5	75
P298-YS8	12-10 (4.0-6.0) Yellow	#8	-4.16	75
P298-YS10	12-10 (4.0-6.0) Yellow	#10	-4.82	75

Butt Connectors



- Vinyl Insulated

Part Number	Wire Range Awg (mm2)	Qty/Pkg
P298-RBS	22-18 (0.5-1.0) Red	100
P298-BBS	16-14 (1.5-2.5) Blue	100
P298-YBS	12-10 (4.0-6.0) Yellow	75

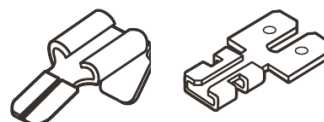
Heat Shrinkable Butt Connectors



- Environmentally Sealed

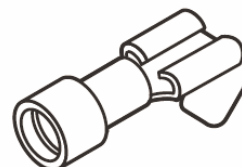
Part Number	Wire Range Awg (mm2)	Qty/Pkg
P298-HSRBS	22-18 (0.5-1.0) Red	10
P298-HSBBBS	16-14 (1.5-2.5) Blue	10
P298-HSYBS	12-10 (4.0-6.0) Yellow	8

Double Male-Female Adapters



Part Number	Tab Width In (mm)	Qty/Pkg
P298-77250	.250 (6.35) (Piggyback)	30
P298-7MMF187	.187 (4.75) (Flat)	40
P298-7MMF250	.250 (6.35) (Flat)	40

Multi-Stack Disconnects



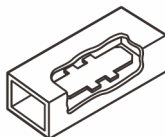
- Vinyl Insulated

Part Number	Tab Width In (mm)	Wire Range Awg (mm2)	Qty/Pkg
P298-RQDFM	.250 (6.35)	22-18 (0.5-1.0) Red	30
P298-BQDFM	.250 (6.35)	16-14 (1.5-2.5) Blue	30

TOTALINE® WIRING ACCESSORIES

Terminals And Connectors

Double Male Quick Disconnects

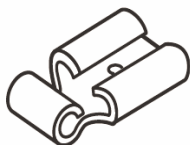


- Vinyl Insulated

Part Number	Tab Width In (mm)	Qty/Pkg
P298-DMD250	.250 (6.35)	10

Female Flag Quick Disconnects

Uninsulated



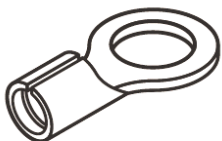
Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-RF187	.187 (4.75)	22-18 (0.5-1.0)	50
P298-RF250	.250 (6.35)	22-18 (0.5-1.0)	50
P298-BF187	.187 (4.75)	16-14 (1.5-2.5)	50
P298-BF250	.250 (6.35)	16-14 (1.5-2.5)	50
P298-YF250	.250 (6.35)	12-10 (4.0-6.0)	40

Fully Insulated Nylon



Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-RFFI187	.187 (4.75)	22-18 (0.5-1.0)	30
P298-RFFI250	.250 (6.35)	Red	30
P298-BFFI187	.187 (4.75)	16-14 (1.5-2.5)	30
P298-BFFI250	.250 (6.35)	Blue	30

High Temperature Ring Terminals

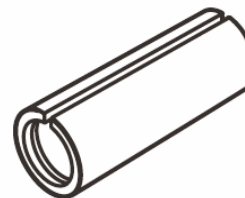


900°F / 482°C Continuous Temperature Rating. Steel Construction. Nickel Plating

Part Number	Wire Range AWG (mm2)	In / Ga	(mm)	Qty/Pkg
P298-HTRR6	22-18 (0.5-1.0)	#6	-3.5	100
P298-HTRR10	22-18 (0.5-1.0)	#10	-4.82	100
P298-HTBR6	16-14 (1.5-2.5)	#6	-3.5	100
P298-HTBR10	16-14 (1.5-2.5)	#10	-4.82	100
P298-HTBR0250	16-14 (1.5-2.5)	1/4"	-6.35	75

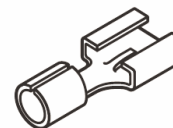
P298-HTYR6	12-10 (4.0-6.0)	#6	-3.5	75
P298-HTYR10	12-10 (4.0-6.0)	#10	-4.82	75
P298-HTYR0250	12-10 (4.0-6.0)	1/4"	-6.35	60

High Temperature Butt Connectors



Part Number	Wire Range AWG (mm2)	Qty/Pkg
P298-HTRBS	22-18 (0.5-1.0)	100
P298-HTBBS	16-14 (1.5-2.5)	100
P298-HTYBS	12-10 (4.0-6.0)	75

High Temperature Female Quick Disconnect

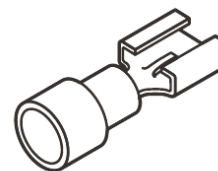


- Vinyl Insulated

Part Number	Wire Range AWG (mm2)	In / Ga	(mm)	Qty/Pkg
P298-HTBQDF250	16-14 (1.5-2.5)	0.25	-6.35	100

Quick Disconnect Terminals

Female



- Vinyl Insulated
- Female

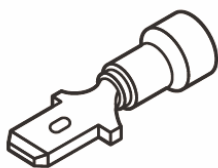
Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-RQDF110	.110 (2.79)	22-18 (0.5-1.0) Red	100
P298-RQDF187	.187 (4.75)	22-18 (0.5-1.0) Red	100
P298-RQDF250	.250 (6.35)	22-18 (0.5-1.0) Red	100
P298-BQDF110	.110 (2.79)	16-14 (1.5-2.5) Blue	100
P298-BQDF187	.187 (4.75)	16-14 (1.5-2.5) Blue	100
P298-BQDF250	.250 (6.35)	16-14 (1.5-2.5) Blue	100
P298-YQDF250	.250 (6.35)	12-10 (4.0-6.0) Yellow	75

TOTALINE® WIRING ACCESSORIES

Terminals And Connectors

Quick Disconnect Terminals

Male



- Vinyl Insulated
- Male

Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-RQDM187	.187 (4.75)	22-18 (0.5-1.0) Red	100
P298-RQDM250	.250 (6.35)	22-18 (0.5-1.0) Red	100
P298-BQDM187	.187 (4.75)	16-14 (1.5-2.5) Blue	100
P298-BQDM250	.250 (6.35)	16-14 (1.5-2.5) Blue	100
P298-YQDM250	.250 (6.35)	12-10 (4.0-6.0) Yellow	75

Mating Fully Insulated Quick Disconnects

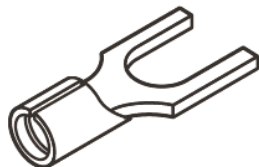
Female



- Nylon Insulated
- Female

Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-RQDFFI187	.187 (4.75)	22-18 (0.5-1.0) Red	40
P298-RQDFFI250	.250 (6.35)	22-18 (0.5-1.0) Red	40
P298-BQDFFI187	.187 (4.75)	16-14 (1.5-2.5) Blue	40
P298-BQDFFI250	.250 (6.35)	16-14 (1.5-2.5) Blue	40
P298-YQDFFI250	.250 (6.35)	12-10 (4.0-6.0) Yellow	30

High Temperature Spade Terminals



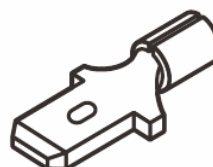
Part Number	Wire Range AWG (mm2)	In / Ga	(mm)	Qty/Pkg
P298-HTRS10	22-18 (0.5-1.0)	#10	-4.82	100
P298-HTBS10	16-14 (1.5-2.5)	#10	-4.82	100
P298-HTYS10	12-10 (4.0-6.0)	#10	-4.82	75

High Temperature Female Flag Disconnect



Part Number	Wire Range AWG (mm2)	In / Ga	(mm)	Qty/Pkg
P298-HTBFF250	16-14 (1.5-2.5)	0.25	-6.35	75

High Temperature Male Quick Disconnect



Part Number	Wire Range AWG (mm2)	In / Ga	(mm)	Qty/Pkg
P298-HTBQDM250	16-14 (1.5-2.5)	0.25	-6.35	100

Mating Fully Insulated Quick Disconnects



- Nylon Insulated
- Male

Part Number	Tab Width In (mm)	Wire Range AWG (mm2)	Qty/Pkg
P298-RQDMFI187	.187 (4.75)	22-18 (0.5-1.0) Red	40
P298-RQDMFI250	.250 (6.35)	22-18 (0.5-1.0) Red	40
P298-BQDMFI187	.187 (4.75)	16-14 (1.5-2.5) Blue	40
P298-BQDMFI250	.250 (6.35)	16-14 (1.5-2.5) Blue	40
P298-YQDMFI250	.250 (6.35)	12-10 (4.0-6.0) Yellow	30

Snap Plugs



- Vinyl Insulated

Part Number	Wire Range AWG (mm2)	in	(mm)	Qty/Pkg
P298-RBM157	22-18 (0.5-1.0) Red	0.157	3.99	80
P298-RBM176	22-18 (0.5-1.0) Red	0.176	4.47	80
P298-BBM157	16-14 (1.5-2.5) Blue	0.157	3.99	80
P298-BBM176	16-14 (1.5-2.5) Blue	0.176	4.47	80
P298-YBM157	12-10 (4.0-6.0) Yellow	0.157	3.99	60
P298-YBM176	12-10 (4.0-6.0) Yellow	0.176	4.47	60

TOTALINE® WIRING ACCESSORIES

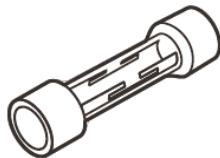
Terminals And Connectors

Snap Plug Receptacles



Part Number	Wire Range AWG (mm2)	in	(mm)	Qty/Pkg
P298-RBFFI157	22-18 (0.5-1.0) Red	0.157	3.99	40
P298-RBFFI176	22-18 (0.5-1.0) Red	0.176	4.47	40
P298-BBFFI157	16-14 (1.5-2.5) Blue	0.157	3.99	40
P298-BBFFI176	16-14 (1.5-2.5) Blue	0.176	4.47	40
P298-YBFFI157	12-10 (4.0-6.0) Yellow	0.157	3.99	30
P298-YBFFI176	12-10 (4.0-6.0) Yellow	0.176	4.47	30

Double Female Snap Plug Receptacles



Part Number	Dia.in	(mm)	Qty/Pkg
P298-DBR157	0.157	3.99	40
P298-DBR176	0.176	4.47	40

Kits And Application Tools

Twist on Wire Connector Kit - 22-8 AWG



This six section kit is a convenient way to store the complete assortment of color coded twist on connectors and cable ties used daily by HVAC/R technicians. Fixed square spring in the connector provides a more secure grip on conductors. CSA and UL approved.

Part Number	Description
P298-TWISTONKIT	22-8 AWG (.33 mm2 to 8.36 mm2) 375 pieces

Solderless Terminal Kit - 22-10 AWG



An economical 18 compartment, plastic kit box contains 450 of the most popular TOTALINE solderless terminals and connectors.

TOTALINE graphics appear on the label set, with a matrix chart on the inside lid describing the parts, illustrations & individual TOTALINE re-order part numbers.

Part Number	Description
P298-TERMKIT450	22-10 AWG (.33 mm2 to 5.26 mm2) 450 pieces

Ratchet Action Crimp Tool Kit With 4 Interchangeable Dies



This kit was designed for the professional that insists a high quality commercial grade full cycle crimp tool. System integrity is maintained when components are terminated with this tool. An ergonomic progressive pivoting design provides maximum crimping force with reasonable hand pressure. The ratcheted design eliminates variability from crimp to crimp. this kit includes four interchangeable dies to crimp a variety of solderless terminals.

- Crimp Die "A" for 22-16 AWG (.33 mm2 to 5.26 mm2) insulated Terminals
- Crimp Die "C" for 22-10 AWG (.33 mm2 to 5.26 mm2) insulated Quick Disconnected Terminals
- Crimp Die "22-18/8" for 22-8 AWG (.33 mm2 to 8.36 mm2) uninsulated and high temperature Terminals
- Crimp Die "F" for 22-14 AWG (.33 mm2 to 2.08 mm2) fully insulated flag Terminals

Part Number	Description
P298-25000	Ratchet Action Crimp Tool Kit With 4 Interchangeable Dies

Repair and Maintenance of HVAC/R Electronic Wiring



This kit was designed as a sales tool for branch sales counters. The kit comes with three totaline application tool as well as solderless Terminals and 5" lengths of wire. Contractors at the sales counters can physically crimp a terminal on a wire or strip a wire to witness firsthand the quality of these tools. The kit includes:

- P298-WS Heavy Duty wire Stripper & Cutter
- P298-RACT Ratchet Action Crimp Tool for 22-10 AWG insulated Terminals
- P298-RACTF Ratchet Action Crimp Tool for 22-14 AWG insulated Flag Terminals

Part Number	Description
P298-DEMOKIT	Application Tool Kit for the Repair and Maintenance of HVAC/R Electronic Wiring

TOTALINE® WIRING ACCESSORIES

Kits And Application Tools

Heavy Duty Tension Tool for installing Duct Straps


Features:

- 120 lb to 175 lb duct straps
- Manual tension control
- Neatly cuts off straps
- Metal construction
- Packaged individual box

Part Number	Description
P298-CT300	Manual Cut Off Heavy Duty Tension Tool For 120-175 lb Ties

Crimping & Stripping Tool 22-12 AWG (.33 mm² to 3.308 mm²)

This economical crimp tool crimps 22-12 AWG (.33 mm² to 3.08 mm²) insulated and uninsulated terminals. It strips 22-8 AWG (.33 mm² to 8.36 mm²) solid or stranded wire; cuts and rethreads five common sizes of bolts. Adjustable machined nut and bolt for precise pivoting. Made from heat treated tool steel with cushioned grip handles.

Part Number
P298-CT

Heavy Duty Wire Stripper Cutter & Crimping Tool

24-10 AWG (.204 mm² to 5.26 mm²)



Crimps insulated and uninsulated 22-10 AWG (.33 mm² to 5.26 mm²) terminals strips 24-10 AWG (.204 mm² to 5.26 mm²) wire includes built in cutter adjustable stopper enables user to pre to pre-determine the required strip length and can be swiveled if user does not require this function.

Part Number	Description
P298-WS	24-10 AWG (.204 mm ² to 5.26 mm ²)

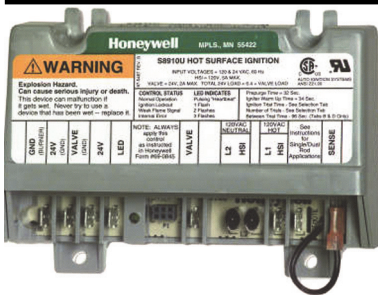
Ratchet Action Crimp Tool for Insulated and Insulated Flag Terminals

Ratcheted design eliminates variability from crimp to crimp. System integrity is maintained when components are terminated with this tool.

Part Number	Description
P298-RACT	22-10 AWG (.32 mm ² to 5.26 mm ²)
P298-RACTF	22-14 AWG (.32 mm ² to 2.08 mm ²)

GAS IGNITION CONTROLS

Universal Hot Surface Ignition Module

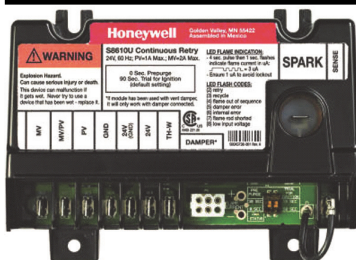


Features:

- Replaces over 650 White-Rodgers, Robertshaw and Honeywell hot surface ignition models.
- For 120 Vac (up to 5.0A) surface igniter (Norton 201/271 or equivalent).
- For local (single rod) or remote (dual rod) rectification type flame sensing.
- Contains easy-to-use cross reference and instructions plus the accessories required to replace the existing hot surface ignition module.
- Provides one or three ignition trials (four-second or seven-second trials) per call for heat.
- Field selectable number of ignition trials and trial time based on unit being replaced.

Part Number	Dimensions (in)	Frequency	Electrical Ratings	Type of Gas	Description
S8910U1000	5-1/4 H x 4 1/16 W x 1-15/16 D	60 Hz	24 Vac	Natural or LP	Universal Hot Surface Ignition Module

Universal Intermittent Pilot Ignition Module



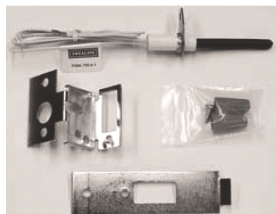
Features:

- Replaces over 400 White-Rogers, Robertshaw and Honeywell intermittent pilot ignition modules
- Provides ignition sequencing, flame monitoring and safety shutoff for intermittent pilot warm air furnaces and heating appliances
- Provides 100 percent pilot gas shutoff if pilot fails to light; after 6-minute delay, trial for ignition is repeated. Ignition trial/delay sequence is repeated until the appliance lights or call for heat is removed.
- For use with Natural or LP gas
- For use in single rod or dual rod/remote sense applications
- Includes spark cable adapters to allow field replacement of both Honeywell and competitive controls without replacing existing spark cable.

Part Number	Dimensions (in)	Frequency	Electrical Ratings	Type of Gas	Description
S8610U3009	3-15/16 H x 5 7/16 W x 2-5/8 D	60 Hz	24 Vac	Natural or LP	Universal Intermittent Pilot Ignition Module

IGNITERS

Universal Hot Surface Igniter Kit - Round



The Next Generation of Universal Hot Surface Igniter

• 100% Tested and Certified

Every igniter goes through a 3 point test to insure quality and dead on arrivals a thing of the past.

- Simple installation
- No additional control module needed
- Works with existing OEM control panels

TOTALINE'S® Silicon Nitride Igniter is compatible with these furnace and boiler igniters:

Amana	Intertherm	Rheem Rudd
American Road Equip	Janitrol	Roberts Gordon
Arco	Jhonstone	Robertshaw Uni-line
Armstrong Air	Jhon Woods	41-238 41-242 41-402
Clare Brothers	Keeprite	41-403 41-404 41-405
Coleman/Evcon	L.B.White Co.	41-407 41-408 41-409
Comfort Maker	Lennox	41-410 41-411 41-412
		41-414 41-1090
Detroit/Brant Radiant	Majestic	Smith HB
DMO	Metzger	Snyder General
Dornbeck Furnace	Miller	Superior Furnace
Ducane	Nordyne	Surface Igniter Corp
Enerco Tech	Norton	Tappen
Fridgidaire	101M 201D 201K	Temstar
Gemline	201L 201M 210N	Trane
Goodman	201P 201W 271	Viessmann
H.B. Smith	271D 271M 271N	Wayne Home Equipment
Heil	271NM 271P 271R	Weil McLain
	271RS 271W	
Hupp Industries	Olsen ECR Industries	White LB Company
Intercity	Philco	White Rodgers
Integra	Raypak	Williamson York/Luxaire



Replace these types of silicon carbide igniters .

Part Number	Description
P694-700-4-1	Universal Hot Surface Igniter Kit

Glowfly Universal Hot Surface Igniter

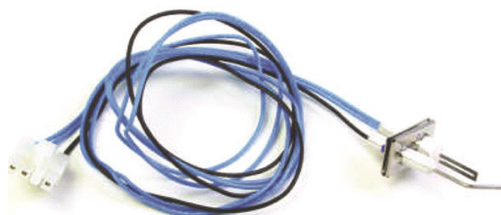


Features:

- Replaces over 110 OEM igniter models
- Each igniter package includes cross reference instructions, six brackets, and installation accessories.
- Robust Silicon nitride igniter construction
- Igniter application templates enable quick bracket selection.

Part Number	Length (In/mm)	Includes	Voltage	Description
Q3200U1004	15" Lead Wire	High temperature ceramic wire nuts	120 Vac	Glowfly Universal 120Vac Hot Surface Igniter, Pack of 1

Igniter Flame Rod Assembly



Part Number	Length (In/mm)	Temperature Range (F/C)	Description
Q3400A1024	30" Ignition Wire	250C	30" Igniter Flame Rod Assembly for SmartValve Pilots

PR Series Pilot Reigniters



Part Number	Description
PR-24-36W	Spark Cable & PR-24 Module, 24 VAC Hardware Kit, Prevents Pilot Flames From Extinguishing

OTHER COMBUSTION CONTROLS

Aquastats

Aquastat - Single Function - L4006A1967/U


Features:

- Totally enclosed Micro Switch snap-acting switches operate on temperature rise to setpoint
- Visible control point scale and external adjustment screw permit easy setting
- Horizontal or vertical insertion of the sensing element
- Direct or well immersion of the sensing element
- Models available for strap-on mounting
- Remote bulb model may be used to sense air temperature in ducts and in outside air sensing applications
- TRADELINE models include heat-conductive compound
- Select models have wells, UL limit rated device
- Approvals, Underwriters Laboratories Inc.- UL Component Recognized: File No. MP466, Vol. 6, Sec.1, Guide No. MBPR2

Part Number	Bulb Material	Dimensions (in)	Temperature Range (F/C)	Wiring	Description
L4006A1967	Copper	Case - 5-5/8 H x 2 W x 2-1/8 D	Maximum - 150 F/66 C	Screw terminals	Aquastat, Breaks On Rise, 100-240F Range, 240F Factory Stop, 5-30F Adjustable Differential

Aquastat - Single Function - L6006C1018/U


Features:

- Totally enclosed Micro Switch snap-acting switches operate on temperature rise to set point
- Visible control point scale and external adjustment screw permit easy setting
- Horizontal or vertical insertion of the sensing element
- Direct, well immersion, or surface mounting of the sensing element available
- Remote bulb model may be used to sense air temperature in ducts and in outside air sensing applications, Select models have wells
- Direct or well immersion Tradeline models include heat-conductive compound
- Approvals, Underwriters Laboratories Inc.: UL Component Recognized: File No. MP466, Vol. 6, Sec.1, Guide No. MBPR2
- Approvals, Canadian Standards Association Certified: File No. LR95329-1

Part Number	Bulb Material	Dimensions (in)	Temperature Range (F/C)	Wiring	Description
L6006C1018	Copper	Case - 5-5/8 H x 2 W x 2-3/4 D	Maximum - 150 F/66 C	Screw terminals	High Or Low Limit Surface Mount Controller With SPDT, Operating Range 65-200F, Factory Stop At 200F

Aquastat Relay - Multi-Function


Features:

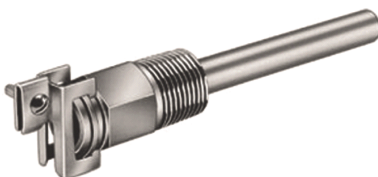
- High limit opens burner circuit only.
- Select models include transformer and accessory terminals for adding a remote low limit controller.
- Case available for horizontal or vertical mounting.
- Requires a 24 Vac thermostat with heat anticipator set at 0.2A.
- TRADELINE models include well adapter, tube of heat conductive compound and range stops.
- Approvals, Underwriters Laboratories Inc.- UL Listed: File No. MP466, Vol. 13, Sec. 2, Guide No. MBPR2.
- Approvals, Canadian Standards Association Certified: File No. LR1620, Guide No. 400-E-O.

Part Number	Dimensions (in)	Voltage	Description
L8148A1017	4-5/16 H x 6 1/8 W x 3 1/8 D	120 Vac	Aquastat Relay, Horizontal Mount, 140 – 240 F Range With 8 Degree F Fixed Differential, Low Volt/Millivolt
L8148J1009	Vertical Mount - 6 1/8 H x 4-5/16 W x 3-1/8 D, Horizontal Mount - 4-5/16 H x 6-1/8 W x 3-1/8 D		Aquastat Relay, Horizontal or Vertical Mount, 140 – 240 F Range With 8 Degree F Fixed Differential, Low Volt/Millivolt

OTHER COMBUSTION CONTROLS

Aquastats

Wells and Accessories



Part Number	Material	Shell (Internal Diameter)	Well Spud Size		Description
			In	mm	
121371A	Copper	3/8	1/2 - 14 NPT	13 - 14 NPT	Copper Well Assembly, 3 In, 1/2 NPT, 3/8 In Internal, 1-1/2 In Insulation Depth, Includes Mounting Clamp

Fan and Limit Controllers


Features:

- Three wiring terminal options available for easy installation.
- Push-in receptacles for stripped wire.
- Female receptacles for 1/4 inch male flag connectors.
- Auxiliary screw terminals.
- Field adjustable fan and high limit settings.
- Has a manual fan switch that overrides the fan control to keep the fan running continuously.
- TRADELINE models with mounting adapters for easy installation and strain relief bushings to protect wiring from field abuse.
- Approvals, Underwriters Laboratories Inc.- Listed File MP466, Guide MBPR
- Approvals, Canadian Standards: Association Certified: File No. LR1622

Part Number	Differential Temperature (F/C)	Dimensions (in)	Mounting	Description
L4064B 2210	High limit 25 F/ 14 C	4-9/32 H x 3 W x 1-19/32 D Excluding Element	Surface or Universal Mounting Bracket Available	Fan and Limit Controller, 11-1/2" Insert
L4064B2236	High limit 25 F/ 14 C	4-9/32 H x 3 W x 1-19/32 D Excluding Element	Surface or Universal Mounting Bracket Available	Fan and Limit Controller, 8" Insert

FAL Series Universal Fan & Limit Controls

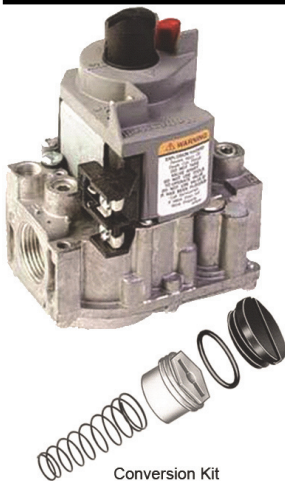

Features:

- Universal replacement in forced air heating furnaces.
- Adjustable FAN OFF setting
- Adjustable DIFFERENTIAL setting
- Adjustable furnace temperature limit to match existing setting
- Pilot Duty: 40 VA @30 & 120 VAC
- Adjustable FAN OFF setting
- UL Recognized
- CSA Approved

Part Number	Fan Differential	Length (In)	Limit Temp (°F)	Limit Differential	Description
FAL7C-05TD-120A	25 to 50	7"	150 to 250	30	FAL Series Universal Fan & Limit Controls, 40 VA @30 & 120 VAC

GAS VALVES

24Vac Dual Standing Pilot Gas Valve & Natural Gas to LP Conversion Kit



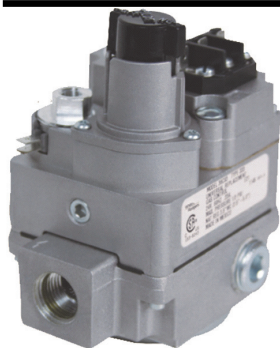
Conversion Kit

Features:

- Gas valves include manual valve, two automatic operators, servo pressure regulator and pilot adjustment. Compact size.
- Provide two automatic valves.
- Solenoid-operated first automatic valve opens on thermostat call for heat; closes when call for heat ends.
- Diaphragm-operated second automatic valve opens under control of regulator; closes if gas or power supply is interrupted.
- Meet codes requiring dual safety shutoff.
- Natural to LP and LP to Natural conversion kits available for standard and slow opening gas valves.
- LITE-RITE (OFF-PILOT-ON) lighting sequence.
- All adjustments, wiring connections and pilot outlet are accessible from top of control.
- Adjustable servo regulator effectively maintains almost constant gas output pressure under wide fluctuations in gas supply pressure.
- Compatible with ECO connector.
- Mounting -0 to 90 degrees in any direction from the upright position of the gas control knob, including vertically.
- Approvals, Underwriters Laboratories Inc. -UL Component Recognized MCC22.MH5323
- Approvals, Canadian Standards Association- 112395
- Approvals, Canadian Gas Association
- Approvals, Australian Gas Association-4717
- Electrical Connections- Combination screw and 1/4 in. male quick connects

Part Number	Dimensions (in)	Frequency	Voltage	Description
P681-1501	5-3/16 H x 4-1/8 W x 3-1/4 Deep	60 Hz	24 Vac	Gas Valves for Use In 24 Vac, Gas-Fired, Standing Pilot Appliances with Capacities from 20 to 200 Cfh

Combination Gas Valves



Features:

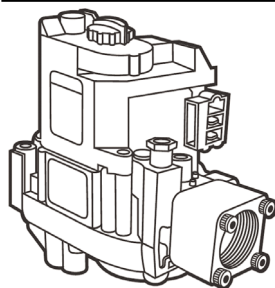
- Convertible – natural or LP gas
- Adjustable regulator
- Inlet/outlet screens
- Line interrupter
- Pressure taps
- CSA approved
- Optional side outlets

Part Number	Pipe Size	Pressure Rating (max)	Voltage	Description
36C03-433	3/4" x 3/4"	1/2 PSI (14.0" W.C.)	24 VAC	Combination Gas Valves, Standing Pilot, Single Stage, 280,000 BTU/HR, 24 Volts, 3/4" Inlet/Outlet Connection

GAS VALVES

Combination Two Stage Gas Valves

Model No.P681-VR8345M



Universal electronic ignition gas valve

- Control includes manual valve, two automatic operators, pressure regulators, pilot adjustment, pilot plug and ignition adapter.
- Highest capacity (415,000 BTU MAX. REG., NG) of any electronic ignition valve in the industry.
- Replaces virtually any IP, his, or DSI gas control.
- For use with natural or manufactured gas or LP gas.
- Honeywell part no: VR8345M4302

Part Number	Description
P681-VR8345M	Universal electronic ignition gas valve

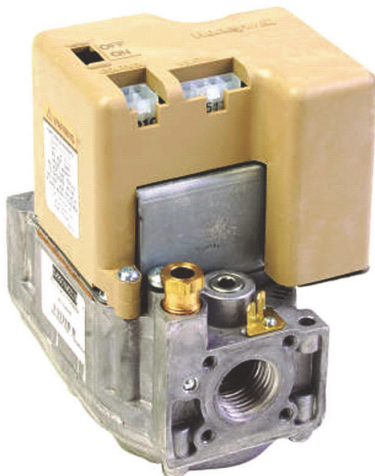
Model No.P660-VR83A3500

Continuous pilot dual automatic valve combination gas controls

- Controls include safety shutoff, manual valve, two automatic operators, pressure regulator and pilot adjustment.
- Replaces over 95 percent of the standing pilot gas valves; maximum capacity rating is 150% of the competitive valves.
- Meets 1979 ANSI standards for redundancy in gas valve operation.

Part Number	HONEYWELL PART NO
P660-VR83A4516	VR8300A4516

Intermittent Pilot - Intermittent Hot Surface Pilot SmartValve



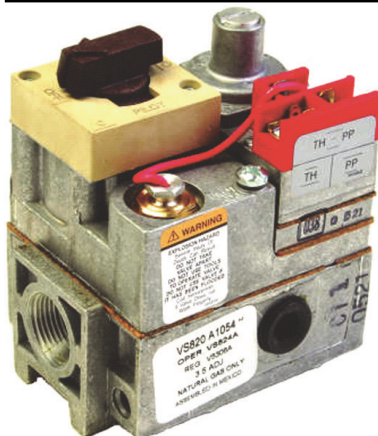
Features:

- Suitable for a wide range of gas-fired appliances including residential furnaces, roof-top furnaces, residential boilers, unit heaters, infrared heaters, space heaters and commercial cooking units.
- Replaces SV9500, SV9501, SV9502, SV9601, and SV9602 controls as noted below.
- Ignition sequence includes timed trial for ignition.
- The Smart Valve System Controls combine gas flow control and electronic intermittent pilot sequencing functions into a single unit. This product family offers several different intermittent pilot sequences for a wide range of applications.
- The specific application of the Smart Valve System is the responsibility of the appliance manufacturer.
- They are directly compatible with the Q3450 or Q3480 Intermittent Pilot burners used with the original controls on the appliance.
- Approvals, Canadian Standards Association-CSA International: 112395
- Approvals, American Gas Association

Part Number	Ambient Temperature Range		Frequency	Voltage	Description
	°C	°F			
SV9501M2528	-40 C to +79 C	-40°F to +175°F	50 Hz; 60 Hz	24 Vac	Intermittent Hot Surface Pilot SmartValve, Standard Opening, 1/2 x 1/2", Set 3.5" WC, 24 Vac

GAS VALVES

Millivolt Gas Valve



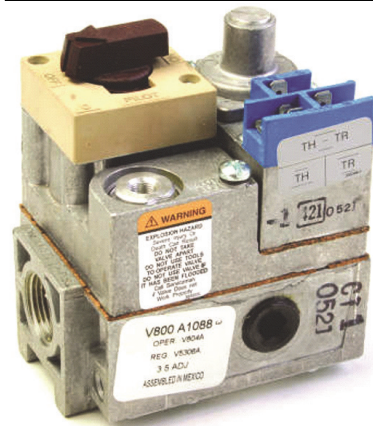
Features:

- Include pilot flow adjustment screw
- Easy to install, adjust and service; all adjustments and connections are accessible from top of control
- Add separate energy cutoff (ECO) where codes call for dual safety shutoff
- Complete safety shutoff on pilot flame failure
- LITE-RITE (OFF-PILOT-ON) lighting sequence
- ECO connector for VS820 models, Part No. 392451-1
- These gas controls are used on gas fired, standing pilot appliances with 750 mV self-powered control systems
- They include a manual gas valve, safety shutoff, single millivoltage automatic operator and pressure regulator
- Approvals, Underwriters Laboratories Inc.-UL Component Recognized MCCZ2.MH5323
- Approvals, Canadian Standards Association-CSA International: 112395

Part Number	Dimensions W x H x L in (mm)	Frequency	Voltage	Description
VS820A1054	4-3/4 x 4-1/16 x 3-3/16 Deep (121 x 103 x 81 Deep)	50 Hz- 60 Hz	24 Vac	750mV Standard Opening Gas Valve, 3/4 x 3/4" with 1/2" Side Outlets, Set 3.5" WC

Standing Pilot Gas Valve

Model - V800A1476/U



Features:

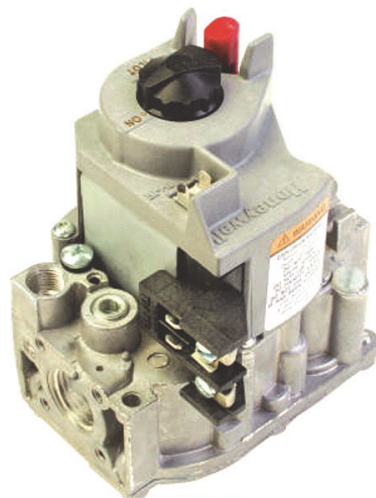
- Suitable for a wide range of gas-fired appliances including residential furnaces, roof-top furnaces, residential boilers, unit heaters, infrared heaters, space heaters and commercial cooking units.
- Include pilot flow adjustment screw.
- Easy to install, adjust and service; all adjustments and connections are accessible from top of control.
- Add separate energy cutoff (ECO) where codes call for dual safety shutoff.
- Complete safety shutoff on pilot flame failure.
- LITE-RITE (OFF-PILOT-ON) lighting sequence.
- ECO connector for V800 models. Part No. 392451-1.
- Used on gas fired standing pilot appliances with 30 mV thermocouple.
- These gas controls include a manual gas valve, safety shutoff, single millivoltage automatic operator, pressure regulator, pilot gas filter and flow adjustment, pressure tapping, and thermocouple connector.
- Approvals, Underwriters Laboratories Inc.-UL Component Recognized MCCZ2.MH5323
- Approvals, Canadian Standards Association-CSA International: 112395
- Anticipator Setting

Part Number	Dimensions W x H x L in (mm)	Frequency	Type of Fuel	Voltage	Description
V800A1476	4-3/4 x 4-1/16 x 3-3/16 Deep (121 x 103 x 81 Deep)	60 Hz	Natural	24 Vac	24 Vac Standard Opening, Standing Pilot Gas Valve, 1/2 x 3/4", Set 3.5" WC

GAS VALVES

Standing Pilot Gas Valve

Model - VR8200A2132/U

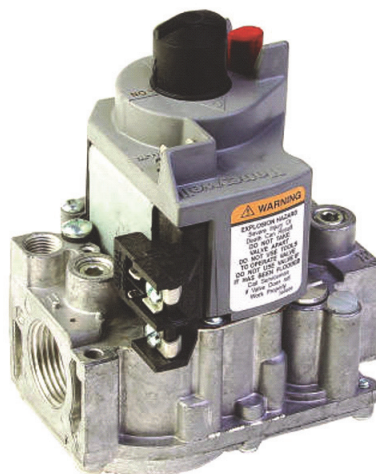


Features:

- Gas valves include manual valve, two automatic operators, servo pressure regulator and pilot adjustment
- Compact size, Provide two automatic valves
- Solenoid-operated first automatic valve opens on thermostat call for heat; closes when call for heat ends
- Diaphragm-operated second automatic valve opens under control of regulator; closes if gas or power supply is interrupted
- Meet codes requiring dual safety shutoff
- Natural to LP and LP to Natural conversion kits available for standard and slow opening gas valves
- LITE-RITE (OFF-PILOT-ON) lighting sequence
- All adjustments, wiring connections and pilot outlet are accessible from top of control.
- Adjustable servo regulator effectively maintains almost constant gas output pressure under wide fluctuations in gas supply pressure
- Compatible with ECO connector
- Gas valves for use in 24 Vac, gas-fired, standing pilot appliances with capacities from 20 to 200 cfh
- Approvals, Underwriters Laboratories Inc.-UL Component Recognized MCCZ2.MH5323
- Approvals, Canadian Standards Association-CSA International: 112395
- Approvals, Australian Gas Association-4752

Part Number	Dimensions W x H x L in (mm)	Frequency	Type of Fuel	Voltage	Description
VR8200A2132	5-3/16 x 4-1/8 x 3-1/4 Deep (132 x 104 x 83 Deep)	60 Hz	Natural	24 Vac	24 Vac Standard Opening, Standing Pilot Gas Valve, 1/2 x 1/2", Set 3.5" WC

Single Stage



Features:

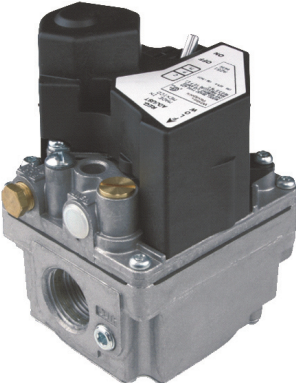
- Gas valves include safety shutoff, manual valve, two automatic operators, pressure regulator and pilot adjustment
- Compact size, Provide two automatic valves
- Solenoid operated first automatic valve opens on thermostat call for heat; closes when call for heat ends
- Diaphragm-operated second automatic valve opens under control of regulator; closes if gas or power supply is interrupted
- Meets codes requiring dual safety shutoff.
- Natural to LP and LP to Natural conversion kits available for standard and slow opening gas valves, not for step opening gas valves
- All adjustments, wiring connections and pilot outlet are accessible from top of control
- Adjustable servo regulator effectively maintains almost constant gas output pressure under wide fluctuations in gas supply pressure
- Compatible with ECO connector
- LITE-RITE (OFF-PILOT-ON) lighting sequence
- Gas valves for use in 24 Vac, gas-fired, standing pilot appliances with capacities from 30 to 300 cfh
- Approvals, Underwriters Laboratories Inc.-UL Component Recognized MCCZ2.MH5323
- Approvals, Canadian Standards Association-CSA International: 112395
- Approvals, Australian Gas Association-4717
- Anticipator Setting

Part Number	Dimensions W x H x L in (mm)	Frequency	Type of Fuel	Voltage	Description
VR8300A3500	5-3/8 x 4-1/16 x 2-11/16 Deep (135 x 104 x 69 Deep)	60 Hz	Natural	24 Vac	Single Stage, 24 Vac, Standard Opening, Standing Pilot Gas Valve, 1/2 x 3/4", Set 3.5" WC
VR8300A4508	5-3/8 x 4-1/16 x 2-11/16 Deep (135 x 104 x 69 Deep)	60 Hz	Natural	24 Vac	Single Stage, 24 Vac, Standard Opening, Standing Pilot Gas Valve, 3/4 x 3/4", Set 3.5" WC

GAS VALVES

Universal Electronic Ignition Gas Valves

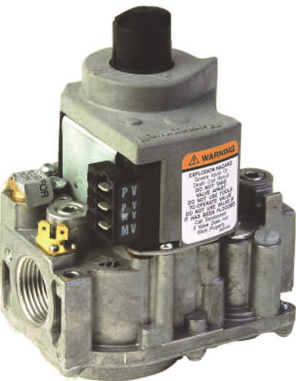
36H Series



- Features:**
- Convertible – natural or LP gas
 - Adjustable regulator(s)
 - Inlet/outlet screens
 - Electric on-off switch
 - Pressure taps
 - CSA approved

Part Number	Pipe Size	Frequency	Type of Gas	Voltage	Description
36H33-412	3/4" x 3/4"	50/60 Hz	Nat./LP	24 VAC	Universal Electronic Ignition Gas Valves, Single Stage, 300,000 BTU/HR, 24 Volts, 3/4" Inlet/Outlet Connection
36H64-463	3/4" x 3/4"	50/60 Hz	Nat./LP	24 VAC	Universal Electronic Ignition Gas Valves, Two-Stage, 300,000 BTU/HR, 24 Volts, 3/4" Inlet/Outlet Connection

VR8345M4302/U



- Features:**
- These valves offers wide-capacity control for almost any IP, HSI or DSI gas-fired appliances.
 - Approvals, Underwriters Laboratories Inc.- UL Component Recognized MCCZ2.MH5323
 - Approvals, Canadian Standards Association - CSA International: 112395
 - Approvals, Canadian Gas Association
 - Approvals, American Gas Association

Part Number	Dimensions W x H x L in (mm)	Frequency	Type of Fuel	Voltage	Description
VR8345M4302	5-3/8 x 4-1/16 x 2-11/16 Deep (135 x 104 x 69 Deep)	50 Hz- 60 Hz	Natural	750 mV	Universal 24 Vac, Standard Opening, Intermittent / Direct Ignition Gas Valve 3/4 x 3/4", Set 3.5" WC

GAS HEATING ACCESSORIES

Sensors

Mixed Air Temperature Sensor

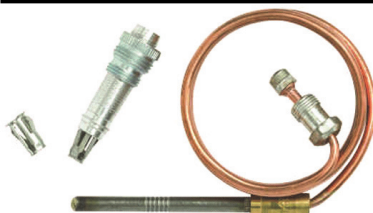

Features:

- Uses thermistor sensing element in ventilation duct systems.
- Negative temperature coefficient (NTC) causes resistance to decrease as sampled air temperature increases.
- Resistance change used as input to control W973 and M7415.
- Requires no settings or calibration.
- Mounts on duct surface with four screws (not supplied).
- Approvals, Underwriters Laboratories Inc.- Component Recognized

Part Number	Color	Dimensions (in)	Operating Temperature Range (F/C)	Description
C7150B1020	Black	2 H x 2-1/2 W x 3/4 D	-40 F to +110 F/ -40 C to +43 C	3750 Ohms Mixed Air Sensor - Duct or Discharge Air, Used with W957F Economizer

Thermocouples

Q340A Series


Features:

- Push-in clip, split nut, or adapter assembly available (depending on model) for easy pilot burner installation.
- Male nut connector for Pilotstat safety control power units.
- Available in a variety of lead lengths.

Part Number	Connection Type	Includes	Length (In/mm)	Voltage	Description
Q340A1066	11/32 32 Male Connector Nut	Adapter and Push In Clip	18/ 457	30 mV, Open Circuit Output - 26 mV to 32 mV	18" Thermocouple, 30 mV Output
Q340A1074	11/32 32 Male Connector Nut	Adapter and Push In Clip	24/ 610	30 mV, Open Circuit Output - 26 mV to 32 mV	24" Thermocouple, 30 mV Output
Q340A1082	11/32 32 Male Connector Nut	Adapter and Push In Clip	30/ 762	30 mV, Open Circuit Output - 26 mV to 32 mV	30" Thermocouple, 30 mV Output
Q340A1090	11/32 32 Male Connector Nut	Adapter and Push In Clip	36/ 914	30 mV, Open Circuit Output - 26 mV to 32 mV	36" Thermocouple, 30 mV Output
Q340A1108	11/32 32 Male Connector Nut	Adapter and Push In Clip	48/ 1219	30 mV, Open Circuit Output - 26 mV to 32 mV	48" Thermocouple, 30 mV Output

Thermocouple Kit



Part Number	Length	Description
P671-4242	24"	Universal 24" Length Thermocouple for Standing Pilot Units
P671-4302	30"	Universal 30" Length Thermocouple for Standing Pilot Units
P671-4362	36"	Universal 36" Length Thermocouple for Standing Pilot Units
P671-4482	48"	Universal 48" Length Thermocouple for Standing Pilot Units

GAS HEATING ACCESSORIES

Thermopiles

Q313A Series


Features:

- Push-in clip, split nut, or adapter assembly available (depending on model) for easy pilot burner installation.
- Spade or quick-connect terminals available for millivolt gas control connections.
- Available in a variety of lead lengths.
- Used With Q314, Q324, Q327, Q377, Q379, Q382 Pilot Burners.

Part Number	Length (In/mm)	Connection Type	Includes	Voltage	Description
Q313A1170	35/ 889	Spade Terminals	PG9 Adapter and Attaching nut	750 mV, Open Circuit Output - 600 mV to 750 mV	750 Mv Thermopile, 35" Long, With PG9 Adapter And Attaching Nut
Q313A1188	35/ 889	Spade Terminals	Push-in Clip and Split Nut	750 mV, Open Circuit Output - 600 mV to 750 mV	750 Mv Thermopile, 35" Long. With Push-In Clip And Split Nut

Burner Controls

GeniSys Universal Control Kit

Part Number	Description
7505B1500U	GeniSys Control Use with Models 52097U & 52098U of GeniSys Universal Control Kit

Electric Furnace Sequencer


Features:

- Isolated fan switch has positive interlock to assure fan is on when the element is on, and fan is off when the element is off.
- Replaces many of the OEM and competitive models.
- Auxiliary switch controls a second R8330 in application with more than three elements.
- Cycles ON within two minutes, OFF within four minutes.
- Ten-second minimum delay between stages (makes sequence and break sequence.)
- Timings meet EEI-NEMA and ARI 280 Standards

Part Number	Coil Ratings Voltage	Dimensions (in)	Temperature Range (F/C)	Description
R8330D1039	24 Vac	3-1/16 H x 4-13/16 W x 2-11/32 D	-29 C to +66 C/-20 F to +150 F	24 Vac Electric Furnace Sequencer

Ignition Cable Assembly



Part Number	Ignition System Type	Length (In/mm)	Description
394800-30	Intermittent Pilot	30" Long	30" Ignition Cable Assembly With Right Angle Boot for Pilot Burner Connection

OIL BURNER CONTROLS

Oil Primaries



Overview
 R7184 is a Line voltage, safety rated, control for residential oil fired burners, used in boilers, forced air furnaces and water heaters. When used with a CAD cell flame sensor, operates an oil burner and optional oil valve.

- Features:**
- Compatible with hydronic and forced air applications.
 - Patented cad cell resistance readout.
 - Available in 15-, 30-, and 45-second lockout times.
 - Safe start check.
 - Indicator light monitors burner flame status and system lockout.
 - Uses proven flame detection and monitoring systems.
 - Optional valve-on delay, blower-off delay models: 15 second, or selectable 0 or 15 second valve-on delay.
 - Zero time or selectable 0-, 2-, 4-, 6-minute blower-off delay.
 - Oil valve control.
 - Compatible with power venters without integral timers.
 - Oil-resistant plastic cover for electronics.

Part Number	Lead Length (in.)	Temperature Range (F)	Mounting	Ignition Type	Description
R8184G4009	10 in.	-40 F to +147 F	Junction box on main burner	Interrupted	Electric. Oil Primary, 15 sec. lockout

Accessories

Air Boot

Part Number	Description
51747	Air Boot, Optional Kit Allows Combustion Air to be Piped Directly to the Burner

Air Tube

Part Number	Description
3948973	Air Tube 6-1/2" Used with R40 F5, R40 BF5

Connector Tube Assembly

Part Number	Description
51127	Connector Tube Assembly, 11"

Electrode Insulator Kit



Part Number	Description
51811U	Electrode Insulator Kit

OIL BURNER CONTROLS

Accessories

Flame Detector Replacement Parts



Part Number	Sensitivity	Description
120320	400-1600 Ohm	Replacement Cell Assembly, 400-1600 Ohm Sensitivity

Head Air Adjustment Mechanism Assembly

Part Number	Description
52000U	Head/Air Adjustment Mechanism Assembly

Inlet Air Adapter

Part Number	Description
1014U	Inlet Air Adapter, Outside Air Kit

Line Kit

Part Number	Description
C7001025	2 Line Kit Used with R40 BF3, 0.5-0.95GPH

Mounting Plate, Burner Cover

Part Number	Description
32103U	Mounting Plate, Burner Cover

Nozzle Outlet Fitting

Part Number	Description
3007581	Nozzle Outlet Fitting Used with F3, F5, F10, F15, Bf3 and Bf5

Oil Heating Controls



Part Number	Length (In)	Firing Rate GPH	Fits	Description
NL47YH	4-7/8"	0.50-1.10 GPH	NL47WP	Electrode Assembly AF & AFG Burner NL47YH

Retention Head Assembly

Part Number	Description
52019U	Retention Head Assembly, 6 - slo

OIL BURNER CONTROLS

Accessories

Sound Cover



Features:

- For use with AF, AFG, CF375 models
- Reducing air and component noise in nearby areas, enhancing the appearance of the burner, providing a solution to the outside air needs

Part Number	Description
5207301U	Sound Cover use With AF, AFG, CF375 Models

Molded Case Circuit Breakers

Lug Kits



Part Number	Type	Description
TA1FD350A	Lug Kit	Line and Load Terminals, Aluminum, Cu/Al Wire, 4-350 AWG Wire Range, 1 Conductor, 1 Lug.
TA2J6500	Lug Kit	Line and Load Terminals, Aluminum, Cu/Al Wire, Accepts 3/0-500 AWG , 2 Conductors, 1 Lug.

PILOT BURNERS

Standing Pilot Burners



Overview

Non primary-aerated, insert orifice type pilot burner for main burner ignition. Used with Q309, Q340, Q390 thermocouples or Q313 thermopiles.

Features:

- Variety of mounting brackets available
- Single tip style
- Variety of tip directions to provide desired flame pattern.
- Interchangeable, color-coded orifices can be ordered to convert between natural and LP gas

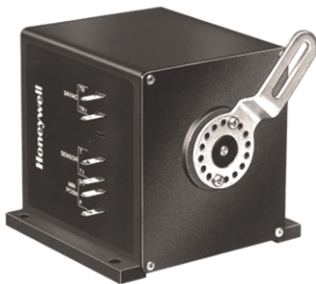
Includes:

BCR-18, BBR-10, CAR-12, CAR-13, BBR-8 orifices, Standard and low BTU hoods, Adjustable tip style, Universal mounting bracket

Part Number	Compression Fitting Size	Used With	Mounting	Type of Gas	Description
Q314A4586	1/4 in. and 1/8 in.	Q309, Q340, Q390, Q313	U	Natural; LP	Universal Pilot Burner For Standing Pilot Applications, Target Style Hood

ECONOMIZERS

Damper Actuators



Features:

- Synchronous Motor
- Quiet, high efficiency drive motor
- Spring returns motor shaft to normal position in the event of power failure
- High impact, glass-fiber reinforced plastic case is rugged, lightweight and corrosion resistant
- Uses Q298B Linkage
- Approvals, Underwriters Laboratories Inc.- Listed File: E4436, Guide: XAPX
- External Auxiliary Switches Available

Part Number	Dimensions (in)	Frequency	Mounting	Weight	Description
M7415B1004	4-1/2 H x 5 W x 5-3/16 D	50 Hz, 60 Hz	Foot Mounted	3 lb	25 lb-in, SR , Thermistor Modulating Black Motor, 24V

Logic Module - JADE Economizer Logic Module



Features:

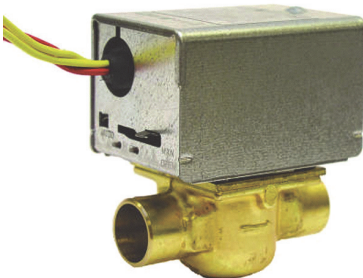
- These valves offers wide-capacity control for almost any IP, HSI or DSI gas-fired appliances
- The JADE Economizer System is an expandable economizer control system, which includes a W7220 Economizer Module (controller) with an LCD and keypad
- The W7220 can be configured for 4 different economizer strategies: referential or differential dry bulb, referential or differential enthalpy
- The W7220 Economizer Module can be used as a standalone economizer module wired directly to a commercial set back space thermostat and sensors to provide Outdoor Air dry-bulb economizer control
- The W7220 Economizer Module can be connected to optional Sylk Bus sensors for single or differential enthalpy control.
- The W7220 Economizer Module provides power and communications on the Sylk Bus for the Sylk Bus sensors
- The W7220 Economizer Module automatically detects sensors by polling to determine which sensors are present. If a sensor loses communications after it has been detected, the W7220 Economizer indicates a device fail error on the display or through the AUX 1 OUT terminal programmed to SYS
- Use with Sensor-Dry Bulb Temperature and Mixed Air, C7250A:Temperature and Humidity, C7400S1000 (optional): DCV
- (CO2) Sensor (C7232):Humidity, C7600 (optional)
- Input-Dry Bulb Temperature and Mixed Air, C7250A:Temperature and Humidity, C7400S1000 (optional): DCV (CO2)
- Sensor (C7232):Humidity, C7600 (optional)
- Used With-Honeywell Series 72 actuators; C7232
- Approvals, Underwriters Laboratories Inc-Flammability Rating UL94V-5V
- Approvals, Federal Communications Commission-Compliant
- Approvals, CE-Compliant
- Approvals, Others-Complies with California Title 24
- Approvals, C-Tick-Approved

Part Number	Dimensions W x H x L in (mm)	Frequency	Output	Voltage	Description
W7220A1000	6.3 x 4.98 x 1.34 Deep (160 x 126.4 x 34 Deep)	50 Hz- 60 Hz	2-10 Vdc to actuator	24 Vac	JADE Economizer Logic Module with DCV and Commissioning for Economizer Systems

HYDRONIC HEATING

Zone Valve And Motor

Model - V8043E1012/U


Features:

- Two-way on-off low voltage valves consist of an actuator and valve assembly for controlling the flow of hot water
- Manual opener (on all models, except straight-through, normally open valves) for valve operation on power failure; valve returns to automatic position when power is restored.
- All models may be installed without disassembling the valve.
- Compact construction for easy installation.
- Complete powerhead may be removed or replaced without breaking plumbing line connections or draining the system.
- Actuator motor may be replaced without removing the valve body or draining the system.
- Approvals, Underwriters Laboratories Inc.-UL Listed: File MH11826
- Comments-Use this valve in closed loop hydronic systems that do not contain dissolved oxygen in system water, such as fresh water from frequent source of makeup water. Valve designed for cycling (not constantly powered on) applications

Part Number	Frequency	Pipe Size	Voltage	Description
V8043E1012	50 Hz- 60 Hz	3/4"	24 Vac; Power Consumption--7.7 VA	24V 3/4 in Sweat N.C. Zone Valve, 18 in. Leads

Model - V8043F1036/U


Features:

- Two-way on-off low voltage valves consist of an actuator and valve assembly for controlling the flow of hot water
- Manual opener (on all models, except straight-through, normally open valves) for valve operation on power failure; valve returns to automatic position when power is restored.
- All models may be installed without disassembling the valve.
- Compact construction for easy installation.
- Complete powerhead may be removed or replaced without breaking plumbing line connections or draining the system.
- Actuator motor may be replaced without removing the valve body or draining the system.
- Approvals, Underwriters Laboratories Inc.-UL Listed: File MH11826
- Comments-Use this valve in closed loop hydronic systems that do not contain dissolved oxygen in system water, such as fresh water from frequent source of makeup water. Valve designed for cycling (not constantly powered on) applications

Part Number	Frequency	Pipe Size	Voltage	Description
V8043F1036	50 Hz- 60 Hz	3/4"	24 Vac; Power Consumption--7.7 VA	24V 3/4 in Sweat N.C. Zone Valve, Screw Terminal Block

Switching Relays

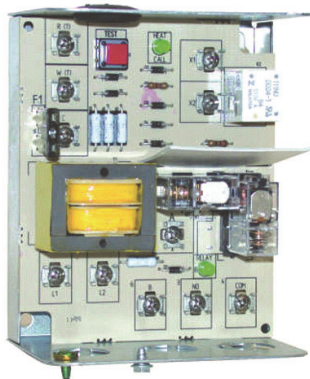

Features:

- Integral transformer provides low voltage power for control circuit.
- Application: Provide intermediate SPST switching of a line voltage device from a low voltage controller.
- Approvals, Underwriters Laboratories Inc.- Listed: File No. E4436, Guide No. XAPX.
- Approvals, Canadian Standards Association Certified: File No. LR1620.

Part Number	Dimensions (in)	Frequency	Voltage	Description
RA89A1074	5-1/4 H x 4-1/4 x 2-5/16 D	50 Hz, 60 Hz	Input -120V	Switching Relay with Internal Transformer

HYDRONIC HEATING

Universal Switching Relay



Overview

The R8845U Universal Switching Relay with 24 V transformer provides intermediate switching of line- and low-voltage devices from a line- or low-voltage controller and is typically applied in Hydronic heating systems.

Features:

- Replaceable socketed relays.
- Two troubleshooting LED.
- Push-to-test button.
- Replaceable transformer fuse.
- Low-voltage contact rating for Powerpile applications.
- Long-life DC relay drive control technology.
- Relay for use with external 24 Vac or 24 Vdc supply, with line-voltage control, or with internal 24 V transformer supply.
- One model replaces many competitor models.
- One model may replace many Honeywell models: R182A,B,C,J; R482A,B,C,J; R845; R882A,B,C,J and RA832.

Part Number	Temperature Ratings (C)	Includes	Frequency	Input Voltage	Description
RA832A1066	Ambient: -29 C to +49 C	Integral Transformer, Enclosure	60 Hz	120V	Universal Switching Relay W. Int. Transformer

AC&R COMPONENTS

Totaline® Liquid Line Filter-Driers P502-8 Series

Features:

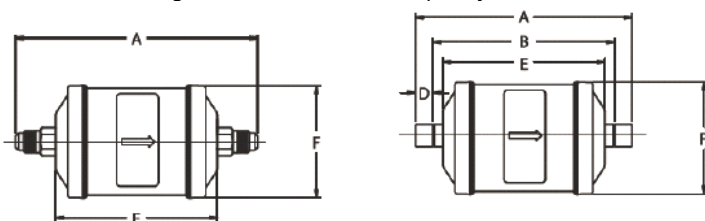
- Compacted bead filter drier, with a fine 20 Micron outlet pad for maximum filtration
- Universal Replacement for CFC, HCFC, and HFC Refrigerants
- Filtration first for more effective use of surface area of desiccant
- Solid copper connection for easy installation

Specifications:

- Filtration: 20 microns
- Maximum working pressure: size 03-75 680 psig
- Desiccant blend – 75% molecular sieve and 25% activated alumina for high moisture and acid capacity

NOMENCLATURE - Example: P502-8 Liquid Line filter Driers

P502-8	08	4	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



Part Number	Connection Size & Type	Dimensions (In)					Weight (lbs)
		A	B	D	E	F	
P502-8032	1/4 SAE	4.38			2.57	1.75	0.48
P502-8032S	1/4 ODF	3.83	2.71	0.56	2.57	1.75	0.48
P502-8032MF	1/4 Male/In SAE	3.92			2.57	1.75	0.48
P502-8033	3/8 SAE	4.69			2.57	1.75	0.48
P502-8033S	3/8 ODF	4.03	2.79	0.62	2.57	1.75	0.48
P502-8052	1/4 SAE	4.83			3.02	2.64	1.04
P502-8052S	1/4 ODF	4.15	3.46	0.35	3.02	2.64	1.04
P502-8053	3/8 SAE	5.14			3.02	2.64	1.04
P502-8053S	3/8 ODF	4.48	3.24	0.62	3.02	2.64	1.04
P502-8082	1/4 SAE	5.64			3.83	2.64	1.23
P502-8082S	1/4 ODF	4.96	4.27	0.35	3.83	2.64	1.23
P502-8083	3/8 ODF	5.95			3.83	2.64	1.23
P502-8083S	3/8 ODF	5.29	4.05	0.62	3.83	2.64	1.23
P502-8084	1/2 SAE	6.17			3.83	2.64	1.23
P502-8084S	1/2 ODF	5.33	4.07	0.63	3.83	2.64	1.23
P502-8162	1/4 SAE	6.58			4.77	2.64	1.49
P502-8162S	1/4 ODF	5.90	5.21	0.35	4.77	2.64	1.49
P502-8163	3/8 SAE	6.89			4.77	2.64	1.49
P502-8163S	3/8 ODF	6.24	5.43	0.40	4.77	2.64	1.49
P502-8164	1/2 SAE	7.11			4.77	2.64	1.49
P502-8164S	1/2 ODF	6.33	5.33	0.50	4.77	2.64	1.49
P502-8165	5/8 SAE	7.57			4.77	2.64	1.49
P502-8165S	5/8 ODF	6.55	5.30	0.63	4.77	2.64	1.49
P502-8167S	7/8 ODF	7.13	5.63	0.75	4.77	2.64	1.49
P502-8303	3/8 SAE	9.66			7.54	3.14	3.01
P502-8303S	3/8 ODF	9.01	8.21	0.40	7.54	3.14	3.01
P502-8304	1/2 SAE	9.88			7.54	3.14	3.01
P502-8304S	1/2 ODF	9.10	8.10	0.50	7.54	3.14	3.01
P502-8305	5/8 SAE	10.34			7.54	3.14	3.01
P502-8305S	5/8 ODF	9.32	8.07	0.63	7.54	3.14	3.01
P502-8306S	3/4 ODF	9.73	8.48	0.63	7.54	3.14	3.01
P502-8307S	7/8 ODF	9.90	8.40	0.75	7.54	3.14	3.01
P502-8309S	1-1/8 ODF	10.26	8.45	0.90	7.54	3.14	3.01
P502-8413	3/8 SAE	9.79			7.67	3.64	3.35

AC&R COMPONENTS

Totaline® Liquid Line Filter-Driers P502-8 Series

Part Number	Connection Size & Type	Dimensions (In)					Weight (lbs)
		A	B	D	E	F	
P502-8414	1/2 SAE	10.01			7.67	3.64	3.35
P502-8414S	1/2 ODF	9.23	8.23	0.50	7.67	3.64	3.35
P502-8415	5/8 SAE	10.47			7.67	3.64	3.35
P502-8415S	5/8 ODF	9.45	8.20	0.63	7.67	3.64	3.35
P502-8417S	7/8 ODF	10.03	8.53	0.75	7.67	3.64	3.35
P502-8419S	1-1/8 ODF	10.39	8.58	0.91	7.67	3.64	3.35
P502-8757S	7/8 ODF	15.25	14.02	0.61	13.16	3.64	6.14
P502-8759S	1-1/8 ODF	15.88	14.07	0.91	13.16	3.64	6.14

PHYSICAL DATA

PART NO.	FLOW CAPACITY* (Tons) @ 1 PSI ΔP				WATER CAPACITY † (Drops of Water)**										
					Refrigerant										
	R-134a		R-22		R-404A/R507		R-410A								
	Liquid Line Temperature (F)								75	125	75	125	75	125	75
R-134a	R-22	R-404A/R507	R-410A	75	125	75	125	75	125	75	125	75	125		
P502-8032	2.0	2.2	1.4	2.2	40	37	40	33	38	37	21	19			
P502-8032MF	2.0	2.2	1.4	2.1											
P502-8032S	2.7	2.9	2.0	2.9											
P502-8033S	3.0	3.3	2.2	3.3											
P502-8052	2.1	2.3	1.5	2.3	116	106	114	97	109	106	64	58			
P502-8052S	3.3	3.6	2.4	3.6											
P502-8053	3.5	3.8	2.5	3.8											
P502-8053S	4.4	4.8	3.2	4.9											
P502-8082	2.3	2.5	1.7	2.5	237	218	235	200	224	217	159	118			
P502-8082S	3.1	3.4	2.3	3.4											
P502-8083	4.0	4.3	2.9	4.3											
P502-8083S	4.5	4.9	3.3	4.9											
P502-8084	6.7	7.3	4.9	7.3	371	341	368	313	350	340	206	186			
P502-8084S	7.1	7.7	5.2	7.7											
P502-8162	2.3	2.5	1.6	2.5											
P502-8162S	3.1	3.4	2.3	3.0											
P502-8163	3.9	4.2	2.9	4.2	664	611	657	561	627	608	515	355			
P502-8163S	4.4	4.8	3.2	4.8											
P502-8164	7.2	7.8	5.2	7.8											
P502-8164S	8.5	9.2	6.2	9.2											
P502-8165	9.7	10.5	7.0	10.5	938	854	919	785	876	850	715	465			
P502-8165S	10.1	10.9	7.3	10.9											
P502-8167S	15.5	16.8	11.2	16.8											
P502-8303	4.3	4.7	3.1	4.7											
P502-8303S	6.3	6.8	4.5	6.8	2159	2019	2159	1880	2019	2019	1460	1111			
P502-8304	8.1	8.8	5.9	8.8											
P502-8304S	10.0	10.8	7.2	10.8											
P502-8305	10.6	11.5	7.7	11.5											
P502-8305S	12.5	13.5	9.0	13.5	938	854	919	785	876	850	715	465			
P502-8306S	14.8	16.0	10.7	16.0											
P502-8307S	16.8	18.2	12.2	18.2											
P502-8309S	19.6	21.2	14.2	21.2											
P502-8413	4.3	4.7	3.1	4.7	2159	2019	2159	1880	2019	2019	1460	1111			
P502-8414	10.4	11.3	7.5	11.3											
P502-8414S	10.8	11.7	7.8	11.7											
P502-8415	12.0	13.0	8.7	13.0											
P502-8415S	17.0	18.4	12.3	18.4	938	854	919	785	876	850	715	465			
P502-8417S	20.3	22.0	14.7	22.0											
P502-8419S	27.7	30.0	20.1	30.3											
P502-8757S	22.2	24.1	16.1	24.1											
P502-8759S	32.7	35.4	23.7	35.4	2159	2019	2159	1880	2019	2019	1460	1111			

*All ratings in accordance with ARI Standard 710-86. 86° F Liquid Refrigerant Temperature, 5° F Saturated Vapor Temperature, 3.1 lbs/min/ton for R-134a, 2.9 lbs/min/ton for R-22, 4.0 lbs/min/ton for R-404A/R-507.

†Water Capacities are based on: Equilibrium Point Dryness of 50 Parts Per Million for R-134a,

Equilibrium Point Dryness of 60 Parts Per Million for R-22,

Equilibrium Point Dryness of 50 Parts Per Million for R-404A/R-507.

**20 drops of water = 1 gram = 1cc.

AC&R COMPONENTS

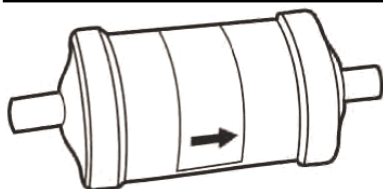
TOTALINE® LIQUID LINE FILTER DRIERS

UNIT SIZE	LIQUID REFRIGERANT CAPACITY BY WEIGHT OUNCES							
	R-134a		R-22		R-404A/R507		R-410A	
	Liquid Line Temperature (F)							
	75	125	75	125	75	125	75	125
3	2.6	3	2.6	2.3	2.3	1.9	2.3	1.9
5	6	5.4	5.9	5.3	5.2	4	5.3	4.4
8	7.6	6.9	7.5	6.8	6.6	6	6.7	5.7
16	9.4	8.5	9.3	8.4	8.2	6.9	8.3	7
30	26.4	23.9	26.1	23.5	22.9	4	23.3	19.6
41	36.8	33.2	36.4	32.5	31.9	26.8	32.5	27.2
75	66.5	60.3	65.8	59.2	57.7	48.9	58.7	49.5

Driers

AC&R COMPONENTS

Totaline® Liquid Line Filter Driers P502-C Series



Features:

- Economy solid core liquid line filter drier ideal for use w/CFC & HCFC refrigerants
- Solid copper fittings
- High moisture and acid removal
- Corrosion resistant paint
- Shock resistant steel shell construction

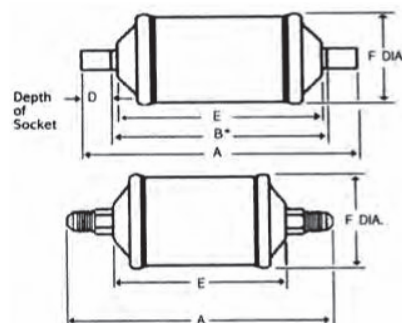
Specifications:

Desiccant Blend: Activated Alumina with molecular sieve

Max. working press: Sizes 03-75, 680

psig UL/CUL file number: SA3124

Filtration: 40 microns



NOMENCLATURE - Example: P502-C Liquid Line filter Driers			
P502-C	08	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Part Number	Connection Size & Type	Dimensions (In)				F *	Ship WT. (lbs)
		A	B	D	E		
P502-C032	1/4 SAE	4-3/8	—	—	2-9/16	1-5/8	1/2
P502-C032S	1/4 ODF	3-7/8	3-1/8	3/8	2-9/16	1-5/8	1/2
P502-C033	3/8 SAE	4-11/16	—	—	2-9/16	1-5/8	1/2
P502-C033S	3/8 ODF	4-1/16	3-3/16	7/16	2-9/16	1-5/8	1/2
P502-C052	1/4 SAE	4-13/16	—	—	3	2-5/8	3/4
P502-C052S	1/4 ODF	4-7/16	3-11/16	3/8	3	2-5/8	3/4
P502-C053	3/8 SAE	5-1/8	—	—	3	2-5/8	3/4
P502-C053S	3/8 ODF	4-1/2	3-5/8	7/16	3	2-5/8	3/4
P502-C082	1/4 SAE	5-5/8	—	—	3-13/16	2-5/8	1-1/4
P502-C082S	1/4 ODF	5-1/4	4-1/2	3/8	3-13/16	2-5/8	1-1/4
P502-C083	3/8 SAE	5-15/16	—	—	3-13/16	2-5/8	1-1/4
P502-C083S	3/8 ODF	5-5/16	4-7/16	7/16	3-13/16	2-5/8	1-1/4
P502-C084	1/2 SAE	6-3/16	—	—	3-13/16	2-5/8	1-1/4
P502-C084S	1/2 ODF	5-3/8	4-3/8	1/2	3-13/16	2-5/8	1-1/4
P502-C162	1/4 SAE	6-7/16	—	—	4-5/8	2-5/8	2
P502-C162S	1/4 ODF	6-7/16	5-1/4	7/16	4-5/8	2-5/8	2
P502-C163	3/8 SAE	6-3/4	—	—	4-5/8	2-5/8	2
P502-C163S	3/8 ODF	6-1/8	5-1/4	7/16	4-5/8	2-5/8	2
P502-C164	1/2 SAE	6-15/16	—	—	4-5/8	2-5/8	2
P502-C164S	1/2 ODF	6-3/16	5-3/16	1/2	4-5/8	2-5/8	2
P502-C165	5/8 SAE	7-7/16	—	—	4-5/8	2-5/8	2
P502-C165S	5/8 ODF	6-3/8	5-1/8	5/8	4-5/8	2-5/8	2
P502-C167S	7/8 ODF	6-15/16	5-7/16	3/4	4-5/8	2-5/8	2
P502-C303	3/8 SAE	9-5/8	—	—	7-1/2	3-1/16	3-3/4
P502-C303S	3/8 ODF	9	8-1/8	7/16	7-1/2	3-1/16	3-3/4
P502-C304	1/2 SAE	9-7/8	—	—	7-1/2	3-1/16	3-3/4
P502-C304S	1/2 ODF	9-1/8	8-1/8	1/2	7-1/2	3-1/16	3-3/4
P502-C305	5/8 SAE	10-5/16	—	—	7-1/2	3-1/16	3-3/4
P502-C305S	5/8 ODF	9-5/16	8-1/16	5/8	7-1/2	3-1/16	3-3/4
P502-C306S	3/4 ODF	9-5/16	8-1/16	5/8	7-1/2	3-1/16	3-3/4
P502-C307S	7/8 ODF	9-7/8	8-3/8	3/4	7-1/2	3-1/16	3-3/4

AC&R COMPONENTS

Totaline® Liquid Line Filter Driers P502-C Series

Part Number	Connection Size & Type	Dimensions (In)				F *	Ship WT. (lbs)
		A	B	D	E		
P502-C309S	1-1/8 ODF	10-3/16	8-3/8	15/16	7-1/2	3-1/16	3-3/4
P502-C414S	1/2 ODF	9-1/4	8-1/4	1/2	7-5/8	3-11/16	4-3/4
P502-C415	5/8 SAE	10-7/16	—	—	7-5/8	3-11/16	4-3/4
P502-C415S	5/8 ODF	9-7/16	8-3/16	5/8	7-5/8	3-11/16	4-3/4
P502-C417S	7/8 ODF	10	8-1/2	3/4	7-5/8	3-11/16	4-3/4
P502-C419S	1-1/8 ODF	10-5/16	8-1/2	15/16	7-5/8	3-11/16	4-3/4
P502-C757S	7/8 ODF	15-7/16	13-15/16	3/4	13-1/16	3-11/16	7-1/2
P502-C759S	1-1/8 ODF	15-3/4	13-7/8	15/16	3-11/16	3-11/16	7-1/2

* Does not include weld bead.

AC&R COMPONENTS

Totaline® Liquid Line Burnout Filter Driers - P508 Series



Application

The P508 series liquid line filter drier was designed for maximum effectiveness in the cleanup of systems following a severe burnout where a maximum capacity for water and acids is essential. This series utilizes a molded block of activated alumina, molecular sieve, and activated carbon. This blend of activated alumina and activated carbon will remove the acids and products of a compressor burnout.

Features:

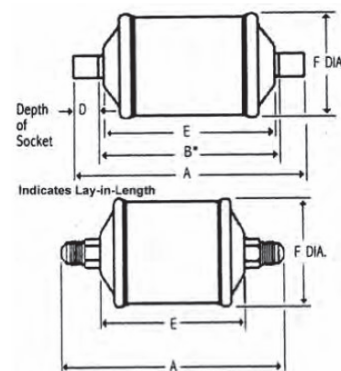
- Solid Copper Fittings
- Corrosion Resistant Epoxy Powder Paint Finish
- Rugged Steel Shell (Shock Resistant)
- Wax Control for Low Temperature Applications
- Extra Moisture and Acid Removal Capacity

Specifications:

- Filtration: 40 microns
- Maximum Working Pressure: 680 psig
- UL/CUL File# SA3124

NOMENCLATURE - Example: P508-8 Liquid Line Burnout Filter Driers

P508-8	16	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



Part Number	Connection Size	Dimensions (In)					Ship WT. (lbs)
		A	B	D	E	F*	
P508-8163S	3/8 ODF	6-1/8	5-1/4	7/16	4-5/8	2-7/8	2
P508-8164S	1/2 ODF	6-3/16	5-3/16	1/2	4-5/8	2-7/8	2
P508-8165	5/8 SAE	7-7/16	—	—	4-5/8	2-7/8	2
P508-8165S	5/8 ODF	6-3/8	5-1/8	5/8	7-1/2	3-1/16	3-3/4
P508-8304	1/2 SAE	9-7/8	—	—	7-1/2	3-1/16	3-3/4
P508-8304S	1/2 ODF	9-1/8	8-1/8	1/2	7-1/2	3-1/16	3-3/4
P508-8305	5/8 SAE	10-5/16	—	—	7-1/2	3-1/16	3-3/4
P508-8305S	5/8 ODF	9-5/16	8-1/16	5/8	7-1/2	3-1/16	3-3/4
P508-8417S	7/8 ODF	10-7/16	—	—	7-5/8	3-11/16	4-3/4

*Does not include weld bead.

CAPACITY TABLE

PART NO.	FLOW CAPACITY TONS @ 1 psi ΔP (For kW, multiply tons by 3.5)							WATER CAPACITY DROPS OF WATER													
	R-12	R-134a	R-22	R-410A	R-407C	R-404A/507	R-502	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
								75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
P508-8163S	4.8	5.8	6.3	6.3	6.2	4.2	4.1	209	143	171	141	153	117	91	56	77	41	182	141	135	100
P508-8164S	8.4	10.2	11.1	11.1	10.9	7.4	7.2														
P508-8165	10.5	12.8	13.9	13.9	13.6	9.3	9.0														
P508-8165S	10.5	12.8	13.9	13.9	13.6	9.3	9.0														
P508-8304	8.1	9.9	10.7	11.7	10.5	7.2	7.0	552	367	300	245	267	204	234	146	160	94	318	247	342	249
P508-8304S	8.9	10.8	11.7	14.6	11.5	7.8	7.6														
P508-8305	11.1	13.5	14.6	15.8	14.3	9.8	9.5														
P508-8305S	12.0	14.6	15.8	11.1	15.5	10.6	10.3														
P508-8417S	16.3	19.8	21.5	21.5	21.1	14.4	14.0	623	410	427	344	379	282	256	155	220	125	454	342	380	274

LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
0 8	7.3	6.6	6.7	6.0	6.6	5.9	6.3	5.5	5.9	4.9	5.8	4.9	6.7	5.9
1 6	13.9	12.7	12.8	11.5	12.6	11.3	12.0	10.5	11.2	9.4	11.1	9.3	12.9	11.3
3 0	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	17.7	14.9	17.4	14.7	20.2	17.7
4 1	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	27.2	23.8

AC&R COMPONENTS

Totaline® Standard Capacity Suction Line Filter Driers- P503-C Series

Features:

- Dual Access Valve on each end for accurate pressure drop reading
- For Use with HCFCs, & CFCs
- High Organic and Inorganic Acid Removal
- Corrosion Resistant Paint
- Unique Molded Desiccant Block

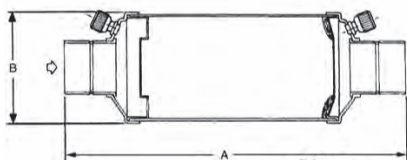
Application:

Removes solid contaminants and harmful acids that are created during motor burnout. The suction line filter drier should be installed in Remote systems with long refrigerant lines to remove contaminants.

Specifications:

- Max Working Pressure = 500 psig

NOMENCLATURE - Example: P503-C Standard Capacity Suction Line Filter Driers			
P503-C	16	7	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



Part Number	Connection Size & Type	Dimensions (In)	
		A	B
P503-C165S	5/8 ODF	6.54	2.5
P503-C166S	3/4 ODF	6.95	2.5
P503-C167S	7/8 ODF	7.13	2.5
P503-C305S	5/8 ODF	9.21	3.0
P503-C306S	3/4 ODF	9.63	3.0
P503-C307S	7/8 ODF	9.80	3.0
P503-C309S	1-1/8 ODF	9.80	3.0
P503-C417S	7/8 ODF	9.92	3.5
P503-C419S	1-1/8 ODF	9.92	3.5

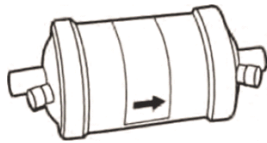
CONNECTIONS, DIMENSIONS, FLOW CAPACITIES* IN REFRIGERANT TONS AT SELECTED EVAPORATOR TEMPERATURES

PART NO	+40°F +20°F 0°F -20°F				+40°F +20°F 0°F -20°F				+20°F 0°F -20°F -40°F				+20°F			
	R-134a				R-22						R-502					
	Pressure Drop in PSI															
	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5		
P503-C165S	2.2	1.5	0.9	0.5	3.4	2.2	1.5	1.0	0.5	2.8	1.8	1.2	0.8	0.4		
P503-C166S	2.6	1.8	1.1	0.6	4.1	2.7	1.8	1.2	0.6	3.4	2.2	1.5	0.9	0.5		
P503-C167S	2.7	1.8	1.1	0.6	4.6	2.8	1.9	1.1	0.6	4.3	2.6	1.7	1.0	0.6		
P503-C305S	2.8	1.8	1.1	0.6	4.3	2.8	1.9	1.2	0.6	3.6	2.3	1.5	1.0	0.5		
P503-C306S	3.4	2.3	1.4	0.7	5.4	3.5	2.4	1.5	0.8	4.4	2.8	1.9	1.2	0.6		
P503-C307S	3.8	2.5	1.6	0.8	5.9	3.9	2.6	1.7	0.9	4.9	3.1	2.1	1.3	0.7		
P503-C309S	3.9	2.6	1.6	0.8	6.1	4.0	2.7	1.7	0.9	5.0	3.2	2.2	1.3	0.7		
P503-C417S	4.8	3.2	2.0	1.0	7.6	4.9	3.4	2.1	1.1	6.2	4.0	2.7	1.7	0.9		
P503-C419S	5.4	3.6	2.2	1.2	8.5	5.5	3.8	2.4	1.3	6.9	4.5	3.0	1.9	1.0		

* All ratings in accordance with ARI Standard 710-86.

AC&R COMPONENTS

Totaline® High Capacity Suction Line Filter Driers - P503-8 Series



Application:

- Premium suction line filter drier for moisture, acid & contaminant removal.
- For use with CFC, HCFC, and HFC refrigerants.
- Totaline's P503-8 Series is a high capacity suction line filter drier that incorporates beaded desiccant plus a filter.

Features:

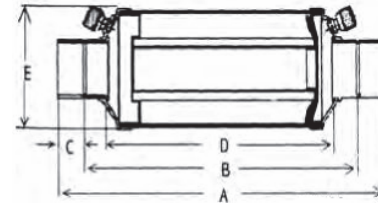
- Solid copper fittings
- Dual Access Valves
- Corrosion Resistant Paint Finish
- High Filtration Capacity

Specifications:

- Filtration: 40 microns
- Maximum Working Pressure: 500 PSIG
- UL/CUL File Number: SA3124



NOMENCLATURE - Example: P503-8 High Capacity Suction Line Filter Driers			
P503-8	45	7	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



Part Number	Connection Size	Dimensions (In)					Ship WT. (lbs)
		A	B	C	D	E	
P503-8283	3/8 SAE	5-19/32	—	7/16	4-1/8	3-11/16	2
P503-8283S	3/8 ODF	5-19/32	4-23/32	7/16	4-1/8	3-11/16	2
P503-8355S	5/8 ODF	6-17/32	5-9/32	5/8	4-3/4	3-11/16	2-1/2
P503-8456S	3/4 ODF	7-3/4	6-1/2	5/8	5-9/16	3-11/16	3
P503-8457S	7/8 ODF	7-15/16	6-7/16	3/4	5-9/16	3-11/16	3
P503-8509S	1-1/8 ODF	8-27/32	7-1/32	29/32	6-1/8	3-11/16	3-1/2
P503-87511S	1-3/8 ODF	12-1/4	10-5/16	31/32	8-1/4	3-11/16	5
P503-87513S	1-5/8 ODF	12-5/32	9-29/32	1-1/8	8-1/4	3-11/16	5

CAPACITY TABLE

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)																	
	R-12				R-134a				R-22				R-407C					
	Evaporator Temperature (°F)																	
	40	20	0	-20	40	20	0	-20	40	20	0	-20	-40	40	20	0	-20	-40
	Pressure Drop (PSI)																	
	2	1.5	1	0.5	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
P503-8283	1.1	0.4	0.5	0.5	1.1	0.5	1	0.4	2.3	1.3	0.9	0.4	0.5	2.4	1.5	1.1	1	0.5
P503-8283S	1.1	0.6	0.5	0.5	1.1	0.6	0.5	0.4	2.3	1.3	0.9	0.6	0.5	2.6	1.5	1.1	0.7	0.7
P503-8355S	2.8	1.9	1.4	1.1	2.9	1.9	1.3	1	5.8	3.2	2.2	1.6	1	6.5	3.7	2.7	2.0	1.3
P503-8456S	3.8	2.5	1.8	1.2	3.9	2.5	1.7	1.1	7	4.6	3.2	2	1.1	7.8	5.3	3.9	2.5	1.5
P503-8457S	5.0	3.6	2.3	1.5	5.1	3.5	2.2	1.3	9.2	6	4.1	2.6	1.4	10	6.9	4.9	3.2	1.9
P503-8509S	7.1	5.0	3.2	1.8	7.3	4.9	3	1.6	13.2	8.5	5.7	3.5	1.8	15	9.7	6.9	4.3	2.4
P503-87511S	8.6	5.9	3.7	2.0	8.8	5.8	3.5	1.8	16.2	10.2	6.7	4	2	18	12	8.1	4.9	2.7
P503-87513S	9.0	6.2	3.9	2.1	9.3	6.1	3.7	1.9	17.3	10.7	7	4.2	2.1	19	12	8.4	5.2	2.8

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)														
	R-410A					R-502					R-404A/507				
	Evaporator Temperature (°F)														
	40	20	0	−20	−40	40	20	0	−20	−40	40	20	0	−20	−40
	Pressure Drop (PSI)														
	3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
P503-8283	1.6	0.9	0.6	0.4	0.3	2.2	1.1	0.3	0.5	0.3	2.1	1.1	0.7	0.5	0.3
P503-8283S	1.6	0.9	0.6	0.4	0.3	2.2	1.1	0.7	0.5	0.3	2.1	1.1	0.7	0.5	0.3
P503-8355S	4.0	2.2	1.5	1.1	0.7	5.6	2.8	1.7	1.1	0.8	5.4	2.8	1.7	1.1	0.8
P503-8456S	4.8	3.2	2.2	1.3	0.7	6.6	3.7	2.5	1.5	0.9	6.4	3.7	2.5	1.6	1
P503-8457S	6.3	4.1	2.8	1.7	0.9	7.7	4.8	3.3	1.9	1.0	7.5	4.8	3.3	2	1.1
P503-8509S	9.0	5.8	3.9	2.3	1.2	11	6.9	4.6	2.7	1.3	11	6.9	4.6	2.8	1.4
P503-87511S	11	7.0	4.6	2.7	1.3	14	8.4	5.4	3.1	1.5	14	8.4	5.4	3.2	1.6
P503-87513S	12	7.3	4.8	2.8	1.4	15	8.9	5.7	3.3	1.6	15	8.9	5.7	3.4	1.7

AC&R COMPONENTS

Totaline® Suction Line Filter Drier With Charcoal - P503 Series

Application:

- Solid core with special blend to maximize acid, moisture, and wax removal.
- For use with CFC, HCFC and HFC refrigerants.

Features:

- Charcoal blend for soluble contaminant and wax removal.
- Dual access valves.
- Solid copper fittings.
- Corrosion resistant epoxy powder paint finish.

Specification:

Maximum Working Pressure: 500 PSIG

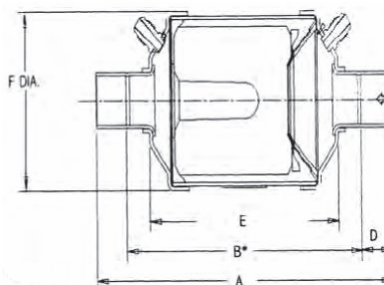
Filtration: 40 microns

UL & CUL Approved: UL file number: SA3124.



NOMENCLATURE - Example: P503-8 Suction Line Filter Driers with Charcoal

P503-8	16	7	S	VB
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)	VB = Dual Access Valves & Charcoal Blend



Part Number	Connection Size	Dimensions (In)					Ship WT. (lbs)
		A	B	D	E	F*	
P503-8165SVB	5/8 ODF	6-3/8	5-1/8	5/8	4-5/8	3-9/64	2
P503-8166SVB	3/4 ODF	6-3/4	5-1/2	3/8	4-5/8	3-9/64	2
P503-8167SVB	7/8 ODF	6-15/16	5-7/16	3/4	4-5/8	3-9/64	2
P503-8306SVB	3/4 ODF	9-11/16	8-9/16	5/8	7-1/2	3-9/64	3-3/4
P503-8307SVB	7/8 ODF	9-7/8	8-3/8	3/4	7-1/2	3-9/64	3-3/4
P503-8309SVB	1-1/8 ODF	10-3/16	8-3/8	15/16	7-1/2	3-9/64	3-3/4

*B indicates lay-in length.

CAPACITY TABLE

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)																	
	R-12				R-134a				R-22				R-407C					
	Evaporator Temperature (°F)																	
	40	20	0	-20	40	20	0	-20	40	20	0	-20	-40	40	20	0	-20	-40
	Pressure Drop (PSI)																	
	2	1.5	1	0.5	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
P503-8165SVB	1.9	1.4	0.8	0.6	2	1.4	0.8	0.5	3.4	2.1	1.4	0.9	0.4	3.8	2.4	1.7	1.1	0.5
P503-8166SVB	2.4	1.7	1.1	0.7	2.5	1.7	1	0.6	4.2	2.6	1.7	1	0.5	4.7	3	2.1	1.2	0.7
P503-8167SVB	2.6	1.8	1.2	0.7	2.7	1.8	1.1	0.6	4.6	2.8	1.9	1.1	0.6	5.1	3.2	2.3	1.4	0.8
P503-8306SVB	3.3	2.3	1.5	0.9	3.4	2.3	1.4	0.8	5.5	3.5	2.3	1.4	0.8	6.1	4	2.8	1.7	1.1
P503-8307SVB	3.5	2.5	1.6	0.9	3.6	2.5	1.5	0.8	6.1	3.8	2.5	1.5	0.8	6.8	4.4	3	1.9	1.1
P503-8309SVB	3.8	2.6	1.7	0.9	3.9	2.6	1.6	0.8	6.5	4	2.6	1.6	0.8	7.2	4.6	3.1	2	1.1

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)														
	R-410A					R-502					R-404A/507				
	Evaporator Temperature (°F)														
	40	20	0	−20	−40	40	20	0	−20	−40	40	20	0	−20	−40
	Pressure Drop (PSI)														
	3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
P503-8165SVB	2.3	1.4	1	0.6	0.3	3.3	1.9	1.2	0.8	0.3	3.2	1.9	1.2	0.8	0.3
P503-8166SVB	2.9	1.8	1.2	0.7	0.3	4	2.4	1.6	0.9	0.5	3.9	2.4	1.6	0.9	0.5
P503-8167SVB	3.1	1.9	1.3	0.7	0.4	4.4	2.6	1.7	1	0.6	4.3	2.6	1.7	1	0.6
P503-8306SVB	3.8	2.4	1.6	0.9	0.5	5.2	3.2	2.2	1.2	0.7	5	3.2	2.2	1.2	0.7
P503-8307SVB	4.2	2.6	1.7	1	0.5	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
P503-8309SVB	4.4	2.7	1.8	1.1	0.5	6.2	3.7	2.4	1.4	0.7	6	3.7	2.4	1.5	0.7

AC&R COMPONENTS

Totaline® Standard Capacity Suction Line Filter Driers- P503-8 Series

Application:

- Totaline standard compacted bead suction filter drier for use after burnout or when contaminant removal.
- For use with CFC, CHFC, & HFC refrigerants.
- Suction line filter drier used for moisture, acid and contaminant removal.

Features:

- Corrosion Resistant Epoxy Powder Paint Finish
- Solid Copper Fittings
- Dual Access Valves

Specifications:

Filtration: 40 microns

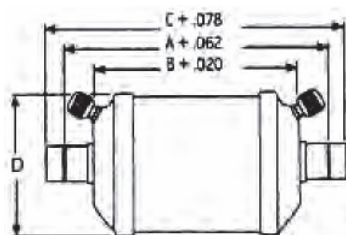
Max Working Pressure: 400 PSIG

UL & CSA Approved: UL file number: SA3124,

CSA file numbers: LR100624, LR32462



NOMENCLATURE - Example: P503-8 Standard Capacity Suction Line Filter Driers				
P503-8	13	7	S	SFD
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)	SFD = Standard Suction Filter Drier



Part Number	Connection Size	Dimensions (in)				Ship WT. (lbs)	Dessicant Volume (Cu in.)
		A	B	C	D		
P503-8134SSFD	1/2 ODF	3-15/16	3-3/8	4-15/16	3-11/16	2	13.5
P503-8135SSFD	5/8 ODF	3-29/32	3-3/8	5-5/32	3-11/16	2	13.5
P503-8136SSFD	3/4 ODF	4	3-3/8	5-1/4	3-11/16	2	13.5
P503-8137SSFD	7/8 ODF	4-1/4	3-3/8	5-3/4	3-11/16	2	13.5
P503-8277SSFD	7/8 ODF	6	5-1/8	7-1/2	3-11/16	3	27.0
P503-8279SSFD	1-1/8 ODF	5-13/16	5-1/8	7-5/8	3-11/16	3	27.0
P503-85411SSFD	1-3/8 ODF	10-5/16	8-1/4	12-1/4	3-11/16	4.5	54.0
P503-85413SSFD	1-5/8 ODF	9-29/32	8-1/4	12-5/32	3-11/16	4.5	54.0

CAPACITY TABLE

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)																	
	R-12				R-134a				R-22				R-407C					
	Evaporator Temperature (°F)																	
	40	20	0	-20	40	20	0	-20	40	20	0	-20	-40	40	20	0	-20	-40
	Pressure Drop (PSI)																	
	2	1.5	1	0.5	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
P503-8134SSFD	2.2	1.5	1.1	0.6	2.3	1.5	1	0.5	3.5	2.3	1.6	1	0.6	3.9	2.6	1.9	1.2	0.8
P503-8135SSFD	3	2.1	1.4	0.8	3.1	2.1	1.3	0.7	4.9	3.2	2.2	1.4	0.8	5.5	3.7	2.7	1.7	1.1
P503-8136SSFD	4	2.7	1.8	1	4.1	2.7	1.7	0.9	6.4	4.2	2.8	1.8	1	7.1	4.8	3.4	2.2	1.3
P503-8137SSFD	4.3	3.1	2	1.1	4.4	3	1.9	1	7.2	4.6	3	1.9	1	8	5.3	3.6	2.3	1.3
P503-8277SSFD	4.6	3.2	2	1.1	4.7	3.1	1.9	1	7.5	4.8	3.2	2	1.1	8.3	5.5	3.9	2.5	1.5
P503-8279SSFD	5.1	3.5	2.1	1.1	5.2	3.4	2	1	8.5	5.4	3.5	2.1	1.1	9.5	6.2	4.2	2.6	1.5
P503-85411SSFD	4.4	2.9	1.8	1	4.5	2.9	1.7	0.9	7.3	4.6	3	1.8	1	8.1	5.3	3.6	2.2	1.3
P503-85413SSFD	4.5	3.1	1.9	1	4.6	3	1.8	0.9	7.4	4.7	3.2	2	1	8.2	5.4	3.9	2.5	1.3

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)														
	R-410A					R-502					R-404A/507				
	Evaporator Temperature (°F)														
	40	20	0	-20	-40	40	20	0	-20	-40	40	20	0	-20	-40
	Pressure Drop (PSI)														
	3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
P503-8134SSFD	2.4	1.6	1.1	0.7	0.4	3.1	1.9	1.3	0.8	0.4	3	1.9	1.3	0.8	0.4
P503-8135SSFD	3.3	2.2	1.5	0.9	0.5	4.3	2.7	1.8	1.1	0.6	4.2	2.7	1.8	1.1	0.6
P503-8136SSFD	4.4	2.9	1.9	1.2	0.7	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
P503-8137SSFD	4.9	3.2	2	1.3	0.7	6.5	3.9	2.6	1.4	0.8	6.3	3.9	2.6	1.5	0.8
P503-8277SSFD	5.1	3.3	2.2	1.3	0.7	6.7	4.1	2.7	1.5	0.8	6.5	4.1	2.7	1.6	0.8
P503-8279SSFD	5.8	3.7	2.4	1.4	0.7	7.7	4.6	3	1.6	0.8	7.5	4.6	3	1.7	0.9
P503-85411SSFD	5	3.2	2	1.2	0.7	6.6	3.9	2.5	1.4	0.7	6.4	3.9	2.5	1.5	0.7
P503-85413SSFD	5.1	3.2	2.2	1.3	0.7	6.7	4	2.6	1.5	0.8	6.5	4	2.6	1.6	0.8

AC&R COMPONENTS

Totaline® Suction Line Filter - P507-8 Series (Premium Series)

Application:

Totaline Suction Line Filters protect the compressor from harmful solid contaminants.

Features:

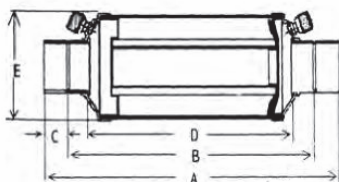
- Solid copper fittings
- Dual Access Valves
- Corrosion Resistant Epoxy Paint Finish

Specifications:

- Maximum Working Pressure: 500 PSIG
- Filtration: 40 microns
- UL & CSA Approved: UL file number: SA3124, CSA file numbers: LR100624, LR3262

NOMENCLATURE - Example: P507-8 Premium Suction Line Filter Driers

P507-8	35	5	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



Part Number	Connection Size & Type	Unit Size (in cu in.)	Dimensions (In)					Ship WT. (lbs)
			A	B	C	D	E	
P507-8214S	1/2 ODF	28	5-11/16	4-11/16	1/2	4-1/8	3-11/16	2
P507-8355S	5/8 ODF	35	6-17/32	5-9/32	5/8	4-3/4	3-11/16	2-1/2
P507-8456S	3/4 ODF	45	7-3/4	6-1/2	5/8	5-9/16	3-11/16	3
P507-8457S	7/8 ODF	45	7-15/16	6-7/16	3/4	5-9/16	3-11/16	3
P507-8569S	1-1/8 ODF	50	8-27/32	7-1/32	29/32	6-1/8	5	3-1/2
P507-89011S	1-3/8 ODF	75	12-1/4	10-5/16	31/32	8-1/4	5	5

CAPACITY TABLE

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)																	
	R-12						R-134a						R-22				R-407C	
	Evaporator Temperature (°F)																	
	40	20	0	−20	40	20	0	−20	40	20	0	−20	−40	40	20	0	−20	−40
	Pressure Drop (PSI)																	
	1.1	0.6	0.5	0.5	1.1	0.6	0.5	0.4	2.3	1.3	0.9	0.6	0.5	2.6	1.5	1.1	0.7	0.7
P507-8214S	1.9	1.3	0.9	0.8	2	1.3	0.9	0.7	4.1	2.3	1.6	1.2	0.9	4.6	2.6	1.9	1.5	1.2
P507-8355S	3.2	2.2	1.6	1.4	3.3	2.2	1.5	1.2	6.6	3.7	2.6	1.9	1.6	7.3	4.2	3.1	2.3	2.1
P507-8456S	4.7	3.2	2.3	1.8	4.8	3.1	2.2	1.6	9.8	5.5	3.7	2.7	2.2	11	6.3	4.5	3.3	3
P507-8457S	6.5	4.8	3.3	1.9	6.7	4.7	3.1	1.7	12	8	5.6	3.6	3	13	9.2	6.8	4.4	4
P507-8569S	9.2	6.8	4.5	2.6	9.5	6.7	4.3	2.3	19	12	8.2	4.9	2.6	21	14	9.9	6	3.5
P507-89011S	11.7	8.8	5.9	3.4	12	8.7	5.6	3	24	15	10	6.5	3.2	27	17	12	8	4.3

PART NO	FLOW CAPACITY IN TONS REFRIGERANT (For kW, Multiply Tons by 3.5)														
	R-410A					R-502					R-404A/507				
	Evaporator Temperature (°F)														
	40	20	0	−20	−40	40	20	0	−20	−40	40	20	0	−20	−40
	Pressure Drop (PSI)														
	1.6	0.9	0.4	0.4	0.3	2.3	1.1	0.7	0.5	0.3	2.2	1.1	0.7	0.5	0.3
P507-8214S	2.8	1.6	1.1	0.8	0.6	3.9	2	1.2	0.8	0.6	3.8	2	1.2	0.8	0.6
P507-8355S	4.5	2.5	1.8	1.3	1	6.3	3.2	2	1.4	0.9	6.1	3.2	2	1.4	1
P507-8456S	6.7	3.8	2.5	1.8	1.4	9.4	4.7	2.9	1.8	1.3	9.1	4.7	2.9	1.9	1.4
P507-8457S	8.2	5.5	3.8	2.4	2	10	6.3	4.5	2.7	1.4	9.8	6.3	4.5	2.8	1.5
P507-8569S	13	8.2	5.6	3.3	1.7	16	10	6.6	3.9	1.9	16	10	6.7	4	2
P507-89011S	16	10	6.8	4.3	2.1	21	13	8.2	4.9	2.4	20	13	8.3	5.1	2.6

AC&R COMPONENTS

Totaline® Heat Pump Filter Driers - P504 Series

Application:

Totaline New Bi-Directional Filter Drier provides heat pump system protection in heating and cooling cycles Summer & Winter with one compact unit. It reduces complex piping and the resulting costs.

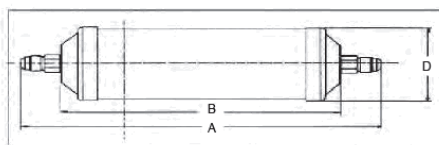
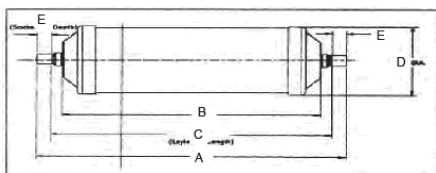
Features:

- For use with CFC & HCFC refrigerants.
- Removes moisture, acids and solids.
- Bi-Directional Eliminates need for external check valves.
- Sealed type.
- Corrosion resistant epoxy powder paint finish.
- May be mounted in any position.
- Reduces compressor maintenance.
- Solid copper sweat connections.

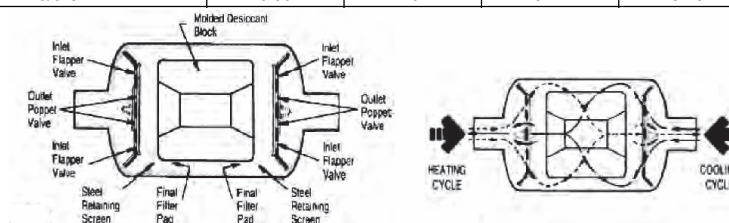
NOMENCLATURE - Example: P504-8 Heat Pump Filter Driers			
P504-8	16	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Specifications:

- Desiccant blend - 75% molecular sieve & 25% activated alumina.
- Filtration: 40 microns
- Maximum Working Pressure: 680 PSIG
- UL/CUL file number: SA3124



Part Number	Connection Size & Type	Dimensions (In)					Ship WT. (lbs)
		A	B	C	D	E	
P504-8083	3/8 SAE	5.94	3.82	—	2.62	—	1
P504-8083S	3/8 ODF	5.29	3.82	4.48	2.62	0.4	1
P504-8084	1/2 SAE	6.16	3.82	—	2.62	—	1
P504-8084S	1/2 ODF	5.38	3.82	4.38	2.62	0.50	1
P504-8085	5/8 SAE	6.62	3.82	—	2.62	—	1
P504-8085S	5/8 ODF	5.6	3.82	4.35	2.62	0.63	1
P504-8163	3/8 SAE	6.74	4.61	—	2-5/8	—	2
P504-8163S	3/8 ODF	6.08	4.61	5.28	2-5/8	0.4	2
P504-8164	1/2 SAE	6.96	4.61	—	2-5/8	—	2
P504-8164S	1/2 ODF	6.17	4.61	5.17	3.15	0.5	3.75
P504-8165	5/8 SAE	7.41	4.61	—	3.15	—	3.75
P504-8165S	5/8 ODF	6.39	4.61	5.14	3.15	0.63	3.75



CAPACITY TABLE

PART NO	FLOW CAPACITY TONS @ 1 PSI			WATER CAPACITY					
				Drops of Water					
				R-22		R-407C		R-410A	
	R-22	R-410A	R-407C	75°F	125°F	75°F	125°F	75°F	125°F
P504-8083	4.5	4.4	4.5	159	144	106	79	85	75
P504-8083S	5.1	5	5.1	159	144	106	79	85	75
P504-8084	6.4	6.3	6.4	159	144	106	79	85	75
P504-8084S	6.7	6.6	6.7	159	144	106	79	85	75
P504-8085	7.8	7.7	7.8	159	144	106	79	85	75
P504-8085S	8.1	7.9	8.1	159	144	106	79	85	75
P504-8163	4.6	4.5	4.6	323	294	237	179	178	160
P504-8163S	5.2	5.1	5.2	323	294	237	179	178	160
P504-8164	7.7	7.6	7.7	323	294	237	179	178	160
P504-8164S	8.1	7.9	8.1	323	294	237	179	178	160
P504-8165	8.3	8.1	8.3	323	294	237	179	178	160
P504-8165S	8.7	8.5	8.7	323	294	237	179	178	160

AC&R COMPONENTS

Totaline® Bi-Directional Liquid Line Filter - P504-H Series

Application:

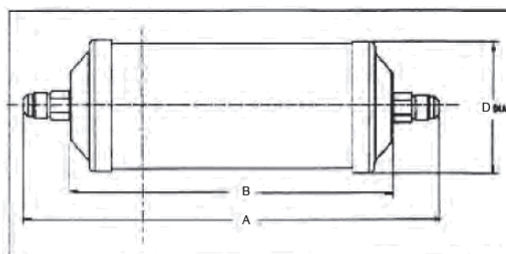
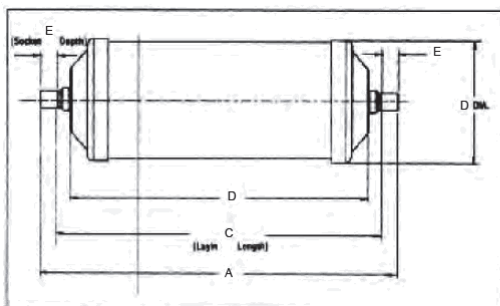
- Bi-Directional Liquid Line Filter Drier for heat pump applications.
- Use with CFC, HCFC, HFC refrigerants.

Features:

- All driers have 75% molecular sieve and 25% activated alumina blocks.
- Internal check valves allow flow and filtration in either direction.

NOMENCLATURE - Example: P504-H Bi-Directional Liquid Line Filter Driers

P504-H	16	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



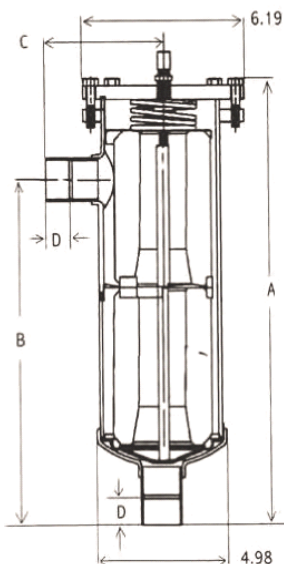
Part Number	Connection Size & Type	Dimensions (In)					Ship WT. (lbs)
		A	B	C	D	E	
P504-H083	3/8 SAE	5.94	3.82	—	2.50	—	1
P504-H083S	3/8 ODF	5.29	3.82	4.48	2.50	0.4	1
P504-H084	1/2 SAE	6.16	3.82	—	2.50	—	1
P504-H084S	1/2 ODF	5.66	2.63	—	—	—	1
P504-H085	5/8 SAE	6.62	3.82	—	2.50	—	1
P504-H085S	5/8 ODF	5.60	3.82	4.35	2.50	0.63	1
P504-H163	3/8 SAE	6.74	4.61	—	2.50	—	2
P504-H163S	3/8 ODF	6.08	4.61	5.28	2.50	0.4	2
P504-H164	1/2 SAE	6.96	4.61	—	2.50	—	2
P504-H164S	1/2 ODF	6.17	4.61	5.17	2.50	0.5	3.75
P504-H165	5/8 SAE	7.41	4.61	—	2.50	—	3.75
P504-H165S	5/8 ODF	6.39	4.61	5.14	2.50	0.63	3.75

CAPACITY TABLE

PART NO	FLOW CAPACITY		WATER CAPACITY DROPS OF CAPACITY					
	Tons R22/R410A @1 psi Drop	Tons R407C @1 Psi Drop	R22 @ 75°F	R22@ 125°F	R407C@ 75°F	R407C@ 125°F	R410A@ 75°F	R410A@ 125°F
P504-H083	4.5	4.4	159	144	106	79	85	75
P504-H083S	5.1	5.0						
P504-H084	6.4	6.3						
P504-H085	7.8	7.7						
P504-H085S	8.1	7.9						
P504-H163	4.6	4.5	323	294	237	179	178	160
P504-H163S	5.2	5.1						
P504-H164	7.7	7.6						
P504-H164S	8.1	7.9						
P504-H165	8.3	8.1						
P504-H165S	8.7	8.5						

AC&R COMPONENTS

Totaline® Liquid & Suction Line Replaceable Shells - P505-8 Series



Application

Totaline Replaceable Core Shells offer the flexibility of using either replaceable Filter Cores as protection against solid contaminants, or replaceable Filter Drier Cores for protection against acid, moisture, and solids. They provide high liquid line flow capacities for larger air conditioning and refrigeration jobs.

Features

- Designed to accept any standard core.
- Can be installed and leak tested without core.
- Removable flange cover permits easy installation or replacement core.
- Supplied with 1/4" pipe plug in flange cover.
- Full flow fittings for low pressure drop.
- Corrosion resistant epoxy powder paint finish.
- Sturdy steel shells for long life durability.
- 100 mesh outlet screen.
- Solid copper fittings.

NOTE: Cores not included, order separately.

Specifications

Filtration: 40 microns (with block)
 Max. Working Pressure: 500 PSIG*(liquid line)
 UL/CUL file number: SA3124
 Bolt torque: 25 ft. lbs

Options:

Blocks: Order Separately. Filters: Order Separately.

NOMENCLATURE - Example: P505-8 Liquid & Suction Line Replaceable Shells

P505-8	144	13
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")



Part Number	Connection Size & Type	Dimensions (In)				Number Of Blocks	Dessicant Volume (Cu in.)
		A	B	C	D		
P505-8485xx	5/8 ODF	9-15/32	6	3-25/32	5/8	1	48
P505-8487xx	7/8 ODF	9-11/16	6-1/4	3-3/4	25/32	1	48
P505-8489xx	1-1/8 ODF	9-3/4	6-5/16	3-27/32	15/16	1	48
P505-84811xx	1-3/8 ODF	9-27/32	6-7/16	3-31/32	15/16	1	48
P505-84813††	1-5/8 ODF	9-7/8	6-1/2	4-1/32	1-1/8	1	48
P505-84817††	2-1/8 ODF	10-1/16	6-9/16	4-9/16	1-11/32	1	48
P505-84821††	2-5/8 ODF	10-7/16	7-1/32	4-3/4	1-1/2	1	48
P505-8967	7/8 ODF	15-3/16	11-23/32	3-3/4	25/32	2	96
P505-8969	1-1/8 ODF	15-7/32	11-25/32	3-27/32	15/16	2	96
P505-89611	1-3/8 ODF	15-5/16	11-29/32	3-31/32	1-1/32	2	96
P505-89613	1-5/8 ODF	15-3/8	11-31/32	4-1/32	1-1/8	2	96
P505-81449	1-1/8 ODF	21-1/4	17-3/8	3-27/32	15/16	3	144
P505-814411	1-3/8 ODF	21-11/32	17-17/32	3-31/32	1-1/32	3	144
P505-814413	1-5/8 ODF	21-3/8	17-19/32	4-1/32	1-1/8	3	144
P505-814417	2-1/8 ODF	21-9/16	17-5/8	4-9/16	1-11/32	3	144
P505-819211	1-3/8 ODF	26-29/32	23	3-31/32	1-1/32	4	192
P505-819213	1-5/8 ODF	26-15/16	23-1/16	4-1/32	1-1/8	4	192
P505-819217	2-1/8 ODF	27-1/8	23-1/8	4-9/16	1-11/32	4	192
P505-81929	1-1/8 ODF	26-29/32	23	3-31/32	1-1/32	4	192

AC&R COMPONENTS

Driers

STAS PHYSICAL DATA AND FLOW CAPACITY TABLE

PART NO	FLOW CAPACITY**					
	R-12	R-134a	R-22	R-407C	R-404A/ 507	R-502
P505-8485xx	15	19	21	20	14	13
P505-8487xx	28	35	38	37	25	24
P505-8489xx	40	48	53	51	35	34
P505-84811xx	46	56	61	59	40	39
P505-84813††	--	--	--	--	--	--
P505-84817††	--	--	--	--	--	--
P505-84821††	--	--	--	--	--	--
P505-8967	31	37	41	40	27	26
P505-8969	47	58	63	61	42	40
P505-89611	59	72	79	77	52	51
P505-89613	64	78	85	83	56	55
P505-81449	46	56	61	59	40	39
P505-814411	66	81	88	86	58	57
P505-814413	73	89	97	95	64	63
P505-814417	84	103	112	109	74	72
P505-819211	71	86	94	92	62	61
P505-819213	77	95	103	101	68	66
P505-819217	87	106	115	112	76	74
P505-81929	71	86	84	92	62	61

*Does not include weld bead.

**Flow capacity tons @ 1 PSI Δ P.

††Suction line service, all other models liquid line service.

xx 680 PSIG MWP

AC&R COMPONENTS

Totaline® Filter Drier Cores - P506-8 Series

Features:

- Universal replacement cores for use in Totaline and other take-apart type filter drier shells.

Specifications:

- Interchangeable with competitive products.



NOMENCLATURE - Example: P506-8* Filter Drier Cores	
P506-8*	48
Drier Series	Unit Size (in cu. in.)

*Filter Core Type

Part Number	Recommended Refrigerant	Application	Type	Dimensions (In)			Ship WT. (lbs)
				A	B	C	
P506-8H42	CFC, HCFC	High Acid and Water Removal	Core	6	1.58	3.12	1
P506-8D48	CFC, HCFC	High Acid Removal	Core	5.5	1.77	3.72	1-1/2
P506-8H48	CFC, HCFC	High Acid and Water Removal	Core	5.5	1.77	3.72	1-1/2
P506-8W48	CFC, HCFC, HFC	Burn Out With Charcoal	Core	5.5	1.77	3.72	1-1/2
P506-8H100	CFC, HCFC	High Acid and Water Removal	Core	6.5	2.06	4.81	4
P506-8W100	CFC, HCFC, HFC	Burn Out With Charcoal	Core	6.5	2.06	4.81	4
P506-8F48	CFC, HCFC, HFC	FILTER(Suction Only)	Filter	5.5	1.77	3.72	1-1/2
P506-8RD48	Reclaim Use Only	High Acid Removal	Core	5.5	1.77	3.72	1-1/2
P506-8RH48	Reclaim Use Only	High Acid and Water Removal	Core	5.5	1.77	3.72	1-1/2
P506-8RW48	Reclaim Use Only	Burn Out With Charcoal	Core	5.5	1.77	3.72	1-1/2

ORDERING INFORMATION AND CAPACITY TABLE

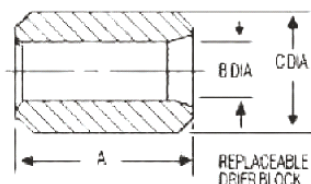
PART NO	DROPS OF WATER											
	R-12		R-134a		R-22		R-407C		R-404A/507		R-502	
	75° F	125° F	75° F	125° F	75° F	125° F	75° F	125° F	75° F	125° F	75° F	125° F
P506-8H42	933	681	686	576	617	491	478	333	724	587	656	519
P506-8D48	810	453	415	340	363	254	225	95	457	343	388	225
P506-8H48	1020	688	676	538	597	436	445	285	721	535	643	475
P506-8W48	772	488	387	294	335	226	290	165	447	289	444	306
P506-8H100	1958	1225	1112	834	962	673	726	418	1199	839	1109	758
P506-8W100	1668	1054	1077	812	938	621	629	363	1162	792	960	663
P506-8F48	—	—	—	—	—	—	—	—	—	—	—	—
P506-8RD48	—	—	—	—	—	—	—	—	—	—	—	—
P506-8RH48	1020	688	676	538	597	436	445	285	721	535	643	475
P506-8RW48	772	488	387	294	335	226	290	168	417	289	444	306

TOTALINE® SOLID CORE DRIER CROSS-REFERENCE

FEATURES

- The blend of desiccants used in Totaline replaceable core filter driers provides utmost water capacity, exceptional acid removal characteristics, and the ability to remove the products of oil breakdown.
- Cores are individually packed in metal cans, fully activated and hermetically sealed against moisture and dirt. Each can contains an end plate gasket kit to fit Totaline and competitive replaceable core shells.

TOTALINE	RECOMMENDED REFRIGERANT	APPLICATION	SPORLAN	PARKER	ALCO	HENRY	VIRGINIA KMP	DANFOSS
P506-8D48	CFC, HCFC, HFC	High Moisture, Acid, Sludge, and Particle	RC-4864	PCK-48	D-48	848-C	VS-48C	—
P506-8H48	Designed Specially for use with POE Oils	Significantly Higher Moisture & Acid Removal	RCW-4864, RCW-48	PCX-48, Z-48	H48, HX-48	848-C	—	48-DN, 48-DU
P506-8W48	CFC, HCFC, HFC	Burn Out with Charcoal	RC-4864-HH	PCK-48HH	W48	848-CM	—	48-DA
P506-8H100	Designed Specially for use with POE Oils	Significantly Higher Moisture & Acid Removal	RCW-100	PCK-100	H-100	—	—	—
P506-8W100	CFC, HCFC, HFC	Burn Out with Charcoal	RC-10098- HH	—	UK-100, W-100-HH	—	VS-100H	—



FILTER-DRIER BLOCK SIZE	DIMENSIONS			SHIP WT. (lbs)
	A	B	C	
42	6	1.58	3.12	1
48	5.5	1.77	3.72	1-1/2
100	6.5	2.06	4.81	4

TOTALINE® IAQ FILTRATION PRODUCTS

Whole-House True HEPA Air Cleaners



The Totaline® True HEPA Air Cleaner has been designed to remove 99.97% of atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, viruses, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch) on the first pass of air. As the HEPA filter becomes dirtier with time, it becomes more efficient and can capture particles as small as 0.001 micron. Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets, cooking odors and mustiness. Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- Long-life, Certified True HEPA (High Efficiency Particulate Air) Filter is a minimum 99.97% efficient at removing particles 0.3 micron in size.
- Activated Carbon Prefilter removes lint and unpleasant odors, to extend life of HEPA Filter.
- Carbon Volatile Organic Compound (VOC) After Filter removes additional unpleasant odors and gases (included with Model P102-550A).
- Carbon/Potassium Permanganate VOC Filter removes heavy duty odors and gases (optional upgrade for model P102-550A only).
- Easy to change filters.
- Powerful European Motor delivers between 245 to 560 cfm of filtered air, depending on the model (with filters installed).
- Plug in Power Cord. No electrical wiring.
- Versatile installation can be freestanding, floor, ceiling or wall mounted.

Cabinet Construction Features

- Heavy gauge steel cabinet and powder coat paint finish resist corrosion and provide rigid installation and durability.

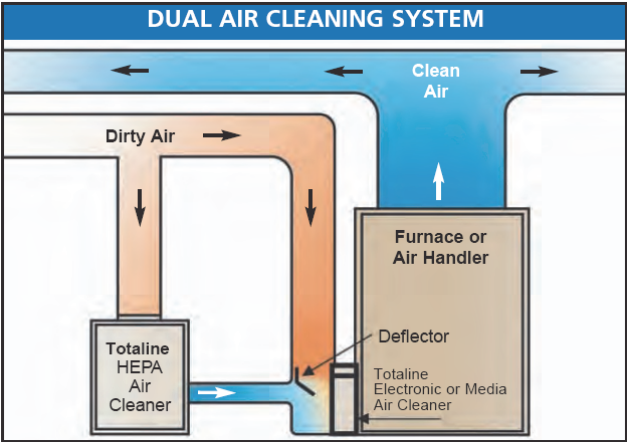
Warranty

- Five Year Limited Parts

Part Number	Power	Plug-In Power Cord	Cabinet Dimensions L x W x H	Intake Duct Fitting	Outflow Duct Fitting: Reversible	Unit Weight
P102-350	120 volt, 60 Hz 70 watts	10 ft (3.05 m)	18.25 x 18.25 x 19.25 in (46.4 x 46.4 x 48.9 cm)	8 in (20.3 cm)	6 in / 15.2 cm 1 Opening	38 lbs (17.4 kg)
P102-450	120 volt, 60 Hz 125 watts	10 ft (3.05 m)	18 x 18 x 24.5 in (45.7 x 45.7 x 62.2 cm)	8 in (20.3 cm)	6 in / 15.2 cm 2 Opening	51 lbs (23.1 kg)
P102-550A	120 volt, 60 Hz 215 watts	10 ft (3.05 m)	21.5 x 20.5 x 28.4 in (54.5 x 52.0 x 72.0 cm)	12 in (30.5 cm)	8 in / 20.3 cm 2 Openings	88 lbs (39.9 kg)
P102-650	120 volt, 60 Hz 215 watts	10 ft (3.05 m)	18 x 18 x 30.5 in (45.7 x 45.7 x 77.5 cm)	12 in (30.5 cm)	8 in / 20.3 cm 2 Openings	57 lbs (25.9 kg)

HOW IT WORKS

Millions of airborne particulates and gases travel through the heating/cooling system 4-5 times every hour. The HEPA Air Cleaner connects to the return air duct and diverts 1/3 to 1/2 of this dirty air through a tightly sealed 3-stage filtration system. A home can reach as many as 67 whole house air changes/day depending on the house size and model chosen. And when a Totaline High Efficiency Electronic or Media Air Cleaner is added to the return air, the home can achieve 96+ whole-house air changes/day (with system fan on continuous).



TOTALINE® IAQ FILTRATION PRODUCTS

Whole-House True HEPA Air Cleaners

Replacement Parts

Part Number	Description	Replace
P102-60840	Certified True HEPA Filter Cylinder for P102-650	2-4 years
P102-60855	Carbon Prefilter Blanket for P102-650	3-6 months
P102-60810	Inner Carbon VOC Blanket (optional) for P102-650	3-6 months
P102-1919-6A	True HEPA Filter 6" for P102-550A	3-5 years
P102-1919-1	Carbon Prefilter 1" for P102-550A	3-6 months
P102-1919-2	Carbon VOC After Filter 2" for P102-550A (standard)	6-12 months
P102-1919-2A	Carbon/Potassium Permanganate VOC After Filter 2" for P102-550A	6-12 months
P102-40840	Certified True HEPA Filter Cylinder for P102-450	2-4 years
P102-40855	Carbon Prefilter Blanket for P102-450	3-6 months
P102-40810	Inner Carbon VOC Blanket (optional) for P102-450	3-6 months
P102-30840	Certified True HEPA Filter Cylinder for P102-350	2-3 years
P102-30855	Carbon Prefilter Blanket for P102-350	3-6 months
P102-30810	Inner Carbon VOC Blanket (optional) for P102-350	3-6 months

TOTALINE® IAQ FILTRATION PRODUCTS

Whole-House Duct Mount HEPA Air Cleaners



The Totaline Whole House Duct Mount HEPA Air Cleaner has been designed to remove atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, viruses, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch) with 99.97% efficiency on the first pass of air. It's ideal for homes that have tight space conditions in their furnace/air conditioning rooms. This unit is compact and can be installed directly on the return air vent. It can also be mounted directly to the furnace and collar mounted to the return air duct to save space. Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets, cooking odors and mustiness. Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- Highly Efficient MERV 11 Prefilter removes lint and hair before they enter HEPA filter.
- Activated Carbon Prefilter removes odors to extend the life of the HEPA filter.
- Long-life, 99.97% HEPA Media Filter removes particles 0.3 micron (1/84,000 of an inch) and larger. The HEPA filter becomes more efficient as it becomes dirtier with time.
- Powerful European motor delivers 320 CFM of pure air, without adding static pressure to the HVAC system.
- Plug-in Power Cord provides convenient electrical connection.
- Versatile installation can be duct mounted, collar mounted or free-standing.

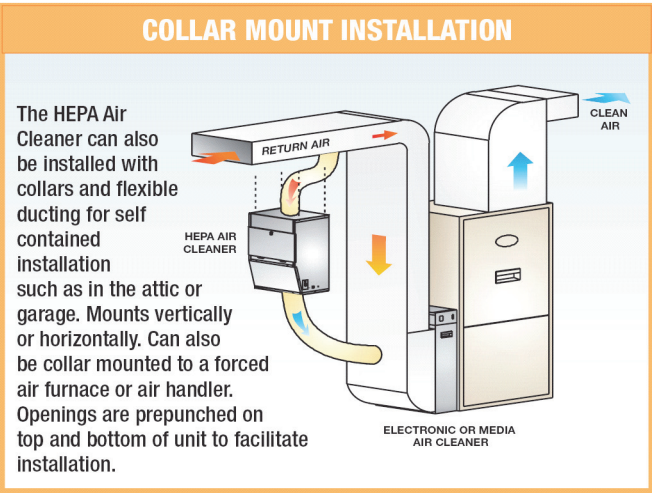
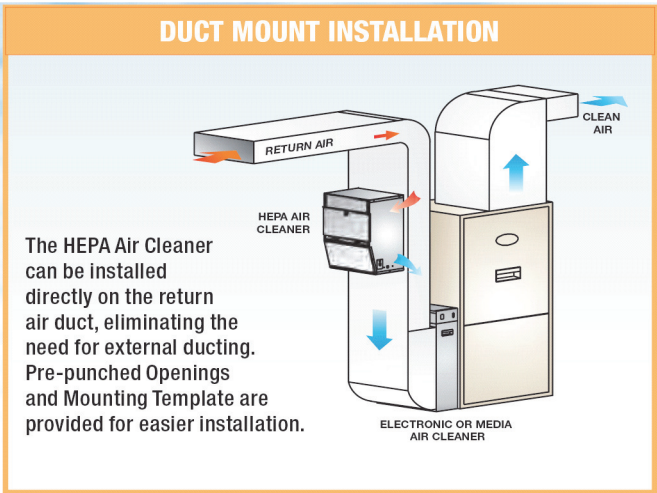
Cabinet Construction Features

- One piece wrap, steel cabinet has powder-coat paint finish to provide rigid installation and durability.
- Pre-punched openings at back of unit and mounting template are provided for easier duct mount installation; no external ducting required.
- Pre-punched openings at top and bottom of unit facilitate collar mount installation.

Warranty

- Five Year Limited Parts.

Part Number	Power	Plug-In Power Cord	Cabinet Dimensions W x D x H	Intake Duct Fitting	Outflow Duct Fitting	Unit Weight
P102-400DM	120 volt, 60 Hz	10.0 ft (3.05 m)	16.25 x 12.75 x 20.13 in (41.3 x 32.4 x 51.1 cm)	14.5 x 3.75 in or 8 in (dia) (36.8 x 9.5 cm or 20.3 cm (dia)	14.5 x 4.37 in or 8 in (dia) (36.8 x 11.1 cm or 20.3 cm (dia)	38 lbs (17.2 kg)

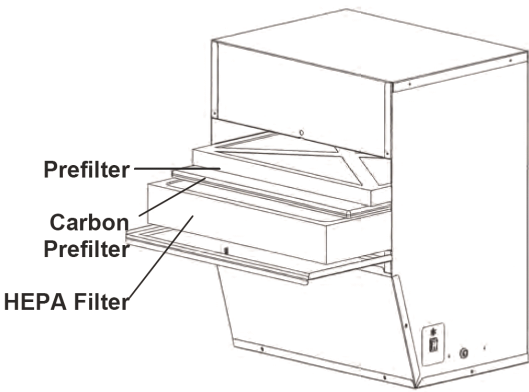


HOW IT WORKS

Millions of airborne particulates and gases travel through the heating/cooling system 4-5 times every hour. The HEPA Air Cleaner connects to the return air duct and diverts 1/3 to 1/2 of this dirty air through a sealed 3-stage filtration system. A home can reach 39 or more whole-house air changes/day depending on the house size. And when a Totaline High Efficiency Electronic or Media Air Cleaner is added to the return air, the home can achieve 96+ wholehouse air changes/day (with system fan on continuous).

TOTALINE[®] IAQ FILTRATION PRODUCTS
Whole-House Duct Mount HEPA Air Cleaners

Replacement Parts



Part Number	Description	Replace
P102-D40400	HEPA Media Filter	2-3 years
P102-D40855	Prefilter, MERV	3-6 months
P102-D40810	Carbon Prefilter	3-6 months

TOTALINE® IAQ FILTRATION PRODUCTS

Mobile True HEPA & VOC Air Cleaner



The Totaline Mobile True HEPA Air Cleaner & VOC Filter has been designed to remove 99.97% of atmospheric dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, viruses, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch) on the first pass of air. As the HEPA filter becomes dirtier with time, it becomes more efficient and can capture particles as small as 0.001 micron.

It also removes odors (with Carbon Prefilter and Carbon VOC After Filter) and heavy-duty odors and fumes (with optional Carbon/ Potassium Permanganate VOC Filter).

Ideal for commercial applications such as Cafeterias, Food Preparation Areas, Day Care Centers, Hair/ Nail Salons, Hotels, Health Care Facilities, Medical/ Dental Labs, Nursing Homes, Offices, Portable Classrooms, Print Shops, Recreation/ Fitness Centers, Veterinary Clinics, Water & Fire Remediation.

Standard Features

- Long-life, Certified True HEPA (High Efficiency Particulate Air) Filter is a minimum 99.97% efficient at removing particles 0.3 micron in size.
- Activated Carbon Prefilter removes lint and unpleasant odors, to extend life of HEPA Filter.
- Carbon VOC (Volatile Organic Compound) Filter removes additional unpleasant odors and gases (included).
- Carbon / Potassium Permanganate VOC Filter (optional upgrade) removes heavy-duty odors and fumes such as formaldehyde, heptane, tetrachloroethylene, toluene, etc. that are off-gased from carpets, cabinets, furniture, paints, pesticides, personal care products, cleaners, etc.
- Powerful European Motor with two-speed fan delivers 360/600 CFM of pure air.
- Large handle and swivel rubber castors for easy maneuvering.
- 10 foot power cord.

Cabinet Construction Features

- Heavy gauge steel cabinet and powder coat paint finish for corrosion resistance and durability.
- Plastic intake and exhaust grilles.

Warranty

- Five Year Limited Parts.

Part Number	Power Cord	Power Consumption	Input Voltage	Cabinet	Cabinet Dimensions L x W x H	Carbon Prefilter Dimensions	Unit Weight	Air Flow	
								Low	High
P102-600MA	10.0 ft (3.05 m)	215 Watts	120 volt, 60 Hz	18 gauge	21.5 x 20.5 x 31.5 in (54.5 x 52.0 x 80.0 cm) (including casters)	19.5 x 19.5 x 1 in (49.5 x 49.5 x 2.5 cm)	88.0 lbs (39.9 kg)	360 cfm (601 m3/hr)	600 cfm (1002 m3/hr)

HOW IT WORKS

Air is drawn in through the top of the unit to the Activated Carbon Prefilter (1 inch pleated, activated carbon impregnated polyester filter) which removes lint and odors before they enter the HEPA filter.

Smaller particles then pass through a long-life, True HEPA (High Efficiency Particulate Air) Filter which captures 99.97% of particles 0.3 micron (1/84,000 of an inch) and larger. This 6 inch filter has more than 188 ft2 of collection surface area.

Air is then drawn through a Carbon VOC (Volatile Organic Compound) Filter (2 inch) to remove unpleasant odors and gases, or an optional Carbon/Potassium Permanganate VOC Filter (2 inch) to remove noxious odors and fumes like formaldehyde, heptane, tetrachloroethylene, toluene, etc. that are off-gased from carpets, cabinets, furniture, paints, pesticides, personal care products, cleaners, etc.

Clean air is discharged from two sides of the unit.

Replacement Parts

Part Number	Description	Replace
P102-1919-6A	True HEPA Filter 6" for P102-550A	3-5 years
P102-1919-1	Carbon Prefilter 1" for P102-550A	3-6 months
P102-1919-2	Carbon VOC After Filter 2" for P102-550A (standard)	6-12 months
P102-1919-2A	Carbon/Potassium Permanganate VOC After Filter 2" for P102-550A	6-12 months

TOTALINE® IAQ FILTRATION PRODUCTS

Totaline® Electronic Air Cleaners



Description

- The Totaline High Efficiency Electronic Air Cleaner has been designed to remove atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, viruses, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.01 micron (0.01 micron = 1/2,540,000 of an inch).
- Contains a lifetime filter that is environmentally friendly and preferable to disposable filters.
- User-friendly. Easy to maintain.
- Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets, cooking odors, and mustiness.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- Prefilters (2) are constructed of aluminum mesh, to prevent lint and large particles from entering the collecting cells.
- Collecting Cells (2) are constructed of heavy gauge aluminum for durability and ease of maintenance. Cell guides ensure proper placement of collecting cells in cabinet.
- Activated Carbon Filters (C) help remove unpleasant odors (optional).
- Solid State Power Board is manufactured on-site for high reliability and long life. Uniquely equipped with a variable resistor (potentiometer) to adjust high voltage output. Output has been preset for optimum efficiency, however, as voltage may vary in extreme conditions of dryness, humidity or proximity to hydro towers, raising or lowering potentiometer allows for proper voltage output.
- Electronic Air Proving Switch (AS) allows for quick wiring. Automatically cycles Air Cleaner on/off with the system fan.
- Lighted ON/OFF Switch (Orange) shows power to the Air Cleaner.
- Performance Indicator Light (Green LED) indicates high voltage to the collecting cells, ensuring air cleaner is operating properly at a glance.

Cabinet Construction Features

- Heavy gauge galvanized steel cabinet resists corrosion and provides trouble-free vertical or horizontal installation. Holes are provided to facilitate mounting to the duct work or air handling system.
- Durable powder coat paint finish on door and top lid resists corrosion.
- Power Box is removable. Contains the ON/OFF switch, performance indicator light, safety interlock switch, high voltage power board and the air proving switch.

Accessories

- DAX Air Cleaner Detergent simplifies the washing process by quickly and safely removing contaminants from filters. 32 oz. (1 L) Spray Bottle, Part #9900
- Activated Carbon Filters (3 per pack). Replace every 3-4 months. For Models:
P102-12-D, P102-14A-D Part #P102-1156
P102-14B-D, P102-20-D Part #P102-1856

Warranty: Five Year Limited Parts.

Models	Duct Size	Input Voltage	Power Consumption	Upgrades Included	Unit Weight
P102-12-D	16 x 20 in 40.5 x 51 cm	120 volt, 60 Hz	30 Watts	Carbon Filters Air Switch	33 lbs (15.3 kg)
P102-14A-D	16 x 25 in 40.5 x 63.5 cm	120 volt, 60 Hz	30 Watts	Carbon Filters Air Switch	37 lbs (16.8 kg)
P102-14B-D	20 x 20 in 51.0 x 51.0 cm	120 volt, 60 Hz	30 Watts	Carbon Filters Air Switch	37 lbs (16.8 kg)
P102-20-D	20 x 25 in 51.0 x 63.5 cm	120 volt, 60 Hz	30 Watts	Carbon Filters Air Switch	41 lbs (18.6 kg)

TOTALINE® IAQ FILTRATION PRODUCTS

Totaline® Electronic Air Cleaners

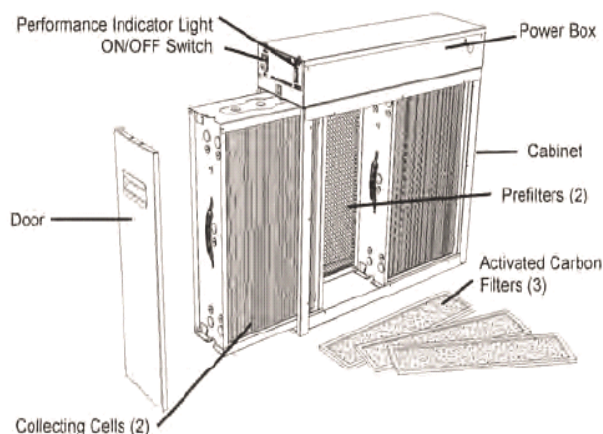
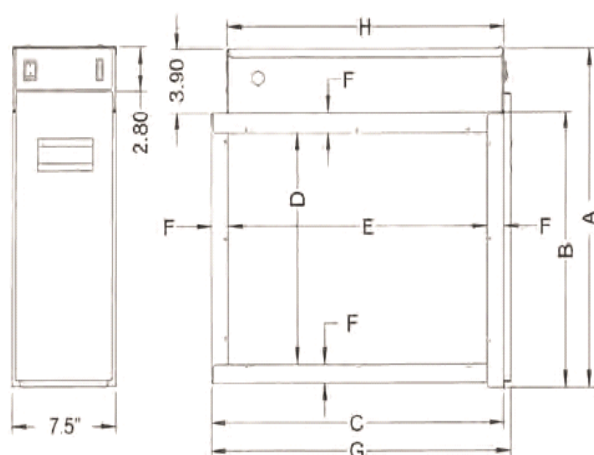
Efficiency				
Particle Size	600 cfm	1000 cfm	1400 cfm	1400 cfm Media (MERV 10)
0.3 - 0.4	99.2	87.5	65.4	14.6
0.4 - 0.55	99.7	91.6	74.0	21.2
0.55 - 0.7	99.8	95.1	80.3	30.9
0.7 - 1.0	99.9	97.3	86.0	38.6
1.0 - 1.3	99.9	98.5	90.4	46.9
1.3 - 1.6	99.9	99.1	93.2	53.9
1.6 - 2.2	100.0	99.5	95.3	61.8
2.2 - 3.0	100.0	99.8	97.4	74.6
3.0 - 4.0	100.0	99.9	98.3	82.6
4.0 - 5.5	100.0	99.9	99.0	84.5
5.5 - 7.0	100.0	100.0	99.5	86.4
7.0 - 10.0	100.0	100.0	99.9	88.2

In the chart above to the left are results from an independent testing laboratory showing the efficiency of the new Totaline Electronic Air Cleaner. The column to the right shows the efficiency of a typical MERV 10 media filter (non Totaline).

At rated air flow the Electronic Air Cleaner achieves a MERV 14 rating. With the fan running on low speed the Air Cleaner increases efficiency to an impressive MERV 16 rating.

The static pressure drop of the Electrostatic Air Cleaner is a low 0.15" compared to a MERV 10 media filter of over 0.22" on a clean filter.

MODEL TYPE	DIMENSIONS - in (cm)							
	A	B	C	D	E	F	G	H
P102-12-D	19.8 (50.4)	15.9 (40.5)	23.2 (58.9)	13.1 (33.3)	20.7 (52.5)	1.3 (3.2)	23.7 (60.2)	21.2 (53.9)
P102-14A-D	19.8 (50.4)	15.9 (40.5)	26.1 (66.3)	13.6 (34.6)	24.1 (61.2)	1.0 (2.5)	26.6 (67.7)	25.8 (65.4)
P102-14B-D	24.7 (62.8)	20.8 (52.9)	21.2 (53.9)	18.0 (45.7)	18.7 (47.5)	1.3 (3.2)	21.7 (55.2)	21.2 (53.9)
P102-20-D	24.7 (62.8)	20.8 (52.9)	25.8 (65.4)	18.0 (45.7)	23.3 (59.1)	1.3 (3.2)	26.3 (66.8)	25.8 (65.4)



TOTALINE® IAQ FILTRATION PRODUCTS

High Efficiency Media Retrofit Air Cleaners



Description

- The Totaline High Efficiency Charged-Media Retrofit Air Cleaner has been designed to remove atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch).
- Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets and mustiness.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- High Efficiency MERV* 11 Media Filter, rated at 492 feet/minute, removes airborne contaminants down to 0.3 micron.
- Filter material is constructed of continuous hydrophobic polyolefin fibers that will not shred or absorb moisture. They are cellulose free and will not sustain mold growth.
- Unique filter design features a structured density gradient with an electret charge for higher initial and sustained efficiency over the life of the filter.
- Extra deep, 5 1/4 inch filter contains more media material than other filters on the market. More surface area means more collection area, longer filter life and lower static pressure.
- Perfect fit filter has an exact fit with the cabinet. Does not contain foam, sponge or fiberglass filler. Means all the air is passing through the filter and not through filler material, thereby maximizing the system's ability to clean the air.
- User-friendly, easy-to-change filter cartridge means no fussing with complicated combs or brackets.
- Filter lasts up to one year in standard applications.
- Reversible air flow. Mounts in any position.
- Easily upgrades to a Totaline High Efficiency Electronic Air Cleaner, which is capable of removing harmful contaminants as small as 0.01 micron (1/2,540,000 of an inch).

Cabinet Construction Features

- Heavy gauge galvanized steel cabinet resists corrosion and provides trouble-free vertical or horizontal installation. Holes are provided to facilitate mounting to the duct work or air handling system.
- Durable powder coat paint finish on door resists corrosion.

Media Replacement Filters

Replacement filters are packaged 3 per box. Replace 1 to 2 times per year depending on climate, home renovations, smoking in home, or number of pets. For Models:

P102-MF12 replace with Part #P102-1620

P102-MF14A replace with Part #P102-1625

P102-MF14B replace with Part #P102-2020

P102-MF20 replace with Part #P102-2025

Part Number	Power Consumption	Duct Size	Intake Dimensions(H x L)	Cabinet Dimensions (W x H x L)	Pressure Drop	MERV Rating	Unit Weight	Airflow
P102-MF12	0	16 x 20 in (40.5 x 51 cm)	13.12 x 20.68 in (33.3 x 52.5 cm)	7.5 x 17.41 x 23.75 in (19.05 x 44.2 x 60.3 cm)	.064 (in./wg.) @ 246 fpm, .209 (in./wg.) @ 492 fpm	11	17 lbs (7.7 kg)	up to 1200 cfm, up to 2039 m3/hr
P102-MF14A	0	16 x 25 in (40.5 x 63.5 cm)	13.62 x 24.11 in (34.6 x 61.2 cm)	7.5 x 17.41 x 26.64 in (19.1 x 44.2 x 67.3 cm)	.066 (in./wg.) @ 246 fpm, .217 (in./wg.) @ 492 fpm	11	18 lbs (8.2 kg)	up to 1400 cfm, up to 2379 m3/hr
P102-MF14B	0	20 x 20 in (51.0 x 51.0 cm)	18.0 x 18.71 in (45.7 x 47.5 cm)	7.5 x 22.3 x 21.75 in (19.05 x 56.6 x 55.2 cm)	.062 (in./wg.) @ 246 fpm, .203 (in./wg.) @ 492 fpm	11	19 lbs (8.6 kg)	up to 1400 cfm, up to 2379 m3/hr
P102-MF20	0	20 x 25 in (51.0 x 63.5 cm)	18.0 x 23.26 in (45.7 x 59.1 cm)	7.5 x 22.3 x 26.29 in (19.05 x 56.6 x 66.8 cm)	.069 (in./wg.) @ 246 fpm, .207 (in./wg.) @ 492 fpm	11	20 lbs (9.1 kg)	up to 2000 cfm, up to 3398 m3/hr

TOTALINE® IAQ FILTRATION PRODUCTS

High Efficiency Media Retrofit Air Cleaners

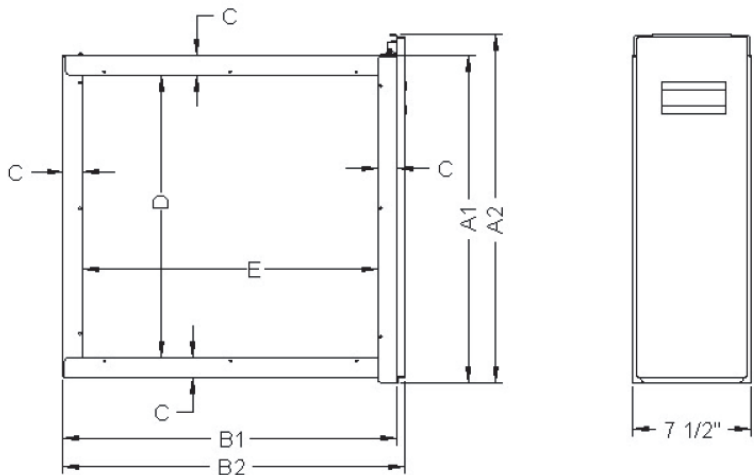
Accessories

- Activated Carbon Filters (3 per pack) help eliminate unpleasant odors. Replace every 3-6 months. For Models: P102-MF12/ P102-MF14A Part #P102-1156
P102-MF14B/ P102-MF20 Part #P102-1856
- Upgrade Kit to Electronic Air Cleaner includes Prefilters (2), Collecting Cells (2), Power Box (1) including Air Proving Switch and Contact Board: P102-EACK1620A upgrades to P102-12
P102-EACK1625A upgrades to P102-14A
P102-EACK2020A upgrades to P102-14B
P102-EACK2025A upgrades to P102-20

Warranty

- Limited Lifetime Warranty (not including filter).
- * MERV: Minimum Efficiency Reporting Value. Based on ASHRAE Standard 52.2.

MODEL TYPE	DIMENSIONS - in (cm)						
	A1	A2	B1	B2	C	D	E
P102 -MF12	15.94 (40.5)	17.41 (44.2)	23.18 (58.9)	23.7 (60.2)	1.25 (3.2)	13.12 (33.3)	20.68 (52.5)
P102- MF14A	15.94 (40.5)	17.41 (44.2)	26.11 (66.3)	26.64 (67.7)	1.0 (2.6)	13.62 (34.6)	24.11 (61.2)
P102- MF14B	20.83 (52.9)	22.3 (56.6)	21.21 (53.9)	21.74 (55.2)	1.25 (3.2)	18.0 (45.7)	18.71 (47.5)
P102- MF20	20.83 (52.9)	22.3 (56.6)	25.76 (65.5)	26.29 (66.8)	1.25 (3.2)	18.0 (45.7)	23.26 (59.1)



TOTALINE® IAQ FILTRATION PRODUCTS

High Efficiency Media Air Cleaners



Description

- The Totaline High Efficiency Media Air Cleaner has been designed to remove atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch).
- Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets and mustiness.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- High Efficiency MERV* 11 Media Filter, rated at 492 feet/minute, removes airborne contaminants down to 0.3 micron.
- Filter material is constructed of continuous hydrophobic polyolefin fibers that will not shred or absorb moisture. They are cellulose free and will not sustain mold growth.
- Unique filter design features a structured density gradient with an electret charge for higher initial and sustained efficiency over the life of the filter.
- Extra deep, 5 1/4 inch filter contains more media material than other filters on the market. More surface area means more collection area, longer filter life and lower static pressure.
- Perfect fit filter has an exact fit with the cabinet. Does not contain foam, sponge or fiberglass filler. Means all the air is passing through the filter and not through filler material, thereby maximizing the system's ability to clean the air.
- User-friendly, easy-to-change filter cartridge means no fussing with complicated combs or brackets.
- Filter lasts up to one year in standard applications.
- Reversible air flow. Mounts in any position.
- Easy to replace with a Totaline High Efficiency Electronic Air Cleaner, which is capable of removing harmful contaminants as small as 0.01 micron (1/2,540,000 of an inch). For the most powerful air cleaning system available, add a Totaline True HEPA Air Cleaner to the Totaline Media or Electronic Air Cleaner.

Cabinet Construction Features

- Heavy gauge galvanized steel cabinet resists corrosion and provides trouble-free vertical or horizontal installation. Holes are provided to facilitate mounting to the duct work or air handling system.
- Durable powder coat paint finish on door resists corrosion.

Media Replacement Filters

- Replacement filters are packaged 3 per box. Replace 1 to 2 times per year depending on climate, home renovations, smoking in home, or number of pets. For Models:
P102-NC12 replace with Part #P102-1620
P102-NC14A replace with Part #P102-1625
P102-NC14B replace with Part #P102-2020
P102-NC20 replace with Part #P102-2025

TOTALINE® IAQ FILTRATION PRODUCTS

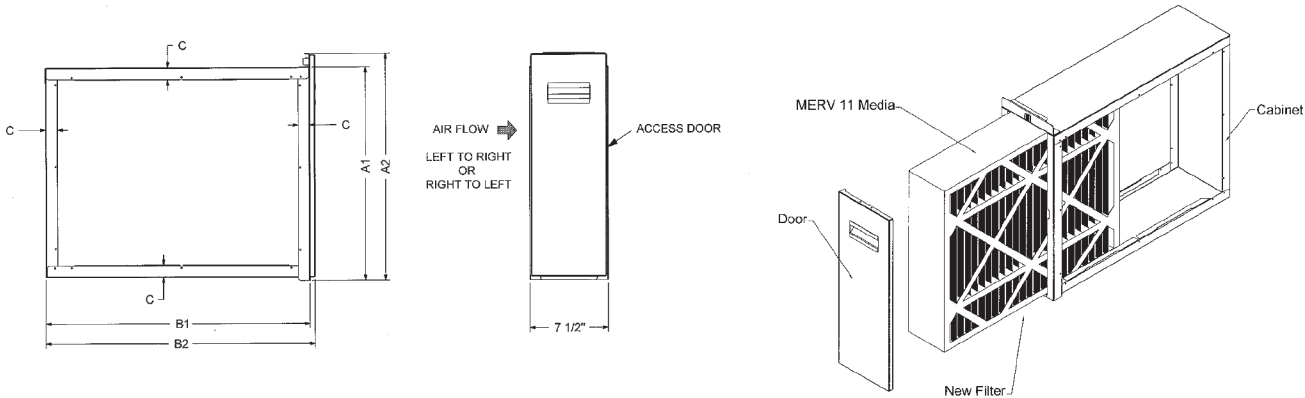
High Efficiency Media Air Cleaners

Warranty

- One Year Limited (not including filter).
- * MERV: Minimum Efficiency Reporting Value. Based on ASHRAE Standard 52.2.

Part Number	Power Consumption	Duct Size	Intake Dimensions (H x L)	Cabinet Dimensions (W x H x L)	Pressure Drop	MERV Rating	Unit Weight	Airflow
P102-NC12	0	16 x 20 in (40.5 x 51 cm)	13.25 x 20.75 in (33.7 x 52.7 cm)	7.5 x 17.4 x 23.6 in (19.1 x 44.2 x 60.0 cm)	.064 (in./wg.) @ 246 fpm, .209 (in./wg.) @ 492 fpm	11	17 lbs (7.7 kg)	up to 1200 cfm, up to 2038 m3/hr
P102-NC14A	0	16 x 25 in (40.6 x 63.5 cm)	13.25 x 23.7 in (33.7 x 60.2 cm)	7.5 x 17.4 x 26.5 in (19.1 x 44.2 x 67.3 cm)	.066 (in./wg.) @ 246 fpm, .217 (in./wg.) @ 492 fpm	11	18 lbs (8.2 kg)	up to 1400 cfm, up to 2379 m3/hr
P102-NC14B	0	20 x 20 in (51.0 x 51.0 cm)	18.1 x 18.75 in (46.0 x 47.6 cm)	7.5 x 22.25 x 21.7 in (19.1 x 56.5 x 55.1 cm)	.062 (in./wg.) @ 246 fpm, .203 (in./wg.) @ 492 fpm	11	19 lbs (8.6 kg)	up to 1400 cfm, up to 2379 m3/hr
P102-NC20	0	20 x 25 in (51.0 x 63.5 cm)	18.1 x 23.25 in (46.0 x 59.1 cm)	7.5 x 22.25 x 26.1 in (19.1 x 56.5 x 66.3 cm)	.069 (in./wg.) @ 246 fpm, .207 (in./wg.) @ 492 fpm	11	20 lbs (9.1 kg)	up to 2000 cfm, up to 3398 m3/hr

MODEL TYPE	DIMENSIONS - in (cm)						
	A1	A2	B1	B2	C	D	E
P102-NC12	16 (40.6)	17.4 (44.2)	23.1 (58.7)	23.6 (60.0)	1.2 (3.0)	20.75 (52.7)	13.25 (33.7)
P102-NC14A	16 (40.6)	17.4 (44.2)	26.0 (66.0)	26.5 (67.3)	1.2 (3.0)	23.7 (60.2)	13.25 (33.7)
P102-NC14B	20.75 (52.7)	22.25 (56.5)	21.2 (53.8)	21.7 (55.1)	1.2 (3.0)	18.75 (47.6)	18.1 (46.0)
P102-NC20	20.75 (52.7)	22.25 (56.5)	25.6 (65)	26.1 (66.3)	1.2 (3.0)	23.25 (59.1)	18.1 (46.0)



TOTALINE® IAQ FILTRATION PRODUCTS

Whole-House Over-Sized Media Air Cleaner

High Efficiency Model P102-MF3225



Indoor Air Quality

Description

- The Totaline High Efficiency Charged-Media Retrofit Air Cleaner has been designed to remove atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch).
- Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets and mustiness.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- High Efficiency MERV* 11 Media Filter, rated at 492 feet/ minute, removes airborne contaminants down to 0.3 micron.
- Filter material is constructed of continuous hydrophobic polyolefin fibers that will not shred or absorb moisture. They are cellulose free and will not sustain mold growth.
- Unique filter design features a structured density gradient with an electret charge for higher initial and sustained efficiency over the life of the filter.
- Extra deep, 5 1/4 inch filter contains more media material than other filters on the market. More surface area means more collection area, longer filter life and lower static pressure.
- Perfect fit filter has an exact fit with the cabinet. Does not contain foam, sponge or fiberglass filler. Means all the air is passing through the filter and not through filler material, thereby maximizing the system's ability to clean the air.
- User-friendly, easy-to-change filter cartridge means no fussing with complicated combs or brackets.
- Filter lasts up to one year in standard applications.
- Reversible air flow. Mounts in any position.
- Easily upgrades to a Totaline High Efficiency Electronic Air Cleaner, which is capable of removing harmful contaminants as small as 0.01 micron (1/2,540,000 of an inch).

Cabinet Construction Features

- Heavy gauge galvanized steel cabinet resists corrosion and provides trouble-free vertical or horizontal installation. Holes are provided to facilitate mounting to the duct work or air handling system.
- Durable powder coat paint finish on door resists corrosion.

Media Replacement Filters

- Replacement filters are packaged 3 per box. Replace 1 to 2 times per year depending on climate, home renovations, smoking in home, or number of pets. For Models:
P102-MF12-A replace with Part #P102-1620
P102-MF14A-A replace with Part #P102-1625
P102-MF14B-A replace with Part #P102-2020
P102-MF20-A replace with Part #P102-2025

Part Number	Power Consumption	Size		Air Flow	Intake Dimensions (H x L)	Cabinet Densions (H x D x W)	Weight	MERV Rating	Options Available
		House	Duct						
P102-MF3225	0	>3000 ft2, >278.7 m2	32 x 25 in 81.2 x 63.5 cm	up to 2800 cfm, up to 2379 m3/hr	28 x 23 in (71.1 x 58.4 cm)	33 x 26.7 x 7.5 in (83.8 x 67.8 x 19 cm)	21 lbs (9.5 kg)	11	P102-1625-14 MERV 14 Replacement Filter Requires 2

TOTALINE® IAQ FILTRATION PRODUCTS

Whole-House Over-Sized Media Air Cleaner

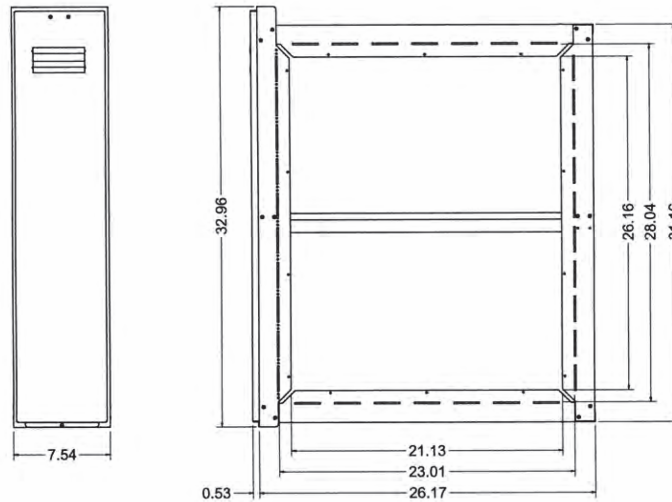
High Efficiency Model P102-MF3225

Accessories

- Activated Carbon Filters (3 per pack) help eliminate unpleasant odors. Replace every 3-6 months. For Models:
P102-MF12-A / P102-MF14A-A Part #P102-1156
P102-MF14B-A / P102-MF20-A Part #P102-1856
- Upgrade Kit to Electronic Air Cleaner includes Prefilters (2), Collecting Cells (2), Power Box (1) including Air Proving Switch and Contact Board:
P102-EACK1620A upgrades to P102-12
P102-EACK1625A upgrades to P102-14A
P102-EACK2020A upgrades to P102-14B
P102-EACK2025A upgrades to P102-20

Warranty

- Limited Lifetime Warranty (not including filter).
- * MERV: Minimum Efficiency Reporting Value. Based on ASHRAE Standard 52.2.



TOTALINE® IAQ FILTRATION PRODUCTS

High Efficiency Right Angle Media Air Cleaner



Description

- The Totaline High Efficiency Right Angle Media (RAM) Air Cleaner is a space-saving design for vertical installations. Removes atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.3 micron (1/84,000 of an inch).
- Reduces installation space by 6-8 inches.
- Eliminates the need for a 90° duct adapter, as it works as a turning vane providing even distribution across the media filter.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- Adjustable inlet duct opening replaces need for field forming transition, significantly reducing installation time.
- Reversible air flow. Two access doors allow versatile installation and easy maintenance.
- High Efficiency MERV* 11 Media Filter, rated at 492 feet/minute, removes airborne contaminants down to 0.3 micron.
- Filter material is constructed of continuous hydrophobic polyolefin fibers that will not shred or absorb moisture. They are cellulose free and will not sustain mold growth.
- Unique filter design features a structured density gradient with an electret charge for higher initial and sustained efficiency over the life of the filter.
- Extra deep, 5 1/4 inch filter contains more media material than other filters on the market. More surface area means more collection area, longer filter life and lower static pressure.
- Perfect fit filter allows no air gaps, thereby maximizing the system's ability to clean the air.
- User-friendly, easy-to-change filter cartridge means no fussing with complicated combs or brackets
- Filter will last up to one year in standard applications.

Cabinet Construction Features

- Heavy gauge galvanized steel cabinet resists corrosion and provides trouble-free vertical installation. Holes are provided to facilitate mounting to the duct work or air handling system.
- Durable powder coat paint finish on doors (2) resists corrosion.

Media Replacement Filter

- Replacement filters are packaged 3 per Box. Replace 1 to 2 times per year depending on climate, home renovations, smoking in home, or number of pets.
P102-RAM200 replace with Part #P102-2025

Warranty

- Limited Lifetime Warranty (not including filter).

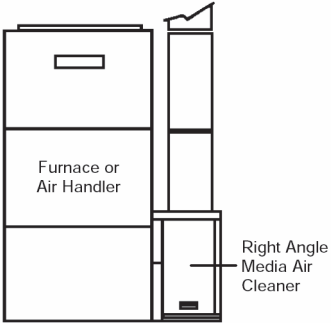
Part Number	Power Consumption	House Size	Airflow	Dimensions (W x D x H)	Adjustable Inlet (3 Sizes)	Outlet (D x H)	Weight	MERV Rating
P102-RAM200	0	n/a	up to 2000 cfm, up to 3398 m3/hr	16 x 26.75 x 23.5 in, 40.6 x 67.9 x 59.7 cm	8 x 24 in / 10 x 24 in / 11 x 24 in, 20.3 x 61 cm / 25.4 x 61 cm / 27.9 x 61 cm	23.25 x 14.25 in 59.1 x 36.2 cm	34 lbs, (5.4 kg)	11

TOTALINE® IAQ FILTRATION PRODUCTS

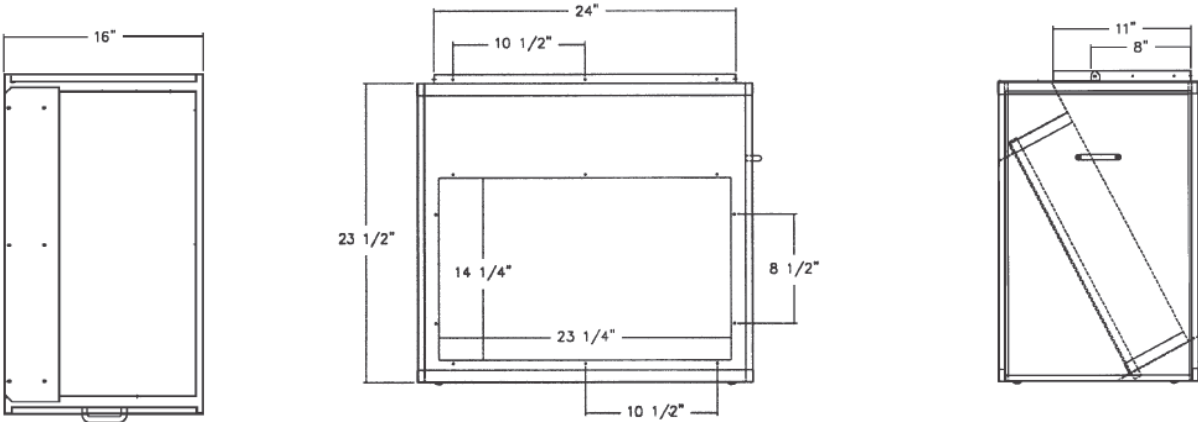
High Efficiency Right Angle Media Air Cleaner

The Air Cleaner is adaptable to most High-Boy residential forced air furnaces or cooling systems. The Air Cleaner must be installed in the return air duct next to the blower compartment. This location provides the most even air flow across the filter and allows the Air Cleaner to keep the system motor and fan clean.

Typical Installation



* MERV: Minimum Efficiency Reporting Value. Based on ASHRAE Standard 52.2.



TOTALINE® IAQ FILTRATION PRODUCTS

Return Grille Mount Electronic Air Cleaner

Model P102-GM20A



Description

- The Totaline High Efficiency Return Grille Mount Electronic Air Cleaner has been designed to remove atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, viruses, pet dander, cooking smoke and grease, tobacco smoke particles, and more down to 0.01 micron (0.01 micron = 1/2,540,000 of an inch).
- Contains a lifetime filter that is environmentally friendly and preferable to disposable filters.
- Designed for homes, condominiums, manufactured homes and applications where there is a common return grille rather than separate return air ducts from each room. Larger homes with more than one return grille may require an additional return grille air cleaner to greatly improve indoor air quality.
- Perfect for homes with attic or crawl space heating and air conditioning installations, allowing easy access to filters on the main floor.
- Easily installs on the wall or ceiling in a ceiling box within trusses on 24 inch centers, without any structural changes.
- Ideal for homes with allergy, asthma or respiratory sufferers, smokers, pets, cooking odors, and mustiness.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment.

Standard Features

- Prefilters (2) are constructed of aluminum mesh, to prevent lint and large particles from entering the collecting cells.
- Collecting Cells (2) are constructed of heavy gauge aluminum for durability and ease of maintenance.
- Plastic intake Grille is easy to wipe clean.
- Hinged, Swing Out Door allows easy access to filters.
- Automatic Interlock Switch disconnects power when unit is opened.
- Electronic Air Proving Switch (AS) allows for quick wiring. Automatically cycles Air Cleaner on/off with the system fan.
- Performance Indicator Light (Green LED) indicates high voltage to the collecting cells, ensuring air cleaner is operating properly at a glance.
- Solid State Power Board is manufactured on-site for high reliability and long life. Uniquely equipped with a variable resistor (potentiometer) to adjust high voltage output, if necessary.

Cabinet Construction Features

- Durable powder coat paint finish on heavy gauge steel resists abrasion and provides trouble-free wall or ceiling installation. Holes are provided to facilitate mounting to the duct work.

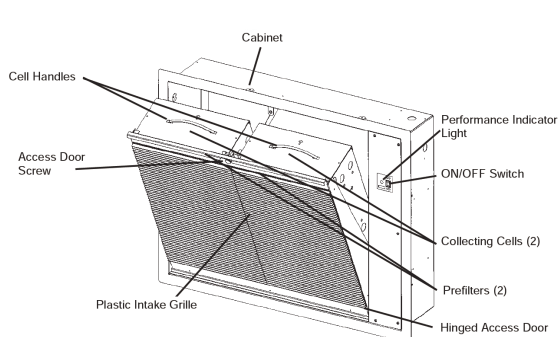
Accessories

- DAX Air Cleaner Detergent simplifies the washing process by quickly and safely removing contaminants from filters.
- 32 oz. (1 L) Spray Bottle, Part #9900

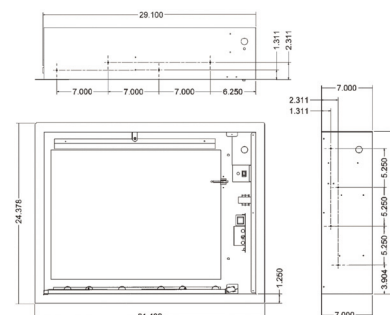
Warranty

- Five Year Limited Parts.

Part Number	House Size	Airflow	Duct Size	Cabinet Dimensions	Weight	Power
P102-RAM200	n/a	up to 2000 cfm, up to 3398 m3/hr	22 x 29.1 in, 55.9 x 73.9 cm	31.4 x 24.4 x 7 in 79.8 x 62 x 17.8 cm	38 lbs, 17.5 kg	120 volt, 60 Hz, 30 Watts



Dimensions



TOTALINE® IAQ FILTRATION PRODUCTS

1" Electronic Air Cleaner

Model CG1000



The Totaline® CG1000 is a safe and simple electronic process, operated with 24 volts! It works by creating a polarized (electric) charge on the media pads. The electric charge enables the media pads to capture and remove airborne particles as small as .01 microns.

Features:

- MERV 10 @ 295 fpm
- Produces no hazardous ozone
- Produces no positive ions
- Fully electronic, highly reliable
- Easy to maintain
- Increases equipment efficiency
- Satisfaction guaranteed
- 5 year warranty
- UL and CSA Certified
- Voltage range: 18V min. to 30V max.
- Consumption: Max 2.5 watts.
- Amp. Draw: Max 0.1A

Part Number	Efficiency	Pressure Drop	Voltage	Actual Dimensions
P101-1224C	Down to 1 micron	0.18 in W.G.	24 volts	11-5/8" x 23-5/8"
P101-1420C	Down to 1 micron	0.18 in W.G.	24 volts	13-5/8" x 19-5/8"
P101-1424C	Down to 1 micron	0.18 in W.G.	24 volts	13-5/8" x 23-5/8"
P101-1425C	Down to 1 micron	0.18 in W.G.	24 volts	13-5/8" x 24-5/8"
P101-1430C	Down to 1 micron	0.18 in W.G.	24 volts	13-5/8" x 29-5/8"
P101-1520C	Down to 1 micron	0.18 in W.G.	24 volts	14-5/8" x 19-5/8"
P101-1616C	Down to 1 micron	0.18 in W.G.	24 volts	15-5/8" x 15-5/8"
P101-1620C	Down to 1 micron	0.18 in W.G.	24 volts	15-5/8" x 19-5/8"
P101-1624C	Down to 1 micron	0.18 in W.G.	24 volts	15-5/8" x 23-5/8"
P101-1625C	Down to 1 micron	0.18 in W.G.	24 volts	15-5/8" x 24-5/8"
P101-1820C	Down to 1 micron	0.18 in W.G.	24 volts	17-5/8" x 19-5/8"
P101-2020C	Down to 1 micron	0.18 in W.G.	24 volts	19-5/8" x 19-5/8"
P101-2024C	Down to 1 micron	0.18 in W.G.	24 volts	19-5/8" x 23-5/8"
P101-2025C	Down to 1 micron	0.18 in W.G.	24 volts	19-5/8" x 24-5/8"
P101-2030C	Down to 1 micron	0.18 in W.G.	24 volts	19-5/8" x 29-5/8"
P101-2424C	Down to 1 micron	0.18 in W.G.	24 volts	235/8" x 235/8"
P101-2425C	Down to 1 micron	0.18 in W.G.	24 volts	23-5/8" x 24-5/8"
P101-2430C	Down to 1 micron	0.18 in W.G.	24 volts	23-5/8" x 29-5/8"
P101-1321C	Down to 1 micron	0.18 in W.G.	24 volts	13" x 21-1/2"
P101-1621C	Down to 1 micron	0.18 in W.G.	24 volts	16-3/8" x 21-1/2"
P101-1821C	Down to 1 micron	0.18 in W.G.	24 volts	18-7/8" x 21-1/2"
P101-2021C	Down to 1 micron	0.18 in W.G.	24 volts	19-7/8" x 21-1/2"
P101-2123C	Down to 1 micron	0.18 in W.G.	24 volts	21 1/2" x 235/16"
P101-CAR1C	Down to 1 micron	0.18 in W.G.	24 volts	13" x 24-5/8"
P101-CAR2C	Down to 1 micron	0.18 in W.G.	24 volts	23-1/2" x 24-5/8"

TOTALINE® IAQ FILTRATION PRODUCTS

1" Electronic Air Cleaner

Disposable Replacement Media Pads



The Totaline® CG1000 creates a polarized charge on the media pads, causing airborne particles to “stick” to the pads. This provides a means of disposing of the particles and removing them as the media pads are replaced. Recommended replacement is every 4 months.

Features:

- Hypo Allergenic Material
- High Density
- Fire Retardant
- Unique Dry Weave Material
- Pre-Cut to Size
- Highest Surface Area
- Safe, Simple Replacement
- 1 package contains 6 pads (2 pads required per changeout)

Part Number	Efficiency	Pressure Drop	Voltage	Voltage Range	Consumption	Amp. Draw	Actual Dimensions
P101-1224M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	11-5/8" x 23-5/8"
P101-1420M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 250	0.1A	13-5/8" x 19-5/8"
P101-1424M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	13-5/8" x 23-5/8"
P101-1425M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 250	0.1A	13-5/8" x 24-5/8"
P101-1430M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	13-5/8" x 29-5/8"
P101-1520M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	14-5/8" x 19-5/8"
P101-1616M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	15-5/8" x 15-5/8"
P101-1620M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 250	0.1A	15-5/8" x 19-5/8"
P101-1624M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 250	0.1A	15-5/8" x 23-5/8"
P101-1625M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	15-5/8" x 24-5/8"
P101-1820M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	17-5/8" x 19-5/8"
P101-2020M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	19-5/8" x 19-5/8"
P101-2024M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 250	0.1A	19-5/8" x 23-5/8"
P101-2025M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	19-5/8" x 24-5/8"
P101-2030M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	19-5/8" x 29-5/8"
P101-2424M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 250	0.1A	23-5/8" x 23-5/8"
P101-2425M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	23-5/8" x 24-5/8"
P101-2430M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	23-5/8" x 29-5/8"
P101-1321M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	13" x 21-1/2"
P101-1621M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	16-3/8" x 21-1/2"
P101-1821M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	18-7/8" x 21-1/2"
P101-2021M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	19-7/8" x 21-1/2"
P101-2123M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	21-1/2" x 23-5/16"
P101-CAR1M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	13" x 24-5/8"
P101-CAR2M	Down to 1 micron	0.18 in W.G.	24 volts	18V min. to 30V max.	Max 2.5 W	0.1A	23-1/2" x 24-5/8"

TOTALINE® IAQ FILTRATION PRODUCTS

1" Electronic Air Cleaner

Disposable Replacement Media Pads

Effectiveness

Airborne Pollutants	Actual Micron Particle Size Range	A Proportionate Particle Size Comparison
Human Hair	35-200 microns	
Pollen	10-100 microns	
Spores	10-35 microns	
Bacteria	.3-35 microns	
Animal Dander	.3-10 microns	
Lung Damaging Dust	.5-5 microns	
Smoke	.01-1 microns	

Information Source: American Industrial Hygiene Association

Masterpack Display

Part Number:

P101-MASTERPACK

(4) – P101-1625C

(4) – P101-2025C

(1) – P101-1620C

(1) – P101-2020C



How To Order A Custom Size EAC or Media

Definitions for Custom Sizes:

Custom Exact 1" (P101-5010C or P101-5010M)

Not undercut in any dimension

Example: 18" x 18" x 1"- Actual Dimensions = 18" x 18" x 1"

Custom Nominal 1" (P101-5000C or P101-5000M)

Nominal = Undercut by 3/8" in each dimension

Example: 18" x 18" x 1"- Actual Dimensions = 17-5/8" x 17-5/8" x 1"

Custom Exact 2" (P101-5010C2 or P101-5010M2)

Not undercut in any dimension

Example: 18" x 18" x 2"- Actual Dimensions = 18" x 18" x 2"

Custom Nominal 2" (P101-5000C2 or P101-5000M2)

Nominal = Undercut by 3/8" in each dimension

Example: 18" x 18" x 2"- Actual Dimensions = 17-5/8" x 17-5/8" x 2"

1" Custom sizes available in nominal, exact and oversized. Also available in 2" thickness for commercial applications.

TOTALINE® IAQ FILTRATION PRODUCTS

Filter Housings For Gas Furnaces



The Totaline® Air-Tite Series Filter Housings offer the most well-built, sleek designed and easiest to use galvanized sheet metal filter housings on the market, for residential and light commercial use. It allows for easy access to furnace filters-no panels or door to remove. The housing is made to fit all gas furnaces through 5 tons and makes a clean and professional installation. Uses standard size pleated or panel filters.

Standard Features:

- Fully hinged door with magnetic latch and integrated handle provide a tight seal, eliminating air and debris from entering the filter box from surrounding area.
- Removable rails are easy to change to accommodate different filter sizes.
- Heavy 22 gauge galvanized sheet metal has been die cut for smooth edges.
- Solid one piece wrap cabinet design is spot welded and riveted for sturdiness and long life.
- Tabs have rounded corners, which lessens chances of damage in transit or installation injury.
- Mounting holes are provided for faster installation.
- Individually boxed for convenient shipping and warehousing.
- Limited Lifetime Warranty.

TOTALINE® IAQ FILTRATION PRODUCTS

Filter Housings For Gas Furnaces

Filter Housing For HEATWAVE Gas Furnace

AIR-TITE Housing For 1" Filters

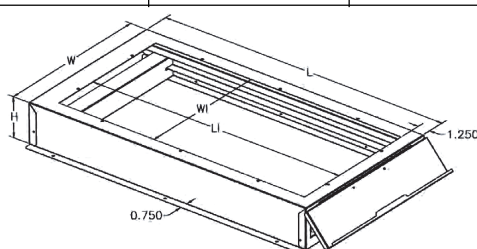
Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHG1425NCHW80	14 x 25	15-3/8	3	28-1/2	12-5/8	25-1/4
P102-FHG1625NCHW80	16 x 25	17-3/8	3	28-1/2	14-5/8	25-1/4
P102-FHG2025NCHW80	20 x 25	21-3/8	3	28-1/2	18-5/8	25-1/4
P102-FHG2424NCHW80	24 x 24	25-3/8	3	28-1/2	22-5/8	25-1/4
P102-FHG3025NCHW80	30 x 25	31-3/8	3	28-1/2	28-5/8	25-1/4

AIR-TITE Housing For 1" or 2" Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHG1425-3HW80	14 x 25	15-3/8	4	28-1/2	12-5/8	25-1/4
P102-FHG1625-3HW80	16 x 25	17-3/8	4	28-1/2	14-5/8	25-1/4
P102-FHG2025-3HW80	20 x 25	21-3/8	4	28-1/2	18-5/8	25-1/4
P102-FHG2424-3HW80	24 x 24	25-3/8	4	28-1/2	28-5/8	25-1/4
P102-FHG3025-3HW80	30 x 25	31-3/8	4	28-1/2	28-5/8	25-1/4

AIR-TITE Housing For 1", 2" or 4" Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHG1425-6HW80	14 x 25	15-3/8	6	28-1/2	12-5/8	25-1/4
P102-FHG1625-6HW80	16 x 25	17-3/8	6	28-1/2	14-5/8	25-1/4
P102-FHG2025-6HW80	20 x 25	21-3/8	6	28-1/2	18-5/8	25-1/4
P102-FHG2424-6HW80	24 x 24	25-3/8	6	28-1/2	28-5/8	25-1/4
P102-FHG3025-6HW80	30 x 25	31-3/8	6	28-1/2	28-5/8	25-1/4



TOTALINE® IAQ FILTRATION PRODUCTS

Filter Housings For Gas Furnaces

Filter Housing For Gas Furnace

AIR-TITE Housing For 1" Filters

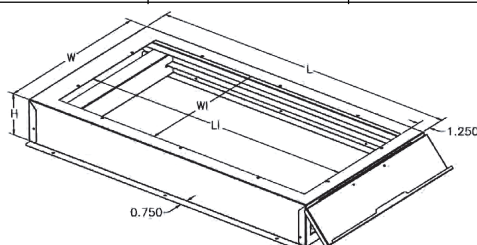
Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHG1425-2	14 x 25	15-3/8	3	28-1/2	12-5/8	25-1/4
P102-FHG1625-2	16 x 25	17-3/8	3	28-1/2	14-5/8	25-1/4
P102-FHG2025-2	20 x 25	21-3/8	3	28-1/2	18-5/8	25-1/4
P102-FHG2424-2	24 x 24	25-3/8	3	28-1/2	22-5/8	25-1/4
P102-FHG3025-2	30 x 25	31-3/8	3	28-1/2	28-5/8	25-1/4

AIR-TITE Housing For 1" or 2" Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHG1425-3	14 x 25	15-3/8	4	28-1/2	12-5/8	25-1/4
P102-FHG1625-3	16 x 25	17-3/8	4	28-1/2	14-5/8	25-1/4
P102-FHG2025-3	20 x 25	21-3/8	4	28-1/2	18-5/8	25-1/4
P102-FHG2424-3	24 x 24	25-3/8	4	28-1/2	22-5/8	25-1/4
P102-FHG3025-3	30 x 25	31-3/8	4	28-1/2	28-5/8	25-1/4

AIR-TITE Housing For 1", 2" or 4" Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHG1425-6	14 x 25	15-3/8	6	28-1/2	12-5/8	25-1/4
P102-FHG1625-6	16 x 25	17-3/8	6	28-1/2	14-5/8	25-1/4
P102-FHG2025-6	20 x 25	21-3/8	6	28-1/2	18-5/8	25-1/4
P102-FHG2424-6	24 x 24	25-3/8	6	28-1/2	22-5/8	25-1/4
P102-FHG3025-6	30 x 25	31-3/8	6	28-1/2	28-5/8	25-1/4



TOTALINE® IAQ FILTRATION PRODUCTS

Filter Housing For Electric Air Handlers



The Totaline® Air-Tite Series Filter Housings offer the most well-built, sleek designed and easiest to use galvanized sheet metal filter housings on the market, for residential and light commercial use. It allows for easy access to furnace filters—no panels or door to remove. The housing is made to fit all electric air handlers through 5 tons and makes a clean and professional installation. Uses standard size pleated or panel filters.

Standard Features:

- Fully hinged door with magnetic latch and integrated handle provide a tight seal, eliminating air and debris from entering the filter box from surrounding area.
- Removable rails are easy to change to accommodate different filter sizes.
- Heavy 22 gauge galvanized sheet metal has been die cut for smooth edges.
- Solid one piece wrap cabinet design is spot welded and riveted for sturdiness and long life.
- Tabs have rounded corners, which lessens chances of damage in transit or installation injury.
- Mounting holes are provided for faster installation.
- Individually boxed for convenient shipping and warehousing.
- Limited Lifetime Warranty.

AIR-TITE Housing For 1" Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHE1420-2	14 x 20	15-3/8	3	22	12-5/8	18-3/4
P102-FHE1620-2	16 x 20	17-3/8	3	22	14-5/8	18-3/4
P102-FHE2020-2	20 x 20	21-3/8	3	22	18-5/8	18-3/4
P102-FHE2025-2	20 x 25	26-3/8	3	22	23-5/8	18-3/4
P102-FHE2025-2N	20 x 25	21-3/8	3	25	18-5/8	21-3/4

AIR-TITE Housing For 1" or 2" Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHE1420-3	14 x 20	15-3/8	4	22	12-5/8	18-3/4
P102-FHE1620-3	16 x 20	17-3/8	4	22	14-5/8	18-3/4
P102-FHE2020-3	20 x 20	21-3/8	4	22	18-5/8	18-3/4
P102-FHE2020-3T	20 x 20	23-1/2	4	22	19-3/4	18-3/4
P102-FHE2025-3	20 x 25	26-3/8	4	22	23-5/8	18-3/4
P102-FHE2025-3N	20 x 25	21-3/8	4	25	18-5/8	21-3/4

AIR-TITE Housing For 1", 2" or 4" Filters

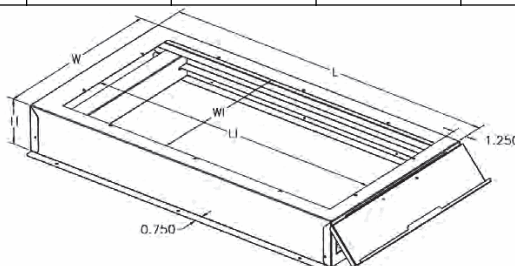
Part Number	Filter Size (inch)	Outside Dimensions			Opening	
		W	H	L	W1	L1
P102-FHE1420-6	14 x 20	15-3/8	6	22	12-5/8	18-3/4
P102-FHE1620-6	16 x 20	17-3/8	6	22	14-5/8	18-3/4
P102-FHE2020-6	20 x 20	21-3/8	6	22	18-5/8	18-3/4
P102-FHE2020-6T	20 x 20	23-1/2	6	22	19-3/4	18-3/4
P102-FHE2025-6	20 x 25	26-3/8	6	22	23-5/8	18-3/4
P102-FHE2025-6N	20 x 25	21-3/8	6	25	18-5/8	21-3/4

TOTALINE® IAQ FILTRATION PRODUCTS

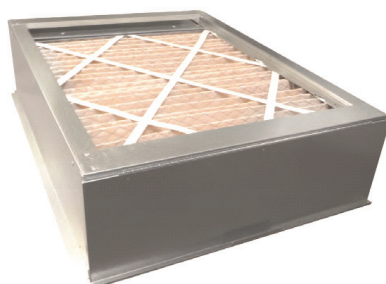
Filter Housing For Electric Air Handlers

AIR-TITE Housing For 5-1/4" MERV 11 Media Filters

Part Number	Filter Size (inch)	Outside Dimensions			Opening		Replacement Filter
		W	H	L	W1	L1	
P102-FHE1420-7	14 x 22	15-3/8	7-3/8	22-1/8	12-7/8	18	P102-MAH-1056A
P102-FHE1620-7	15-7/16 x 21-15/16	17-3/8	7-3/8	22-1/8	14-5/8	18	P102-MFAH-S
P102-FHE2020-7	19-3/4 x 22	21-5/8	7-3/8	22-1/8	18-7/8	18	P102-MAH1056B
P102-FHE2025-7	20-1/4 x 25-3/8	26-5/8	7-3/8	22-1/8	23-7/8	18	P102-2025
P102-FHE2025-7N	20-1/4 x 25-3/8	21-5/8	7-3/8	25-1/8	18-7/8	21-3/8	P102-2025



Filter Housing W/media Air Cleaners - Gas Furnaces



The Totaline® Air-Tite Series Filter Housing Media Air Cleaners offer the most well-built, sleek designed and easiest to use galvanized sheet metal filter housings on the market, for residential and light commercial use.

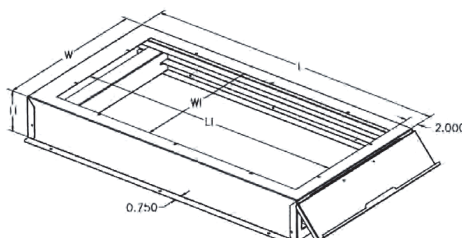
- Allows for easy access to furnace filters—no panels or door to remove.
- Made to fit gas upflow furnaces.
- Makes a clean and professional installation.
- High efficiency MERV 11 Media Filter is an extra deep, 5-1/4 inch, 24 pleat filter which contains more media material than other filters on the market. More surface area means more collection area, longer filter life and lower static pressure. Filter lasts up to one year.

Standard Features:

- Fully hinged door with magnetic latch and integrated handle provide a tight seal, eliminating air and debris from entering the filter box from surrounding area.
- Heavy 22 gauge galvanized sheet metal has smooth edges allowing for a smooth installation.
- Solid cabinet design for sturdiness and long life.
- Tabs have rounded corners.
- Mounting holes are provided for faster installation.
- Individually boxed for convenient shipping and warehousing.
- Limited Lifetime Warranty.

Part Number	Filter Size (inch)	Outside Dimensions			Opening		Replacement Filter
		W	H	L	W1	L1	
P102-FHG1425-7M1*	16 x 25	17-3/8	7-3/8	28-1/2	12-5/8	24-3/8	P102-1625
P102-FHG1625-7M1	16 x 25	17-3/8	7-3/8	28-1/2	14-5/8	24-3/8	P102-1625
P102-FHG2025-7M8	20 x 25	21-5/8	7-3/8	28-1/2	18-7/8	24-3/8	P102-2025

* Use for 14 inch wide furnace only.



TOTALINE® IAQ FILTRATION PRODUCTS

Filter Housing For Gas & Electric Air Handlers - Deluxe

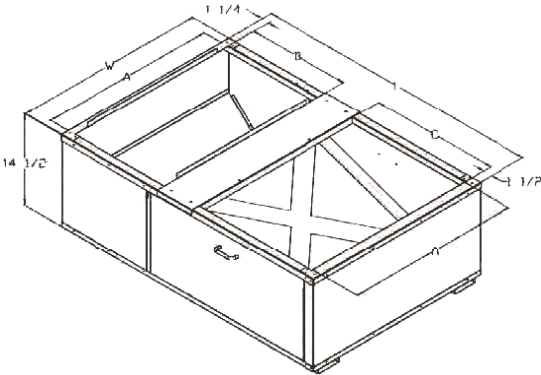


The Totaline® Perfect-Platform Series Filter Housings offer the most well-built, sleek designed and easiest to use galvanized sheet metal filter housings on the market, for residential and light commercial use. The space saving design for vertical installations, keeps furnace off floor eliminating need for wooden platform, thereby reducing installation time and costs. The Filter Housing allows for easy access to furnace filters without having to enter furnace. The Filter Housing uses 1", 2" or 4" standard size pleated or panel filters which are positioned on an angle to maximize surface area. They are made to fit 1-3 ton or 3.5 ton electric air handlers or gas furnaces.

Standard Features:

- Two, pull-out doors with handle allow filter access from either side.
- Adjustable inlet duct opening replaces need for field forming transition, significantly reducing installation time.
- Removable rails are easy to change to accommodate different filter sizes.
- Heavy gauge galvanized sheet metal has been die cut for smooth edges.
- Solid one piece wrap cabinet design is spot welded and riveted for sturdiness and long life.
- Individually boxed for convenient shipping and warehousing.
- Limited Lifetime Warranty.

Part Number	Filter Size (inch)	Dimensions				
		A	B	C	W	L
P102-FB2832	20 x 25	26-1/2	8	13-1/2	28-1/2	32
P102-FB2843	24 x 24	26-1/2	10/12	19/22-1/2	28-1/2	43
P102-FB2232	20 x 20	20-1/2	9-1/2	14-1/2	22-1/2	32
P102-FB2240	20 x 25	20-1/2	12	20	22-1/2	40



TOTALINE® IAQ FILTRATION PRODUCTS
Media Air Cleaner Platforms For Gas & Electric Furnaces - Deluxe

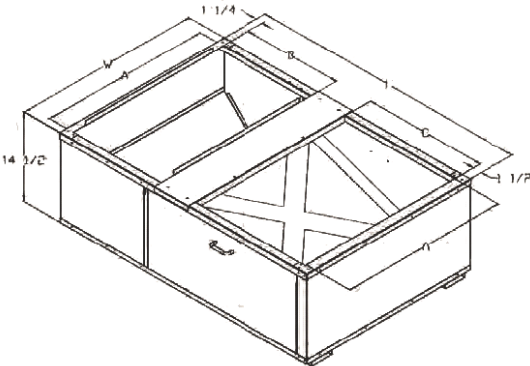


The Totaline® Perfect-Platform Series Media Air Cleaner Platform from Totaline® offers the most well-built, sleek designed and easiest to use galvanized sheet metal filter housings on the market, for residential and light commercial use. The space saving design for vertical installations, keeps furnace off the floor allowing a cleaner, more professional installation. The platform helps eliminates the possibility of dust, pet hair, insects, rodents, water or sewer backup from entering the furnace. The platform also allows the filter to work at maximum efficiency by eliminating the need for transitions, deflectors or turning vanes, thereby saving installation time and costs.

Standard Features:

- High efficiency MERV 11 Media Filter is an extra deep, 5-1/4 inch, 24 pleat filter which contains more media material than other filters on the market. More surface area means more collection area, longer filter life and lower static pressure. Filter lasts up to one year.
- Two, pull-out doors with handles allow filter access from both sides.
- Adjustable inlet duct opening replaces need for field forming transition, significantly reducing installation time.
- Heavy 22 gauge galvanized sheet metal has been die cut for smooth edges, allowing for a smoother installation.
- Individually boxed for convenient shipping and warehousing.
- Limited Lifetime Warranty.

Part Number	Filter Size (inch)	Dimensions					Replacement Filter
		A	B	C	W	L	
P102-FB2832-M8	20 x 25	26-1/2	8	13-1/2	28-1/2	32	P102-2025
P102-FB2843-M8	20 x 25	26-1/2	10/12	19/22-1/2	28-1/2	43	P102-2025
P102-FB2232-M2	20 x 20	20-1/2	9-1/2	14-1/2	22-1/2	32	P102-2020
P102-FB2240-M8	20 x 25	20-1/2	12	20	22-1/2	40	P102-2025



OTHER IAQ FILTRATION PRODUCTS

EZ Flex Adjustable Filters

EZ Flex Universal Kit



The **EZFLEX** Filter is the perfect solution to all of your replacement filter needs. Its easy assembly saves time and the collapsed packaging allows you to store up to 10 filters in the truck as compared to 2 cartridges. **EZFLEX** serves as a replacement for several cabinets in nominal 16" x 25" and 20" x 25" sizes.

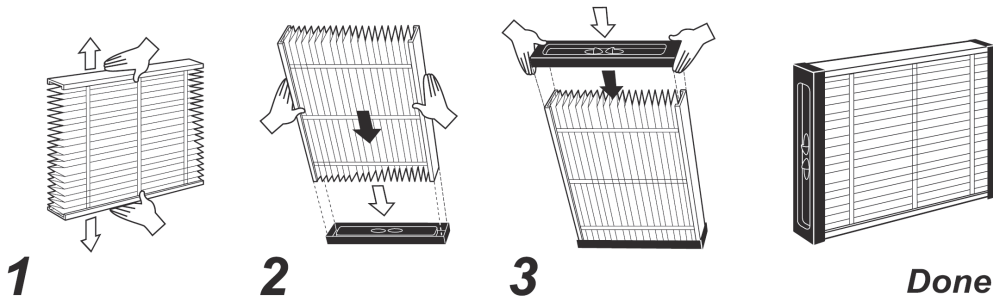
- Features:**
- Easy to assemble...
 - saves up to 99% on assembly time
 - no combs
 - Adjustable (replaces competitors)
 - MPKA Media Cabinet
 - MACA Media Cabinet
 - Honeywell, Space-Gard, Trion
 - MERV 10
 - Pressure drop @ 1600 CFM = .265
 - Patented (5 patents)

Part Number	Media Air Cleaner	Filter Size (inch)
EXPXXUNV0016	Carrier MACA	16 x 25
EXPXXUNV0020	Carrier MACA	20 x 25

Competitive Cross Reference

Part Number	Media Air Cleaner	Filter Size (inch)
EXPXXUNV0016	Honeywell F35	16 x 25
EXPXXUNV0016	Honeywell F100F	16 x 25
EXPXXUNV0016	Honeywell F150E	16 x 25
EXPXXUNV0016	Honeywell F200E	16 x 25
EXPXXUNV0016	Trion Air Bear	16 x 25
EXPXXUNV0020	Space Gard 2200	20 x 25
EXPXXUNV0020	Expandapac	20 x 25
EXPXXUNV0020	Honeywell F100F	20 x 25
EXPXXUNV0020	Honeywell F150E	20 x 25
EXPXXUNV0020	Honeywell F200E	20 x 25
EXPXXUNV0020	Trion Air Bear	20 x 25

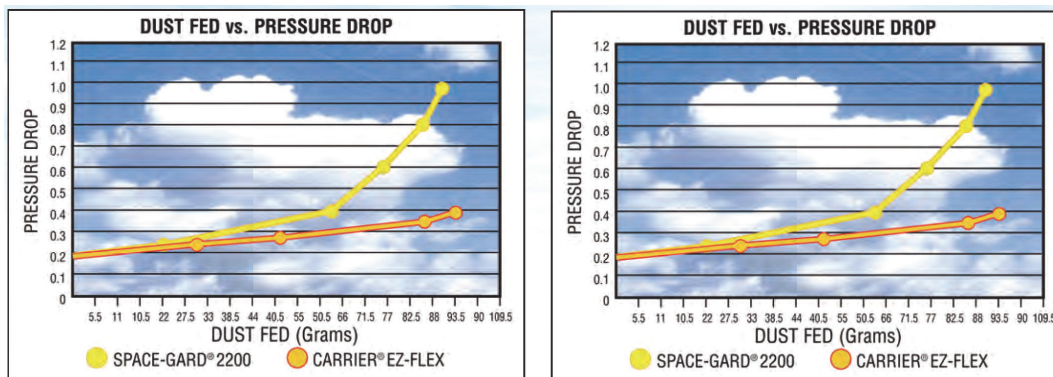
Easy 1 - 2 - 3 installation



OTHER IAQ FILTRATION PRODUCTS

EZ Flex Adjustable Filters

EZ Flex Universal Kit



Both tests done in accordance with ASHRAE Test Standard 52.2 By LMS Technologies, Inc., Bloomington, MN, USA

EXPXXUNV = Universal Kit

Kits Include Expandable Filter and Plastic End Caps.

Fitting:

- Carrier MACA
- Honeywell F100E, F150E, F200E
- Trion Air Bear
- Research Products (Space-Gard 2200)
- New WeatherMaker 8000 Platform

EZ Flex Replacement Media Filters

Part Number	Media Air Cleaner	Filter Size (inch)
EXPXXFIL0016	Carrier MACA	16 x 25
EXPXXFIL0020	Carrier MACA	20 x 25

Competitive Cross Reference

Part Number	Media Air Cleaner	Filter Size (inch)
EXPXXFIL0016	Honeywell F35	16 x 25
EXPXXFIL0016	Honeywell F100F	16 x 25
EXPXXFIL0016	Honeywell F150E	16 x 25
EXPXXFIL0016	Trion Air Bear	16 x 25
EXPXXFIL0020	Space Gard 2200	20 x 25
EXPXXFIL0020	Expandapac	20 x 25
EXPXXFIL0020	Honeywell F100F	20 x 25
EXPXXFIL0020	Honeywell F150E	20 x 25
EXPXXFIL0020	Honeywell F200E	16 x 25
EXPXXFIL0020	Honeywell F200E	20 x 25
EXPXXFIL0020	Trion Air Bear	20 x 25

EXPXXFIL = Replacement Filters (10-Pack)

Expandable Filters Only, Can Use End Caps From Old Filter

The EZ-Flex kit includes the plastic end panels in the box.

The media only can be used only if the filter has the end panels from a previous installation. These filters are direct replacements for EZ-Flex filter assemblies.

OTHER IAQ FILTRATION PRODUCTS

EZ Flex Return Air Filter Grille

Filter Grille Cabinet Model



The Totaline® **EZFLEX** Return Air Filter Grille is designed for both commercial and residential applications. It provides easy access for filter changes, and having the **EZFLEX** filter as the replacement for this cabinet will save you time with its quick and easy assembly. Nominal sizes available are for 16" x 25" and 20" x 25" filter.

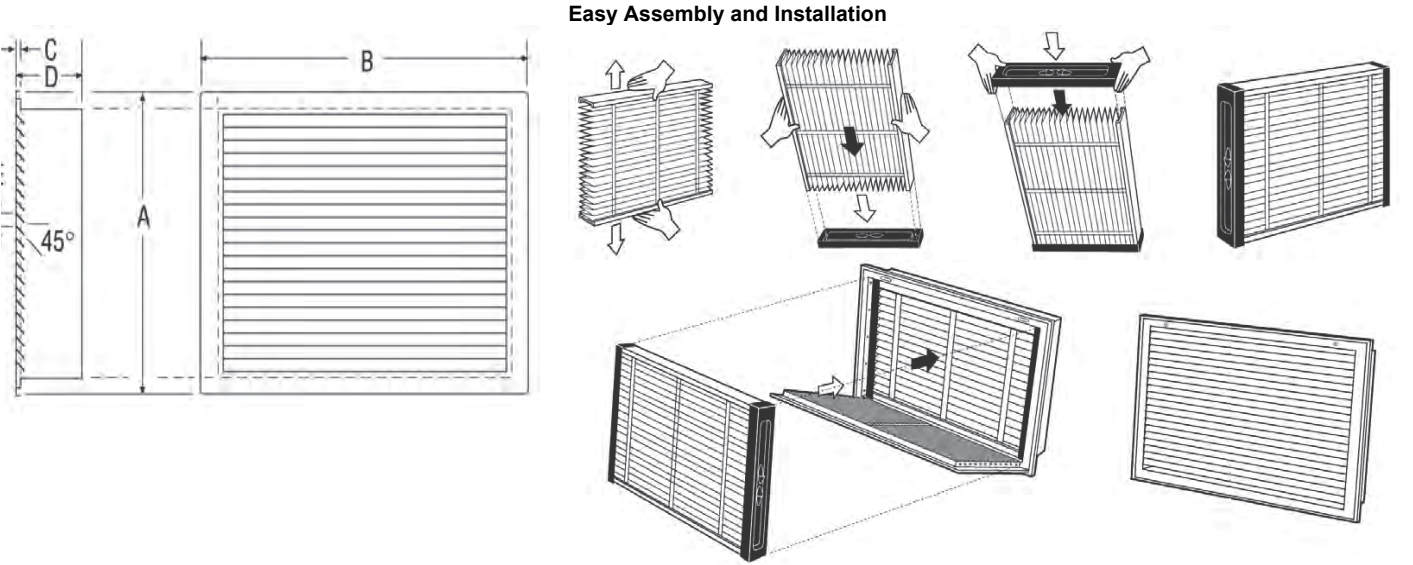
- Features:**
- Attractive white aluminum, easy to wipe clean
 - Wide margin for easy wall or ceiling installation.
 - Concealed hinges for neat appearance, hinged face fits flush with frame.

- EZFLEX Features:**
- MERV 10 @ 1366 CFM (16" x 25"); MERV 10 @ 1708 CFM (20" x 25")
 - EZ to assemble, no combs
 - Pressure drop @ 1600 CFM = .265 (20" x 25" filter)
 - Patent Pending
- * The EZFLEX Filter is sold separately.

Specifications:
Material: Extruded and rolled aluminum
Face: Extruded frame with miter/welded corners. Individual extruded bars horizontally set on 3/4" centers and fixed at a 45 degree angle of deflection.
Finish: EDP white

Part Number	Filter Size (inch)	EZ Flex		Dimensions				
		Kit*	Media Only**	A	B	C	D	E
P907-RAG-EZF-2516	25 x 16	EXPXXUNV0016	EXPXXFIL0016	16 in (40.5 cm)	25 in (63.5 cm)	1/4 in (.63 cm)	5 in (12.7 cm)	3/4 in (.19 cm)
P907-RAG-EZF-2520	25 x 20	EXPXXUNV0020	EXPXXFIL0020	20 in (51 cm)	26 in (66 cm)	1/4 in (.63 cm)	5 in (12.7 cm)	3/4 in (.19 cm)

The EZ-Flex kit includes the plastic end panels in the box.
 * The media only can be used only if the filter has the end panels from a previous installation. These filters are direct replacements for EZ-Flex filter assemblies.



OTHER IAQ FILTRATION PRODUCTS

EZ Flex Filter Cabinet



The **EZFLEX** Filter Cabinet is available in six sizes, four vertical models 14" x 25" with wide flange to fit 14" wide furnace, 16" x 25" to fit 17" furnace, 20" x 25" to fit 20" furnace, 24" x 24" to fit 24" furnace. Vertical model **EZFLEX** housings are designed to fit the new Heatwave 80 furnaces. **EZFLEX** Filter Cabinets provide easy access for filter changes, and having the **EZFLEX** filter as the replacement for this cabinet will save you time with its quick and easy assembly.

Cabinet Features:

- Fully insulated cabinet, 18 ga. steel with powder paint finish.
- Easy access hinged door and **EZFLEX** filter makes for quick and easy filter change.
- Can be purchased with or without **EZFLEX** filter

Specifications:

Material: 18 ga. steel construction.

Construction: Fully insulated cabinet with hinged door for easy access, high quality latch and gasket on door creates a tight seal.

Finish: Powder paint, grey

Side Return Painted Cabinet Without Filter

Part Number	Filter Size (inch)	EZ Flex	
		Kit	Media Only
EZF1625SRP	16 x 25	EXPXXUNV0016	EXPXXFIL0016
EZF2025SRP	20 x 25	EXPXXUNV0020	EXPXXFIL0020

Side Return Painted Cabinet With Filter

Part Number	Filter Size (inch)	EZ Flex	
		Kit	Media Only
EZF1625SRP-WF	16 x 25	EXPXXUNV0016	EXPXXFIL0016
EZF2025SRP-WF	20 x 25	EXPXXUNV0020	EXPXXFIL0020

Upflow Painted Cabinet Without Filter

Part Number	Filter Size (inch)	EZ Flex	
		Kit	Media Only
EZF1425UFP	14 x 25	EXPXXUNV0016	EXPXXFIL0016
EZF1625UFP	16 x 25	EXPXXUNV0016	EXPXXFIL0016
EZF2025UFP	20 x 25	EXPXXUNV0020	EXPXXFIL0020
EZF2425UFP	24 x 24	EXPXXUNV0024	EXPXXFIL0024

Upflow Painted Cabinet With Filter

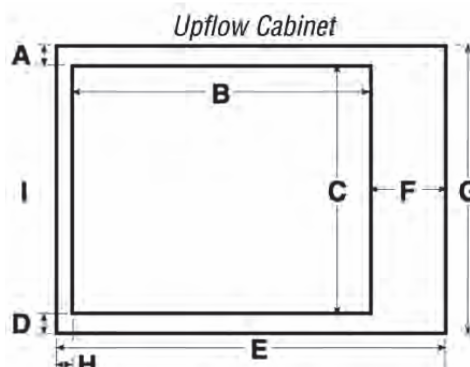
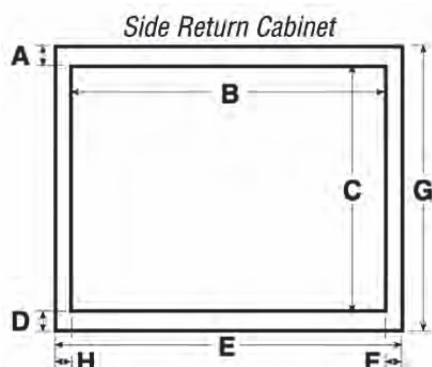
Part Number	Filter Size (inch)	EZ Flex	
		Kit	Media Only
EZF1425UFP-WF	14 x 25	EXPXXUNV0016	EXPXXFIL0016
EZF1625UFP-WF	16 x 25	EXPXXUNV0016	EXPXXFIL0016
EZF2025UFP-WF	20 x 25	EXPXXUNV0020	EXPXXFIL0020
EZF2425UFP-WF	24 x 24	EXPXXUNV0024	EXPXXFIL0024

OTHER IAQ FILTRATION PRODUCTS

EZ Flex Filter Cabinet

Upflow Painted Cabinet With Filter

Indoor Air Quality



Side Return Cabinet

Part No.	Dimensions							
	A	B	C	D	E	F	G	H
EZF1625SRP	1.375 in (.35 cm)	24 in (61 cm)	14.625 in (37 cm)	1.375 in (.35 cm)	26 in (66 cm)	1 in (.26 cm)	17.375 in (44.1 cm)	1 in (.26 cm)
EZF2025SRP	1.375 in (.35 cm)	24 in (61 cm)	18.625 in (47.3 cm)	1.375 in (.35 cm)	26 in (66 cm)	1 in (.26 cm)	21.375 in (54.2 cm)	1 in (.26 cm)

Upflow Cabinet

Part No.	Dimensions								
	A	B	C	D	E	F	G	H	I
EZF1425UFP	2.875 in (.73 cm)	22.25 in (56.5 cm)	12.625 in (32 cm)	2.875 in (.73 cm)	29 in (73.6 cm)	5.75 in (14.6 cm)	17.375 in (44.1 cm)	1 in (.26 cm)	5.875 in (14.9 cm)
EZF1625UFP	1.375 in (.35 cm)	22.25 in (56.5 cm)	14.625 in (37 cm)	1.375 in (.35 cm)	29 in (73.6 cm)	5.75 in (14.6 cm)	17.375 in (44.1 cm)	1 in (.26 cm)	5.875 in (14.9 cm)
EZF2025UFP	1.375 in (.35 cm)	22.25 in (56.5 cm)	18.625 in (47.3 cm)	1.375 in (.35 cm)	29 in (73.6 cm)	5.75 in (14.6 cm)	21.375 in (54.2 cm)	1 in (.26 cm)	5.875 in (14.9 cm)
EZF2425UFP	1.375 in (.35 cm)	22.25 in (56.5 cm)	22.625 in (57.4 cm)	1.375 in (.35 cm)	29 in (73.6 cm)	5.75 in (14.6 cm)	25.375 in (64.4 cm)	1 in (.26 cm)	5.875 in (14.9 cm)

TOTALINE® IAQ HUMIDITY CONTROL PRODUCTS

Fan And Bypass Humidifiers



As warm air passes through the humidifier pad and water flows through it, natural evaporation takes place. This creates comforting humidity which is distributed throughout the house by your forced air heating system.

Optimal generation of comforting moisture.

Working together, Totaline's water solenoid valve, water metering orifice, water distribution tray and aluminum humidifier pad efficiently generate maximum levels of comforting moisture.

Simple, Infrequent Maintenance.

Totaline humidifiers are designed for easy serviceability. In most instances it takes less than half hour since maintenance (including changing the humidifier pad) is performed once a season. Unlike portables, there are no reservoirs which need to be frequently cleaned and refilled.

Long Lasting high quality components.

With proper maintenance, your humidifier will last for many years. That's because it's designed with durable UV and corrosion resistant plastic. This plastic resists deterioration even when exposed to Ultraviolet light sources common in many systems today.

Three humidity control options.

Choose between 3 separate control options; the humidistat, the HumidiTrac and the Thermidistat control. Each option provides precise control of humidity levels in your home.

Quiet Operation.

Nearly silent operation is the result of Totaline Humidifier's precision engineered fan and motor combination in the large fan powered unit. In all Totaline units, air is quietly drawn through the humidifier pad which efficiently turns water into water vapor to humidify your home.

Warranty

Electrical components are covered by a **five-year limited warranty** and the entire unit is backed by a **one-year limited warranty**.

Part Number	Humidifier		Type		Pad Access	Unit Size Includes Solenoid Valve H x W x D (in)	Weight
	Gallons Per Day**	Water Feed Rate	Airflow	Waterflow			
P110-LFP1518	18 GPD	6 gal/hr	Fan	Drain Through	Quick Release Cover	15-15/16 x 15-7/8 x 10-3/8	15.7 lbs.
P110-LBP2417	17 GPD	3 gal/hr	Bypass	Drain Through	Quick Release Cover	15-1/2 x 13-1/8 x 9-1/8	8.3 lbs.
P110-SBP2412	12 GPD	3 gal/hr	Bypass	Drain Through	Quick Release Cover	12-3/4 x 12-3/4 x 9-1/8	7.4 lbs.

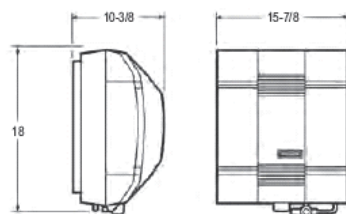
TOTALINE® IAQ SOURCE CONTROL PRODUCTS

Fan And Bypass Humidifiers

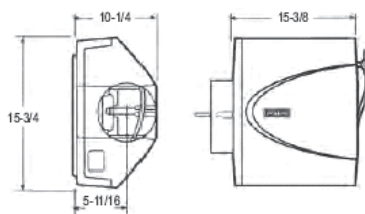
Indoor Air Quality

Model	P110-LFP1518	P110-LBP2417	P110-SBP2412
GENERAL			
Evaporator Pad Replacement	P110-3545	P110-3545	P110-1045
Evaporator Pad Size H x W x D (in.)	13 x 10 x 1-11/16	13 x 10 x 1-11/16	9-7/8 x 9-5/8 x 1-11/16
Transformer	Class 2, 10VA (Included)	Class 2, 10VA (Included)	Class 2, 10VA (Included)
Water Usage	6 gal/hr	3 gal/hr	3 gal/hr
ELECTRICAL CONTROL LOW VOLTAGE TERMINALS			
Volts	24V - 60Hz	24V - 60Hz	24V - 60Hz
Amps. (Max)	0.5	0.5	0.5
VA (Max)	12	12	12
Watts	6	6	6
HIGH VOLTAGE CORD			
Volts	115V - 1ph - 60Hz	N/A	N/A
Amps. (Max)	10 amp rating	N/A	N/A
CONNECTIONS			
Water Inlet	1/4 inch copper tubing	1/4 inch copper tubing	1/4 inch copper tubing
Water Drain	1/2 inch I.D. plastic hose	1/2 inch I.D. plastic hose	1/2 inch I.D. plastic hose
Bypass Opening	N/A	6 inch round elbow or straight	6 inch round elbow or straight
Duct Opening W x H (in.)	14-3/4 x 14-5/16	9-7/8 x 12-5/8	9-1/2 x 9-1/2
STANDARD EQUIPMENT			
Water Valve	Solenoid, 24 VAC	Solenoid, 24 VAC	Solenoid, 24 VAC
Motor* Thermal Protection	120 VAC	N/A	N/A
Relay DPDT	24 VAC	N/A	N/A
Humidistat	24 V	24 V	24 V
Saddle Valve	Standard	Standard	Standard
Damper	N/A	Built-in, 6 inch round	Built-in, 6 inch round
Template	Installation Template Included	Installation Template Included	Installation Template Included

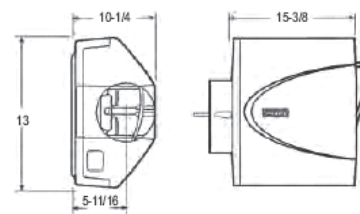
* 14mHP (0.014H = 1/70 HP) ** Based on 120°F plenum temperature, 71.5°F water temperature



Model: P110-LFP1518
Duct Cut Out Size: 14-3/4"W x 14-5/16"H



Model: P110-LBP2417
Duct Cut Out Size: 9-7/8"W x 12-5/8"H



Model: P110-SBP2412
Duct Cut Out Size: 9-1/2"W x 9-1/2"H

ACCESSORIES

HumidiTrac Automatic Control	P110-0056	P110-0056	P110-0056
Current Sensing Relay	P110-0050	P110-0050	P110-0050

TOTALINE® IAQ SOURCE CONTROL PRODUCTS

Uvc Germicidal Object Irradiators

Indoor Air Quality

Residential UV Lights

Indoor Pollutants Can Affect You, Your Home And Your Comfort System.

Totaline® UV Lights are the perfect addition to today's tightly constructed, highly energy efficient homes. These homes are built to seal in heated or cooled air. Unfortunately, they also do a great job of trapping mold,bacteria, viruses, fungi, dust and other irritants. Airborne irritants are simply a fact of life. Molds can cause flare ups of allergy symptoms, and in some cases, trigger asthma attacks. Bacteria, viruses and germs also can reside in the air you breathe every day. These airborne pollutants can effect your home comfort equipment, too. Allowed to circulate through your home and your system, these and other particlescan build up on the indoor coil, inhibiting airflow and reducing heating and cooling efficiency

Totaline ® UV Lights actually eliminate many irritants, leaving your home's air cleaner and fresher. Mounted inside your system near the indoor coil, small lamps direct UV light to the source of potential fungal and microbial growth. Once activated, the UV Light goes to work right away, cleaning the indoor coil. When combined with a Totaline high efficiency air cleaner, you can enjoy improvements to the quality of your indoor air. Totaline UV Lights are available in a single lamp P103-UVLTT1LP1020A01 and a double lamp P103-UVLTT2LP1020A01 models. Your Totaline dealer can help you select the right UV Light for your home

Features:

- **CLEAN, FRESHER AIR.** As a part of a complete system including a Totaline high efficiency air cleaner, the UV Light enhances indoor air quality by reducing the amount of fungi, bacteria and other pollutants on the coil.
- **CONFIDENCE.** Enjoy your enhanced indoor air quality with genuine peace of mind knowing that the UV Light is proven technology that is safe, effective, and energy efficient.
- **EASE OF USE.** This product operates quietly and requires no cleaning or other routine monthly maintenance.
- **LASTING EFFICIENCY.** Just replace the lamps once a year to maintain effectiveness.
- **WARRANTY.** The UV Light is covered with a 5-year limited warranty. The lamps, which require annual replacement, are covered with a 90-day limited warranty.



Single Lamp

Part Number	Voltage	Lamp Length	Electrical	Lamp Replacement	Shipping Weight	Unit Warranty	Lamp Warranty
P103-UVLTT1LP1020A01	115 Volt	19.5 Inch	6 Foot Service Cord With Ground Pin Plug, 115V	P103-UVLTTRLRP1020A01	2 Lb. 4oz.	5-Year Limited	90-Day Limited
P103-UVLTT1LP3020A01	208/230 Volt	19.5 Inch	6 Foot Service Cord With Ground Pin Plug, 208/230V	P103-UVLTTRLRP3020A01	2 Lb. 4oz.	5-Year Limited	90-Day Limited



Double Lamp

Part Number	Voltage	Lamp Length	Electrical	Lamp Replacement	Shipping Weight	Unit Warranty	Lamp Warranty
P103-UVLTT2LP1020A01	115 Volt	19.5 Inch	6 Foot Service Cord With Ground Pin Plug, 115V	P103-UVLTTRLRP1020A01 (2 Required)	4 Lb. 2oz.	5-Year Limited	90-Day Limited
P103-UVLTT2LP3020A01	208/230 Volt	19.5 Inch	6 Foot Service Cord With Ground Pin Plug, 208/230V	P103-UVLTTRLRP3020A01 (2 Required)	4 Lb. 2oz.	5-Year Limited	90-Day Limited

Trusted Reliability

Using ultraviolet light for cleaning/sanitizing is not a totally new idea. In fact, ultraviolet light has been used for years as a sterilization agent in medical food processing applications. Totaline® has taken the same technology and successfully adapted it for use in home comfort systems. It's reliable and safe. All you have to do is replace the lamps once a year, then sit back and enjoy the benefits of greatly enhanced indoor air quality. A very thin film just .002" thick on your indoor coil is all it takes to reduce air flow by as much as 9%*. Totaline's UV Lights can clean the coil and virtually eliminate additional build up.

* Estimated reduction based on hypothetical buildup on typical coil. Reduction may vary based on actual coil and system size and characteristics.

TOTALINE® IAQ VENTILATION PRODUCTS

Heat And Energy Recovery Ventilators



Totaline® Heat Recovery Ventilators (HRVs) are recommended for colder areas of the country that have longer heating seasons as well as drier desert areas of the South. They are designed to bring a continuous supply of fresh air into the home while exhausting an equal amount of contaminated air. HRVs use a "sensible" heat recovery core.

Totaline® Energy Recovery Ventilators (ERVs) are designed for warmer, humid climates with longer cooling seasons. The heart of the ERV is the enthalpic core that transfers heat and moisture from the incoming air to the outgoing air. HRVs and ERVs can be installed as stand-alone systems that use independent ductwork or they can be connected to the existing duct of your forced air heating or cooling system.

Features:

- Compact size for easier installation
- Fully insulated cabinet
- Exterior mounted electrical box
- Washable electrostatic filters with aluminum frames
- Easy-slide core
- Internal fans mounted vertically for better air movement
- Superior EBM motors feature external rotor motorized impellers
- Precisely balanced to ensure vibration-free operation
- Superior Warranties:
 - 7 Year (limited) Motor Warranty
 - Lifetime (limited) Warranty on Core
 - 5 Year (limited) Warranty on other components

Benefits:

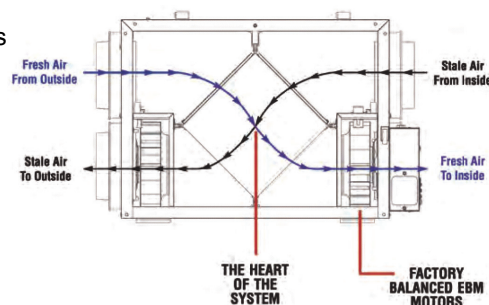
- Brings a continuous supply of fresh, filtered outside air into the home.
- Exhausts environmental contaminants for improved indoor air quality.
- Saves energy by recovering heat from exhausted air in the winter.
- Cools incoming air in the summer
- Controls excess humidity



How Do They Work?

Heat Recovery Ventilators (HRVs) are designed to bring a continuous supply of fresh air into a home while exhausting an equal amount of contaminated air. HRVs use what is called a "sensible" heat recovery core. This special aluminum core transfers heat from the exhaust air stream to the incoming air stream. Fresh incoming air is tempered by the heat that is transferred from the outgoing air so you save on energy costs. HRVs are equipped with automatic defrost mechanisms so even if you live in the coldest climates you can use your HRV all year long.

Energy Recovery Ventilators (ERVs) work much like the HRV but it is designed with a different type core. The enthalpic core at the center of the unit transfers heat and moisture from the incoming air to the outgoing air. The air brought into the living area is cooled and the humidity is reduced for maximum comfort. The load on your air conditioner is less and you save on cooling costs



Series SER Energy Recovery Ventilators

Part Number	Voltage	Amp Rating	3-FT Cord w/3 Prong Plug	CFM at 0.4 in. wg
P707-SER1504	120 Volts	1.5	Yes	130
P707-SER2004	120 Volts	1.9	Yes	170

Series SHR Heat Recovery Ventilators

Part Number	Voltage	Amp Rating	3-FT Cord w/3 Prong Plug	CFM at 0.4 in. wg
P707-SHR1504	120 Volts	1.3	Yes	149
P707-SHR2004	120 Volts	2.1	Yes	200

COMMERCIAL SMOKE DETECTORS

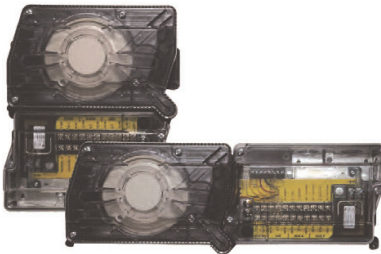
4-wire Duct Smoke Detectors

Totaline® 4-Wire Adjustable Mount Photoelectric Duct Smoke Detectors with System Sensor Innovair Flex technology combines An innovative collection of design enhancements and advancements to provide you with the flexibility you need to fit almost any application. Versatile, one unit can accommodate multiple installation footprints to overcome mounting constraints. The Totaline® P270-3000PL and the P270-D4120W Duct Smoke Detectors are both UL Listed.

Features

- Photoelectric, integrated low-flow technology
- Air velocity rating from 100 ft/min to 4,000 ft/min (0.5 m/s to 20.32 m/sec)
- Versatile mounting options: square or rectangular configuration
- Plug-in sensor offers superb false alarm immunity and the latest sensor technology
- Broad ranges for operating temperature (-4°F to 158°F) and humidity (0% to 95% non-condensing)
- Patented sampling tube installs from front or back of the detector with no tools required
- Increased wiring space with a newly added .-inch conduit knockout
- One easy-access Test/Reset button and improved LED status
- System Sensor's patented interconnect feature for multi-fan shutdown.
- New high contrast terminal designations
- Built-in short circuit protection from operator wiring errors.
- Field selectable settings for configuring the detector
- Two DPDT Form-C relay contacts
- 24 VAC/DC or 120VAC.
- Watertight Model additional features;
 - NEMA Type 4 UL listed for non-hazardous indoor and outdoor applications
 - UV Resistant, UL listed housing and cover material

Duct Smoke Detector



The Totaline® P270-3000PL 4-wire photoelectric duct smoke detector features a pivoting housing that fits both square and rectangular footprints and mounts to round or rectangular ductwork This unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4,000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95 percent (non-condensing). A plug-in sensor head offers improved false alarm immunity and simple installation, testing, and maintenance. An improved cover design isolates the sensor head from the low-flow feature for simple maintenance.



Part Number	Temperature Range		Operating Humidity Range	Air Duct Velocity	Electrical		
	Operating	Storage			Input capacitance	Reset voltage	Sensitivity Test
P270-3000PL	-4° to 158°F (-20° to 70°C)	-22° to 158°F (-30° to 70°C)	0% to 95% relative humidity non-condensing	100 to 4000 ft/min (0.5 to 20.32 m/sec)	270 µF max. 270 µF max. N/A	3.0 VDC min. 2.0 VAC min. 10 VAC min.	15 sec. 15 sec. 15 sec.
P270-3000C	-4° to 158°F (-20° to 70°C)	-22° to 158°F (-30° to 70°C)	0% to 95% relative humidity non-condensing	100 to 4000 ft/min (0.5 to 20.32 m/sec)	270 µF max. 270 µF max. N/A	3.0 VDC min. 2.0 VAC min. 10 VAC min.	15 sec. 15 sec. 15 sec.

COMMERCIAL SMOKE DETECTORS

4-wire Duct Smoke Detectors

Duct Smoke Detector

Physical Specifications			
Size: (Rectangular Dimensions)	14.38 in (37 cm) Length; 5 in (12.74 cm) Width; 2.5 in (6.36 cm) Depth		
Size: (Square Dimensions)	7.75 in (19.7 cm) Length; 9 in (22.9 cm) Width; 2.5 in (6.35 cm) Depth		
Weight:	2.5 lbs (1.14 kg)		
Operating Temperature Range:	−4° to 158°F (−20° to 70°C)		
Storage Temperature Range:	−22° to 158°F (−30° to 70°C)		
Operating Humidity Range:	0% to 95% relative humidity non-condensing		
Air Duct Velocity:	100 to 4000 ft/min (0.5 to 20.32 m/sec)		
Electrical Ratings			
Power supply voltage:	20–29 VDC	24 VAC 50–60 Hz	120 VAC 50–60 Hz
Input capacitance:	270 μF max.	270 μF max.	N/A
Reset voltage:	3.0 VDC min.	2.0 VAC min.	10 VAC min.
Reset time: (with P271-RTS151)	.03 to 0.3 sec.	.03 to 0.3 sec.	.03 to 0.3 sec.
Reset time: (by power down)	0.6 sec. max.	0.6 sec. max.	0.6 sec. max.
Power up time:	35 sec. max.	35 sec. max.	35 sec. max.
Alarm response time:	15 sec.	15 sec.	15 sec.
Sensitivity Test:	See detector label	See detector label	See detector label
Current Requirements: (Using No Accessories)			
Max. standby current:	21 mA @ 24VDC	65 mA RMS @ 24VAC 60Hz	20 mA RMS @ 120VAC 60Hz
Max. alarm current:	65 mA @ 24VDC	135 mA RMS @ 24VAC 60Hz	35 mA RMS @ 120VAC 60Hz
Contact Ratings			
Alarm initiation contacts: (SPST)	2.0A @ 30 VDC (resistive)		
Alarm auxiliary contacts: (DPDT)	10A @ 30 VDC (resistive); 10A @ 250 VAC (resistive); 1/2HP @ 240 VAC ;1/4 HP @ 120 VAC		
Note: Alarm auxiliary contacts shall not be connected to initiating circuits of control panels. Use the alarm initiation contact for this purpose.			
Supervisory contacts: (SPDT)	2.0A @ 30 VDC (resistive); 2.0A @ 125 VAC (resistive)		
Accessory Current Loads at 24 VDC			
Device	Standby	Trouble	Alarm
P271-APA151	12.5 mA	n/a	30 mA Max.
P271-MHW	0 mA	n/a	29 mA Max.
P271-RA100Z	0 mA	n/a	12 mA Max
P271-RTS151/P271-RTS151KEY	0 mA/12 mA	n/a	12 mA Max.
P271-RTS2-AOS	30 mA Max.	16.0 mA Max.	55.0 mA Max. (with AOS strobe)

Note: Any combination of accessories may be used such that the given accessory loads are: 110 mA or less at the Aux output, and 50 mA or less at the Alarm output

COMMERCIAL SMOKE DETECTORS

4-wire Duct Smoke Detectors

Watertight Duct Smoke Detector



The Totaline® P270-D4120W watertight 4-wire photoelectric duct smoke detector is UL listed as a watertight enclosure providing protection against falling dirt, rain, windblown dust, splashing and hose directed water. D4120W duct smoke detector features a pivoting housing that fits various applications: both square and rectangular footprints mount to round or rectangular duct work. This unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4,000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95 percent (non-condensing). A plug-in sensor head offers superior false alarm immunity. These features, plus a NEMA 4 rating, allow operators to mount the detector to rooftop HVAC equipment or use the detector in other harsh environments.



Part Number	Temperature Range		Operating Humidity Range	Air Duct Velocity	Electrical		
	Operating	Storage			Input capacitance	Reset voltage	Sensitivity Test
P270-D4120W	-4° to 158°F (-20° to 70°C)	-22° to 158°F (-30° to 70°C)	0% to 95% Relative Humidity Non-condensing	100 to 4000 ft/min (0.5 to 20.32 m/sec)	270 µF max. 270 µF max. N/A	3.0 VDC min. 2.0 VAC min. 10 VAC min.	See detector label See detector label See detector label

Physical Specifications			
Size: (Rectangular Dimensions)	14.38 in (37 cm) Length; 5 in (12.74 cm) Width; 2.5 in (6.36 cm) Depth		
Size: (Square Dimensions)	7.75 in (19.7 cm) Length; 9 in (22.9 cm) Width; 2.5 in (6.35 cm) Depth		
Weight:	2.5 lbs (1.14 kg)		
Operating Temperature Range:	−4° to 158°F (−20° to 70°C)		
Storage Temperature Range:	−22° to 158°F (−30° to 70°C)		
Operating Humidity Range:	0% to 95% relative humidity non-condensing		
Air Duct Velocity:	100 to 4000 ft/min (0.5 to 20.32 m/sec)		
NEMA Enclosure Rating:	Type 4 – Watertight Indoor/Outdoor		
Electrical Ratings			
Power supply voltage:	20–29 VDC	24 VAC 50–60 Hz	120 VAC 50–60 Hz
Input capacitance:	270 μF max.	270 μF max.	N/A
Reset voltage:	3.0 VDC min.	2.0 VAC min.	10 VAC min.
Reset time: (with P271-RTS151)	.03 to 0.3 sec.	.03 to 0.3 sec.	.03 to 0.3 sec.
Reset time: (by power down)	0.6 sec. max.	0.6 sec. max.	0.6 sec. max.
Power up time:	35 sec. max.	35 sec. max.	35 sec. max.
Alarm response time:	15 sec.	15 sec.	15 sec.
Sensitivity Test:	See detector label	See detector label	See detector label
Current Requirements: (Using No Accessories)			
Max. standby current:	21 mA @ 24VDC	65 mA RMS @ 24VAC 60Hz	20 mA RMS @ 120VAC 60Hz
Max. alarm current:	65 mA @ 24VDC	135 mA RMS @ 24VAC 60Hz	35 mA RMS @ 120VAC 60Hz
Contact Ratings			
Alarm initiation contacts: (SPST)	2.0A @ 30 VDC (resistive)		
Alarm auxiliary contacts: (DPDT)	10A @ 30 VDC (resistive); 10A @ 250 VAC (resistive); . HP @ 240 VAC ; . HP @ 120 VAC		
Note: Alarm auxiliary contacts shall not be connected to initiating circuits of control panels. Use the alarm initiation contact for this purpose.			
Supervisory contacts: (SPDT)	2.0A @ 30 VDC (resistive); 2.0A @ 125 VAC (resistive)		
Accessory Current Loads at 24 VDC			
Device	Standby	Trouble	Alarm
P271-APA151	12.5 mA	n/a	30 mA Max.
P271-MHW	0 mA	n/a	29 mA Max.
P271-RA100Z	0 mA	n/a	12 mA Max
P271-RTS151/P271-RTS151KEY	0 mA/12 mA	n/a	12 mA Max.
P271-RTS2-AOS	30 mA Max.	16.0 mA Max.	55.0 mA Max. (with AOS strobe)

Note: Any combination of accessories may be used such that the given accessory loads are: 110mA or less at the Aux output, and 50mA or less at the Alarm output.

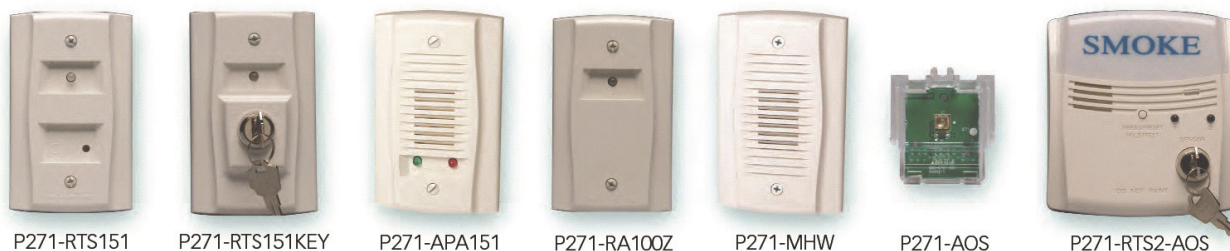
COMMERCIAL SMOKE DETECTORS

4-wire Duct Smoke Detectors

Components

Part Number	Description
P270-D4S	4-Wire Photoelectric Sensor Only
P270-D4P120	4-Wire Photoelectric Power Component Only
P271-2D51	4-Wire Photoelectric Sensor Head

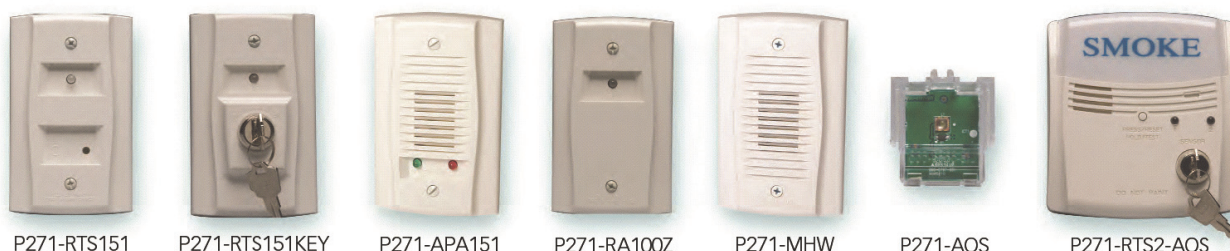
Sampling Tubes



Duct smoke detector accessories add functionality to the duct smoke detection system by allowing quick, convenient inspections at eye level and effective audible and visible notification options. All Totaline® duct smoke detectors and accessories are UL listed.

Part Number	Description
P271-DST-1.5	1.5 ft. Metal Sampling Tube
P271-DST-3	3 ft. Metal Sampling Tube
P271-DST-5	5 ft. Metal Sampling Tube
P271-DST-10	10 ft. Metal Sampling Tube
P271-ETX	Metal Exhaust Tube Extension

Accessories



Duct smoke detector accessories add functionality to the duct smoke detection system by allowing quick, convenient inspections at eye level and effective audible and visible notification options. All Totaline® duct smoke detectors and accessories are UL listed.

Part Number	Description
P271-APA151	Piezo Annunciator
P271-RTS2	Two Sensor Multi-signaling Accessory
P271-RTS2-AOS	Two Sensor Multi-signaling Accessory with Strobe
P271-AOS	Two Sensor Add-on Strobe for Multi-accessory
P271-RTS151	Remote Test Station
P271-RTS151KEY	Remote Test Station with Key
P271-RA100Z	Remote Annunciator
P271-MHW	Mini-Horn White

ALARMS

Carbon Monoxide Alarms - AC Hardwired

AC Hardwired Operated Carbon Monoxide Alarm with Battery Back Up

Model KN-COB-IC



- Features:**
- **Battery Pull Tab** – Eliminates battery installation time and keeps battery fresh
 - **Adjustable Mounting Bracket** – Allows for fast installation and perfect alignment
 - **Quick Connect** – Installs quickly with snap-on harness
 - **Sealed Cover** – Reduces nuisance alarms. Sealed to protect sensor from contaminants prior to installation
 - **Tamper Resist Locking Feature** –To deter battery and alarm theft
 - **Alkaline Battery Backup** – for continuous protection in case of power failure



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21006406	5.75" Diameter x 1.8" Depth	85dB at 10ft	5.75" Diameter x 1.8" Depth	Electrochemical	Master Pack (6 units)	10 year limited	Up to 24 Kidde devices

AC Hardwired Operated Carbon Monoxide Alarm with Digital Display

Model KN-COP-IC



- Features:**
- **Battery Pull Tab** –Eliminates battery installation time and keeps battery fresh
 - **Adjustable Mounting Bracket** – Allows for fast installation and perfect alignment
 - **Quick Connect** – Installs quickly with snap-on electrical harness
 - **Sealed Cover** – Reduces nuisance alarms. Sealed to protect sensor from contaminants prior to installation
 - **Test/Reset Button** – Tests the unit for proper operation. Resets the Carbon Monoxide alarm
 - **Tamper Resist Locking Feature** – To deter battery and alarm theft
 - **Battery Backup** – for continuous protection in case of power failure



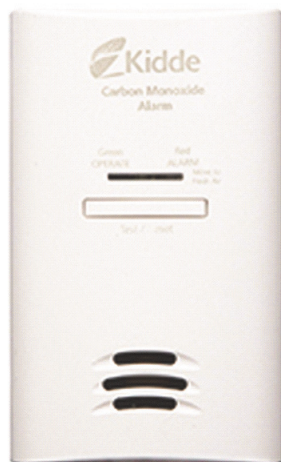
Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	InterConnects
21006407	5.75" Diameter x 1.8" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Electrochemical	Master Pack (6 units)	10 year limited	Up to 24 Kidde devices

ALARMS

Carbon Monoxide Alarms - AC Hardwired

Carbon Monoxide Alarm AC Powered, Plug-In with Battery Backup

Model KN-COB-DP2



Features:

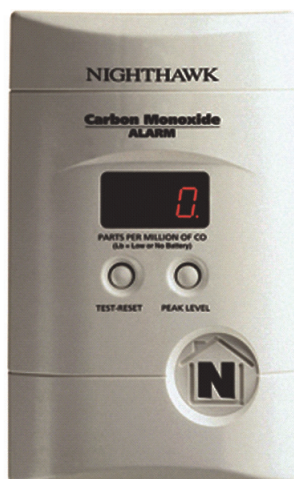
- **Tamper Resist Feature** - Can be activated to cause unit to go into alarm if it has been unplugged or has come loose from the outlet.
- **2 AA Battery Backup** - Provides continuous protection even during power outages.
- **Low Battery Hush** - Silences low battery chirp warning for up to 12 hours in order to maintain protection without having to replace the batteries at an inconvenient time.
- **Event Memory** - If the unit has detected CO concentrations of 100ppm or greater, the green LED will flash every 10 seconds.
- **Battery Pull tab** - Eliminates battery installation time.
- **Loud 85 Decibel Alarm** - Alerts of deadly CO gas.
- **Green LED** - Indicates alarm is receiving power and operating properly.
- **Red LED** - Illuminates when in alarm mode.
- **Test/Reset Button** - Tests the unit for proper operation. Resets the Carbon Monoxide alarm.
- **10-Year End of Life Warning** - Alerts user to replace CO alarm after 10-years of operation. (40% longer than other CO alarms)
- **UL Listed** - Listed by UL as a Single Station Carbon Monoxide Alarm.



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21025759	2.75" x 4.5" x 1.5"	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	2	10 year limited	No
21025761	2.75" x 4.5" x 1.5"	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	6	10 year limited	No
21025763	2.75" x 4.5" x 1.5"	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	1	10 year limited	No

Nighthawk AC Plug-in Operated Carbon Monoxide Alarm with Digital Display

Model KN-COPP-3



Features:

- **Digital Display** - Displays the level of carbon monoxide the unit is sensing. The unit updates this reading every 15 seconds.
- **Peak Level Button** - Displays the peak CO level recorded by the alarm since it was last reset or unplugged.
- **9V Battery Backup** - Provides protection during power outage.
- **Test Button Functions**
 - Tests the unit for proper operation
 - Resets the Carbon Monoxide alarm
- **LED Operation**
 - Blinking dot in lower right corner of display denotes normal operation
 - Digital readout displays CO concentration in parts per million (30-900PPM)



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnect
21006973	6.0625"L x 3.75"W x 1.75"H	85dB at 10ft	5%-95% Relative Humidity (RH)	Electrochemical	6	10 year limited	No
900-0076-01	6.0625"L x 3.75"W x 1.75"H	85dB at 10ft	5%-95% Relative Humidity (RH)	Electrochemical	2	10 Years Limited	No

ALARMS

Carbon Monoxide Alarms - AC Hardwired

Nighthawk AC Plug-in Operated Carbon Monoxide Alarm with Digital Display & LED

Model KN-COP-DP-LS



Features:

- **Digital Display** – Displays the level of carbon monoxide the unit is sensing. The unit updates this reading every 15 seconds
- **Peak Level Button** – Displays the peak CO level recorded by the alarm since it was last reset or unplugged
- **9V Battery Backup** – Provides continuous protection even during power outages
- **Tamper Resist Feature** – Unit goes into constant alarm mode if it has been unplugged or has come loose from the outlet
- **Test/Reset Button** – Tests the unit for proper operation. Resets the Carbon Monoxide alarm
- **10-Year End of Life Warning** – Alerts user to replace CO alarm after 10-years of operation. (40% longer than other CO alarms), UL Listed – Life Long Warranty

Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21007309	3.0"x 5.6" x 1.5"	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	4	10 year limited	No

Carbon Monoxide Alarms - Battery

Battery Operated Carbon Monoxide Alarm

Model KN-COB-LP2



Features:

- **Battery Operated (2AA's included)** - Provides protection during power outage.
- **Low Battery Hush** - Silences low battery chirp warning for up to 12 hours in order to maintain protection without having to replace the batteries at an inconvenient time.
- **Battery Lockout System** - Deters covering battery compartment without installation of batteries.
- **Event Memory** - If the unit has detected CO concentrations of 100ppm or greater, the green LED will flash every ten seconds.
- **Slide-out Battery Door Cover** - Gives immediate access to batteries.
- **Test/Reset Button**
 - Tests the unit for proper operation
 - Resets the Carbon Monoxide Alarm
- **Low Battery Signal** - Alerts user when the battery needs to be replaced.
- **Green LED** - Indicates alarm is receiving power and operating properly.
- **Red LED** - Illuminates when in alarm mode.
- **UL Listed** - Listed by UL as a Single Station Carbon Monoxide Alarm



Part Number	Unit Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	InterConnects
21025778	4.5" x 2.75" x 1.5"	85dB at 10ft	5%-95% Relative Humidity (RH)	Electrochemical	3	10 year limited	No
21025788	4.5" x 2.75" x 1.5"	85dB at 10ft	5%-95% Relative Humidity (RH)	Electrochemical	1	10 year limited	No

ALARMS

Carbon Monoxide Alarms - Battery

Battery Operated Carbon Monoxide Alarm with Digital Display

Model KN-COPP-B-LS



- Features:**
- **Battery Operated** – Provides best protection during power outages
 - **Digital Display** – Shows CO level in PPM (parts per million). Updates digital reading every 15 seconds allowing you to see if levels change
 - **Peak Level Memory** – Displays the highest CO concentration measured since the last reset
 - **Test/Reset Button** – Tests CO alarm circuit operation and allows you to immediately silence the alarm
 - **Low Battery Signal** – Alerts user when the batteries need to be replaced
 - **Slide-Out Battery Door Cover** – Gives immediate access to batteries
 - **Battery Safeguard** – Makes it difficult to close the cover without batteries in the unit



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21007267		85dB at 10ft	5% to 95% Relative Humidity (RH)	Electrochemical	4 Clamshell Pack	7 year limited	No
21008873	4.5"L x 2.75"H x 1.5" D	85dB at 10ft	5% to 95% Relative Humidity (RH)	Electrochemical	4	10 year limited	No

Nighthawk Battery Operated Carbon Monoxide Alarm, with No Display

Model KN-COB-B-LS



- Features:**
- Battery Operated (3AAs included)
 - Provides protection during power outages.
 - Test/Reset Button
 - Tests the unit for proper operation. Resets the Carbon Monoxide alarm.
 - 7-Year End of Life Warning
 - UL Listed

Part Number	Size	Audio Alarm	Humidity Range	Pack Quantity	Interconnects
21007268	3.0" x 5.6" x 1.5"	85dB at 10ft	10%-95% Relative Humidity Non-condensing	4	No

ALARMS

Carbon Monoxide Alarms - Battery

Sealed Lithium Battery Power Carbon Monoxide Alarm

Model C3010



Features:

- **Sealed-in Lithium Battery** – Sealed-in lithium power supply; no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm
- **Self Activation** – Alarm automatically activates when attached to the mounting bracket
- **Test/Reset Button** – Tests the unit for proper operation. Resets the Carbon Monoxide Alarm
- **Green LED** – Flashes every 30 seconds to indicate the unit is operating properly
- **Red LED** – When a dangerous level of carbon monoxide is detected the red LED will pulse and a loud alarm pattern will sound. The carbon monoxide alarm pattern is 4 short beeps, followed by 5 seconds of silence, followed by 4 short beeps with a corresponding red LED flash. This cycle will continue for 4 minutes and then change to 2 patterns once a minute there after
- **Amber LED** – Flashes every second to indicate the unit is in fault mode. One quick beep every 30 seconds alerts the unit is in error condition. One quick beep every 60 seconds is an indication of low battery power
- **Event Memory** – Red LED flashes every 60 seconds to alert that a high level of carbon monoxide has been detected within the last 14 days



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	InterConnection
21010073	4.5"L x 2.75"H x 1.5" D	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	6-PK (box)	10 year limited	No

Sealed Lithium Battery Power Carbon Monoxide Alarm with Digital Display

Model C3010D



Features:

- **Sealed-in Lithium Battery** – Sealed-in lithium power supply; no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm
- **Digital Display** – Shows CO level in PPM (parts per million). Updates digital reading every 15 seconds
- **Peak Level Memory** – Displays the highest CO concentration measured since the last reset
- **Self Activation** – Alarm automatically activates when attached to the mounting bracket
- **Test/Reset Button** – Tests the unit for proper operation. Resets the Carbon Monoxide Alarm
- **Green LED** – Flashes every 30 seconds to indicate the unit is operating properly
- **Red LED** – When a dangerous level of carbon monoxide is detected the red LED will pulse and a loud alarm pattern will sound. The carbon monoxide alarm pattern is 4 short beeps, followed by 5 seconds of silence, followed by 4 short beeps with a corresponding red LED flash. This cycle will continue for 4 minutes and then change to 2 patterns once a minute there after
- **Amber LED** – Flashes every second to indicate the unit is in fault mode. One quick beep every 30 seconds alerts the unit is in error condition. One quick beep every 60 seconds is an indication of low battery power



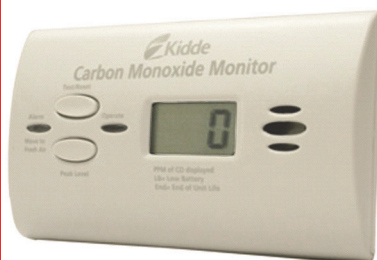
Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21010047	4.5"L x 2.75"H x 1.5" D	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	3	10 year limited	No
21010075	4.5"L x 2.75"H x 1.5" D	85dB at 10ft	10%-95% Relative Humidity (RH)	Electrochemical	1	10 year limited	No

ALARMS

Carbon Monoxide Alarms - Battery

Ultra-Sensitive Battery Powered Carbon Monoxide Monitor

Model KN-COU-B



Features:

- **Provides Warning of Low Levels of Carbon Monoxide** – May provide additional protection to those who are sensitive to lower levels of CO such as those who are elderly, pregnant, or have respiratory problems
- **Digital Display** – Continuous display shows CO levels as low as 10 PPM (parts per million). Updates digital reading every 15 seconds to let you see if levels have changed
- **Fastest Notification** – Provides audible and visual notification of CO levels below 30 PPM
- **Hush Mode** – Low level warnings can be silenced by pressing Test/Reset button
- **Peak Level Memory** – Displays the highest CO concentration measured since the last reset
- **Battery Operated** – (3 AA's included) Provides protection during power outages
- **Battery Lockout System** – Deters covering battery compartment without installation of batteries
- **Low Battery Signal** – Alerts user when the batteries need to be replaced

Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnect
21009942	4.5"L x 2.75"H x 1.5"D	85dB at 10ft	10%-95% Non-condensing Relative Humidity (RH)	Electrochemical	6	10 year limited	No

Smoke Alarms - AC Hardwired

AC Hardwired Interconnect Smoke Alarm

Model i12020A



Features:

- Large mounting base makes mounting easier, protects surface paint from dirt and covers imperfections
- Pre-stripped wiring harness with easy off cap does not require stripper tool. Tinned strands increase conductivity and wire nut grip
- One button design for easy operation and less confusion. Operates Hush™ and alarm test
- Dust cover protects sensor from contaminants during construction reducing nuisance alarms
- Tamper resist locking feature deters alarm theft
- Alarm memory flashes red LED indicating which unit was the initiating alarm in interconnected system
- Interconnectable with up to 24 devices (of which 18 can be initiating) including smoke, CO and heat alarms



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty
21006374	5.6" in Diameter x 1.55" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited

ALARMS

Smoke Alarms - AC Hardwired

AC Hardwired Interconnect Photoelectric Smoke Alarm with Hush

Model P12040



Features:

- **Photoelectric Sensor** – Advanced photoelectric sensor may detect visible particles (associated with smoldering fires) sooner than ionization alarms
- **Battery Backup (9V Battery Included)** – Provides continuous protection even during power outages
- **Test Button** – Tests unit's electronic circuitry, horn and battery function
- **Quick Connect Power Harness** – Makes installation fast and easy
- **Dust Cover** – Protects sensor during construction
- **Battery Pull Tab** – Eliminates battery installation time and keeps battery fresh
- **Red LED** – Indicates that the smoke alarm is operating properly, Hush™, and alarm condition
- **Green LED** – Indicates the presence of AC power



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21006371	5.6" in Diameter x 1.55" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Photoelectric	6	10 year limited	Up to 24 Kidde devices

AC Hardwired Interconnect Smoke Alarm with Hush

Model i12040



Features:

- Front battery pull tab allows battery activation without removing alarm from mounting bracket
- Large mounting base makes mounting easier, protects surface paint from dirt and covers imperfections
- Pre-stripped wiring harness with easy off cap does not require stripper tool. Tinned strands increase conductivity and wire nut grip
- One button design for easy operation and less confusion. Operates Hush and alarm test
- Battery run down protection will shut down alarm memory when AC power is not present, reducing low battery chirp
- Dust cover protects sensor from contaminants during construction reducing nuisance alarms
- Tamper resist locking feature deters alarm theft
- Alarm memory flashes red LED indicating which unit was the initiating alarm in interconnected system
- Interconnectable with up to 24 devices(of which 18 can be initiating) including smoke, CO and heat alarms



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty
21006373	5.6" in Diameter x 1.55" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited
21006378	5.6" in Diameter x 1.55" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited

ALARMS

Smoke Alarms - AC Hardwired

AC Hardwired Interconnect Smoke Alarm with Safety Light

Model i12080



Features:

- Front battery pull tab allows battery activation without removing alarm from mounting bracket
- Large mounting base makes mounting easier, protects surface paint from dirt and covers imperfections
- Pre-stripped wiring harness with easy off cap does not require stripper tool. Tinned strands increase conductivity and wire nut grip
- One button design for easy operation and less confusion. Operates Hush and alarm test
- Battery run down protection will shut down alarm memory when AC power is not present, reducing low battery chirp.
- Dust cover protects sensor from contaminants during construction reducing nuisance alarms
- Safety Light illuminates the path to safety
- Tamper resist locking feature deters alarm theft
- Alarm memory flashes red LED indicating which unit was the initiating alarm in interconnected system
- Battery backup provides protection in case of power failure
- Interconnectable with up to 24 devices (of which 18 can be initiating) including smoke, CO and heat alarms



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty
21006379	5.6" in Diameter x 1.55" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited warranty

Front-Load AC Hardwired Interconnect Smoke Alarm with Hush

Model i12060



Features:

- Front battery pull tab allows battery activation without removing alarm from mounting bracket
- Large mounting base makes mounting easier, protects surface paint from dirt and covers imperfections
- Pre-stripped wiring harness with easy off cap does not require stripper tool. Tinned strands increase conductivity and wire nut grip
- Battery backup provides protection in case of power failure
- One button design for easy operation and less confusion. Operates Hush™ and alarm test
- Battery run down protection will shut down alarm memory when AC power is not present, reducing low battery chirp, Tamper resist locking feature deters alarm theft
- Dust cover protects sensor from contaminants during construction reducing nuisance alarms
- Alarm memory flashes red LED indicating which unit was the initiating alarm in interconnected system
- Interconnectable with up to 24 devices including smoke, CO and heat alarms



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty
21005927	5" in Diameter x 1.75" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited
21006263	5" in Diameter x 1.75" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	2	10 year limited
21006376	5" in Diameter x 1.75" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited
21006931	5" in Diameter x 1.75" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	6	10 year limited
21007397	5" in Diameter x 1.75" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Ionization	4	10 year limited

ALARMS

Smoke Alarms - AC Hardwired

Hardwired AC Wireless Smoke Alarm

Model RF-SM-AC



Features:

- **Hush™ Feature** – Temporarily silences nuisance alarms
- **Flashing LED** – Indicates alarm is receiving power
- **Test Button** – Verifies battery and alarm operation
- **Battery Operated (batteries included)** – Protects even during power outages
- **Tamper Resist Locking Pin** – Helps deter from theft or tampering
- **Low Battery Indicator** – Smoke alarm will chirp in the event of a low battery
- **Twist-Off Mounting** – For fast installation and easy, safe battery replacement



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Description
1279-9999	5.75" in Diameter x 1.25" Depth	85dB at 10ft	up to 85% Relative Humidity (RH)	Ionization	3 piece PDQ	Hardwired AC Wireless Smoke Alarm, Interconnect, 120VAC, 9V Battery Backup, Master Pack Qty- 3pc PDQ

Smoke Alarms - Battery

Battery Operated Smoke Alarm

Model I9050



Features:

- **Easy Installation** – No wiring required.
- **Battery Operated (9V battery included)** – Provides continuous protection even during power failures.
- **Quality Design** – 10 year limited warranty.
- **Flashing LED** – Indicates alarm is receiving power.
- **Test Button** – Verifies battery and alarm operation.
- **Low Battery Indicator** – Chirps when battery needs replacement.



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Interconnects
0915D-018	5" in Diameter x 1.75" Depth	85dB at 10ft	85% Relative Humidity (RH)	Ionization	9	No
44037402	5" in Diameter x 1.75" Depth	85dB at 10ft	85% Relative Humidity (RH)	Ionization	3	No

Battery Operated Photoelectric Smoke Alarm

Model P9050



Features:

- **Photoelectric Sensor** - Advanced photoelectric sensor may detect visible particles (associated with smoldering fires) sooner than ionization alarms.
- **Test Button** - Tests unit's electronic circuitry, horn and battery function.
- **Battery Operated (9V Battery Included)** - Protects even during a power outage.
- **Low Battery Indicator** - Smoke alarm will chirp in the event of a low battery.
- **Tamper Resist Locking Pin** - Helps deters alarm tampering or theft.



Part Number	Unit Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
44037802	5" in Diameter x 1.5" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Photoelectric	3	10 Years Limited	No

ALARMS

Smoke Alarms - Battery

Battery Operated Smoke Alarm with Hush

Model 19060



- Features:
- **Safety Light** – Super-bright LEDs provide lighted escape path.
 - **Sealed-In Lithium Battery** – Sealed-in lithium power supply no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm.
 - **Photoelectric Sensor** – Advanced photoelectric sensor may detect visible particles (associated with smoldering fires) sooner than ionization alarms.
 - **Self Activation** – Alarm automatically activates when attached to the mounting bracket.
 - **Alarm Memory** – Rapidly flashing LED alerts user if the alarm has sounded since the last time the test/reset button was used.
 - **Test/Hush Button** – Tests alarm circuitry and activates Hush features.
 - **Smart Hush™** – Temporarily silences nuisance alarms for approximately 10 minutes and will not allow hush mode unless the unit is in alarm mode.
 - **LED** – Red LED will blink in conjunction with the alarm sound.
 - **End of Life Warning** – Alarm chirps every 30 seconds to indicate the unit is in need of replacement.
 - **End of Life Hush™** – End of life indication can be silenced three days at a time up to 30 days to allow for alarm replacement at a more convenient time.
 - UL Listed
 - 10 Year Limited Warranty

Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Interconnects
21006264	5" in Diameter x 1.5" Depth	85dB at 10ft	85% Relative Humidity (RH)	Ionization	3	No
44037502	5" in Diameter x 1.5" Depth	85dB at 10ft	85% Relative Humidity (RH)	Ionization	3	No

Hallway Battery with Safety Light

Model 19080



- Features:
- **Safety Light** - Illuminates when alarm sounds to guide your way to safety.
 - **Hush Feature** - Temporarily silences nuisance alarms.
 - **Red LED** - Flashes every 30-40 seconds to indicate that the smoke alarm is operating.
 - **Test Button** - Tests unit's electronic circuitry, horn, safety light, and battery function.
 - **Battery Operated (Includes 2 9V batteries)** - Protects even during power outages.
 - **Tamper Resist Locking Pin** - Helps deter from theft or tampering.
 - **Low Battery Indicator** - Smoke alarm will chirp in the event of a low battery.



Part Number	Unit Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnect
44037602	5" in Diameter x 1.5" Depth	85dB at 10ft	Up to 85% Relative Humidity (RH)	Ionization	3	10 Years Limited	No

ALARMS

Smoke Alarms - Battery

Fire Sentry Battery Operated 4" Smoke Alarm

Model i9040



Features:

- **Battery Operated (9V Battery Included)** – Easy installation and provides continuous protection even during power outages
- **Test Button** – Tests unit's electronic circuitry, horn and battery function
- **Low Battery Indicator** – Low battery warning chirp alerts user to change battery
- **Discreet Design** – Four (4) inch diameter



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
0914	4" in Diameter x 1.45" Depth	85dB at 10ft	up to 85% Relative Humidity (RH)	Ionization	12	10 year limited	No

Front-Load Battery Operated Smoke Alarm

Model i9070



Features:

- **Battery Operated (9V)** – Protects even during power outages
- **Front Load Battery Door** – Provides easy access, which reduces the installation and battery replacement time
- **Hush™ Feature** – Temporarily silences nuisance alarms
- **Tamper Resist Feature** – Battery door can be locked to prevent battery removal
- **Adjustable Mounting Bracket** – Allows for fast installation and perfect alignment
- **Test/Reset Button** – Large and easy to use; tests all electronic circuitry, horn and battery function



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty
0976-9997	5" in Diameter x 1.79" Depth	85dB at 10ft	up to 85% Relative Humidity (RH)	Ionization	2	10 year limited
21006200	5" in Diameter x 1.79" Depth	85dB at 10ft	up to 85% Relative Humidity (RH)	Ionization	1	10 year limited

Sealed Lithium Battery Power Smoke Alarm

Model i9010



Features:

- **Sealed-In Lithium Battery** - Sealed-in lithium power supply; no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm.
- **Self Activation** - Alarm automatically activates when attached to the mounting bracket.
- **Alarm Memory** - Rapidly flashing LED alerts user if the alarm has sounded since the last time the test/reset button was used.
- **Hush TM** - Will temporarily silence nuisance alarms and will not allow hush mode to be activated unless the unit is in alarm mode.
- **Test/Reset Button** - Tests unit's circuit operation and resets memory after an alarm condition occurs.
- **End of Life Warning** - Alarm chirps every 40-45 seconds indicating the alarm is in need of replacement.
- **Tamper Resis** - (when activated upon installation) effective in preventing someone from removing the unit from the mounting bracket.
- **LED** - A flashing red indicator light with four modes of operation: standby, alarm mode, hush mode, and memory set.



Part Number	Unit Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	InterConnects
900-0136-003	5.6" in Diameter x 1.55" Depth	85dB at 10ft	5%-85% Relative Humidity (RH)	Ionization	3	10 Years limited	No

ALARMS

Smoke Alarms - Battery

Worry-Free Bedroom Sealed Lithium Battery Power Smoke Alarm

Model P3010B



Features:

- **Voice Alarm** – Unit announces “Fire! Fire!” in addition to loud 85dB beeps when smoke or fire is detected
- **Sealed-In Lithium Battery** – Sealed-in lithium power supply
- No battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm
- **Photoelectric Sensor** – Advanced photoelectric sensor may detect visible particles (associated with smoldering fires) sooner than ionization alarms
- **Self Activation** – Alarm automatically activates when attached to the mounting bracket
- **Alarm Memory** – Rapidly flashing LED alerts user if the alarm has sounded since the last time the test/reset button was used
- **Test/Hush Button** – Tests alarm circuitry and activates Hush features
- **Smart Hush** – Temporarily silences nuisance alarms for approximately 10 minutes and will not allow hush mode unless the unit is in alarm mode
- **LED** – Red LED will blink in conjunction with the alarm sound
- **End of Life Warning** – Alarm chirps every 30 seconds to indicate the unit is in need of replacement
- **End of Life Hush** – End of life indication can be silenced three days at a time up to 30 days to allow for alarm replacement at a more convenient time
- UL Listed
- 10 Year Limited Warranty

Part Number	Size	Audio Alarm	Humidity Range	Pack Quantity	Sensor	Description
21010067	5.22" in Diameter x 1.6" Depth	85dB at 10ft	10%-85% Non-condensing Relative Humidity (RH)	6	Photoelectric	Worry-Free Bedroom Sealed Lithium Battery Power Smoke Alarm, Master Carton Qty- 6

Worry-Free Hallway Sealed Lithium Battery Power Smoke Alarm

Model P3010H



Features:

- **Voice Alarm** – Unit announces “Fire! Fire!” in addition to loud 85dB beeps when smoke or fire is detected
- **Sealed-In Lithium Battery** – Sealed-in lithium power supply; no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm
- **Photoelectric Sensor** – Advanced photoelectric sensor may detect visible particles (associated with smoldering fires) sooner than ionization alarms
- **Self Activation** – Alarm automatically activates when attached to the mounting bracket
- **Alarm Memory** – Rapidly flashing LED alerts user if the alarm has sounded since the last time the test/reset button was used
- **Test/Hush Button** – Tests alarm circuitry and activates Hush features
- **Smart Hush** – Temporarily silences nuisance alarms for approximately 10 minutes and will not allow hush mode unless the unit is in alarm mode
- **LED** – Red LED will blink in conjunction with the alarm sound
- **End of Life Warning** – Alarm chirps every 30 seconds to indicate the unit is in need of replacement
- **End of Life Hush** – End of life indication can be silenced three days at a time up to 30 days to allow for alarm replacement at a more convenient time
- UL Listed
- 10 Year Limited Warranty

Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Interconnects
21010069	5.22" in Diameter x 1.6" Depth	85dB at 10ft	10%-85% Non-condensing Relative Humidity (RH)	Photoelectric	6-PK (Box)	No

ALARMS

Smoke Alarms - Battery

Worry-Free Living Area Sealed Lithium Battery Power Smoke Alarm

Model P3010L



Features:

- **Sealed-In Lithium Battery** – Sealed-in lithium power supply; no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm
- **Photoelectric Sensor** – Advanced photoelectric sensor may detect visible particles (associated with smoldering fires) sooner than ionization alarms
- **Self Activation** – Alarm automatically activates when attached to the mounting bracket
- **Alarm Memory** – Rapidly flashing LED alerts user if the alarm has sounded since the last time the test/reset button was used
- **Test/Hush Button** – Tests alarm circuitry and activates Hush features
- **Smart Hush™** – Temporarily silences nuisance alarms for approximately 10 minutes and will not allow hush mode unless the unit is in alarm mode
- **LED** – Red LED will blink in conjunction with the alarm sound
- **End of Life Warning** – Alarm chirps every 30 seconds to indicate the unit is in need of replacement
- **End of Life Hush** – End of life indication can be silenced three days at a time up to 30 days to allow for alarm replacement at a more convenient time
- UL Listed

Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21010064	5.22" in Diameter x 1.6" Depth	85dB at 10ft	10%-85% Non-condensing Relative Humidity (RH)	Photoelectric	6-PK (Box)	10 year limited	No

Battery Operated Wireless Smoke Alarm

Model RF-SM-DC



Features:

- **Hush™ Feature** – Temporarily silences nuisance alarms
- **Flashing LED** – Indicates alarm is receiving power
- **Test Button** – Verifies battery and alarm operation
- **Battery Operated (batteries included)** – Protects even during power outages
- **Tamper Resist Locking Pin** – Helps deter from theft or tampering
- **Low Battery Indicator** – Smoke alarm will chirp in the event of a low battery
- **Twist-Off Mounting** – For fast installation and easy, safe battery replacement



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
0919-9999	5.75" in Diameter x 1.25" Depth	85dB at 10ft	up to 85% Relative Humidity (RH)	Ionization	3	10 year limited	Up to 24 devices (of which 18 can be initiating)

ALARMS

Combination Smoke and Co Alarms - AC Hardwired

Battery Operated Combination Smoke & Carbon Monoxide Alarm

Model KN-COSM-B



Features:

- **Voice Alarm** - Announces the hazard type detected thereby helping to speed up the correct reaction to the hazard detected. Alarm announces "Fire!" when a smoke or fire hazard is detected and announces "Warning Carbon Monoxide" when a CO hazard is detected.
- **Combined Carbon Monoxide and Smoke Alarm** - A single unit can be installed where previously, two were needed. Reduces installation time and helps to keep home décor attractive.
- **Test/Reset Button** - Tests alarm circuitry and triggers the voice announcement.
- **LEDs** - Flashing green for normal operation and flashing red for alarm condition.
- **Low Battery Warning** - The unit warns of a low battery condition by announcing "low battery" and by initiating an alarm chirp and activating a flashing red LED.
- **Battery Powered** - Provides protection even during power outages when many fire and carbon monoxide incidents occur.
- **Battery Safeguard** - The battery door will not close unless the batteries are properly installed.
- **Hush Feature** - Temporarily silences nuisance alarms.
- **Ionization Smoke Alarm Sensor**



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21006974	5.6" in Diameter x 1.8" Depth	85dB at 10ft	10%-95% Relative Humidity Non-condensing	Ionization, CO: Electrochemical	1	5 Years Limited	No
900-0102-02	5.6" in Diameter x 1.8" Depth	85dB at 10ft	10%-95% Relative Humidity Non-Condensing	Smoke - Ionization, CO - Electrochemical	3	5 Years Limited	No

Intelligent Alarm Battery Operated Combination Smoke & Carbon Monoxide Alarm

Model KN-COSM-XTR-BA



Features:

- **Voice Alarm** - Announces the hazard type detected thereby helping to speed up the correct reaction to the hazard detected. Alarm announces "Fire Fire" when a smoke or fire hazard is detected and announces "Warning Carbon Monoxide" when a CO hazard is detected
- **Intelligent Sensing Technology** - A single unit can be installed where previously, two were needed to detect smoke and carbon monoxide. Reduces installation time and helps to keep home décor attractive
- **Test/Reset Button** - Tests alarm circuitry and triggers the voice announcement
- **LEDs** - Flashing green for normal operation and flashing red for alarm condition
- **Low Battery Warning** - The unit warns of a low battery condition by announcing "low battery" and by initiating an alarm chirp and activating a flashing red LED
- **Battery Powered** - Provides protection even during power outages when many fire and carbon monoxide incidents occur
- **Battery Safeguard** - The battery door will not close unless the batteries are properly installed
- **Hush Feature** - Temporarily silences nuisance alarms



Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnects
21007450	5.6" in Diameter x 1.8" Depth	85dB at 10ft	10%-95% Relative Humidity, Non-condensing	Ionization, CO: Electrochemical	(4 units)	10 year limited	No

ALARMS

Combination Smoke and Co Alarms - AC Hardwired

Worry-Free Kitchen Sealed Lithium Battery Power Smoke/CO Alarm

Model P3010K-CO



Features:

- **Combination Smoke and Carbon Monoxide Alarm** - Smoke and CO sensing technologies work together to detect real fires faster and reduce cooking-related nuisance alarms
- **Sealed-In Lithium Battery** - Sealed-in lithium power supply; no battery replacement required over the 10 year life of the alarm. Eliminates worry about battery removal or unauthorized deactivation of alarm
- **Photoelectric Sensor** - Smoke alarm contains advanced photoelectric sensor that may detect visible particles (associated with smoldering fires) sooner than ionization alarms
- **Self Activation** - Alarm automatically activates when attached to the mounting bracket
- **Alarm Memory** - Rapidly flashing LED alerts user if the alarm has sounded since the last time the test/reset button was used
- **Test/Hush Button** - Tests alarm circuitry and activates Hush features
- **Smart Hush™** - Temporarily silences nuisance alarms for approximately 10 minutes and will not allow hush mode unless the unit is in alarm mode
- **LED** - Red LED will blink in conjunction with the alarm sound
- **End of Life Warning** - Alarm chirps every 30 seconds to indicate the unit is in need of replacement
- **End of Life Hush™** - End of life indication can be silenced three days at a time up to 30 days to allow for alarm replacement at a more convenient time
- UL217 and UL2034 Listed, 10 Year Limited Warranty

Part Number	Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Interconnects
21010071	5.22" in Diameter x 1.6" Depth	85dB at 10ft	10%-85% Non-condensing Relative Humidity (RH)	Photoelectric	6-PK (Box)	No

Combination Smoke And Co Alarms - Battery

AC Hardwired Combination Carbon Monoxide & Smoke Alarm

Model KN-COSM-IBA



Features:

- **Smart Interconnect™** - Interconnects up to 24 Kidde devices (of which 18 can be initiating)
- **Battery Backup (2-AA batteries included)** - Provides protection during power outages
- **Front Loading Battery Door** - Replace the backup batteries without disconnecting from mounting bracket
- **Battery Lockout System** - The battery door will not close unless the batteries are properly installed
- **Alarm Tamper Resist** - Helps deter from tampering and theft
- **Adjustable Mounting Bracket** - Makes installation fast and easy. Works with existing smoke and combination smoke and CO mounting brackets
- **Peak Level Memory** - Announces "CARBON MONOXIDE PREVIOUSLY DETECTED" if alarm has detected a CO level of 100ppm or higher since it was last reset
- **Hush™ Feature** - Silences nuisance alarms for approximately 9 minutes. (Smoke must be present before Hush™ is activated)
- **Ionization Sensor Technology** - Ideal for detecting fast flaming and other types of fires
- **Test Button Functions:- Tests the unit for proper operation"**
 - Peak Level memory, Resets the Carbon Monoxide alarm
- **Green LED** - Illuminates to indicate the unit is receiving AC power. Flashes once every 60 seconds to indicate battery only mode. Flashes once per second during alarm to indicate initiating alarm. Flashes once every 16 seconds to indicate smoke or CO previously detected. Flashes every 2 seconds while the alarm is in HUSHTM mode
- **Red LED** - When a dangerous level of smoke or carbon monoxide is detected the red LED will flash. If the unit malfunctions, the red LED will flash and the unit will chirp every 30 seconds



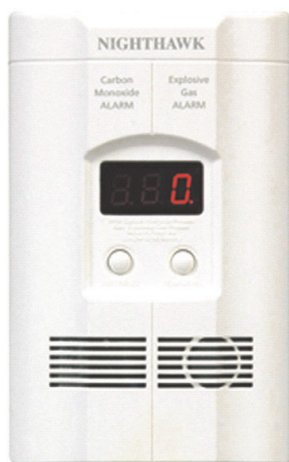
Part Number	Size	Audio Alarm	Humidity Range	Pack Quantity	Sensor	Warranty
21006377-N	5.6" in Diameter x 1.8" Depth	85dB at 10ft	10%-95% relative humidity, non-condensing	Master Pack (6 Units)	Electrochemical	10 year limited

ALARMS

Combination Smoke And Co Alarms - Battery

Nighthawk AC Plug-in Operated Carbon Monoxide and Explosive Gas Alarm with Digital Display

Model KN-COEG-3



Features:

- **Digital Display** - Displays the level of carbon monoxide the unit is sensing.
- **Test/Reset Button** - Tests unit's electronic circuitry operation and allows you to immediately silence the alarm
- **Peak Level Memory** - URecalls the highest CO concentration detected
- **Sounder Alarm** - The KN-COEG-3 offers a loud 85-decibel pulsing alarm that will sound to alert you to a potential problem.

Alarm Condition:

- **Carbon Monoxide** - 4 quick beeps, followed by 5 seconds of silence, followed by 4 quick beeps. Repeat with a number showing in the display (CO concentration in ppm).
- **Gas** - One second of alarm on, one second of alarm off, repeating with "GAS" shown in display.



Part Number	Unit Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty	Interconnect
900-0113-02	6.1"L x 3.8"W x 1.8"H	85dB at 10ft	5%-95% Relative Humidity (RH)	Electrochemical	2	5 years limited	No

Firex AC Hardwired Combination Carbon Monoxide & Photoelectric Smoke Alarm

Model KN-COPE-IC



Features:

- **AC-Wire with battery backup** - Powered by home's electricity in order to provide continuous protection. An included 9V battery protects during short - term power outages
- **Front-Loading Battery** - Speeds up replacement by eliminating the need to remove the unit from the ceiling or wall
- **Unique Battery Door Design** - Will not close if battery is not installed properly
- **Voice Warning** - Supplements warning from the traditional 85-decibel alarm by clearly stating the danger present, fire or carbon monoxide
- **Photoelectric smoke sensor** - May detect visible fire particles associated with slow smoldering fires sooner than an ionization sensor
- **Electrochemical CO sensor** - Provides accurate and continual CO protection during the product's life, remains stable during temperature and humidity changes and resists reactions to household gases that may cause false readings or reduce sensitivity
- **Smart Touch Button - One button performs the following functions:**
 - Activates the Hush™ feature to temporarily silence nuisance alarms (will announce "Hush mode activated," or "Hush mode cancelled.")
 - Simultaneously tests the unit's electronics and verifies proper operation.
 - Activates the peak level memory feature (will announce "CO previously detected" if unit has detected levels of 100 ppm or higher)
 - Resets the unit during a CO alarm (Unit will re-enter alarm within 6 minutes of reset if 70ppm or more of CO is present).
 - Silences a low battery chirp for up to 12 hours, Silences the end of life chirp for two days.
- **Green LED** - Will flash every 30 seconds to indicate proper operation
- **Red LED** - Flashes in conjunction with the alarm sounding
- **End of life signal, Low Battery signal**



Part Number	Size	Audio Alarm	Humidity Range	Pack Quantity	Sensor	Warranty
21007624	5.79" in Diameter x 1.85" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Master Pack (6 units)	Electrochemical	10 year limited

ALARMS

Heat Alarm

Model HD135F



Features:

- **Interconnectable** - Interconnects with up to 24 Kidde devices of which 18 can be initiating.
- **Test Button** - Tests unit's electronic circuitry, horn and battery function.
- **9V Battery Back Up** - Provides continuous protection even during power outages.
- **Red LED** - Flashes every 30-40 seconds to indicate proper operation.
- **Low Battery Indicator** - Alerts user in the event of a low or missing battery.
- **Quick Connect Power Harness** - Makes installation fast and easy.



Part Number	Unit Size	Audio Alarm	Humidity Range	Sensor	Pack Quantity	Warranty
HD135F	5" in Diameter x 2" Depth	85dB at 10ft	5%-95% Relative Humidity (RH)	Heat	6	5 Years Limited

AUXILIARY DEVICES / KITS

Adapters - KA-F



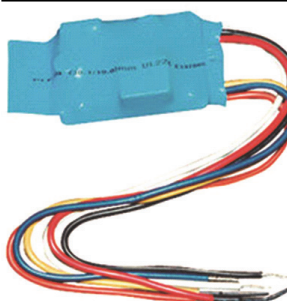
The quick convert adapter allows the installation of a new Kidde alarm to an existing competitive wiring harness. This allows for easy installation when replacing the specified smoke alarm brands with a Kidde product. The smoke alarm adapter also allows the specified approved brands and models to be interconnected with other Kidde product

Feature:

- The quick convert adapter allows the installation of a new Kidde alarm to an existing competitive wiring harness.

Part Number	Unit Size	Pack Quantity	Warranty
900-0153-012	4.25 x 4.25 x 4.25	12	5 Years Limited

Carbon Monoxide Relay Module



The Kidde CO120X can be used to activate auxiliary warning devices such as external bells and sirens, hallway or stairway lighting. This relay will only activate when it receives a CO signal from an interconnect Carbon Monoxide Alarm

Part Number	Pack Quantity	Warranty
CO120X	6	1 years Limited

Smoke Alarm Relay Module



The Kidde SM120X can be used to activate auxiliary warning devices such as external bells and sirens, hallway or stairway lighting. This relay will only activate when it receives a smoke signal from an interconnect Smoke Alarm.

Part Number	Pack Quantity	Warranty
SM120X	6	1 years Limited

AUXILIARY DEVICES / KITS

Strobe Light

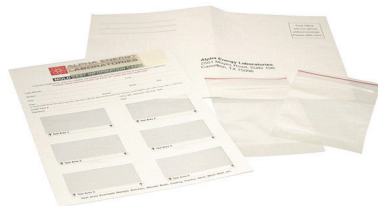


Features:

- **Bright LED Strobe Light** - Flashes to warn of a smoke, heat or carbon monoxide event
- **Green LED** - Indicates AC power is being delivered to the unit
- **UL Listed** - Meets UL 1971 Standard
- **Flash Rate - Fire:** Constant 1 flash per second, **CO:** Intermittent 1 flash per second (4 flashes, 5 seconds off)
- **Interconnects** - Up to 24 Kidde devices of which 18 can be initiating devices

Part Number	Unit Size	Pack Quantity	Warranty
SL1771	5.6" in Diameter x 3" Depth	3	10 years Limited

Mold Detection Kit



The Kidde 442057 Mold Detection Kit is used to quickly sample visible mold colonies, discoloration or questionable materials. Samples can be taken with the adhesive strips or bagging (bags included), the test strips are touched to the surface of the area in question and then attached to the sample submission card that is provided. Then you simply return it to the laboratory for analysis (preaddressed envelope included). The Kidde 442057 Mold Detection Kit is designed for use with visible mold colonies that are typically found in attics, basements, kitchens, bathrooms, heating and air conditioning duct work, living rooms, bedrooms, boats, automobiles, pet areas, pools, utility and storage areas

Features:

- Used to quickly sample visible mold colonies discoloration or questionable materials.

Kit Contains:

- 3 Bags
- Test Strips
- Sample Card
- Detailed Sampling and Processing Instructions

Part Number	Pack Quantity	Description
442057	6	Mold Detection Kit, Master Carton Qty- 6

Radon Gas Detector Kit



Kidde's radon test kit analyzes the amount of radon, a carcinogen, in your home with an EPA-registered facility.

Features:

- EPA registered and makes testing for radon easy.

Kit Contains:

- Information Card
- Return Mailer Envelope
- Activated Charcoal Radon Sampler Bag

Part Number	Pack Quantity	Description
442020	6	Radon Gas Detection Test Kit, Master Carton Qty- 6

FIRE EXTINGUISHERS

Auto/marine Extinguishers

Mariner 5 Fire Extinguisher

Model 466179



Features:

- Easy-to-read gauge tells fire extinguisher is charged and ready for use
- Clear instruction label using graphics to show steps required to operate extinguisher
- Easy-to-pull safety pin,
- Rust and impact resistant nylon handle
- UL approved strap retention bracket
- Coast Guard (U.S.C.G) approved when fitted with supplied mounting bracket
- Powder coated cylinder for corrosion protection

At a Glance:

- Regular Dry Chemical, UL listed, U.S.C.G, DOT approved
- Supplied with retention strap bracket
- Sodium Bicarbonate
- 6 year limited warranty
- Suitable for use on liquid & energized electrical fires



Part Number	Unit Size	Cylinder	Operating Pressure	UL Rated	Pack Quantity	Description
466179	3.25" D x 10.95" H	Seamless Aluminum	100 psi	5-B:C	Master Pack (6 units)	Mariner 5 Fire Extinguisher, 5-B:C, 2# - Nylon Strap Bracket - White, Disposable RET Box, Master Carton Qty- 6

Disposable Extinguishers

Class B and Class C Fire Extinguisher

Model FA5B



Features:

- Easy-to-read gauge tells you fire extinguisher is charged and ready for use
- Clear instruction label using graphics to show steps required to operate extinguisher
- Easy-to-pull safety pin
- Rust and impact resistant nylon handle
- 2 lb. of fire extinguishing agent (Average)
- 5 year limited warranty
- UL approved strap retention bracket
- Coast Guard (U.S.C.G) approved when fitted with supplied mounting bracket
- Powder coated cylinder for corrosion protection
- Regular Dry Chemical
- UL rated 5-B:C
- U.S.C.G, DOT approved
- Supplied with retention strap bracket
- Sodium Bicarbonate
- Suitable for use on liquid & energized electrical fires

Part Number	Diameter	Height	Cylinder	Operating Pressure	UL Rated	Description
21005944	3.25"	10.95"	Seamless Aluminum	100 psi	5-B:C	Class B and Class C Fire Extinguisher, Single Use, 5-B:C, 2 lb. with Nylon Strap Bracket, Master Carton Qty- 6

FIRE EXTINGUISHERS

Disposable Extinguishers

Fire Extinguishers - Kitchen/Garage


Features:

- Regular dry chemical (Sodium Bicarbonate) agent
- UL Rated 10-B:C - effective on Class BC fires
- Easy-to-read gauge to indicate fire extinguisher is charged and ready for use
- Clear instruction label with graphics on extinguisher
- Easy-to-pull safety pin
- Rust and impact resistant nylon handle
- 2.9 lb of fire extinguishing agent
- 6 year limited warranty
- UL approved strap retention bracket
- DOT approved
- Coast Guard (U.S.C.G) approved when fitted with supplied mounting bracket
- Powder coated cylinder for corrosion protection
- It has a pressure gauge which indicates whether it is adequately charged.

Part Number	Pack Quantity	UL Rated	Description
466141	Master Pack (6 units)	10-B:C	Fire Extinguishers - Kitchen/Garage, 10-B:C, 2.9# - With Nylon Strap Bracket - Red, Master Carton Qty- 6

Garage/Workshop Fire Extinguisher


Features:

- Pressure gauge allows for immediate pressure status check .
- Easy-to-pull safety pin
- Monoammonium Phosphate
- Rust and impact resistant nylon handle
- 5.5 lb. of fire extinguishing agent (Average)
- 10 year limited warranty
- UL approved wall hanger
- Powder coated cylinder for corrosion protection
- Includes plastic wall hanger

Part Number	Diameter	Height	Cylinder	Operating Pressure	UL Rated	Description
21005766	4.5"	16.88"	Seamless aluminum	195 psi	3-A, 40-B:C	Garage/Workshop Fire Extinguisher, Single Use, 3-A, 40-B:C, 5.5 Lbs. Master Carton Qty-4
21006204	4.5"	16.07"	Seamless aluminum	195 psi	3-A, 40-B:C	Garage/Workshop Fire Extinguisher, with Wall Hook, Single Use, 3-A, 40-B:C, 5.5 Lbs. 4 Master Carton Qty- 4

Kitchen Fire Extinguisher - Model FX10K


Features:

- Pressure gauge allows for immediate pressure status check
- Easy-to-pull safety pin
- Rust and impact resistant nylon handle
- 2.9 lb. of fire extinguishing agent (Average)
- 10 year limited warranty
- UL approved wall hanger
- Powder coated cylinder for corrosion protection
- UL rated 10-B:C
- Supplied with wall hanger
- Sodium Bicarbonate

Part Number	Diameter	Height	Cylinder	Operating Pressure	UL Rated	Description
21005753	3.25"	13.75"	Seamless aluminum	100 psi	10-B:C	Kitchen Fire Extinguisher, Single Use, 10-B:C, 2.9 Lbs. with Wall Hook, Master Carton Qty- 6

FIRE EXTINGUISHERS

Disposable Extinguishers

Kitchen Fire Extinguisher - Model KK2


Features:

- Pressure gauge allows for immediate pressure status check
- Easy-to-pull safety pin
- Rust and impact resistant nylon handle
- 2.9 lb. of fire extinguishing agent (Average)
- 10 year limited warranty
- UL approved wall hanger
- Powder coated cylinder for corrosion protection
- UL rated 10-B:C
- Supplied with wall hanger
- Sodium Bicarbonate

Part Number	Diameter	Height	Cylinder	Operating Pressure	UL Rated	Description
21006206	2.9 inches	10 inches	Seamless aluminum	100 psi	2-B:C	Kitchen Fire Extinguisher, Regular Use, Disposable, 2-B:C, 1.5 Lbs. Master Carton Qty-4

Living Area Fire Extinguisher

Model FX210R


Features:

- Pressure gauge allows for immediate pressure status check
- Easy-to-pull safety pin, Rust and impact resistant nylon handle
- 4 lb. of fire extinguishing agent (Average)
- 10 year limited warranty, UL approved wall hanger
- Powder coated cylinder for corrosion protection
- Model FX210R, Multipurpose Dry Chemical
- UL rated 2-A, 10-B:C
- Supplied with wall hanger
- Monoammonium Phosphate
- Includes plastic wall hanger

Part Number	Diameter	Height	Cylinder	Operating Pressure	UL Rated	Description
21005771	4.5"	16.07"	Seamless aluminum	195 psi	2-A, 10-B:C	Living Area Fire Extinguisher, Single Use, 2-A, 10-B:C, 4 Lbs. with Wall Hook, Master Carton Qty-4

FIRE EXTINGUISHERS

Portable Extinguishers

Consumer Fire Extinguishers

Model PRO



Features:

- Multipurpose Fire Extinguisher, Aluminum cylinder
- Tough aluminum valve assembly
- Pressure gauge allows for immediate pressure status check
- Rechargeable unit. Assembled in Mexico from global components.
- Coast Guard (U.S.C.G) approved when fitted with optional mounting bracket
- Optional metal strap bracket
- Powder coated cylinder for corrosion protection
- 6 year warranty, UL approved wall hanger

Part Number	Diameter	Height	Cylinder	Operating Pressure	UL Rated	Description
21005776	3.25"	15.0"	Seamless aluminum	100 psi	1-A, 10-B:C	Portable Consumer Fire Extinguisher, 1-A, 10-B:C, 2.6 Lbs. with Wall Hook, Rechargeable, Master Carton Qty-4
21005779	4.5"	14"	Seamless aluminum	100 psi	2-A, 10-B:C	Portable Consumer Fire Extinguisher, 2-A, 10-B:C, 4.0 Lbs. with Wall Hook, Rechargeable, Master Carton Qty-4
21005782	4.5"	16.5"	Seamless aluminum	195 psi	3-A, 40-B:C	Portable Consumer Fire Extinguisher, 3-A, 40-B:C, 5.5 Lbs. with Wall Hook, Rechargeable, Master Carton Qty-1
21005785	5.25"	18.75"	Steel	195 psi	4-A, 60-B:C	Portable Consumer Fire Extinguisher, Multipurpose Use, Rechargeable, 4-A, 60-B:C, 10.0 Lbs. with Wall Hook, Rechargeable, Master Carton Qty-2

LADDERS



Features:

- **Worry-Free Escape** - Strong and Durable Construction
- **Easy to Use** - Attaches Quickly to Most Common Windows
- **Tangle-Free Design** - Fast and Easy to Deploy
- **Ready for Use** - No Tools or Assembly Required
- Anti-Slip Rungs

Part Number	Unit Size	Package Cubic Feet	Pack Quantity	Warranty
468093	8.25" W x 6.25" D x 16.38" H	1.05	Master Pack (2 units)	5 Years Limited
468094	12.25" W x 6.38" D x 17.5" H	1.73	Master Pack (2 units)	5 Years Limited

TOTALINE® THERMOSTATS

General Information

“Our Totaline Thermostats offer un-matched versatility. We offer three different product series to help you meet any specification. All of our thermostats are backed by a 5-year warranty”.

Performance Series



Model P710U-21PHP

Programmable Thermostat Heat Pump and A/C Universal Application (up to 2H/1C)



Model P710U-21NHP

Non-Programmable Thermostat Heat Pump and A/C Universal Application (up to 2H/1C)

Signature Series



Model P720-11NAC

Non-Programmable Thermostat Single Stage A/C Single Stage (1H/1C)



Model P720-11PAC

Programmable Thermostat Single Stage A/C Single Stage (1H/1C)



Model P720-32NHP

Non-Programmable Thermostat Heat Pump and A/C Universal Application (up to 2H/1C)



Model P720-32PHP

Programmable Thermostat Heat Pump and A/C Universal Application (up to 2H/1C)

Premier Series



Model P730-11NAC

Non-Programmable Thermostat Single Stage A/C Single Stage (1H/1C)



Model P730-32NRH

Non-Programmable Thermostat Heat Pump and A/C with Humidity Control Universal Application (up to 3H/2C)



Model P730-32NHP

Non-Programmable Thermostat Heat Pump and A/C Universal Application (up to 3H/2C)



Model P730-32PRH

Programmable Thermostat Heat Pump and A/C with Humidity Control Universal Application (up to 3H/2C)



Model P730-11PAC

Programmable Thermostat Single Stage A/C Single Stage (1H/1C)



Model P740-42PRH

Programmable Touch Screen Thermostat Heat Pump and A/C with Humidity Control Universal Application (up to 4H/2C)

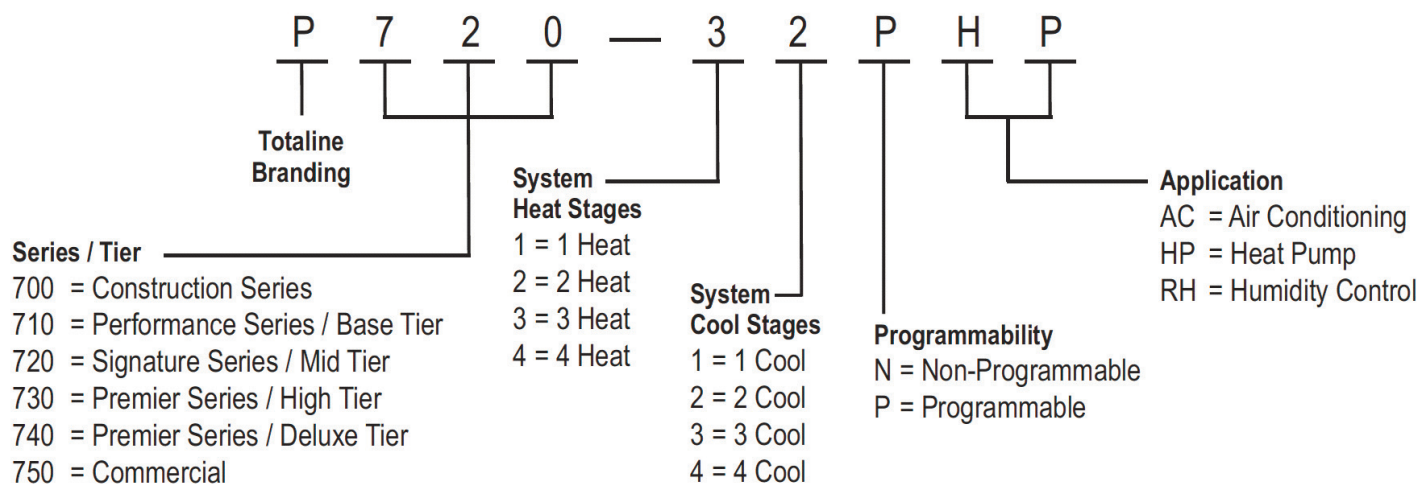


Model P730-32PHP

Programmable Thermostat Heat Pump & A/C Universal Application (up to H/2C)

TOTALINE® THERMOSTATS

Part Numbering Sequence



TOTALINE® PERFORMANCE SERIES

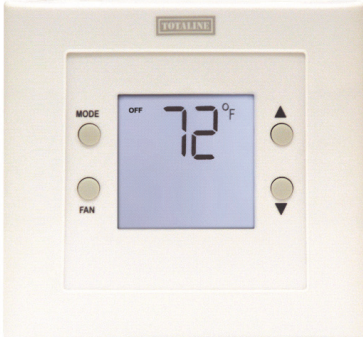
The new P710U performance series thermostats give you an affordable thermostat for homeowners that includes auto changeover functionality and an easy to read screen. Available in programmable and non-programmable models that each handle both HP and AC applications. And best of all, these thermostats are designed and assembled in the USA!

Additional Common Features:

- Front Load Battery
- Configurable Backlighting
- Heating/Cooling Indicator
- Keypad Lockout
- Compressor Protection
- Hardwire or Battery

Non-Programmable Thermostat Heat Pump and A/C

Model P710U-21NHP



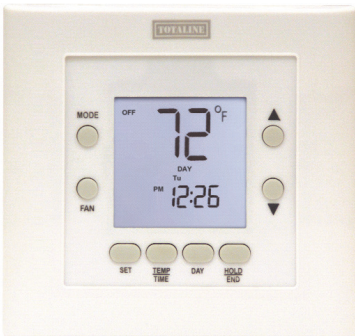
Features:

- **Universal Application Up To 2 Heat/1 Cool HP**
- Auto Changeover
- 4 Square Inch Display
- Designed and Assembled in the USA
- 5 Year Warranty

Part Number	Description
P710U-21NHP	Non-Programmable Thermostat Heat Pump and A/C Universal Application (up to 2H/1C)

Programmable Thermostat Heat Pump and A/C

Model P710U-21PHP



Features:

- **Universal Application Up To 2 Heat/1 Cool HP**
- Auto Changeover
- 5 + 2 Day Programmable
- 4 Square Inch Display
- Designed and Assembled in the USA
- 5 Year Warranty

Part Number	Description
P710U-21PHP	Programmable Thermostat Heat Pump and A/C Universal Application (up to 2H/1C)

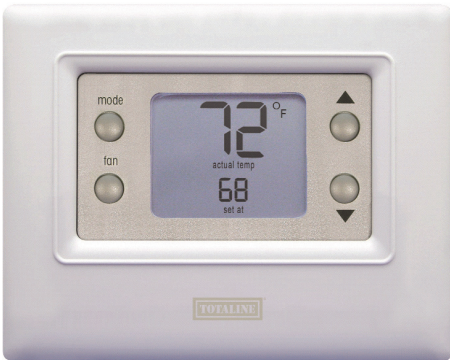
TOTALINE® SIGNATURE SERIES

Common Features:

- Configurable Backlighting
- Adjustable Temperature Limits
- Setting memory retention during power outage
- Optional Battery Operation
- English/Metric Units Selection
- Zoning Switch
- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard
- Min Run Time

Non-Programmable Thermostat Single Stage A/C

Model P720-11NAC



The P720 Premier Series Non-Programmable thermostats offer Universal application, Auto changeover, keypad lockout, and many other features while maintaining a competitive price.

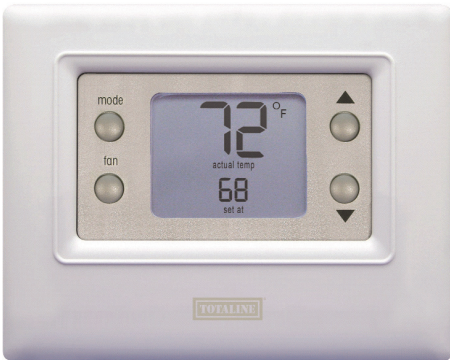
Features:

- Single Stage (1H/1C)
- Auto Changeover
- Cool On/Heat On Indication
- Keypad Lockout
- Designed and Assembled in the USA
- 5 Year Warranty

Part Number	Description
P720-11NAC	Non-Programmable Thermostat Single Stage A/C Single Stage (1H/1C)

Non-Programmable Thermostat Heat Pump and A/C

Model P720-32NHP



The P720 Premier Series Non-Programmable thermostats offer Universal application, Auto changeover, keypad lockout, and many other features while maintaining a competitive price

Features:

- Universal Application (up to 3H/2C)
- Auto Changeover
- Cool On/Heat On Indication
- Keypad Lockout
- Designed and Assembled in the USA
- 5 Year Warranty

Part Number	Description
P720-32NHP	Non-Programmable Thermostat Heat Pump and A/C Universal Application (up to 3H/2C)

TOTALINE® SIGNATURE SERIES

Programmable Thermostat Single Stage A/C

Model P720-11PAC



The P720 Premier Series Non-Programmable thermostats offer Universal application, Auto changeover, keypad lockout, and many other features while maintaining a competitive price

Features:

- Single Stage (1H/1C)
- Auto Changeover
- **Touch and Go Programmability**
- 5-2 Day Programming
- 4 or 2 Periods Per Day Selectable
- 4.76 Square Inch Display
- Designed and Assembled in the USA
- 5 Year Warranty
- Cool On/Heat On Indication

Part Number	Description
P720-11PAC	Programmable Thermostat Single Stage A/C Single Stage (1H/1C)

Programmable Thermostat Heat Pump and A/C

Model P720-32PHP



The P720 Premier Series Programmable Thermostats are first class for the money. The slim and elegant look with Touch and Go programmability make these thermostats above the competition.

Features:

- Universal Application (up to 3H/2C)
- Auto Changeover
- **Touch and Go Programmability**
- 5-2 Day Programming
- 4 or 2 Periods Per Day Selectable
- 4.76 Square Inch Display
- Designed and Assembled in the USA
- 5 Year Warranty
- Cool On/Heat On Indication

Part Number	Description
P720-32PHP	Programmable Thermostat Heat Pump and A/C Universal Application (up to 3H/2C)

TOTALINE® PREMIER SERIES

Non-Programmable Thermostat Single Stage A/C

Model P730-11NAC



The P730 Premier Series Non-Programmable thermostats offer a top tier thermostat at a mid tier price. A low profile, two wire install and Touch and Go programmability make this thermostat hard to beat.

Features:

- Single Stage (1H/1C)
- **Touch and Go Programmability**
- **2 Wire Install**
- Auto Changeover
- Low Profile Install
- 5 Square Inch Display
- Designed and Assembled in the USA
- 5 Year Warranty

Additional Common Features:

- Continuous and Configurable back lighting
- Adjustable Temperature Limits
- Keypad Lockout
- Setting memory retention during power outage
- Battery Free
- English/Metric Units Selection
- Filter/UV Light/Humidifier Pad

Replacement Indicators

- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard
- Min Run Time
- Cool On/Heat On Indication
- Outdoor Air Temperature Sensor Option
- Diagnostic Codes
- Dry Contacts

Part Number	Description
P730-11NAC	Non-Programmable Thermostat Single Stage A/C Single Stage (1H/1C)

Non-Programmable Thermostat Heat Pump and A/C

Model P730-32NHP



The P730 Premier Series Non-Programmable thermostats offer a top tier thermostat at a mid tier price. A low profile, two wire install and Touch and Go programmability make this thermostat hard to beat.

Features:

- Universal Application (Up To 3H/2C)
- **Touch and Go Programmability**
- **2 Wire Install**
- Auto Changeover
- Low Profile Install
- 5 Square Inch Display
- Designed and Assembled in the USA
- 5 Year Warranty

Additional Common Features:

- Continuous and Configurable back lighting
- Adjustable Temperature Limits
- Keypad Lockout
- Setting memory retention during power outage
- Battery Free
- English/Metric Units Selection
- Filter/UV Light/Humidifier Pad

Replacement Indicators

- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard
- Min Run Time
- Cool On/Heat On Indication
- Outdoor Air Temperature Sensor Option
- Diagnostic Codes
- Dry Contacts

Part Number	Description
P730-32NHP	Non-Programmable Thermostat Heat Pump and A/C Universal Application (up to 3H/2C)

TOTALINE® PREMIER SERIES

Programmable Thermostat Single Stage A/C

Model P730-11PAC



The P730 Premier Series Programmable thermostats have it all. The low profile, two wire install coupled with programmable fan and an easy to read 9 sq. inch display make this hard to beat.

Features:

- Single Stage (1H/1C)
- 9 Square Inch Display
- 7 Day Programmable
- **2 Wire Install**
- Auto Changeover
- Low Profile Install
- Programmable Fan Option
- Designed and Assembled in the USA
- 5 Year Warranty

Additional Common Features:

- Continuous and Configurable Backlighting
- Adjustable Temperature Limits
- Keypad Lockout
- Setting memory retention during power outage
- Battery Free
- English/Metric Units Selection
- Filter/UV Light/Humidifier Pad

Replacement Indicators:

- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard
- Min Run Time
- Cool On/Heat On Indication
- Outdoor Air Temperature Sensor Option
- 4 or 2 Periods Per Day Programmability
- Remote Room Sensor Option
- Vacation Mode Controls Temperature and Humidity
- Adjusts Automatically for Daylight Savings
- Diagnostic Codes
- Dry Contacts

Part Number	Description
P730-11PAC	Programmable Thermostat Single Stage A/C Single Stage (1H/1C)

TOTALINE® PREMIER SERIES

Programmable Thermostat Heat Pump and A/C

Model P730-32PHP



The P730 Premier Series Programmable thermostats have it all. The low profile, two wire install coupled with programmable fan and an easy to read 9 sq. inch display make this hard to beat.

Features:

- Universal Application (up to 3H/2C)
- 9 Square Inch Display
- 7 Day Programmable
- Programmable with PC
- **2 Wire Install**
- Auto Changeover
- Low Profile Install
- Programmable Fan Option
- Designed and Assembled in the USA
- 5 Year Warranty

Additional Common Features:

- Continuous and Configurable Backlighting
- Adjustable Temperature Limits
- Keypad Lockout
- Setting memory retention during power outage
- Battery Free
- English/Metric Units Selection
- Filter/UV Light/Humidifier Pad

Replacement Indicators

- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard
- Min Run Time
- Cool On/Heat On Indication
- Dry Contacts
- Outdoor Air Temperature Sensor Option
- 4 or 2 Periods Per Day Programmability
- Remote Room Sensor Option
- Vacation Mode Controls Temperature and Humidity
- Adjusts Automatically for Daylight Savings
- Diagnostic Codes

Part Number	Description
P730-32PHP	Programmable Thermostat Heat Pump and A/C Universal Application (up to H/2C)

TOTALINE® PREMIER SERIES

Non-Programmable Thermostat Heat Pump and A/C with Humidity Control

Model P730-32NRH



The P730 Premier Series Thermostats with humidity control is one of the top thermostats in the industry. Offered in both programmable and Non-Programmable versions, the features on this thermostat are unprecedented.

Features:

- Universal Application (up to 3H/2C)
- 9 Square Inch Display
- **Humidification Control**
- **Touch and Go Programmability**
- **2 Wire Install**
- Auto Changeover
- Dual Fuel Compatible
- Low Profile Install
- Designed and Assembled in the USA
- 5 Year Warranty

Additional Common Features:

- Continuous and Configurable Backlighting
- Adjustable Temperature Limits
- Keypad Lockout
- Setting memory retention during power outage
- Battery Free
- English/Metric Units Selection
- Filter/UV Light/Humidifier Pad

Replacement Indicators

- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard, Min Run Time
- Min Run Time
- Cool On/Heat On Indication
- Dry Contacts
- Diagnostic Codes

Part Number	Description
P730-32NRH	Non-Programmable Thermostat Heat Pump and A/C with Humidity Control Universal Application (up to 3H/2C)

Programmable Thermostat Heat Pump and A/C with Humidity Control

Model P730-32PRH



The P730 Premier Series Thermostats with humidity control is one of the top thermostats in the industry. Offered in both programmable and Non-Programmable versions, the features on this thermostat are unprecedented.

Features:

- Universal Application (up to 3H/2C)
- 9 Square Inch Display
- 7 Day Programming
- **Humidification Control**
- **Outside Air Sensor Included**
- **2 Wire Install**
- Auto Changeover
- Dual Fuel Compatible
- Low Profile Install
- Programmable Fan Option
- 4 or 2 Periods Per Day Programmability
- Remote Room Sensor Option
- Vacation Mode Controls Temperature and Humidity
- Adjusts Automatically for Daylight Savings
- Designed and Assembled in the USA
- 5 Year Warranty

Replacement Indicators

- RC/RH Power Compatible
- Configurable Set Point Limits
- Compressor Time Guard
- Min Run Time
- Cool On/Heat On Indication
- Dry Contacts, Diagnostic Codes

Additional Common Features:

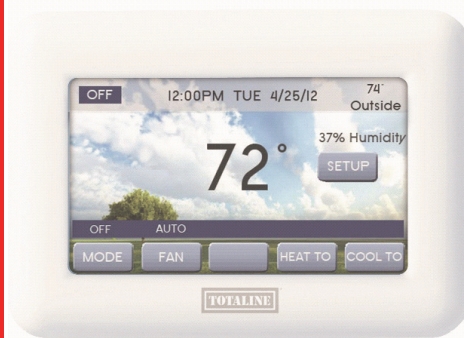
- Continuous and Configurable Backlighting
- Adjustable Temperature Limits
- Keypad Lockout
- Setting memory retention during power outage
- Battery Free
- English/Metric Units Selection
- Filter/UV Light/Humidifier Pad

Part Number	Description
P730-32PRH	Programmable Thermostat Heat Pump and A/C with Humidity Control Universal Application (up to 3H/2C)

TOTALINE® PREMIER SERIES

Programmable Touch Screen Thermostat Heat Pump and A/C with Humidity Control

Model P740-42PRH



The Totaline P740 Premier Series color touch has all the bells and whistles in the industry. An easy to use high definition touch screen with humidity control and dual fuel capability make this a winner.

Features:

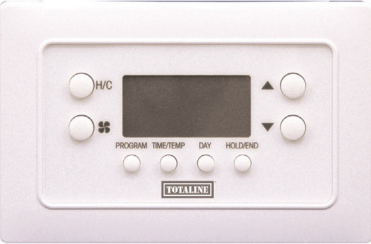
- Universal Application (up to 4H/2C)
- 7 Day Programmable
- Full Humidity Control
- Dual Fuel Compatible
- Outdoor Air Temperature Compatible
- Remote Room Sensor Compatible
- Maintenance Reminders
- Error Codes
- Full QWERTY Keyboard for Data Entry
- High Definition Full Color Touch Screen Display
- Simplified programming with options for 4 daily periods
- Touch Screen Lockout Option
- Adjustable/resettable Filter and Service Reminders
- Multiple hold options, including indefinite hold and timed override hold.
- Screen Cleaning Function (disables touch-screen for 30 seconds)
- Non-volatile Memory (except clock) holds program settings indefinitely without power.
- 24 hr Clock
- Diagnostics Codes
- Designed and Assembled in the USA
- 5 Year Warranty

Part Number	Description
P740-42PRH	Programmable Touch Screen Thermostat Heat Pump and A/C with Humidity Control Universal Application (up to 4H/2C)

- Enter Your Name and Contact Information in The Display option.

TOTALINE® CONSTRUCTION THERMOSTATS
Totaline® Programmable Construction Thermostat

P700U-21PHP

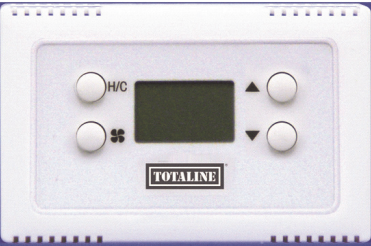


- Features:**
 - 5 + 2 Day Programmable
 - **Universal Application (up to 2H/1C)**
 - Adjustable Temperature Limits
 - Heating/Cooling Indicator
 - Compressor Protection
 - Hardwire or Battery
 - Designed and Assembled in the USA
 - 5 Year Warranty

Part Number	Description
P700U-21PHP	5 + 2 Day Programmable Construction Thermostat

Totaline® Non-Programmable Construction Thermostat

P700U-21NHP

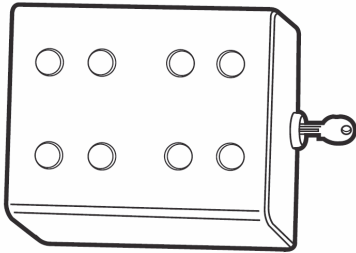


- Features:**
 - **Universal Application (up to 2H/1C)**
 - Adjustable Temperature Limits
 - Heating/Cooling Indicator
 - Compressor Protection
 - Hardwire Only
 - Designed and Assembled in the USA
 - 5 Year Warranty

Part Number	Description
P700U-21NHP	Totaline® Non-Programmable Construction Thermostat

TOTALINE® THERMOSTAT GUARDS

Metal

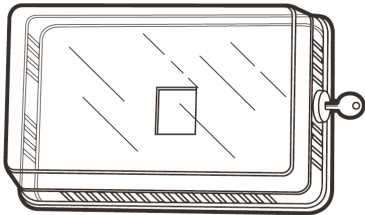


- Features:**
- Metal: Beige
 - Plastic: Beige or clear
 - Sizes fit most thermostats
 - Solid and ring bases
 - Have key lock
 - Virtually tamper proof

Extra Key PN: F145-0999
 • Fits all Metal and Plastic models

Part Number	Width (In)	Height (In)	Depth (In)	Base	Style
P269-0015	6	3-3/16	3-1/8	Ring	Beige
P269-0016	6-1/4	4-3/4	3	Solid	Beige
P269-0017	7-1/4	5-3/8	3-1/2	Solid	Beige
P269-0018	6-3/4	4-1/4	3-9/16	Ring	Beige

Plastic

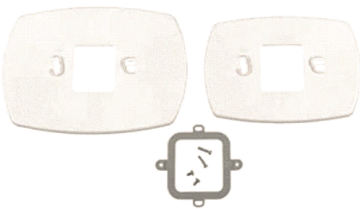


- Features:**
- Metal: Beige
 - Plastic: Beige or clear
 - Sizes fit most thermostats
 - Solid and ring bases
 - Have key lock
 - Virtually tamper proof

Extra Key PN: F145-0999
 • Fits all Metal and Plastic models

Part Number	Width (In)	Height (In)	Depth (In)	Base	Style
P269-0001	3-7/8	3-1/2	2-1/2	Solid	Clear
P269-0003	5-1/4, 5-1/4	4-5/8, 4-5/8	3, 3-1/4	Solid, Ring	Clear, Clear
P269-0004	5-1/4, 5-1/4	4-5/8, 4-5/8	3, 3-1/4	Solid, Ring	Beige, Beige
P269-0005	6-3/8, 6-3/8	3-1/2, 3-1/2	3, 3-1/4	Solid, Ring	Clear, Clear
P269-0007	8-1/4	5-3/8	3-1/2	Ring	Clear

Thermostat Cover Plate Assembly



Part Number	Color	Used With	Description
50002883-001	Premier White	FocusPRO 6000, 5000; PRO 4000, 3000	Cover Plate Assembly Used With FocusPRO 6000, 5000; PRO 4000, 3000

TOTALINE® OILS

Copeland Scroll Oil



These oils were specified by Copeland for the first generation scrolls in late 1990s.

Part Number	Size	Type	Duty
P903-1425	1 QT	EAL 22 CC	Refrigeration
P903-1601	1 GAL	3 MA POE	A/C
P903-1625	1 QT	3 MA POE	A/C

Bristol R-410A Compressor Oil

Part Number	Size	Type	Duty
P903-1812	12 OZ CAN	32 BC	A/C

Solest 170 Polyol Ester Oil

Part Number	Size	Type	Description
SOLEST170-1G	1 GAL	POE	Solest 170 Polyol Ester Oil
SOLEST170-5G	5 GAL	POE	Solest 170 Polyol Ester Oil

Mineral Refrigeration Oils



This is a refined oil used specifically for air conditioning and refrigeration. The low moisture content means less failure. A non-foaming, waxfree oil to prevent plugged capillaries and sticking expansion valves. OEM approved by most manufacturers.

Part Number	Size	Viscosity
P903-0101	1 GAL (3.8 liters)	150
P903-0105	5 GAL (18.9 liters)	150
P903-0125	1 QT (.95 liters)	150
P903-0155	55 GAL (208.2 liters)	150
P903-0201	1 GAL (3.8 liters)	300
P903-0205	5 GAL (18.9 liters)	300
P903-0255	55 GAL (208.2 liters)	300
P903-0301	1 GAL (3.8 liters)	500
P903-0305	5 GAL (18.9 liters)	500
P903-0355	55 GAL (208.2 liters)	500

Vacuum Pump Oil



A highly purified purpose vacuum pump oil that cleans and lubricates. The quart bottle (9.5 liters) has a convenient flip-top-cap.

Part Number	Size
P903-0632	1 QT (.95 liters)
P903-0601	1 GAL (3.8 liters)
P903-0605	5 GAL (18.9 liters)
P903-0655	55 GAL (208.2 liters)

Polyol-Ester Oils



These environmentally friendly products are specifically formulated to use with the non-CFC refrigerant R-134a. The base fluids have been engineered to be totally miscible with R134a over a very wide temperature range while maintaining excellent lubricating properties.

Part Number	Size
P903-1001	1 GAL (3.8 liters)
P903-1005	5 GAL (18.9 liters)
P903-1025	1 QT (.95 liters)
P903-1101	1 GAL (3.8 liters)
P903-1125	1 QT (.95 liters)
P903-1201	1 GAL (3.8 liters)
P903-1205	5 GAL (18.9 liters)
P903-1225	1 QT (.95 liters)
P903-1501	1 GAL (3.8 liters)
P903-1505	5 GAL (18.9 liters)
P903-1525	1 QT (.95 liters)
P903-1701	1 GAL (3.8 liters)
P903-1705	5 GAL (18.9 liters)
P903-1725	32 OZ

Alkylbenzene Refrigeration Oils



The Z-Series are high quality synthetic Alkylbenzene Refrigeration fluids for use with HCFC, CFC and ammonia refrigerants in refrigeration and air conditioning applications. Due to superior miscibility, Totaline Z-Series lubricants are excellent for systems utilizing environmentally sound refrigerants MP39, MP60, HP80 or HP81. Totaline Z-Series are superior products for all R-22, R-123 and R-502 Systems, particularly at low temperatures. Z-200CX is formulated with a unique additive package providing extreme pressure (EP) lubricity and foam control at operating conditions.

Part Number	Size
P903-2025	1 QT (.95 liters)
P903-2001	1 GAL (3.8 liters)
P903-2005	5 GAL (18.9 liters)
P903-2125	1 QT (.95 liters)
P903-2101	1 GAL (3.8 liters)
P903-2105	5 GAL (18.9 liters)
P903-2225	1 QT (.95 liters)
P903-2201	1 GAL (3.8 liters)
P903-2205	5 GAL (18.9 liters)

TOTALINE® OILS

Totaline® Oils Reference for Carlyle and Totaline® Compressors

COMPRESSOR MODEL	REFRIGERANT R-12, R-22 (L & H TEMP.)		REFRIGERANT R-507, R-404A (MED. TEMP)		REFRIGERANT R-507, R-404A (LOW. TEMP)		REFRIGERANT R-134AH (M & H TEMP)	
	TOTALINE		TOTALINE		TOTALINE		TOTALINE	
	OIL MODEL	PART NO.	OIL MODEL	PART NO.	OIL MODEL	PART NO.	OIL MODEL	PART NO.
Carlyle 06D, E semi-hermetic	Z-150	P903-2001	SW68	P903-1001	E68 (Do not use	P903-1725	SW68	P903-1001
		P903-2005		P903-1025	SW-68 for	P903-1701		P903-1025
		P903-2025		P903-1005	Low	P903-1705		P903-1005
					Temp)			
	RO 15	P903-0101						
		P903-0105						
Carlyle 5F/H open		P903-0155						
	Z-150	P903-2001	SW68	P903-1001	E68 (Do not use	P903-1725	SW 68	P903-1001
		P903-2005		P903-1025	SW-68 for	P903-1701		P903-1025
		P903-2025		P903-1005	Low	P903-1705		P903-1005
					Temp)			
	RO 15	P903-0101						
Carlyle 05T/06T Screw (74)		P903-0105						
		P903-0155						
		P903-1501		P903-1501		P903-1501		P903-1501
	E-100 Solest 170	P903-1505 P903-1525	E-100 Solest 170	P903-1505 P903-1525	E-100 Solest 170	P903-1505 P903-1525	E-100 Solest 170	P903-1505 P903-1525
Carlyle 06N Screw (104 mm Global Chiller)	N/A	N/A	N/A	N/A	N/A	N/A	SW-220 (R-134a Only)	P903-1201 P903-1225 P903-1205
		P903-2001					Mobil Arctic	
Millennium Scroll Technologies		P903-2005					68 Model now	
	Z-150	P903-2025	N/A	N/A	N/A	N/A	obsolete	

FLUID ANALYSIS

Totaline's Fluid Analysis Service is a cost-effective method of assessing the condition of internal fluids used in all types of HVAC & R equipment and system applications. Sample Kits include the supplies needed to sample, store and ship the fluids to the lab for nalysis.

Description		Available Options
P915-0001	Lithium Bromide Analysis Kit: Uninhibited Nitrate inhibited Chromate inhibited molybdate Aresenite Inhibited Refrigerant Water	Octyl Alcohol Ammonia Arsenite Molybdate & Nitrate Purge Gas
P915-0002	Lithium Chloride Analysis kit: Chromate Inhibited Molybdate Inhibited	GCMS test for volatile arganic Contaminants Molybdate only Chromate Only Dissolved Fe Dissolved Cu"
P915-0003	Brine Analysis Kit (Glycol) – Freeze Pt & Concentration Only	Total Condition Analysis BrineServe™ Energy Analysis"
P915-0004	Fluid Loop Inventory Kit	Glycol Fluid Analysis Glycol Fluid & Energy Analysis
P915-0005	Inorganic Brine Analysis	
P915-0006	Cooling Tower Water Analysis	Ammonia Other Element "
P915-0007	Standard Oil Analysis Kit	Chlorides/Fluorides Ion Activity Viscosity Mixed Oil Percentage
P915-0009	Refrigerant Analysis Kit – Includes DOT – Approved Sample Cylinder, Shipping And Labeling Instruction.	Other refrigerant contamination Non-Condensables
Standard Service	5-7 days turnaround	Oil lib r, refrigerant water & glycol samples
RUSH Service	24-48 hours turnaround	Oil lib r, refrigerant water & glycol samples

TOTALINE® CHEMICALS

Chemicals - Coil Cleaners

Condenser Cleaner Non-Acid Concentrate



Features:

- Foams out stubborn deposits from coils.
- Very effective on heavy grease accumulations.
- Ideal for cleaning grease contaminated refrigeration coils and condensers.
- USDA accepted

Part Number	Size
P902-0118	18 OZ AEROSOL
P902-0101	1 GAL (3.8 liters)
P902-0105	6 GAL (22.7 liters)
P902-0135	35 GAL (133 liters)
P902-0155	55 GAL (208.2 liters)

Indoor Coil Cleaner Concentrate



Features:

- Cleans and treats air-conditioning systems for maximum efficiency
- Retards future dirt accumulation
- Eliminates slime in condensate areas
- Easy to use, non-toxic and deodorizes
- Only equipment required is hand-type sprayer.
- USDA accepted.

Part Number	Size
P902-1001	1 GAL (3.8 liters)
P902-1005	6 GAL (22.7 liters)
P902-1055	55 GAL (208.2 liters)
P902-1018	18 oz. Aerosol

Indoor Coil Cleaner Self-Rinsing Super Concentrate



Features:

- No foaming action - only attacks dirt buildup, not metal.
- Dilutes with 24 parts water - 1 quart makes over 6 gallons evaporator cleaner.
- Rinsing not required - normal condensation will carry away dirt and contamination.
- Contains no toxic petroleum solvents, & the surfactants used are biodegradable.

Part Number	Size
P902-1001A	1 GAL (3.8 liters)

Internal Coil Cleaner



Features:

- Cleans interior lines in air conditioning and refrigeration systems after compressor burnout or prior to new installation.
- Breaks down carbon deposit, tar sludge, oil, grease & neutralizes acids in systems.
- Environmentally sound replacement for R11, R12 and chlorinated solvents.
- Does not contaminate refrigerant or oil, contains no CFCs, leaves no residue.
- Biodegradable.

Part Number	Size
P902-1601	1 GAL (3.8 liters)

Condenser Cleaner Non-Acid Super Concentrate



Features:

- Non-acid super concentrate is formulated with twice the active ingredients insuring a much more versatile cleaner with multiple dilution rates for cleaning applications.
- Non-acid super concentrate is non acid for improved user safety and yet produces excellent foaming action, superior cleaning, even on greasy surfaces and effectively brightens aluminum this one versatile product allows the user to efficiently and economically clean virtually any component of the a/c system.

Part Number	Size
P902-0101B	1 GAL (3.8 liters)

Non-Acid Total Bright Condenser Cleaner And Brightener



Features:

- Brightens better than typical alkaline products.
- Foams out stubborn deposits from air cooled condensers.
- Ideal for cleaning and brightening grease contaminated air conditioning condensers.

Part Number	Size
P902-0101A	1 GAL (3.8 liters)

TOTALINE® CHEMICALS

Chemicals - Coil Cleaners

Environmentally Sound Coil Cleaner



Safely cleans both evaporator and condenser coils without potential damage to equipment, personnel or the environment. Unlike strong acid or highly alkaline cleaners that actually eat away a thin layer of aluminum to remove contamination, it attacks only the dirt build up and leaves metal surfaces clean and free of corrosion.

Part Number	Size
P902-0301	1 GAL (3.8 liters)
P902-0305	6 GAL (22.7 liters)
P902-0355	55 GAL (208.2 liters)

Outdoor Condenser Cleaner Concentrate



Features:

- Foams out stubborn deposits from air cooled condensers
- Reduces head pressure
- Increases system capacity
- Only equipment required is plastic or other acid-resistant hand-type sprayer

Part Number	Size
P902-0501	1 GAL (3.8 liters)
P902-0505	6 GAL (22.7 liters)
P902-0555	55 GAL (208.2 liters)

Outdoor Coil Cleaner Base, Super Concentrated



No extra water added...100% cleaning ingredients. Non-acid formula with foaming action to clean even the most greasy surfaces. Dilute with water for use on air-cooled condensers, evaporators, and electronic filters.

Part Number	Size
P902-0104	32 oz. (.95 liters)
P902-0104-55	55 GAL (208.2 liters)

Indoor Coil Cleaner Base, Super Concentrated



This self-rinsing base effectively cleans evaporators, removes mold, dust, and greasy residue. Concentrated, you just add water. No rinsing required.

Dilution Rate = 24 parts water

Part Number	Size
P902-1004	32 oz. (.95 liters)

Chemicals - Other Cleaners

Electronic Air Cleaner Concentrate



Easily removes grease, soot, grime, oil, tobacco tars, wax, carbon, gummy dust, and many other stubborn deposits.

- Electronic air filters
- Permanent filters
- Air ducts and grills
- Heating parts
- Fan blades and blowers
- Refrigeration parts
- USDA accepted

Part Number	Size
P902-2001	1 GAL (3.8 liters)

Scale Remover (Low Foaming)



Features:

- Safely removes scale, heavy slime and algae from: cooling towers, condensers, and pipes
- Reduces head pressure
- Increases system capacity
- Reduces power consumption
- Labor saving

Part Number	Size
P902-2501	1 GAL (3.8 liters)
P902-2505	6 GAL (22.7 liters)
P902-2555	55 GAL (208.2 liters)

Scale Remover With pH Indicator



Eliminates the tedious and time consuming necessity of constantly checking the activity of the cleaning solution with pH paper.

Part Number	Size
P902-2601	1 GAL (3.8 liters)
P902-2605	6 GAL (22.7 liters)

TOTALINE® CHEMICALS

Chemicals - Other Cleaners

Ice Machine Cleaner (Metal Safe)



A non-foaming metal safe ice machine cleaner. safe to use on all types of ice machines including those with nickel plated drums.

- Meets Manitowoc's specification GES-6.
- USDA accepted.

Part Number	Size
P902-1508	8 OZ (.24 liters)
P902-1501	1 GAL (3.8 liters)

Degreasing Solvent



Non-chlorinated full strength that combines cleaning effectiveness with personal safety and environmental concerns. Slow evaporating. Contains no toxic substances as defined by SARA Title III, Section 313.

Part Number	Size
P902-3002	1 GAL (3.8 liters)
P902-3002-055	55 GAL (208.2 liters)

Solvent Cleaner And Degreaser



Removes oil, grease and grime from mechanical parts, sheet metal, switches, motor armatures, etc. Spray, soak or brush parts. Controlled evaporation ensures deep soil penetration for effective cleaning. Non-chlorinated, high flash point (140° F), pleasant citrus scent.

Part Number	Size
P902-1301	1 GAL (3.8 liters)
P902-1325*	32 oz. (.95 liters)

*Spray Bottle

Total 9 Buffered ph Cleaner, Concentrate



Concentrated all purpose cleaner, formulated to quickly remove grease and heavy soils. Cleans any washable, nonporous surface. Environmentally friendly, safer to use alternative to bleaches, solvents and toxic cleaners. Excellent in parts washers. Ideal formulation for use on HVAC equipment, appliances, boat, truck, RV exteriors. Easily cleans glass and stainless steel.

Part Number	Size
P902-1701	1 Gal (3.8 liters)

Chemicals - Protectors, Inhibitors and Sanitizers

Winter Corrosion Protector



Protects interior of chilled water systems that have been drained for winter lay-up. Spring start-up labor and equipment deterioration are greatly reduced by the prevention of corrosion and rust in the system.

Part Number	Size
P902-5005	6 GAL (22.7 liters)

One Shot Scale And Corrosion Inhibitor



Features:

- Multifunctional liquid cooling water treatment
- Keeps recirculation cooling water in a buffered alkaline state.
- Inhibits microbiological growth and maintains water quality

Part Number	Size
P902-5501	1 GAL (3.8 liters)
P902-5505	6 GAL (22.7 liters)
P902-5555	55 GAL (208.2 liters)

Coil And Duct Sanitizer Spray



EPA registered as a bacteriostat, fungistat, germistat and all purpose deodorizer for use on HVAC systems (including duct work and evaporator coils). Controls microorganism growth and eliminates odors caused by their growth. Easy to use. Clean the area and thoroughly spray all parts. Environmentally safe.

Part Number	Size
P902-3601	1 GAL (3.8 liters)
P902-3632*	32 oz. (.95 liters)

*Spray Bottle

Algeacide

A quaternary ammonium chloride formulation that quickly destroys algae and slime to improve cooling system performance. Noncorrosive, safe on wood, metal and plastics. Non-foaming, non-volatile.

Part Number	Size
P902-3501	1 GAL (3.8 liters)

TOTALINE® CHEMICALS

Chemicals - Protectors, Inhibitors and Sanitizers

System Sanitizer, Concentrated



EPA registered specifically for HVAC and air duct sanitation and deodorization. Concentrated and easily applied with the use of a hand held fogger or air driven sprayer to mist through a pre-cleaned system. No rinsing is required. Effective against a broad spectrum of microorganisms. No toxic chemical residue or odors.

Part Number	Size
P902-3704	3.25 oz. (96ml)

Fin Protectant



FIN Protectant is a specially formulated coating containing acrylic polymers and anti-corrosion agents designed to protect painted or unpainted metals from rust and corrosion. FIN Protectant seals and protects aluminum, copper, brass, bronze, chrome, galvanized metal, titanium, and stainless steel. It is ideally suited for use on air cooled condensers located in corrosive environments such as airports, adjacent to freeways, and salt air areas. Recommended for use with P902-0101 Condenser Cleaner.

Part Number	Size
P902-5101	1 GAL (3.8 liters)
P902-5116	16 oz (454 gr) aerosol can

Other Chemicals

Flame Retardant



Inhibits the spreading of flames on natural fiber materials. Non-hazardous and easy to use, it will not retard and synthetic, metal, plastic, or other man-made or previously treated material.

Part Number	Size
P902-3232	32 oz (.95 liters)

Leak Reactant



Totaline Leak Reactant provides a quick and easy way to pinpoint gas leaks from any pressurized gas system. Thick, tacky fluid clings to surfaces — even the underside of pipes, and instantly produces an easy to see, long lasting stream of bubbles.

- Quart size spray bottles include heavy duty adjustable trigger sprayer
- Available in one gallon size refills non - clogging, non- hazardous, non- corrosive, biodegradable formulation.

Part Number	Size
P902-1432	1 QT (.95 liters)
P902-1401	1 GAL (3.8 liters)

Gas Leak Locator



Features:

- Large leaks bubble up immediately
- Slow, small leaks bubble up within a few seconds

Part Number	Size
P902-4508	8 OZ. (.24 liters)
P902-4501	1 GAL (3.8 liters)

Wasp And Hornet Spray



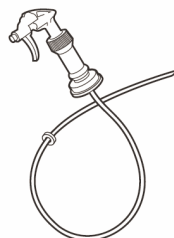
Features:

- Dielectric strength over 40,000 v/cm
- long spray pattern up to 20 feet aid in reaching nests
- 16 oz. Can (454 grams)

Part Number
P902-4016

Totaline® Chemical Accessories

Trigger Spray With Extension Tube



A heavy duty trigger sprayer with a 24" extension tube and cap.

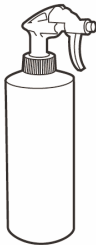
- Easily attaches directly to a one gallon bottle

Part Number
P902-9000

TOTALINE® CHEMICALS

Totaline® Chemical Accessories

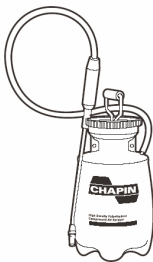
One Quart Spray Bottle



Designed especially for smaller jobs. Heavy duty, handy trigger

Part Number
P902-9001

Tank Sprayer



High quality plastic pressure sprayer with funnel top for easy filling. Reinforced 36" (91 cm) hose and 12" (30 cm) poly/brass wand with adjustable spray head.

Part Number	Size	Operating Capacity
P902-9002	2 GAL (7.56 liters)	1-1/2 GAL (5.67 liters)
P902-9015	1-1/2 GAL (5.67 liters)	1 GAL (3.8 liters)

Foam Cleaning Fluid & Foam Cleaning Gun

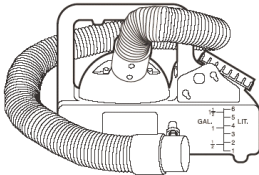


Features:

- Formulated to clean coils
- Gun attached to garden hose and applies cleaning solution at proper dilution

Part Number	Size
P902-0201	1 GAL (3.8 liters)
P902-0206	6 GAL (22.7 liters)
P902-0255	55 GAL (208.2 liters)
P902-9003	Foam Fluid Gun

Chemical Fogger



The Totaline P902-9016 Chemical Fogger is used for applying sanitizers, disinfectants, and deodorizers. Excellent for these effective

- Totaline products:
- Totaline Coil and Duct Spray: (P902-3601, P902-3632)
- Totaline System Sanitizer: (P902-3704)
- Total Fresh Odor Neutralizer: (Liquid P902-39004, P902-39008)
- 1-1/2 gallon, durable, one-piece, seamless tank
 - 3-1/2" opening for easy filling
 - Versatile 48" Flex hose
 - Adjustable flow from 0-18 oz/min
 - 110v/60Hz, 2-stage motor
 - Constructed entirely of corrosion-resistant materials
 - Dispenses materials (water based, room temperature) at average droplet size from 20 to 80 microns
 - Easy clean-up

Part Number
P902-9016

Totaline® Condensate Drip Pan Cleaner



Features:

- EPA registered.
- Water Activated.
- Time released control of microbial contaminants.
- Reduces foul odors, drain stoppages, corrosion and promotes system hygiene.
- Kills mold, algae, fungus, legionella bacteria and other micro-organisms.
- High capacity lasts up to 6 months.

Part Number	Size	Unit Application
P902-38001	4 x 3/4 x 1/4	Window / Fan and Coil (Bulk Pkg. 20 Strips)
P902-38002	4 x 3/4 x 1/4	Window / Fan and Coil
P902-38003	5 x 1-1/4 x 1/4	Up to 2.5 Tons
P902-38004	12 x 1-1/2 x 1/4	3 - 5 Tons
P902-38005	12 x 1-1/2 x 5/8	6 - 10 Tons
P902-38006	12 x 3 x 5/8	Up to 20 Tons
P902-38007	24 x 3 x 5/8	40 - 50 Tons

TOTALINE® CHEMICALS

Totaline® Chemical Accessories

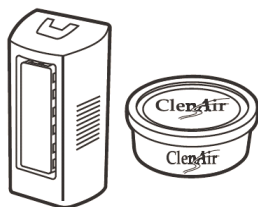
Total Tabs For Condensate Drain Pans


Features:

- Safe, easy to use, and completely soluble.
- Formulated with the compound at-8, are non-toxic and noncorrosive.
- Clean sludge, scum, and other accumulations in condensate pans preventing odors caused by these accumulations.

Part Number	Size
P902-42001	100 TABS

Totalfresh Odor Neutralizer


Features:

- Eliminates odors and air contamination.
- Inhibits the growth of certain molds and bacteria.
- Solid gel which is basically odorless after 12 hours.
- Draws the smell out of the air to give you a clean and healthful atmosphere.
- Light odor—1/2 to 1 lb/400 sq ft.
- Medium odor — 2 lbs/400 sq ft.
- Heavy odor — 3 to 4 lbs/400 sq ft.
- Aqua color. Use 3 lb tubs in central air return ducts.

Part Number	Description
P902-39001	1/2 lb tub
P902-39002	1 lb tub
P902-39003	3 lb tub
P902-39004	16 oz spray bottle (citrus scent)
P902-39005	30 lb pail
P902-39006	1 lb blocks for wall unit
P902-39007	Wall unit with 6 blocks
P902-39008	16 oz spray bottle (unscented)

Totalfresh II Odor Neutralizer



- New pleasant scent, white colored.

Part Number	Description
P902-39009	1/2 lb tub
P902-39010	1 lb tub
P902-39011	3 lb tub

TOTALINE® CHEMICALS

Touch-Up Paint



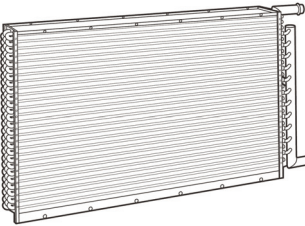
Touch-up Spray Paint comes in 16 ounce cans, ideal for various touch-up jobs. All paint labels meet O.S.H.A. requirements and Federal Safety Codes.

Part Number	Paint Color	Series Used On
PH23JA012	Gloss Ivory	Misc.
PH23WL012	Alpine Mist	28, 400B, OH
PH23GH018	Parchment	36R,S, 42A,B, 50BQ
PH23ZS016	Silver Sage	28, 34, 58, 40, 31. 49, 350, 355, 58MXA, 58MVP, 394C, 58WAV, 376C, 58ZAV
PH23GH019	Fawn Beige	51
PH23FS010	Sand Beige	50BT, BU
PH23NB015	Malibu Beige	58ES
PH23PE023	Silver Grey	38CQ, EC, UE, TO, HO, TE, RQ, RE, QW, QF, VE, VH, VJ, VT, QB
313974-751	Dark Grey	TECH 2000
313974-752	Light Grey	TECH 2000
313974-754	Sand Piper Beige	Reliant/Endura S/S
313974-755	Kona Black	Cond Coils
313974-756	Swiss Mosha Brown	Cobra, Eventemp S/S
313974-757	Gray Mist	Furnace Prod after 9/95 Models 373LAV, 383KAV, 58RAV, 58PAV, GB1AAV, GB3AAV
PH23GL012	Sea Spray Green	Misc. 38, 48, 50, 58, 38GR, CB, CC
PH23VS016	Vista Green (Dull Finish)	CE,EA,EB,SE, EE
PH23VS017	Vista Green (High Gloss)	38GR, CB, CC, CE
PH23GH020	Pale Green	38GF, 40GC
PH23PC016	Medium Green	38CU
PH23GH017	Horizon Green	19D,C
PH23TZ150	Midnight Blue	58SE
38UE680007	Blue (for coils)	38VE, VH, VJ, VT,UE
PH23US016	Burgundy (for coils)	38CO, RQ
PH23RZ016	Chocolate Brown	58SE
PH23FH010	Chocolate Brown	58HK, HM, HS, HW
PH23RZ010	Chocolate Brown	50BT, BU
PH23SS012	Chestnut Brown	38EC, ED
38LE680001	Light Green	--
42CA680215	Parchment Beige	--
48KH33178DP23	Dark Green	--
PH23SG016	Grey Metallic	--
42CA680221	Champagne Beige	--
37AE680001	White Acrylic Enamel	--

REPLACEMENT COILS

28-Series Water Coils

28B General Information



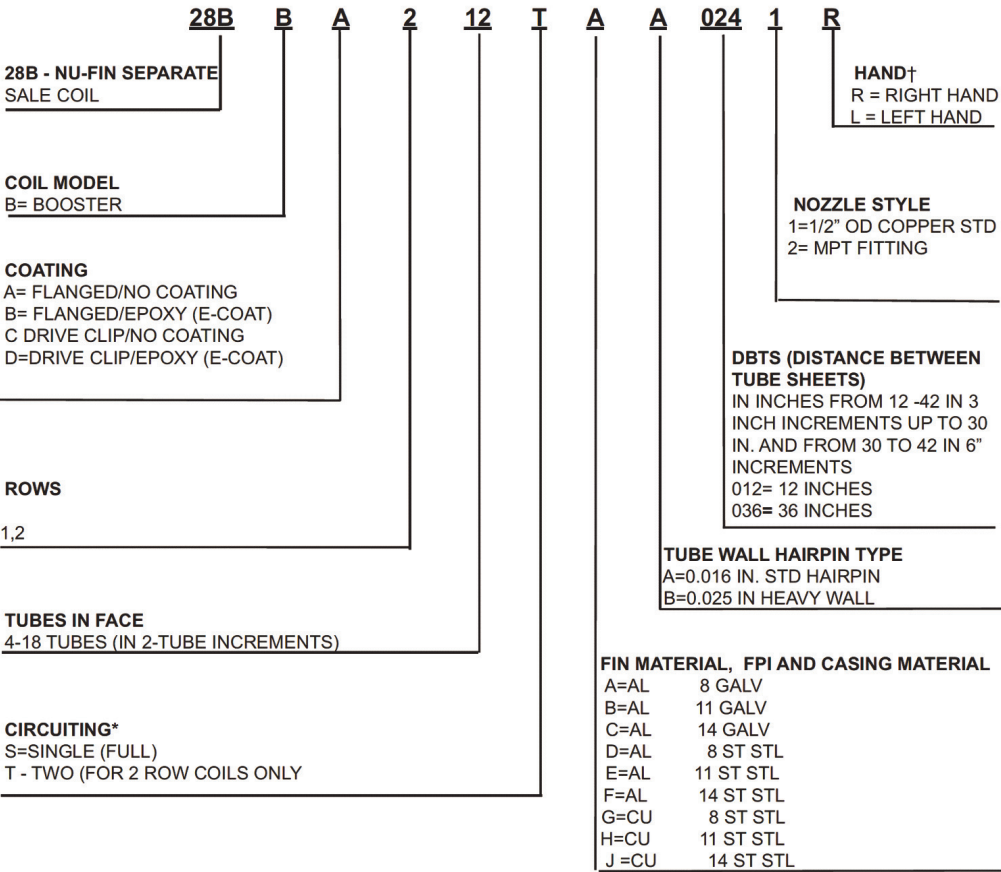
SEPARATE SALEPLATE FIN WATER COILS

Carrier coils for use with our 39 series air handling equipment, competitors equipment, and other applications.

Features:

- Plate fin design with 1/2 - in. or 5/8-in. diameter copper tubes
- Chilled or hot water coils in lengths from 24 in. to 144 in. (in one inch increments)
- Chilled and hot water coils available in heights from 15 in. to 55 in. (in 2-1/2 in. increments)
- Hot water booster coil length range from 12 in. to 43 in. with heights from 5 in. to 15 in.
- All 28B coils are available in fin spacing of 8, 11, or 14 fins per in.
- Cooling coils are available in 2, 4, 6, or 8, rows.
- Heating coils are available in 1, 2, or 4 rows.

Carrier's 28B Series water coils offer a wide range of sizes and are manufactured in accordance with ARI Standard 410. Top quality chilled water cooling coils and hot water heating coils are offered with options that provide a custom fit for your applications.



* Two circuits available with 2 row coils only.
† Hand is determined by the location of coil connections when viewed while facing the coil air inlet.
NOTE: Example shown is for a 2-row booster coil with flanged casing; 12 tubes in face, 2 circuits, with 8 aluminum fins per in. and galvanized casings; and 1/2 in. OD copper tubesawith 0.016-in wall thickness. The coil is 24 in. long between tube sheets, with right-hand 1/2 in. OD copper stub out for field-supplied sweat connection.

REPLACEMENT COILS

28-Series Water Coils

28BC General Information

28B

C

A

4

32

F

A

A

060

A

R

28B - NU-FIN SEPARATE SALE COIL

COIL MODEL
C= COOLING COIL - 1/2" TUBES

COATING
A= NO COATING
B= EPOXY (E-COAT) COATING

ROWS
4 - 4
6 - 6
8 - 8
0 - 10

TUBES IN FACE
12 - 44 TUBES (IN 2-TUBE INCREMENTS)

CIRCUITING*
Q - QUARTER
H - HALF
F - FULL
D - DOUBLE

HAND†
R = RIGHT HAND
L = LEFT HAND

NOZZLE AND HEAD STYLE†
A= MPT-STD
B= MPT-NON FERROUS
C=VICTAULIC

DBTD (DISTANCE BETWEEN TUBE SHEETS)
IN INCHES FROM 24 -144 IN 1 INCH INCREMENTS
024= 24 INCHES
121=121 INCHES

TUBE WALL HAIRPIN
(1/2" OD COPPER TUBE)
A=0.016 IN. STD HAIRPIN
B=0.025 IN HEAVY WALL

FIN MATERIAL, FPI AND CASING MATERIAL
A=AL 8 GALV
B=AL 11 GALV
C=AL 14 GALV
D=AL 8 ST STL
E=AL 11 ST STL
F=AL 14 ST STL
G=CU 8 ST STL
H=CU 11 ST STL
J =CU 14 ST STL

* Quarter circuit available for 4 row coils with TIF=12,16,20,24,28,32,36,40,44 only.
Half, full or double circuit available with any 4,6, or 8 row.

CIRCUIT	NOMINAL PIPE SIZE (IN.)
Q	1-1/2"
F	2-1/2"
H	2-1/2"
D	3

† Hand is determined by the location of coil connections when viewed while facing the coil air inlet.NOTE: Example shown is for a 4-row cooling coil, not coated; 32 tubes in face; a full circuit, with 8 aluminum fins per inch and galvanized casing; and 1/2-in. O.D. copper tubes with 0.016-in. wall thickness. The coil is 60 in. long between tube sheets and has right-handed, 2 1/2-in. MPT standard steel headers.

Totaline® Universal HVAC/R Part and Supplies

Totaline.com

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REPLACEMENT COILS

28-Series Water Coils

28BD General Information

28B

D

A

4

32

F

A

B

060

A

R

28B - NU-FIN SEPARATE SALE COIL

COIL MODEL

D = COOLING COIL - 5/8" TUBES

COATING

A= NO COATING

B= EPOXY (E-COAT) COATING

ROWS

4 - 4

6 - 6

8 - 8

TUBES IN FACE

12 - 36 TUBES (IN 2-TUBE INCREMENTS)

CIRCUITING*

H - HALF

F - FULL

D - DOUBLE

HAND†

R = RIGHT HAND

L = LEFT HAND

NOZZLE AND HEAD STYLE†

A= MPT-STD

B= MPT-NON FERROUS

C=VICTAULIC

DBTD (DISTANCE BETWEEN TUBE SHEETS)

IN INCHES FROM 24 -144 IN 1 INCH INCREMENTS

024= 24 INCHES

121=121 INCHES

TUBE WALL HAIRPIN

(5/8" OD COPPER TUBE)

A=0.020 IN. STD HAIRPIN

B=0.036 IN HEAVY WALL

FIN MATERIAL, FPI AND CASING MATERIAL

A=AL 8 GALV

B=AL 12 GALV

C=AL 14 GALV

D=AL 8 ST STL

E=AL 12 ST STL

F=AL 14 ST STL

G=CU 8 ST STL

H=CU 11 ST STL

J =CU 14 ST STL

CIRCUIT	NOMINAL PIPE SIZE (IN.)
F	2-1/2"
H	2-1/2"
D	3



† Hand is determined by the location of coil connections when viewed while facing the coil air inlet.
 NOTE: Example shown is for a 4-row cooling coil, not coated; 32 tubes in face; a full circuit, with 8 aluminum fins per inch and galvanized casing; and 5/8-in. O.D. copper tubes with 0.020-in. wall thickness. The coil is 60 in. long between tube sheets and has right-handed, 2 1/2-in. MPT OPTIONAL steel headers.

REPLACEMENT COILS

28-Series Water Coils

28BF General Information

28B

F

A

2

24

F

A

B

120

A

R

28B - NU-FIN SEPARATE SALE COIL

COIL MODEL

H = HEATING COIL - 5/8" TUBES

COATING

A= NO COATING

B= EPOXY (E-COAT) COATING

ROWS

1 , 2

TUBES IN FACE

12 - 36 TUBES (IN 2-TUBE INCREMENTS)

CIRCUITING*

H - HALF

F - FULL

HAND†

R = RIGHT HAND

L = LEFT HAND

NOZZLE AND HEAD STYLE†

A= MPT-STEEL OPTIONAL

B= MPT-NON FERROUS

C=VICTAULIC

DBTD (DISTANCE BETWEEN TUBE SHEETS)

IN INCHES FROM 24 -144 IN 1 INCH INCREMENTS

024= 24 INCHES

121=121 INCHES

TUBE WALL HAIRPIN

(5/8" OD COPPER TUBE)

B=0.020 IN. STD HAIRPIN

C=0.035 IN HEAVY WALL

FIN MATERIAL, FPI AND CASING MATERIAL

A=AL 8 GALV

B=AL 12 GALV

C=AL 14 GALV

D=AL 8 ST STL

E=AL 12 ST STL

F=AL 14 ST STL

G=CU 8 ST STL

H=CU 11 ST STL

J =CU 14 ST STL

Half circuit available for 1-row or 2-row coils; full circuit available for 2 row only.

CIRCUIT	NOMINAL PIPE SIZE (IN.)
F	2-1/2"
H	1-1/2"



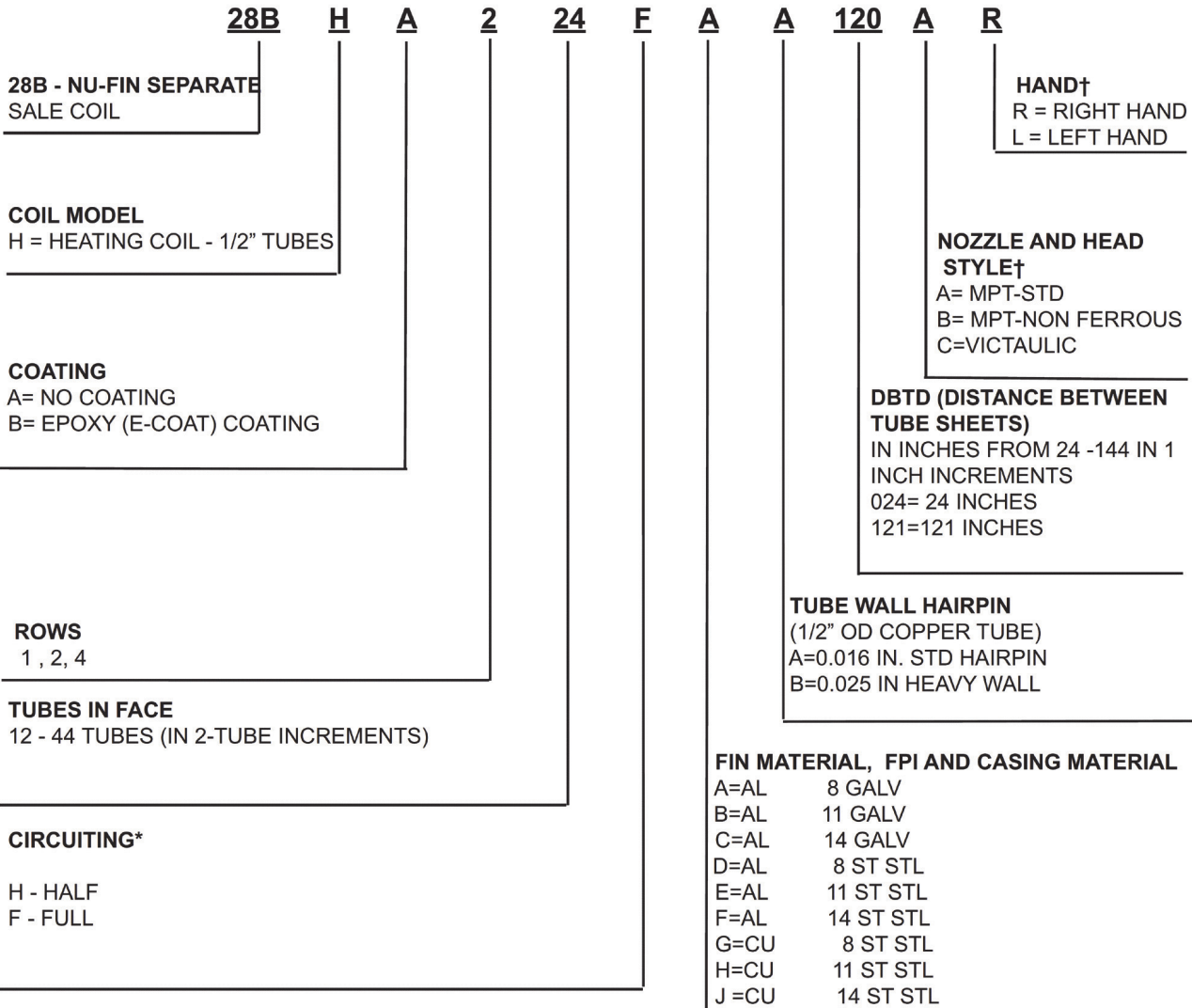
† Hand is determined by the location of coil connections when viewed while facing the coil air inlet. NOTE: Example shown is for a 2-row heating coil, not coated; 24 tubes in face; a full circuit, with 8 aluminum fins per inch and galvanized casing; and 5/8-in. O.D. copper tubes with 0.020-in. wall thickness. The coil is 120 in. long between tube sheets and has right-handed, 2 1/2-in. MPT OPTIONAL steel headers.

REPLACEMENT COILS

28-Series Water Coils

28BH General Information

Coils



Half circuit available for 1-row or 2-row coils; full circuit available for 2 row only.



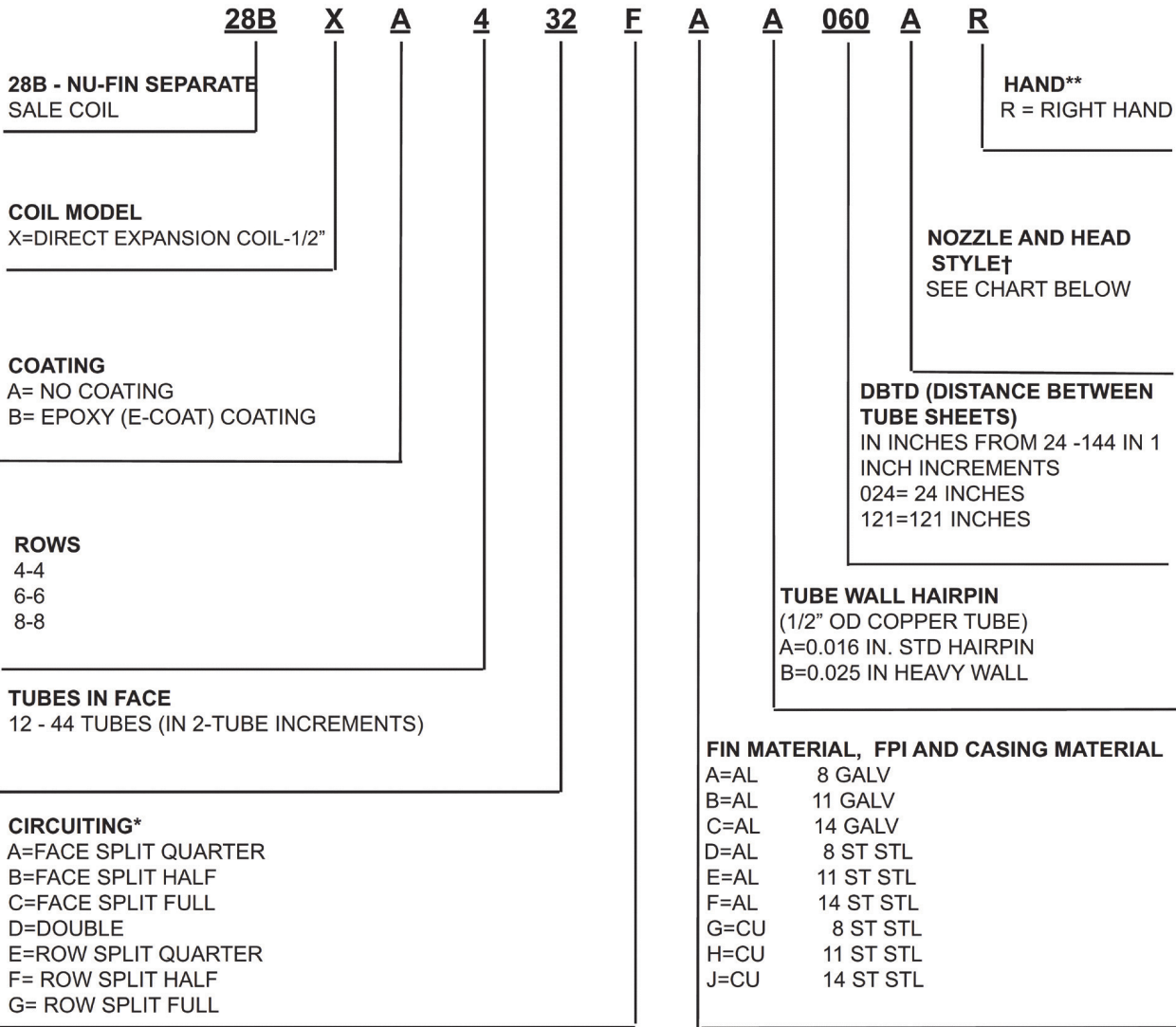
CIRCUIT	NOMINAL PIPE SIZE (IN.)
F	2-1/2"
H	1-1/2"

† Hand is determined by the location of coil connections when viewed while facing the coil air inlet.
 NOTE: Example shown is for a 2-row heating coil, not coated; 24 tubes in face; a full circuit, with 8 aluminum fins per inch and galvanized casing; and 1/2-in. O.D. copper tubes with 0.016-in. wall thickness. The coil is 120 in. long between tube sheets and has right-handed, 2 1/2-in. MPT STANDARD steel headers.

REPLACEMENT COILS

28-Series Water Coils

28BX General Information



*Quarter circuit available for 4 row coils with TIF=12,16,20,24,28,32,36,40 only. Half, full or double circuit available with 4,6, or 8 row.

**All Direct Expansion coils are right hand and rotated 180 degrees for left hand applications.

NOZZLE ORIFICE SIZE		
B - #3/4	K - #6	T - #30 U - #35 V - #40 W - #50 X - #3 -std if none specified
C - #1	L - #8	
D - #1-1/2	M #10	
E - #2	N - #12	
F - #2-1/2	P - #15	
G - #3	Q - #17	
H - #4	R - #20	
J - #5	S - #25	

NOTE: Example shown is for a 4-row evaporator coil, not coated; 32 tubes in face; a full circuit, with 8 aluminum fins per inch and galvanized casing; and 1/2-in. O.D. copper tubes with 0.016-in. wall thickness. The coil is 60 in. long between tube sheets and has righthand connections.

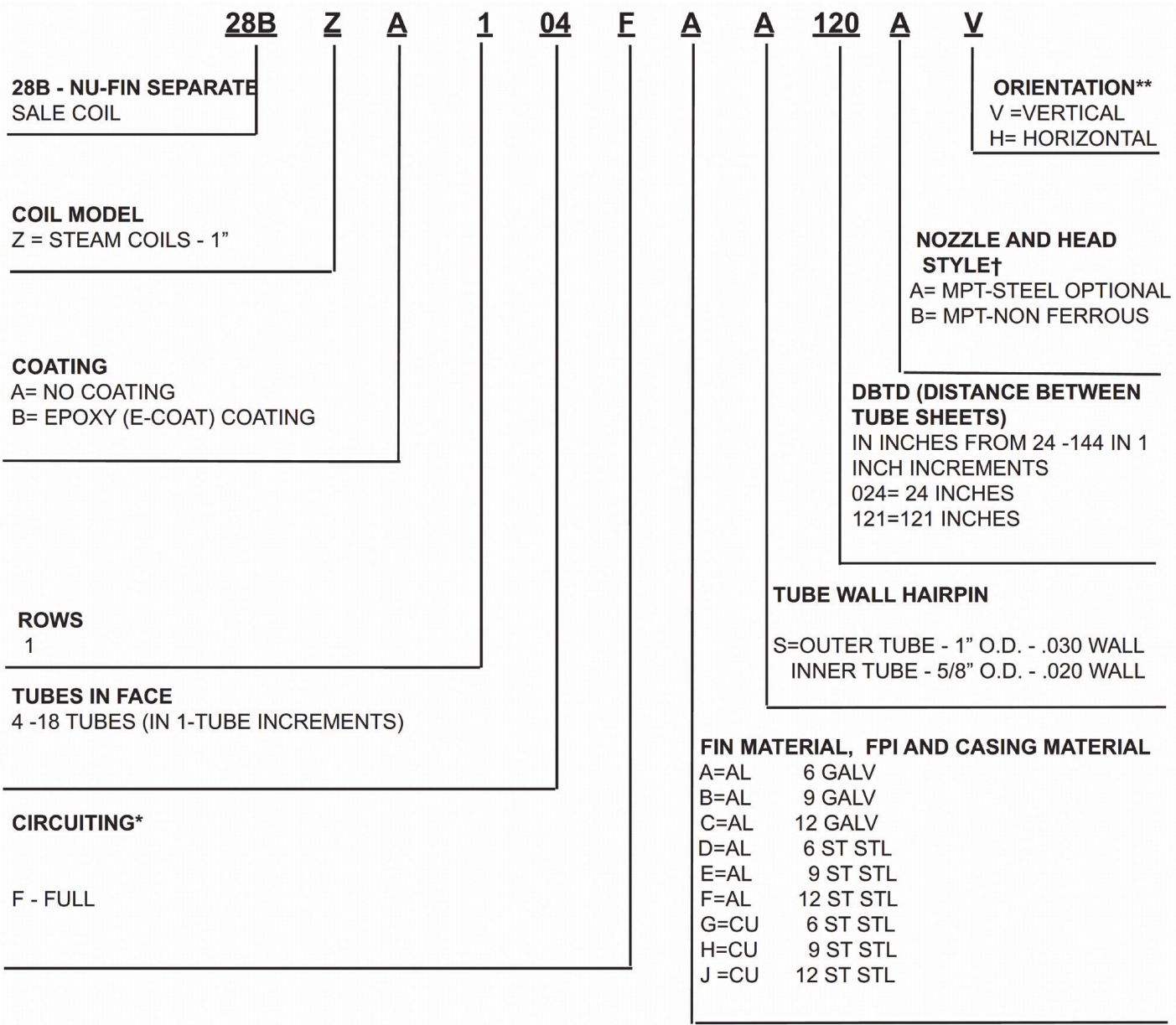
NOTE: Example shown is for a 4-row evaporator coil, not coated; 32 tubes in face; a full circuit, with 8 aluminum fins per inch and galvanized casing; and 1/2-in. O.D. copper tubes with 0.016-in. wall thickness. The coil is 60 in. long between tube sheets and has right-hand connections.

REPLACEMENT COILS

28-Series Water Coils

28BZ General Information

Coils



** VERTICAL = Vertical installation and horizontal airflow.

**HORIZONTAL = Horizontal installation and vertical airflow.

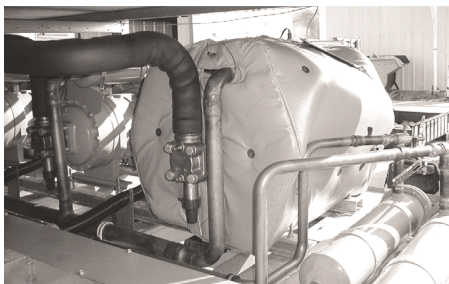


NOTE: Example shown is for a 1-row steam coil, not coated; 4 tubes in face; a full circuit, with 6 aluminum fins per inch and galvanized casing. The coil is 120 in. long between tube sheets and is mounted vertically.

TOTALINE® ACOUSTIC CHILLER BLANKET SYSTEM

For Models 06D, 06E, 5F, and 5H Compressors

Recip. Compressor Enclosure



Totaline Acoustic Blanket System Solves compressor noise problems and provides sound level reduction.

Acoustic Blanket System constructed of:

- High density fiberglass needled mat
- Mass-loaded vinyl acoustic barrier
- Vinyl-coated, weatherproof jacketing
- Velcro flaps and double-sewn construction

Area of Coverage: Compressor Housing Only (1 Kit Required per Compressor.)
Complete sound blanket kits are available for centrifugal, screw and scroll chiller applications based on the Carrier unit model and size.

Part Number	Compr Model	Blanket Qty	Description
P916-A-06D818	06D	1	06D Compressor Sound Blanket Kit
P916-A-06D824	06D	1	06D Compressor Sound Blanket Kit
P916-A-06D337	06D	1	06D Compressor Sound Blanket Kit
P916-A-06D825	06D	1	06D Compressor Sound Blanket Kit
P916-A-06D328	06D	1	06D Compressor Sound Blanket Kit
P916-A-06D537	06D	1	06D Compressor Sound Blanket Kit
P916-A-06E250	06E	1	06E Compressor Sound Blanket Kit
P916-A-06E265	06E	1	06E Compressor Sound Blanket Kit
P916-A-06E275	06E	1	06E Compressor Sound Blanket Kit
P916-A-06E299	06E	1	06E Compressor Sound Blanket Kit
P916-A-5F020	5F	1	5F Compressor Sound Blanket Kit
P916-A-5F030	5F	1	5F Compressor Sound Blanket Kit
P916-A-5F040	5F	1	5F Compressor Sound Blanket Kit
P916-A-5F060	5F	1	5F Compressor Sound Blanket Kit
P916-A-5H040	5H	1	5H Compressor Sound Blanket Kit
P916-A-5H046	5H	1	5H Compressor Sound Blanket Kit
P916-A-5H060	5H	1	5H Compressor Sound Blanket Kit
P916-A-5H066	5H	1	5H Compressor Sound Blanket Kit
P916-A-5H080	5H	1	5H Compressor Sound Blanket Kit
P916-A-5H086	5H	1	5H Compressor Sound Blanket Kit
P916-A-5H120	5H	1	5H Compressor Sound Blanket Kit
P916-A-5F126	5H	1	5H Compressor Sound Blanket Kit

TOTALINE® ACOUSTIC CHILLER BLANKET SYSTEM

For Models 38AH, 38ASK Air-Cooled Condensing Units

38AH Cond/Compressor Enclosure



- Features:**
- Engineered design for precise fit
 - Average 4-6 dBA sound reduction
 - Superior quality and reliability
 - Removable and reusable design
 - Used on Carlyle 06D & 06E Semi-Hermetic Compressors
- Area Of Coverage: Compressor Housing and Discharge Elbow
- * Base part number for each kit includes quantity of compressor sound blankets required per machine model/size/configuration.

Part Number	Comp Model	Blkt / Qty	Description
P916-A-38AKS-014	06D	1	38AKS Compressor Sound Kit
P916-A-38AKS-016	06D	1	38AKS Compressor Sound Kit
P916-A-38AKS-024	06E	1	38AKS Compressor Sound Kit
P916-A-38AKS-028	06E	1	38AKS Compressor Sound Kit
P916-A-38AKS-034	06E	1	38AKS Compressor Sound Kit
P916-A-38AKS-044	06E	1	38AKS Compressor Sound Kit
P916-A-38AH-024	06E	2	38AH Compressor Sound Kit
P916-A-38AH-028	06E	2	38AH Compressor Sound Kit
P916-A-38AH-034	06E	2	38AH Compressor Sound Kit
P916-A-38AH-044	06E	2	38AH Compressor Sound Kit
P916-A-38AH-054	06E	2	38AH Compressor Sound Kit
P916-A-38AH-064	06E	2	38AH Compressor Sound Kit
P916-A-38AH-074	06E	2	38AH Compressor Sound Kit
P916-A-38AH-084	06E	2	38AH Compressor Sound Kit
P916-A-38AH-094	06E	3	38AH Compressor Sound Kit
P916-A-38AH-104	06E	4	38AH Compressor Sound Kit
P916-A-38AH-124	06E	4	38AH Compressor Sound Kit
P916-A-38AH-134	06E	4	38AH Compressor Sound Kit

For Models 30GX, HX & GT Liquid Chillers

Screw Compressor Enclosure


Features:

- Engineered design for precise fit
- Average 4-6 dBA sound reduction
- Superior quality and reliability
- Removable and reusable design
- Used on Carlyle 06E Semi-Hermetic and 06N Screw Compressors

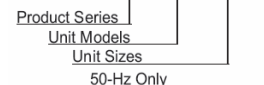
Area of Coverage: Compressor housing and discharge elbow

* Complete sound blanket kits are available for screw and reciprocating chiller applications based on the Carrier unit model and size.

* Base part number for each kit includes quantity of compressor sound blankets required per machine model/size/configuration.

Note: Export Only. For 30GTN and 30GTR 50-Hz machine models, arrangements. Contact Syracuse for part number and pricing for 50 Hertz units.

Example: P916-A- 30XX - XXX- XXX



Part Number	Model		Hz	Blk Qty
	Chiller	Comp		
P916-A-30GX		06N		1
P916-A-30HX		06N		1
P916-A-30GX-080	30GX-080	06N	60 Hz	2
P916-A-30GX-083	30GX-083	06N	60 Hz	2
P916-A-30GX-090	30GX-090	06N	60 Hz	2
P916-A-30GX-093	30GX-093	06N	60 Hz	2
P916-A-30GX-106	30GX-106	06N	60 Hz	2
P916-A-30GX-108	30GX-108	06N	60 Hz	2
P916-A-30GX-114	30GX-114	06N	60 Hz	2
P916-A-30GX-115-50HZ	30GX-115	06N	50 Hz	2
P916-A-30GX-118	30GX-118	06N	60 Hz	2
P916-A-30GX-125	30GX-125	06N	60 Hz	2
P916-A-30GX-128	30GX-128	06N	60 Hz	2
P916-A-30GX-135	30GX-135	06N	60 Hz	2
P916-A-30GX-138	30GX-138	06N	60 Hz	2
P916-A-30GX-150	30GX-150	06N	60 Hz	2
P916-A-30GX-153	30GX-153	06N	60 Hz	2
P916-A-30GX-160	30GX-160	06N	60 Hz	2
P916-A-30GX-163	30GX-163	06N	60 Hz	2
P916-A-30GX-174	30GX-174	06N	60 Hz	2
P916-A-30GX-175-50HZ	30GX-175	06N	50 Hz	2
P916-A-30GX-178	30GX-178	06N	60 Hz	2
P916-A-30GX-204	30GX-204	06N	60 Hz	3
P916-A-30GX-205-50HZ	30GX-205	06N	50 Hz	3
P916-A-30GX-208	30GX-208	06N	60 Hz	3
P916-A-30GX-225	30GX-225	06N	60 Hz	3
P916-A-30GX-228	30GX-228	06N	60 Hz	3
P916-A-30GX-249	30GX-249	06N	60 Hz	3
P916-A-30GX-250-50HZ	30GX-250	06N	50 Hz	3
P916-A-30GX-253	30GX-253	06N	60 Hz	3
P916-A-30GX-264	30GX-264	06N	60 Hz	3
P916-A-30GX-268	30GX-268	06N	60 Hz	3
P916-A-30GX-220-50HZ	30GX-220	06N	50 Hz	3
P916-A-30GX-240-50HZ	30GX-240	06N	50 Hz	3
P916-A-30GX-275-50HZ	30GX-275	06N	50 Hz	4
P916-A-30GX-281	30GX-281	06N	60 Hz	4
P916-A-30GX-300-50HZ	30GX-300	06N	50 Hz	4
P916-A-30GX-301	30GX-301	06N	60 Hz	4
P916-A-30GX-303	30GX-303	06N	60 Hz	4

Part Number	Model		Hz	Blk Qty
	Chiller	Comp		
P916-A-30GX-325	30GX-325	06N	60 Hz	4
P916-A-30GX-328	30GX-328	06N	60 Hz	4
P916-A-30GX-345-50HZ	30GX-345	06N	50 Hz	4
P916-A-30GX-350	30GX-350	06N	60 Hz	4
P916-A-30GX-353	30GX-353	06N	60 Hz	4
P916-A-30GX-365-50HZ	30GX-365	06N	50 Hz	4
P916-A-30GX-370	30GX-370	06N	60 Hz	5
P916-A-30GX-373	30GX-373	06N	60 Hz	5
P916-A-30GX-390	30GX-390	06N	60 Hz	5
P916-A-30GX-393	30GX-393	06N	60 Hz	5
P916-A-30GX-415	30GX-415	06N	60 Hz	5
P916-A-30GX-418	30GX-418	06N	60 Hz	5
P916-A-30GX-410-50HZ	30GX-410	06N	50 Hz	6
P916-A-30GX-440-50HZ	30GX-440	06N	50 Hz	6
P916-A-30GX-450	30GX-450	06N	60 Hz	6
P916-A-30GX-453	30GX-453	06N	60 Hz	6
P916-A-30GX-470-50HZ	30GX-470	06N	50 Hz	6
P916-A-30GX-475	30GX-475	06N	60 Hz	6
P916-A-30GX-478	30GX-478	06N	60 Hz	6
P916-A-30GX-495-50HZ	30GX-495	06N	50 Hz	6
P916-A-30GX-500	30GX-500	06N	60 Hz	6
P916-A-30GX-503	30GX-503	06N	60 Hz	6
P916-A-30GX-520-50HZ	30GX-520	06N	50 Hz	6
P916-A-30GX-525	30GX-525	06N	60 Hz	6
P916-A-30GX-528	30GX-528	06N	60 Hz	6
P916-A-30HX-076	30HX-076	06N	60 Hz	2
P916-A-30HX-076-50HZ	30HX-076	06N	50 Hz	2
P916-A-30HX-086	30HX-086	06N	60 Hz	2
P916-A-30HX-086-50HZ	30HX-086	06N	50 Hz	2
P916-A-30HX-096	30HX-096	06N	60 Hz	2
P916-A-30HX-096-50HZ	30HX-096	06N	50 Hz	2
P916-A-30HX-106	30HX-106	06N	60 Hz	2
P916-A-30HX-106-50HZ	30HX-106	06N	50 Hz	2
P916-A-30HX-116	30HX-116	06N	60 Hz	2
P916-A-30HX-116-50HZ	30HX-116	06N	50 Hz	2
P916-A-30HX-126	30HX-126	06N	60 Hz	2
P916-A-30HX-126-50HZ	30HX-126	06N	50 Hz	2
P916-A-30HX-136	30HX-136	06N	60 Hz	2
P916-A-30HX-136-50HZ	30HX-136	06N	50 Hz	2
P916-A-30HX-146	30HX-146	06N	60 Hz	2
P916-A-30HX-146-50HZ	30HX-146	06N	50 Hz	2
P916-A-30HX-161	30HX-161	06N	60 Hz	2
P916-A-30HX-161-50HZ	30HX-161	06N	50 Hz	2
P916-A-30HX-171	30HX-171	06N	60 Hz	2
P916-A-30HX-171-50HZ	30HX-171	06N	50 Hz	2
P916-A-30HX-186	30HX-186	06N	60 Hz	2
P916-A-30HX-186-50HZ	30HX-186	06N	50 Hz	2
P916-A-30HX-206	30HX-206	06N	60 Hz	3
P916-A-30HX-206-50HZ	30HX-206	06N	50 Hz	3
P916-A-30HX-246	30HX-246	06N	60 Hz	3
P916-A-30HX-246-50HZ	30HX-246	06N	50 Hz	3
P916-A-30HX-261	30HX-261	06N	60 Hz	3
P916-A-30HX-261-50HZ	30HX-261	06N	50 Hz	3
P916-A-30HX-271	30HX-271	06N	60 Hz	3
P916-A-30HX-271-50HZ	30HX-271	06N	50 Hz	3

TOTALINE® ACOUSTIC CHILLER BLANKET SYSTEM

For Models 30GX, HX & GT Liquid Chillers

Screw Compressor Enclosure

Part Number	Model		Hz	Blk Qty
	Chiller	Comp		
P916-A-30GT-040	30GT-040	06E	60 Hz	2
P916-A-30GT-040-50HZ	30GT-040	06E	50 Hz	2
P916-A-30GT-045	30GT-045	06E	60 Hz	2
P916-A-30GT-045-50HZ	30GT-045	06E	50 Hz	2
P916-A-30GT-050	30GT-050	06E	60 Hz	2
P916-A-30GT-050-50HZ	30GT-050	06E	50 Hz	2
P916-A-30GT-060	30GT-060	06E	60 Hz	2
P916-A-30GT-060-50HZ	30GT-060	06E	50 Hz	2
P916-A-30GT-070	30GT-070	06E	60 Hz	2
P916-A-30GT-070-50HZ	30GT-070	06E	50 Hz	3
P916-A-30GT-080	30GT-080	06E	60 Hz	3
P916-A-30GT-080-50HZ	30GT-080	06E	50 Hz	3
P916-A-30GT-090	30GT-090	06E	60 Hz	4
P916-A-30GT-090-50HZ	30GT-090	06E	50 Hz	4
P916-A-30GT-100	30GT-100	06E	60 Hz	4
P916-A-30GT-100-50HZ	30GT-100	06E	50 Hz	4
P916-A-30GT-110	30GT-110	06E	60 Hz	4
P916-A-30GT-110-50HZ	30GT-110	06E	50 Hz	4
P916-A-30GT-130	30GT-130	06E	60 Hz	4
P916-A-30GT-130-50HZ	30GT-130	06E	50 Hz	5
P916-A-30GT-150	30GT-150	06E	60 Hz	5
P916-A-30GT-150-50HZ	30GT-150	06E	50 Hz	5
P916-A-30GT-170	30GT-170	06E	60 Hz	6
P916-A-30GT-170-50HZ	30GT-170	06E	50 Hz	6
P916-A-30GT-190	30GT-190	06E	60 Hz	6
P916-A-30GT-190-50HZ	30GT-190	06E	50 Hz	6
P916-A-30GT-210	30GT-210	06E	60 Hz	7
P916-A-30GT-210-50HZ	30GT-210	06E	50 Hz	7
P916-A-30GT-230	30GT-230	06E	60 Hz	8
P916-A-30GT-230-50HZ	30GT-230	06E	50 Hz	8
P916-A-30GT-245	30GT-245	06E	60 Hz	9
P916-A-30GT-245-50HZ	30GT-245	06E	50 Hz	8
P916-A-30GT-255	30GT-255	06E	60 Hz	9
P916-A-30GT-255-50HZ	30GT-255	06E	50 Hz	9
P916-A-30GT-270	30GT-270	06E	60 Hz	10
P916-A-30GT-270-50HZ	30GT-270	06E	50 Hz	10
P916-A-30GT-290	30GT-290	06E	60 Hz	10
P916-A-30GT-290-50HZ	30GT-290	06E	50 Hz	10
P916-A-30GT-315	30GT-315	06E	60 Hz	11
P916-A-30GT-315-50Hz	30GT-315	06E	50 Hz	11
P916-A-30GT-330	30GT-330	06E	60 Hz	12
P916-A-30GT-330-50HZ	30GT-330	06E	50 Hz	12
P916-A-30GT-360	30GT-360	06E	60 Hz	12
P916-A-30GT-360-50HZ	30GT-360	06E	50 Hz	12
P916-A-30GT-390	30GT-390	06E	60 Hz	13
P916-A-30GT-390-50Hz	30GT-390	06E	50 Hz	13
P916-A-30GT-420	30GT-420	06E	60 Hz	14
P916-A-30GT-420-50Hz	30GT-420	06E	50 Hz	14

TOTALINE® ACOUSTIC CHILLER BLANKET SYSTEM

For Models 30RA & 30RB Liquid Chillers

Scroll Compressor Enclosure



Features:

- Engineered design for precise fit
- Average 4-6 dBA sound reduction
- Superior quality and reliability
- Removable and reusable design
- Used on Danfoss SM and SH Scroll Compressors

Scroll Compressors

Area of Coverage: Compressor housing only.

* Complete sound blanket kits are available for screw and reciprocating chiller applications based on the Carrier unit model and size.

* Base part number for each kit includes quantity of compressor sound blankets required per machine model/size/configuration.

Note: Export Only. For 30RA and 30RAN 50 HZ machine models, pricing will vary from 60 HZ units because of different compressor arrangements. Contact

Syracuse

for part number and pricing for 50 HZ units.

Example: P916-A - 30XX - XXX - XXX

Product Series

Unit Models

Unit Sizes

50-Hz Only

Part Number	Model		Hz	Blk Qty
	Chille	Comp		
P916-A-30RA-010	30RA-010	SM	60 Hz	1
P916-A-30RA-010-50HZ	30RA-010	SM	50 Hz	1
P916-A-30RA-015	30RA-015	SM	60 Hz	1
P916-A-30RA-015-50HZ	30RA-015	SM	50 Hz	1
P916-A-30RA-018	30RA-018	SM	60 Hz	2
P916-A-30RA-018-50HZ	30RA-018	SM	50 Hz	2
P916-A-30RA-022	30RA-022	SM	60 Hz	2
P916-A-30RA-022-50HZ	30RA-022	SM	50 Hz	2
P916-A-30RA-025	30RA-025	SM	60 Hz	2
P916-A-30RA-025-50HZ	30RA-025	SM	50 Hz	2
P916-A-30RA-030	30RA-030	SM	60 Hz	2
P916-A-30RA-032-50Hz	30RA-032	SM	50 Hz	3
P916-A-30RA-035-50HZ	30RA-035	SM	50 Hz	3
P916-A-30RA-040	30RA-040	SM	60 Hz	3
P916-A-30RA-042-50Hz	30RA-042	SM	50 Hz	4
P916-A-30RA-045	30RA-045	SM	60 Hz	4
P916-A-30RA-045-50Hz	30RA-045	SM	50 Hz	4
P916-A-30RA-050	30RA-050	SM	60 Hz	4
P916-A-30RA-055	30RA-055	SM	60 Hz	4
P916-A-30RB-060	30RB-060	SH	60 Hz	3
P916-A-30RB-070	30RB-070	SH	60 Hz	3
P916-A-30RB-080	30RB-080	SH	60 Hz	4
P916-A-30RB-090	30RB-090	SH	60 Hz	4
P916-A-30RB-100	30RB-100	SH	60 Hz	4
P916-A-30RB-110	30RB-110	SH	60 Hz	5
P916-A-30RB-120	30RB-120	SH	60 Hz	5
P916-A-30RB-130	30RB-130	SH	60 Hz	6
P916-A-30RB-150	30RB-150	SH	60 Hz	6
P916-A-30RB-160	30RB-160	SH	60 Hz	7

TOTALINE® ACOUSTIC CHILLER BLANKET SYSTEM

For Models 30RA & 30RB Liquid Chillers

Scroll Compressor Enclosure

Part Number	Model		Hz	Blk Qty
	Chille	Comp		
P916-A-30RB-170	30RB-170	SH	60 Hz	7
P916-A-30RB-190	30RB-190	SH	60 Hz	8
P916-A-30RB-210	30RB-210	SH	60 Hz	9
P916-A-30RB-225	30RB-225	SH	60 Hz	9
P916-A-30RB-250	30RB-250	SM	60 Hz	10
P916-A-30RB-275	30RB-275	SM	60 Hz	11
P916-A-30RB-300	30RB-300	SM	60 Hz	12
P916-A-30RB-315	30RB-315	SM	60 Hz	14
P916-A-30RB-330	30RB-330	SM	60 Hz	14
P916-A-30RB-345	30RB-345	SM	60 Hz	14
P916-A-30RB-360	30RB-360	SM	60 Hz	15
P916-A-30RB-390	30RB-390	SM	60 Hz	16

CHILLER FLUID ANALYSIS SERVICES



TotalSense™ is a cost-effective method of accessing the internal condition of fluids used in all types of HVAC & R equipment and system components. All analyses include a test kit with the supplies and information need to collect and ship the sample to the lab for analysis. Analytical reports are available through US mail, fax or e-mail.

All analyses include sample kit with collection and instructions, information sheets, and sample containers.
Analysis reports are available through US mail, fax or e-mail.

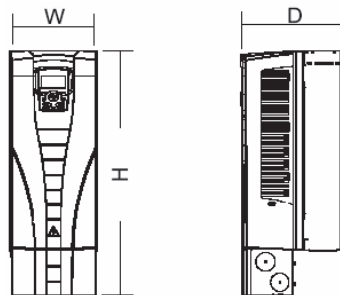
Part Number	Available Options	Description
P915-0001	Octyl Alcohol, Ammonia, Arsenite, Molybdate & Nitrate, Purge Gas	Lithium Bromide Analysis Kit - Uninhibited, Nitrate Inhibited, Chromate Inhibited, Molybdate Inhibited, Arsenite Inhibited, Refrigerant Water
P915-0002	GCMS test for volatile organic contaminants - Molybdate only, Chromate only, Dissolved Fe, Dissolved Cu	Lithium Chloride Analysis Kit - Chromate Inhibited, Molybdate Inhibited
P915-0003	BrineService™ Energy Analysis "	Brine (Glycol) - Fluid Analysis Kit
P915-0006	Ammonia " Other elements "	Water Analysis Kit
P915-0007	Chlorides/Fluorides " Ion Activity " Viscosity " Mixed Oil Percentage "	Standard Oil Analysis Kit
P915-0008	Identification of organic constituents By GC/MS Test "	Filter (Oil & Refrigerant) Kit Analysis of foreign solids & sludge
P915-0009	Other refrigerant contamination Non-condensable "	Refrigerant Analysis Kit -includes single-use, DOT approved refrigerant cylinder and shipping paperwork

- Standard Service: 3-5 Days Turnaround
- Rush Service: 24-48 Days Turnaround

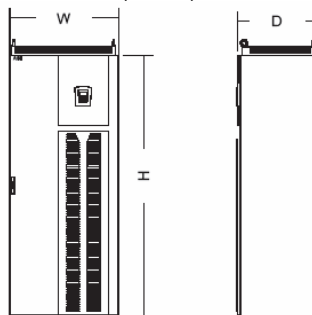
CHILLER VARIABLE FREQUENCY DRIVES

ABB Drives for HVAC Applications (ACH550) - 1 to 550 HP

Wall Mount (R1-R6)



Floor Mount (R7-R8)



	R1		R2		R3		R4		R5		R6		R7		R8	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
H	369	14.5	469	18.5	583	23	689	27.1	736	29	880	34.6	2065	81.3	2065	81.3
W	125	4.9	125	4.9	203	8	203	8	265	10.4	300	11.8	806	31.7	806	31.7
D	212	8.3	222	8.7	231	9.1	262	10.3	268	11.3	400	15.8	659	25.9	659	25.9
	Kg	Lbs	Kg	Lbs	Kg	Lbs	Kg	Lbs	Kg	Lbs	Kg	Lbs	Kg	Lbs	Kg	Lbs
Weight	6.5	14.3	9	19.8	16	35	24	53	34	75	69	152	224	490	354	776

* Contact RCD Commercial Marketing for part numbers for NEMA 12, NEMA 3R, and Base NEMA 1 Drives with bypass

208/240 V



The ACH550 is an adjustable frequency AC drive designed for the HVAC market that achieves the ultimate in flexible motor control performance. The ACH550 drive features a full graphic display panel with separate start-up, maintenance and diagnostic assistants that simplify all functions of drive operation. Standard built-in functions like the 5% swinging choke reduces harmonics and EMI/RFI filters eliminates the need for external filtering.

The ACH550 with its advanced control panel functions and keypad features make this drive suitable for a wide range of HVAC applications from 1 – 550 HP.

Part Number	HP	Amps	Frame Size
ACH550-UH-04A6-2	1	4.6	R1
ACH550-UH-06A6-2	1.5	6.6	R1
ACH550-UH-07A5-2	2	7.5	R1
ACH550-UH-012A-2	3	11.8	R1
ACH550-UH-017A-2	5	16.7	R1
ACH550-UH-024A-2	7.5	24.2	R2
ACH550-UH-031A-2	10	30.8	R2
ACH550-UH-046A-2	15	46.2	R3
ACH550-UH-059A-2	20	59.4	R3
ACH550-UH-075A-2	25	74.8	R4
ACH550-UH-088A-2	30	88	R4
ACH550-UH-114A-2	40	114	R4
ACH550-UH-143A-2	50	143	R6
ACH550-UH-178A-2	60	178	R6
ACH550-UH-221A-2	75	221	R6
ACH550-UH-248A-2	100	248	R6

CHILLER VARIABLE FREQUENCY DRIVES

ABB Drives for HVAC Applications (ACH550) - 1 to 550 HP

380/480 V

Part Number	HP	Amps	Frame Size
ACH550-UH-03A3-4	1-1.5	3.3	R1
ACH550-UH-04A1-4	2	4.1	R1
ACH550-UH-06A9-4	3	6.9	R1
ACH550-UH-08A8-4	5	8.8	R1
ACH550-UH-012A-4	7.5	11.9	R1
ACH550-UH-015A-4	10	15.4	R2
ACH550-UH-023A-4	15	23	R2
ACH550-UH-031A-4	20	31	R3
ACH550-UH-038A-4	25	38	R3
ACH550-UH-045A-4	30	44	R4
ACH550-UH-059A-4	40	59	R4
ACH550-UH-072A-4	50	72	R4
ACH550-UH-078A-4	60	77	R5
ACH550-UH-097A-4	75	96	R5
ACH550-UH-125A-4	100	124	R6
ACH550-UH-157A-4	125	157	R6
ACH550-UH-180A-4	150	180	R6
ACH550-UH-245A-4	200	245	R7
ACH550-UH-316A-4	250	316	R8
ACH550-UH-368A-4	300	368	R8
ACH550-UH-414A-4	350	414	R8
ACH550-UH-486A-4	400	486	R8
ACH550-UH-526A-4	450	526	R8
ACH550-UH-602A-4	500	602	R8
ACH550-UH-645A-4	550	645	R8

500/600 V

Part Number	HP	Amps	Frame Size
ACH550-UH-02A7-6	2	2.7	R2
ACH550-UH-03A9-6	3	3.9	R2
ACH550-UH-06A1-6	5	6.1	R2
ACH550-UH-09A0-6	7.5	9	R2
ACH550-UH-011A-6	10	11	R2
ACH550-UH-017A-6	15	17	R2
ACH550-UH-022A-6	20	22	R3
ACH550-UH-027A-6	25	27	R3
ACH550-UH-032A-6	30	32	R4
ACH550-UH-041A-6	40	41	R4
ACH550-UH-052A-6	50	52	R4
ACH550-UH-062A-6	60	62	R4
ACH550-UH-077A-6	75	77	R6
ACH550-UH-099A-6	100	99	R6
ACH550-UH-125A-6	125	125	R6
ACH550-UH-144A-6	150	144	R6

INNERFLOW A/C COVERS - CARRIER

Infinity Series - 24ANA1- 21 Seer-Puron

Part Number	Description	Series	Dimensions			Cover Size
	Model		Height	Depth	Width	Height x Depth x Width
ICC68-058	24ANA124	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
ICC68-058	24ANA136	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
ICC68-058	24ANA148	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
ICC68-058	24ANA160	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"

Performance Series - 24APA5 - 15 Seer-Puron

Part Number	Description	Series	Dimensions			Cover Size
	Model		Height	Depth	Width	Height x Depth x Width
ICC68-053	24APA518	0	39-3/4"	29-1/4"	33"	36-1/2" x 29-15/16" x 33-3/8"
ICC68-053	24APA524	0	39-3/4"	29-1/4"	33"	36-1/2" x 29-15/16" x 33-3/8"
ICC68-056	24APA530	0	37-1/8"	35-1/2"	40"	33" x 35-7/8" x 40-1/4"
ICC68-056	24APA536	0	37-1/8"	35-1/2"	40"	33" x 35-7/8" x 40-1/4"
ICC68-058	24APA542	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
ICC68-058	24APA548	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
ICC68-058	24APA560	0	47-5/16"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"

24APA7 Comfort Series 2 Stage 17 Seer 2 To 5 Ton - Puron

Part Number	Carrier	Series	Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
ICC74-018	24APA724	0	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
ICC74-018	24APA736	0	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
ICC74-022	24APA748	0	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
ICC74-024	24APA760	0	45-7/8"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

24ACB3 Comfort Series 13 Seer 1-1/2 To 5 Ton - Puron

Part Number	Carrier	Series	Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
ICC74-011	24ACB318	0	25"	25-3/4"	25-3/4"	22" x 25-7/8" x 25-7/8"
ICC74-011	24ACB324	0	25"	25-3/4"	25-3/4"	22" x 25-7/8" x 25-7/8"
ICC74-012	24ACB330	0	28-7/16"	25-3/4"	25-3/4"	25-1/2" x 25-7/8" x 25-7/8"
ICC74-014	24ACB336	0	35-1/4"	25-3/4"	25-3/4"	32" x 25-7/8" x 25-7/8"
ICC74-016	24ACB342	0	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
ICC74-018	24ACB348	0	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
ICC74-022	24ACB360	0	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"

24ACC6 Comfort Series 14 To 16.5 Seer 1-1/2 To 5 Ton - Puron

Part Number	Carrier	Series	Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
ICC74-012	24ACC618	0	28-11/16"	25-3/4"	25-3/4"	25-1/2" x 25-7/8" x 25-7/8"
ICC74-025	24ACC624	0	28-5/16"	31-3/16"	31-3/16"	26" x 31-3/8" x 31-3/8"
ICC74-016	24ACC630	0	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
ICC74-019	24ACC636	0	28-5/16"	35"	35"	25-1/2" x 35-1/8" x 35-1/8"
ICC74-022	24ACC642	0	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
ICC74-020	24ACC648	0	32-5/16"	35"	35"	29" x 35-1/8" x 35-1/8"
ICC74-024	24ACC660	0	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

INNERFLOW A/C COVERS - CARRIER

24ACB7 Comfort Series 14 To 16.5 Seer 1-1/2 To 5 Ton - Puron

Part Number	Carrier	Series	Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
ICC74-018	24ACB724	0	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
ICC74-018	24ACB736	0	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
ICC74-022	24ACB748	0	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
ICC74-024	24ACB760	0	45-7/8"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

24ABB3 Base Series 13 Seer - Puron

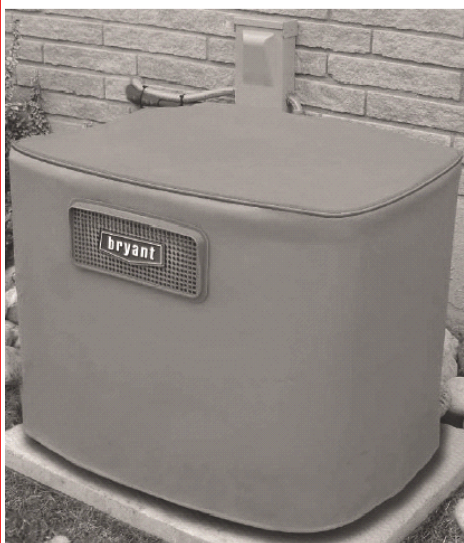
Part Number	Carrier	Series	Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
ICC74-009	24ABB318	1	25-5/16"	23-1/2"	23-1/2"	22-1/2" x 23-1/2" x 23-1/2"
ICC74-009	24ABB324	1	25-5/16"	23-1/2"	23-1/2"	22-1/2" x 23-1/2" x 23-1/2"
ICC74-010	24ABB330	1	28-11/16"	23-1/2"	23-1/2"	25-1/2" x 23-1/2" x 23-1/2"
ICC74-013	24ABB336	1	32-5/16"	25-3/4"	25-3/4"	29-1/2" x 25-7/8" x 25-7/8"
ICC74-016	24ABB342	0	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
ICC74-017	24ABB348	1	35-3/4"	31-3/16"	31-3/16"	32-1/2" x 31-3/8" x 31-3/8"
ICC74-015	24ABB360	1,2	25-1/2"	31-3/16"	31-3/16"	22-1/2" x 31-3/8" x 31-3/8"

24ABC6 Comfort Series 14 To 16.5 Seer 1-1/2 To 5 Ton - Puron

Part Number	Carrier	Series	Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
ICC74-010	24ABC618	0	28-11/16"	23-1/2"	23-1/2"	25-1/2" x 23-1/2" x 23-1/2"
ICC74-025	24ABC624	0	28-5/16"	31-3/16"	31-3/16"	26" x 31-3/8" x 31-3/8"
ICC74-016	24ABC630	0	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
ICC74-019	24ABC636	0	28-5/16"	35"	35"	25-1/2" x 35-1/8" x 35-1/8"
ICC74-022	24ABC642	0	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
ICC74-020	24ABC648	0	32-5/16"	35"	35"	29" x 35-1/8" x 35-1/8"
ICC74-024	24ABC660	0	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
ICC74-012	24ABC618	1	28-11/16"	25-3/4"	25-3/4"	25-1/2" x 25-7/8" x 25-7/8"
ICC74-024	24ABC661	0	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
ICC74-022	24ABC648	1	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
ICC74-022	24ABC649	0	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"

INNERFLOW A/C COVERS - BRYANT

Evolution Series Air Conditioner - 187B/180B Max 20 Seer-Puron


Features:

- Innerflow® ventilated cover
- The patented molded Innerflow system prevents rain and snow from entering, yet allows air to move freely throughout the covered unit
- Removes damaging condensation
- Helps to prevent premature rusting on interior components
- Made from top quality waterproof PVC vinyl material
- Treated to withstand cold temperatures to prevent cracking
- Treated with a UV Stabilizer to prevent discoloring and fading
- Treated to be mildew and fungus free
- Treated with fire retardant additives
- Covers unit from top to bottom
- Protects unit from harsh weather and flying debris
- Protects paint finish
- Each cover features a molded name plate for year round brand recognition
- Cover packaged in full color box
- Attractive packaging provides informative point of purchase display
- Packaging with model identification makes it easy to warehouse
- 10 year limited warranty

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-073	187BNA024	A	38-15/16"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-073	187BNA036	A	38-15/16"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-076	187BNA048	A	40-1/4"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-079	187BNA060	A	47-1/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
IBC58-076	180BNA036	A	40-1/4"	35"	35"	36" x 35-1/8" x 35-1/8"

Evolution Series Air Conditioner - 186B Max 16 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-071	186BNA018	A	28-11/16"	31-3/16"	31-3/16"	25" x 31-3/8" x 31-3/8"
IBC58-071	186BNA024	A	28-11/16"	31-3/16"	31-3/16"	25" x 31-3/8" x 31-3/8"
IBC58-072	186BNA030	A	32-1/8"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IBC58-075	186BNA036	A	30-1/16"	35"	35"	29" x 35-1/8" x 35-1/8"
IBC58-076	186BNA042	A	40-1/4"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-076	186BNA048	A	40-1/4"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-079	186BNA060	A	47-1/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
IBC58-079	186BNA061	A	47-1/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

Preferred Series - 127A Max 18 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-073	127ANA024	A	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-073	127ANA036	A	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-076	127ANA048	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-079	127ANA060	A	45-7/8"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

INNERFLOW A/C COVERS - BRYANT

Preferred Series – 126B Max 16 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-067	126BNA018	A	28-11/16"	25-3/4"	25-3/4"	25-1/2" x 25-7/8" x 25-7/8"
IBC58-071	126BNA024	A	28-5/16"	31-3/16"	31-3/16"	25" x 31-3/8" x 31-3/8"
IBC58-072	126BNA030	A	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IBC58-080	126BNA036	A	28-5/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-076	126BNA042	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-075	126BNA048	A	32-5/16"	35"	35"	29" x 35-1/8" x 35-1/8"
IBC58-079	126BNA060	A	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

Legacy Line - 123 13 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-066	123A018	A,C	25"	25-3/4"	25-3/4"	22" x 25-7/8" x 25-7/8"
IBC58-066	123A024	A,C	25"	25-3/4"	25-3/4"	22" x 25-7/8" x 25-7/8"
IBC58-067	123A030	A,B,C	28-7/16"	25-3/4"	25-3/4"	25-1/2" x 25-7/8" x 25-7/8"
IBC58-069	123A036	A,B,C	35-1/4"	25-3/4"	25-3/4"	32" x 25-7/8" x 25-7/8"
IBC58-072	123A042	A,B,C	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IBC58-073	123A048	A,B,C	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-076	123A060	A,B,C	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"

Legacy Line Series - 116B Max 16 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-082	116BNA018	A	28-11/16"	23-1/8"	23-1/8"	25-1/2" x 23-5/8" x 23-5/8"
IBC58-071	116BNA024	A	28-5/16"	31-3/16"	31-3/16"	25" x 31-3/8" x 31-3/8"
IBC58-072	116BNA030	A	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IBC58-080	116BNA036	A	28-5/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-076	116BNA042	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-075	116BNA048	A	32-5/16"	35"	35"	29" x 35-1/8" x 35-1/8"
IBC58-079	116BNA060	A	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
IBC58-067	116BNA018	B	28-11/16"	25-3/4"	25-3/4"	25-1/2" x 25-7/8" x 25-7/8"
IBC58-079	116BNA061	A	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
IBC58-076	116BNA048	B	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-076	116BNA049	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"

Legacy-RNC Series - 113A 13 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-081	113A018	D	25-5/16"	23-1/2"	23-1/2"	22-1/2" x 23-5/8" x 23-5/8"
IBC58-081	113A024	D	25-5/16"	23-1/2"	23-1/2"	22-1/2" x 23-5/8" x 23-5/8"
IBC58-082	113A030	E	28-11/16"	23-1/2"	23-1/2"	25-1/2" x 23-5/8" x 23-5/8"
IBC58-068	113A036	E	32-5/16"	25-3/4"	25-3/4"	29-1/2" x 25-7/8" x 25-7/8"
IBC58-072	113A042	C	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IBC58-070	113A048	E	35-3/4"	31-3/16"	31-3/16"	32" x 31-3/8" x 31-3/8"
IBC58-064	113A060	F,G	25-1/2"	31-3/16"	31-3/16"	22-1/2" x 31-3/8" x 31-3/8"

INNERFLOW A/C COVERS - BRYANT

Legacy-RNC Series - 113ANC 13 Seer-Puron

Part Number	Bryant Unit	Series	Condensing Unit Dimensions			Cover Size
	Model		Height	Depth	Width	Height x Depth x Width
IBC58-068	113ANC018	B	31-13/16"	25-3/4"	25-3/4"	29-1/2" x 25-7/8" x 25-7/8"
IBC58-069	113ANC024	B	35-1/4"	25-3/4"	25-3/4"	32" x 25-7/8" x 25-7/8"
IBC58-072	113ANC030	B	32-5/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IBC58-073	113ANC036	B	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-080	113ANC042	B	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-075	113ANC048	B	32-5/16"	35"	35"	29" x 35-1/8" x 35-1/8"
IBC58-080	113ANC060	B	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"

Evolution Series Two-Stage Air Conditioner - 187A-17 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC68-054	187A024	A	36-13/16"	29-1/4"	33"	33" x 29-15/16" x 33-3/8"
IBC68-056	187A036	A	37-9/16"	35-1/2"	40"	33-1/2" x 35-7/8" x 40-1/4"
IBC68-052	187A048	A	41"	35-1/2"	40"	36-1/2" x 35-7-8" x 40-1/4"
IBC68-052	187A060	A	41"	35-1/2"	40"	36-1/2" x 35-7-8" x 40-1/4"

Evolution Series - Air Conditioner - 180A-20 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC68-058	180A024	B	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
IBC68-058	180A036	B	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
IBC68-058	180A048	B	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
IBC68-058	180A060	B	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"

Preferred Series - 165A-15 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC68-053	165A018	A	40-3/16"	29-1/4"	33"	36" x 29-15/16" x 33-3/8"
IBC68-053	165A024	A	40-3/16"	29-1/4"	33"	36" x 29-15/16" x 33-3/8"
IBC68-056	165A030	A	37-9/16"	35-1/2"	40"	33-1/2" x 35-7/8" x 40-1/4"
IBC68-056	165A036	A	37-9/16"	35-1/2"	40"	33-1/2" x 35-7/8" x 40-1/4"
IBC68-058	165A042	A	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
IBC68-058	165A048	A	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"
IBC68-058	165A060	A	47-3/4"	35-1/2"	40"	43-1/2" x 35-7/8" x 40-1/4"

Preferred Series - 163R-13 Seer-R22

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC68-051	163A018	A	30"	29-1/4"	33"	26" x 29-15/16" x 33-3/8"
IBC68-051	163A024	A	30"	29-1/4"	33"	26" x 29-15/16" x 33-3/8"
IBC68-054	163A030	A	36-13/16"	29-1/4"	33"	33" x 29-15/16" x 33-3/8"
IBC68-053	163A036	A	40-3/16"	29-1/4"	33"	36" x 29-15/16" x 33-3/8"
IBC68-057	163A042	A	44-3/8"	35-1/2"	40"	40" x 35-7/8" x 40-1/4"
IBC68-057	163A048	A	44-3/8"	35-1/2"	40"	40" x 35-7/8" x 40-1/4"
IBC68-056	163A060	A	37-9/16"	35-1/2"	40"	33-1/2" x 35-7/8" x 40-1/4"

INNERFLOW A/C COVERS - BRYANT

Preferred Series - 167A 17 Seer Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-073	167ANA024	A	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-073	167ANA036	A	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-076	167ANA048	A	39--1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-079	167ANA060	A	45-7/8"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

Legacy Line - 126A 16 Seer 2-Stage Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-073	126ANA024	A	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-073	126ANA036	A	39-1/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IBC58-076	126ANA048	A	39--1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-079	126ANA060	A	45-7/8"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

Legacy Line -124A 14 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-070	124A018	A,C	35-3/4"	31-3/16"	31-3/16"	32" x 31-3/8" x 31-3/8"
IBC58-074	124A024	A	42-1/2"	31-3/16"	31-3/16"	39" x 31-3/8" x 31-3/8"
IBC58-080	124A024	D	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-074	124A030	A	42-1/2"	31-3/16"	31-3/16"	39" x 31-3/8" x 31-3/8"
IBC58-080	124A030	D	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-077	124A036	A,C	35-3/4"	35"	35"	32" x 35-1/8" x 35-1/8"
IBC58-079	124A042	A	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"
IBC58-080	124A042	D	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-075	124A048	A,C	32-5/16"	35"	35"	29" x 35-1/8" x 35-1/8"
IBC58-079	124A060	A,C	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

Legacy-RNC Series - 114A 14 Seer-Puron

Part Number	Bryant	Series	Condensing Unit Dimensions			Cover Size
	Unit Model		Height	Depth	Width	Height x Depth x Width
IBC58-066	114A018	C	35-3/4"	31-3/16"	31-3/16"	32" x 31-3/8" x 31-3/8"
IBC58-080	114A024	D	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-080	114A030	D	28-15/16"	35"	35"	25" x 35-1/8" x 35-1/8"
IBC58-069	114A036	C	35-3/4"	35"	35"	32" x 35-1/8" x 35-1/8"
IBC58-072	114A042	D	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-073	114A048	D	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IBC58-076	114A060	D,E	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"

INNERFLOW A/C COVERS - PAYNE

A14NA Series "A, B" 14 Seer, (R-410A)

Part Number	Condensing Unit	Series	A/C Dimensions			Cover Size
	Model Number.		Height	Depth	Width	Height x Depth x Width
IPC22-H017	PA14NA018	A	35-3/16"	31-3/16"	31-3/16"	32-1/2" x 31-3/8" x 31-3/8"
IPC22-H019	PA14NA024	A	42"	31-3/16"	31-3/16"	39" x 31-3/16" x 31-3/16"
IPC22-H019	PA14NA030	A	42"	31-3/16"	31-3/16"	39" x 31-3/8" x 31-3/8"
IPC22-H020	PA14NA036	A	35-3/4"	35"	35"	32" x 35-1/8" x 35-1/8"
IPC22-H021	PA14NA042	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IPC22-H021	PA14NA048	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IPC22-H021	PA14NA060	A, B	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"

PA13NA / PA13PA Series "B" 13 Seer, (R-410A)

Part Number	Condensing Unit	Series	A/C Dimensions			Cover Size
	Model Number.		Height	Depth	Width	Height x Depth x Width
IPC22-H012	PA13NA018	B	24-13/16"	23-1/8"	23-1/8"	22-1/2" x 23-5/8" x 23-5/8"
IPC22-H012	PA13NA024	B	24-13/16"	23-1/8"	23-1/8"	22-1/2" x 23-5/8" x 23-5/8"
IPC22-H013	PA13NA030	B	28-7/8"	23-1/8"	23-1/8"	25-1/2" x 23-5/8" x 23-5/8"
IPC22-H014	PA13NA036	B	35-3/16"	23-1/8"	23-1/8"	32-1/2" x 23-5/8" x 23-5/8"
IPC22-H016	PA13NA042	B	31-13/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IPC22-H018	PA13NA048	B	38-5/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IPC22-H015	PA13NA060	B	28-7/16"	31-3/16"	31-3/16"	26" x 31-3/8" x 31-3/8"
IPC22-H014	PA13PA036	B	35-3/16"	23-1/8"	23-1/8"	32-1/2" x 23-5/8" x 23-5/8"
IPC22-H018	PA13PA048	B	38-5/8"	31-3/16"	31-3/16"	36" x 31-3/8" x 31-3/8"
IPC22-H015	PA13PA060	B	28-7/16"	31-3/16"	31-3/16"	26" x 31-3/8" x 31-3/8"

PA16NA Series "B,A" 16 Seer, (R-410A)

Part Number	Condensing Unit	Series	A/C Dimensions			Cover Size
	Model Number.		Height	Depth	Width	Height x Depth x Width
IPC22-H015	PA16NA018	B	28-7/16"	31-3/16"	31-3/16"	26" x 31-3/8" x 31-3/8"
IPC22-H015	PA16NA024	A	28-7/16"	31-3/16"	31-3/16"	26" x 31-3/8" x 31-3/8"
IPC22-H016	PA16NA030	A	31-13/16"	31-3/16"	31-3/16"	29" x 31-3/8" x 31-3/8"
IPC22-H022	PA16NA036	A	28-5/16"	35"	35"	26" x 35-1/8" x 35-1/8"
IPC22-H021	PA16NA042	A	39-1/8"	35"	35"	36" x 35-1/8" x 35-1/8"
IPC22-H020	PA16NA048	A	32-15/16"	35"	35"	32" x 35-1/8" x 35-1/8"
IPC22-H023	PA16NA060	A	45-15/16"	35"	35"	42-1/2" x 35-1/8" x 35-1/8"

TOTALINE® WINTER COVERS



Bottom vented covers. Covers are 1/2" to 2 inches short to provide airflow at the bottom of the unit where the cold damp air accumulates. Dimensions are cabinet size/not cover dimensions.

Dimensions are cabinet size/not cover dimensions.

Covers For Condensing Unit No. : 20-- To 40--

Part Number	Condensing Unit Model	L	W	H
P161-0045	24ABA318A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0046	24ABA330A003 Ser.0	25-3/4	25-3/4	28-1/2
P161-0048	24ABA336A003 Ser.0	25-3/4	25-3/4	35-5/16
P161-0052	24ABA342A003 Ser.0	31-3/16	31-3/16	32-5/16
P161-0054	24ABA348A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0058	24ABA360A003 Ser.0	35	35	39-1/4
P161-0053	24ABA418A003 Ser.0	31-3/16	31-3/16	35-3/4
P161-0055	24ABA424A003 Ser.0	31-3/16	31-3/16	42-1/2
P161-0057	24ABA436A003 Ser.0	35	35	35-3/4
P161-0060	24ABA442A003 Ser.0	35	35	45-5/16
P161-0056	24ABA448A003 Ser.0	35	35	32-5/16
P161-0078	24ABB318A003 Ser.1	23-1/2	23-1/2	24-13/16
P161-0079	24ABB330A003 Ser.1	23-1/2	23-1/2	28-7/16
P161-0047	24ABB336A003 Ser.1	25-3/4	25-3/4	31-13/16
P161-0050	24ABB360A003 Ser.1/2	31-3/16	31-3/16	25-1/2
P161-0074	24ABB424A003 Ser.0	35	35	28-15/16
P161-0051	24ABR336A003 Ser.1	31-3/16	31-3/16	28-15/16
P161-0059	24ACR348A003 Ser.0	35	35	42-1/2
P161-0062	24ANA724A003 Ser.0	33	29-1/4	36-5/16
P161-0064	24ANA736A003 Ser.0	40	35-1/2	36
P161-0065	24ANA748A003 Ser.0	40	35-1/2	37-7/8
P161-0061	24APA318A003 Ser.0	33	29-1/4	30
P161-0063	24APA336A003 Ser.0	33	29-1/4	40
P161-0066	24APA342A003 Ser.0	40	35-1/2	43-7/8
P161-0044	38AN 009/012	24	8-5/8	23-1/4
P161-0036	38BNB018	34-3/8	12-5/8	25-3/16
P161-0037	38BNB024	43-3/8	12-5/8	25-3/16
P161-0038	38BNB030	44-15/16	15-3/4	25-3/16
P161-0039	38BNC009	28-3/4	10 7/16	21-1/4
P166-0004	38BR 024 Ser. 0	30	30	28
P166-0007	38BR 030	30	30	33-15/16
P166-0006	38BR 042 Ser. 0	30	30	39-15/16
P166-0017	38BRC 018 Ser.1	22-1/2	22-1/2	27-15/16
P166-0018	38BRC 018 Ser.2	22-1/2	22-1/2	31-15/16
P166-0003	38BRC 024 Ser.31	30	30	23-15/16
P166-0019	38BRG 024 Ser.0	22-1/2	22-1/2	33-15/16
P166-0005	38BRG 042 Ser.0/1	30	30	36

P161-0029	38CE 002	34-1/4	22-1/4	30
P161-0030	38CE 004	34-1/4	22-1/4	40
P166-0001	38CK 018 Ser. 0/1	22-1/2	22-1/2	19-1/4
P166-0015	38CK 018 Ser. 2/4	18	18	21-15/16
P166-0016	38CK 024 Ser. 2/4	18	18	23-1/4
P166-0002	38CK 036 Ser. 0/1/3/4	22-1/2	DIA.	23-1/4
P161-0014	38EB 015	21-3/4	DIA.	25-3/8
P161-0015	38EB 036	29-1/4	DIA.	23
P161-0023	38ED 018	29-1/4	27	25-7/8
P161-0024	38ED 024	29-1/4	DIA.	32-3/32
P161-0025	38ED 036	29-7/32	DIA.	37-3/4
P161-0026	38ED 042	38-63/64	DIA.	32-3/32
P161-0019	38EH 015	21-1/2	DIA.	26-1/2
P161-0020	38EH 030	29-1/4	DIA.	26-1/2
P161-0016	38EN 015	18	DIA.	20
P161-0017	38EN 030	21-1/2	DIA.	31
P161-0022	38GP 018	21-1/8	DIA.	21
P161-0018	38GP 024	21-1/8	21-1/8	26-9/16
P161-0021	38GP 030	27-1/4	DIA.	26-1/2
P161-0012	38GR 002/045	29-1/2	DIA.	27
P161-0027	38HD 018	37	14-1/2	25-1/8
P161-0028	38HD 036	44-1/2	17-1/8	37-3/16
P161-0068	38HDF018	36-15/16	14-9/16	25-1/8
P161-0069	38HDF024	36-15/16	14-9/16	31-1/8
P161-0070	38HDF036	44-9/16	17-1/16	37-3/16
P161-0071	38HDR048	44-9/16	17-1/16	43-3/16
P161-0072	38HDV009	30	11	23
P161-0075	38MVC009	30-23/32	9-21/32	21-1/4
P161-0073	38MVC012	29-7/8	10	23-1/8
P161-0076	38MVC018	33-3/8	11-1/4	27-3/8
P161-0013	38SE 002/003	29-1/2	DIA.	26
P161-0006	38TD 036 Ser. 0	35	30	35-1/8
P161-0034	38TDA 036 Ser. 0	34-15/16	30	39-13/16
P161-0009	38TDB 024 Ser.030	27-1/2	22-1/2	31-7/8
P161-0002	38TG 030 Ser. 0	27-1/2	22-1/2	23-13/16
P161-0003	38TG 036 Ser. 0/1	27-1/2	22-1/2	31-7/8
P161-0004	38TG 042 Ser. 0/1/2	34-15/16	30	26-1/2
P161-0005	38TH 042 Ser. 0/1/2/3	35	30	29-1/8
P161-0007	38TK 060 Ser. 0	45	38-5/8	37-7/8
P161-0001	38TKB 018 Ser. 0/1/30/33	27-1/2	22-1/2	20-1/2
P161-0010	38TN 024 Ser.2	34-15/16	30	27-13/16
P161-0011	38TN 030 Ser.2	34-15/16	30	33-13/16
P161-0008	38TPA 024 Ser.30/31	27-1/2	22-1/2	27-13/16
P161-0031	38TUA 024 Ser.1	30	27-1/2	27-3/4

TOTALINE® WINTER COVERS

Covers For Condensing Unit No. : 20-- To 40--

Part Number	Condensing Unit Model	L	W	H
P161-0045	24ABA324A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0055	24ABA430A003 Ser.0	31-3/16	31-3/16	42-1/2
P161-0060	24ABA460A003 Ser.0	35	35	45-5/16
P161-0045	24ABB318A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0045	24ABB324A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0078	24ABB324A003 Ser.1	23-1/2	23-1/2	24-13/16
P161-0045	24ABB330A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0048	24ABB336A003 Ser.0	25-3/4	25-3/4	35-5/16
P161-0052	24ABB342A003 Ser.0	31-3/16	31-3/16	32-5/16
P161-0054	24ABB348A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0053	24ABB348A003 Ser.1	31-3/16	31-3/16	35-3/4
P161-0057	24ABB360A003 Ser.0	35	35	35-3/4
P161-0053	24ABB418A003 Ser.0	31-3/16	31-3/16	35-3/4
P161-0074	24ABB430A003 Ser.0	35	35	28-15/16
P161-0057	24ABB436A003 Ser.0	35	35	35-3/4
P161-0058	24ABB442A003 Ser.0	35	35	39-1/4
P161-0058	24ABB448A003 Ser.0	35	35	39-1/4
P161-0058	24ABB449 Ser.0	35	35	39-1/4
P161-0058	24ABB460A003 Ser.0	35	35	39-1/4
P161-0060	24ABB461 Ser.0	35	35	45-5/16
P161-0046	24ABR318A003 Ser.0	25-3/4	25-3/4	28-1/2
P161-0045	24ABR318A003 Ser.2	25-3/4	25-3/4	25-1/8
P161-0046	24ABR324A003 Ser.1	25-3/4	25-3/4	28-1/2
P161-0045	24ABR324A003 Ser.3	25-3/4	25-3/4	25-1/8
P161-0047	24ABR330A003 Ser.1	25-3/4	25-3/4	31-13/16
P161-0046	24ABR330A003 Ser.3	25-3/4	25-3/4	28-1/2
P161-0050	24ABR336A003 Ser.2/3	31-3/16	31-3/16	25-1/2
P161-0054	24ABR342A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0057	24ABR348A003 Ser.1	35	35	35-3/4
P161-0060	24ABR360A003 Ser.2/3	35	35	45-5/16
P161-0058	24ABR360A003 Ser.2/6	35	35	39-1/4
P161-0045	24ABS318A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0045	24ABS324A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0046	24ABS330A003 Ser.0	25-3/4	25-3/4	28-1/2
P161-0050	24ABS336A003 Ser.0	31-3/16	31-3/16	25-1/2
P161-0054	24ABS342A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0057	24ABS348A003 Ser.0	35	35	35-3/4
P161-0058	24ABS360A003 Ser.0	35	35	39-1/4
P161-0045	24ACA318A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0045	24ACA324A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0046	24ACA330A003 Ser.0	25-3/4	25-3/4	28-1/2
P161-0048	24ACA336A003 Ser.0	25-3/4	25-3/4	35-5/16
P161-0052	24ACA342A003 Ser.0	31-3/16	31-3/16	32-5/16
P161-0054	24ACA348A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0058	24ACA360A003 Ser.0	35	35	39-1/4
P161-0053	24ACA418A003 Ser.0	31-3/16	31-3/16	35-3/4
P161-0053	24ACA418A003 Ser.1	31-3/16	31-3/16	35-3/4
P161-0055	24ACA424A003 Ser.0	31-3/16	31-3/16	42-1/2
P161-0074	24ACA424A003 Ser.2	35	35	28-15/16
P161-0055	24ACA430A003 Ser.0	31-3/16	31-3/16	42-1/2
P161-0074	24ACA430A003 Ser.2	35	35	28-15/16
P161-0057	24ACA436A003 Ser.0	35	35	35-3/4
P161-0057	24ACA436A003 Ser.1	35	35	35-3/4
P161-0060	24ACA442A003 Ser.0	35	35	45-5/16
P161-0074	24ACA442A003 Ser.2	35	35	28-15/16
P161-0056	24ACA448A003 Ser.0	35	35	32-5/16
P161-0056	24ACA448A003 Ser.1	35	35	32-5/16
P161-0060	24ACA460A003 Ser.0	35	35	45-5/16
P161-0060	24ACA460A003 Ser.1	35	35	45-5/16
P161-0045	24ACB318A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0045	24ACB324A003 Ser.0	25-3/4	25-3/4	25-1/8
P161-0046	24ACB330A003 Ser.0	25-3/4	25-3/4	28-1/2

Part Number	Condensing Unit Model	L	W	H
P161-0048	24ACB336A003 Ser.0	25-3/4	25-3/4	35-5/16
P161-0052	24ACB342A003 Ser.0	31-3/16	31-3/16	32-5/16
P161-0054	24ACB348A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0054	24ACB360A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0053	24ACB418A003 Ser.0	31-3/16	31-3/16	35-3/4
P161-0074	24ACB424A003 Ser.0	35	35	28-15/16
P161-0074	24ACB430A003 Ser.0	35	35	28-15/16
P161-0057	24ACB436A003 Ser.0	35	35	35-3/4
P161-0074	24ACB442A003 Ser.0	35	35	28-15/16
P161-0056	24ACB448A003 Ser.0	35	35	32-5/16
P161-0060	24ACB460A003 Ser.0	35	35	45-5/16
P161-0054	24ACB624A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0054	24ACB636A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0058	24ACB648A003 Ser.0	35	35	39-1/4
P161-0060	24ACB660A003 Ser.0	35	35	45-5/16
P161-0046	24ACR318A003 Ser.0	25-3/4	25-3/4	28-1/2
P161-0048	24ACR318C Ser.0	25-3/4	25-3/4	35-5/16
P161-0047	24ACR324A003 Ser.0	25-3/4	25-3/4	31-13/16
P161-0054	24ACR324C Ser.0	31-3/16	31-3/16	39-1/4
P161-0050	24ACR330A003 Ser.0	31-3/16	31-3/16	25-1/2
P161-0054	24ACR330C Ser.0	31-3/16	31-3/16	39-1/4
P161-0052	24ACR336A003 Ser.0	31-3/16	31-3/16	32-5/16
P161-0054	24ACR336C Ser.0	31-3/16	31-3/16	39-1/4
P161-0054	24ACR342A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0058	24ACR348C Ser.0	35	35	39-1/4
P161-0056	24ACR360A003 Ser.0/1	35	35	32-5/16
P161-0060	24ACR360C Ser.0	35	35	45-5/16
P161-0046	24ACS318A003 Ser.0	25-3/4	25-3/4	28-1/2
P161-0047	24ACS324A003 Ser.0	25-3/4	25-3/4	31-13/16
P161-0050	24ACS330A003 Ser.0	31-3/16	31-3/16	25-1/2
P161-0052	24ACS336A003 Ser.0	31-3/16	31-3/16	32-5/16
P161-0054	24ACS342A003 Ser.0	31-3/16	31-3/16	39-1/4
P161-0059	24ACS348A003 Ser.0	35	35	42-1/2
P161-0056	24ACS360A003 Ser.0/1	35	35	32-5/16
P161-0067	24ANA124A003 Ser.0	40	35-1/2	47-1/4
P161-0067	24ANA136A003 Ser.0	40	35-1/2	47-1/4
P161-0067	24ANA148A003 Ser.0	40	35-1/2	47-1/4
P161-0067	24ANA160A003 Ser.0	40	35-1/2	47-1/4
P161-0065	24ANA760A003 Ser.0	40	35-1/2	37-7/8
P161-0061	24APA324A003 Ser.0	33	29-1/4	30
P161-0062	24APA330A003 Ser.0	33	29-1/4	36-5/16
P161-0066	24APA348A003 Ser.0	40	35-1/2	43-7/8
P161-0065	24APA360A003 Ser.0	40	35-1/2	37-7/8
P161-0063	24APA518A003 Ser.0	33	29-1/4	40
P161-0063	24APA524A003 Ser.0	33	29-1/4	40
P161-0065	24APA530A003 Ser.0	40	35-1/2	37-7/8
P161-0065	24APA536A003 Ser.0	40	35-1/2	37-7/8
P161-0067	24APA542A003 Ser.0	40	35-1/2	47-1/4
P161-0067	24APA548A003 Ser.0	40	35-1/2	47-1/4
P161-0067	24APA560A003 Ser.0	40	35-1/2	47-1/4
P161-0044	38BK 009/012	24	39665	23-1/4
P161-0044	38BL 009/012	24	39665	23-1/4
P161-0038	38BNB036	44-15/16	15-3/4	25-3/16
P161-0037	38BNC018	43-3/8	12.625	25-3/16
P161-0037	38BNC024	43-3/8	12.625	25-3/16
P161-0038	38BNC030	44-15/16	15-3/4	25-3/16
P161-0038	38BNC036	44-15/16	15-3/4	25-3/16
P166-0007	38BR 036	30	30	33-15/16
P166-0007	38BR 048	30	30	33-15/16
P166-0006	38BR 060 Ser. 0	30	30	39-15/16
P166-0004	38BRB 024 Ser. 0	30	30	28
P166-0007	38BRB 030 Ser. 0	30	30	33-15/16

TOTALINE® WINTER COVERS

Covers For Condensing Unit No. : 20-- To 40--

Part Number	Condensing Unit Model	L	W	H
P166-0007	38BRB 036 Ser. 0/1	30	30	33-15/16
P166-0006	38BRB 042 Ser. 0/1	30	30	39-15/16
P166-0007	38BRB 048 Ser. 0/1/2	30	30	33-15/16
P166-0006	38BRB 060 Ser. 0/1/2	30	30	39-15/16
P166-0018	38BRC 024 Ser.3	22-1/2	22-1/2	31-15/16
P166-0004	38BRC 024 Ser.30	30	30	28
P166-0018	38BRC 024 Ser.4	22-1/2	22-1/2	31-15/16
P166-0004	38BRC 030 Ser.2/3/31	30	30	28
P166-0007	38BRC 030 Ser.30	30	30	33-15/16
P166-0007	38BRC 036 Ser.30/31/50	30	30	33-15/16
P166-0004	38BRC 036 Ser.4/5/32/52	30	30	28
P166-0006	38BRC 042 Ser.30/31/50	30	30	39-15/16
P166-0007	38BRC 042 Ser.4/5/32/52	30	30	33-15/16
P166-0007	38BRC 048 Ser.30/32/52	30	30	33-15/16
P166-0006	38BRC 048 Ser.37	30	30	39-15/16
P166-0006	38BRC 048 Ser.7	30	30	39-15/16
P166-0006	38BRC 060 Ser.6/30/32/52	30	30	39-15/16
P166-0006	38BRG 060 Ser.36	30	30	39-15/16
P166-0017	38BRG 018 Ser.0	22-1/2	22-1/2	27-15/16
P166-0004	38BRG 030 Ser.0	30	30	28
P166-0004	38BRG 036 Ser.0/1	30	30	28
P166-0005	38BRG 048 Ser.0	30	30	37-7/8
P166-0006	38BRG 048 Ser.1	30	30	37-7/8
P166-0006	38BRG 060 Ser.0/1	30	30	30
P161-0029	38CE 003	34-1/4	22-1/4	36-5/16
P161-0030	38CE 005	34-1/4	22-1/4	43-7/8
P161-0030	38CE 045	34-1/4	22-1/4	43-7/8
P166-0001	38CK 024 Ser. 0/1	22-1/2	22-1/2	19-1/4
P166-0001	38CK 030 Ser. 0/1/2	22-1/2	22-1/2	19-1/4
P166-0003	38CK 042 Ser. 0/1	30	30	23-15/16
P166-0017	38CK 042 Ser. 3/4	22-1/2	22-1/2	27-15/16
P166-0004	38CK 048 Ser. 1/5/6	30	30	28
P166-0005	38CK 060 Ser. 1/5/6	30	30	33-15/16
P166-0006	38CK 060 Ser. 2/3/4	30	30	39-15/16
P166-0015	38CKB 018 Ser. 1	18	18	21-15/16
P166-0016	38CKB 018 Ser.2	18	18	23-1/4
P166-0016	38CKB 024 Ser. 0/1/2	18	18	23-1/4
P166-0001	38CKB 030 Ser. 0/1	22-1/2	22-1/2	19-1/4
P166-0002	38CKB 030 Ser.2	22-1/2	DIA.	23-1/4
P166-0002	38CKB 036 Ser. 0/1/2/3	22-1/2	DIA.	23-1/4
P166-0018	38CKB 042 Ser. 0/1	22-1/2	22-1/2	31-15/16
P166-0004	38CKB 048 Ser. 0/1	30	30	28
P166-0005	38CKB 060 Ser. 0	30	30	33-15/16
P166-0007	38CKB 060 Ser. 1	30	30	33-15/16
P166-0015	38CKC 018 Ser.0/1/3/4/34	18	18	21-15/16
P166-0016	38CKC 018 Ser.2	18	18	23-1/4
P166-0016	38CKC 024 Ser.0/1/2/3/4/34	18	18	23-1/4
P166-0001	38CKC 030 Ser.0/1/3/4/34/52	22-1/2	22-1/2	19-1/4
P166-0002	38CKC 030 Ser.2	22-1/2	DIA.	23-1/4
P166-0002	38CKC 036 Ser.0/1/2/3/4/5/35/5	22-1/2	DIA.	23-1/4
P166-0017	38CKC 042 Ser.0/1/2/3/4/35/55	22-1/2	22-1/2	27-15/16
P166-0017	38CKC 047 Ser.0	22-1/2	22-1/2	27-15/16
P166-0004	38CKC 048 Ser.0/1/2/3/	30	30	28
P166-0019	38CKC 048 Ser.35/57/67	22-1/2	22-1/2	33-15/16
P166-0017	38CKC 048 Ser.6	22-1/2	22-1/2	27-15/16
P166-0005	38CKC 060 Ser.0/2/7/37/57/67	30	30	33-15/16
P166-0004	38CKC 060 Ser.1	30	30	28
P166-0015	38CKG 018 Ser.30/33	18	18	21-15/16
P166-0016	38CKG 024 Ser.30/33	18	18	23-1/4
P166-0001	38CKG 030 Ser.30/33	22-1/2	22-1/2	19-1/4
P166-0002	38CKG 036 Ser.30/31/34	22-1/2	DIA.	23-1/4

Part Number	Condensing Unit Model	L	W	H
P166-0018	38CKG 042 Ser.30/31	22-1/2	22-1/2	31-15/16
P166-0004	38CKG 048 Ser.30/31	30	30	28
P166-0005	38CKG 060 Ser.30	30	30	33-15/16
P166-0004	38CKQ 060 Ser.31	30	30	28
P166-0016	38CKQ 024 Ser.0/1/2	18	18	23-1/4
P166-0001	38CKQ 030 Ser.0/1	22-1/2	22-1/2	19-1/4
P166-0002	38CKQ 030 Ser.2	22-1/2	DIA.	23-1/4
P166-0002	38CKQ 036 Ser.0/1/2/3	22-1/2	DIA.	23-1/4
P166-0017	38CKQ 042 Ser.0/1	22-1/2	22-1/2	27-15/16
P166-0004	38CKQ 048 Ser.0/1	30	30	28
P166-0016	38CKS 018 Ser.0	18	18	23-1/4
P166-0002	38CKS 024 Ser.0	22-1/2	DIA.	23-1/4
P166-0017	38CKS 030 Ser.0	22-1/2	22-1/2	27-15/16
P166-0019	38CKS 036 Ser.0	22-1/2	22-1/2	33-15/16
P166-0004	38CKS 042 Ser.0	30	30	28
P166-0007	38CKS 048 Ser.0	30	30	33-15/16
P166-0004	38CKS 060 Ser.0	30	30	28
P166-0015	38CKW 018 Ser.0	18	18	21-15/16
P166-0016	38CKW 018 Ser.1	18	18	23-1/4
P166-0016	38CKW 024 Ser.0/1	18	18	23-1/4
P166-0001	38CKW 030 Ser.0	22-1/2	22-1/2	19-1/4
P166-0002	38CKW 030 Ser.1	22-1/2	DIA.	23-1/4
P166-0002	38CKW 036 Ser.0/1	22-1/2	DIA.	23-1/4
P166-0018	38CKW 042 Ser.0/1	22-1/2	22-1/2	31-15/16
P166-0004	38CKW 048 Ser.0	30	30	28
P166-0005	38CKW 060 Ser.0	30	30	33-15/16
P166-0001	38CKX 024 Ser.1	22-1/2	22-1/2	19-1/4
P166-0019	38CKX 036 Ser.1	22-1/2	22-1/2	33-15/16
P166-0004	38CKX 048 Ser.1/2	30	30	28
P166-0006	38CKX 060 Ser.1/2	30	30	39-15/16
P166-0001	38CM 018 Ser. 0	22-1/2	22-1/2	19-1/4
P166-0018	38CM 024 Ser.0	22-1/2	22-1/2	31-15/16
P166-0019	38CM 030 Ser.0	22-1/2	22-1/2	33-15/16
P166-0004	38CM 036 Ser. 0/1	30	30	28
P166-0004	38CM 042 Ser. 0/1	30	30	28
P166-0004	38CM 048 Ser. 0	30	30	28
P166-0006	38CM 048 Ser. 1	30	30	39-15/16
P166-0006	38CM 060 Ser. 0	30	30	39-15/16
P166-0001	38CMB 018 Ser. 0	22-1/2	22-1/2	19-1/4
P166-0018	38CMB 024 Ser.0	22-1/2	22-1/2	31-15/16
P166-0019	38CMB 030 Ser.0	22-1/2	22-1/2	33-15/16
P166-0004	38CMB 036 Ser. 0	30	30	28
P166-0004	38CMB 042 Ser. 0	30	30	28
P166-0005	38CMB 048 Ser. 0	30	30	33-15/16
P166-0006	38CMB 060 Ser. 0	30	30	39-15/16
P166-0001	38CMC 018 Ser.31	22-1/2	22-1/2	19-1/4
P166-0018	38CMC 024 Ser.31	22-1/2	22-1/2	31-15/16
P166-0019	38CMC 030 Ser.31	22-1/2	22-1/2	33-15/16
P166-0004	38CMC 036 Ser.30/32	30	30	28
P166-0004	38CMC 042 Ser.30/31	30	30	28
P166-0005	38CMC 048 Ser.30	30	30	33-15/16
P166-0004	38CMC 048 Ser.31	30	30	28
P166-0006	38CMC 060 Ser.30	30	30	39-15/16
P166-0005	38CMC 060 Ser.31	30	30	33-15/16
P161-0030	38CS 018	34-1/4	22-1/4	26-1/4
P161-0030	38CS 024	34-1/4	22-1/4	26-1/4
P161-0030	38CS 030	34-1/4	22-1/4	26-1/4
P161-0030	38CS 036	34-1/4	22-1/4	26-1/4
P161-0014	38EB 018	21-3/4	DIA.	25-3/8
P161-0005	38TK 042 Ser. 0/1	35	30	29-1/8
P161-0005	38TK 042DL Ser. 0/1	35	30	29-1/8

TOTALINE® WINTER COVERS

Covers For Condensing Unit No. : 20-- To 40--

Part Number	Condensing Unit Model	L	W	H	Part Number	Condensing Unit Model	L	W	H
P161-0006	38TK 048 Ser. 0/1	35	30	35-1/8	P161-0010	38TSA 036 Ser. 30,32	34-15/16	30	27-13/16
P161-0006	38TK 048DL Ser. 0/1	35	30	35-1/8	P161-0034	38TSA 042 Ser. 2,33	34-15/16	30	39-13/16
P161-0007	38TK 060DL Ser. 0	45	38-5/8	37-7/8	P161-0010	38TSA 042 Ser. 30,32	34-15/16	30	27-13/16
P161-0001	38TKB 018 Ser. 0/1/30/33	27-1/2	22-1/2	20-1/2	P161-0006	38TSA 048 Ser. 31	35	30	35-1/8
P161-0001	38TKB 024 Ser. 0/1/30/33	27-1/2	22-1/2	20-1/2	P161-0007	38TSA 060 Ser. 30	45	38-5/8	37-7/8
P161-0003	38TKB 030 Ser. 0/1/30/32/33	27-1/2	22-1/2	31-7/8	P161-0004	38TU 024 Ser. 0	34-15/16	30	26-1/2
P161-0003	38TKB 036 Ser. 0/1/2/30/34	27-1/2	22-1/2	31-7/8	P161-0004	38TU 030 Ser. 0	34-15/16	30	26-1/2
P161-0005	38TKB 042 Ser. 0/1/30	35	30	29-1/8	P161-0005	38TU 036 Ser. 0	35	30	29-1/8
P161-0004	38TKB 042 Ser.33	34-15/16	30	26-1/2	P161-0006	38TU 042 Ser. 0	35	30	35-1/8
P161-0005	38TKB 048 Ser. 0/1/3/33/34/35	35	30	29-1/8	P161-0005	38TU 048 Ser. 0	35	30	29-1/8
P161-0006	38TKB 060 Ser. 0/1/3/33/35	35	30	35-1/8	P161-0006	38TU 060 Ser. 0	35	30	35-1/8
P161-0001	38TKW 018 Ser.30	27-1/2	22-1/2	20-1/2	P161-0008	38TUA 018 Ser.0/1	27-1/2	22-1/2	27-13/16
P161-0001	38TKW 024 Ser.30	27-1/2	22-1/2	20-1/2	P161-0002	38TUA 018 Ser.32/33	27-1/2	22-1/2	23-13/16
P161-0003	38TKW 030 Ser.30	27-1/2	22-1/2	31-7/8	P161-0008	38TUA 024 Ser. 0/31/32/33	27-1/2	22-1/2	27-13/16
P161-0003	38TKW 036 Ser.30	27-1/2	22-1/2	31-7/8	P161-0009	38TUA 030 Ser. 0	27-1/2	22-1/2	31-7/8
P161-0005	38TKW 042 Ser.30	35	30	29-1/8	P161-0031	38TUA 030 Ser.1	30	27-1/2	27-3/4
P161-0005	38TKW 048 Ser.31/32	35	30	29-1/8	P161-0008	38TUA 030 Ser.31/32	27-1/2	22-1/2	27-13/16
P161-0006	38TKW 060 Ser.31	35	30	35-1/8	P161-0010	38TUA 036 Ser. 0/1/31/32	34-15/16	30	27-13/16
P161-0004	38TM 018DL Ser. 0	34-15/16	30	26-1/2	P161-0011	38TUA 042 Ser. 0/1/31/32	34-15/16	30	33-13/16
P161-0005	38TM 024DL Ser. 0	35	30	29-1/8	P161-0034	38TUA 048 Ser. 1	34-15/16	30	39-13/16
P161-0006	38TM 030DL Ser. 0	35	30	35-1/8	P161-0011	38TUA 048 Ser.0/30/33/34	34-15/16	30	33-13/16
P161-0005	38TM 036DL Ser. 0	35	30	29-1/8	P161-0034	38TUA 060 Ser. 0/1/31/32	34-15/16	30	39-13/16
P161-0006	38TM 042DL Ser. 0	35	30	35-1/8	P161-0011	38TXA 024 Ser. 0/30	34-15/16	30	33-13/16
P161-0006	38TM 048DL Ser. 0	35	30	35-1/8	P161-0010	38TXA 024 Ser.34	34-15/16	30	27-13/16
P161-0004	38TMA 024 Ser. 0	34-15/16	30	26-1/2	P161-0010	38TXA 030 Ser. 0/30/33	34-15/16	30	27-13/16
P161-0004	38TMA 030 Ser. 0	34-15/16	30	26-1/2	P161-0011	38TXA 036 Ser. 0/30/33/34	34-15/16	30	33-13/16
P161-0005	38TMA 036 Ser. 0	35	30	29-1/8	P161-0034	38TXA 042 Ser. 0/30/33	34-15/16	30	39-13/16
P161-0006	38TMA 042 Ser. 0	35	30	35-1/8	P161-0034	38TXA 048 Ser. 0/30/33	34-15/16	30	39-13/16
P161-0005	38TMA 048 Ser. 0	35	30	29-1/8	P161-0034	38TXA 060 Ser. 31/34/35	34-15/16	30	39-13/16
P161-0006	38TMA 060 Ser. 0	35	30	35-1/8	P161-0009	38TZA 018 Ser.2/32/33	27-1/2	22-1/2	31-7/8
P161-0034	38TN 036 Ser.2	34-15/16	30	39-13/16	P161-0004	38TZA 024	34-15/16	30	26-1/2
P161-0034	38TN 048 Ser.2	34-15/16	30	39-13/16	P161-0010	38TZA 024 Ser.2/30/32	34-15/16	30	27-13/16
P161-0002	38TPA 018 Ser.30/31	27-1/2	22-1/2	23-13/16	P161-0009	38TZA 024 Ser.34	27-1/2	22-1/2	31-7/8
P161-0008	38TPA 030 Ser.30/31	27-1/2	22-1/2	27-13/16	P161-0004	38TZA 030	34-15/16	30	26-1/2
P161-0009	38TPA 036 Ser.30/31	27-1/2	22-1/2	31-7/8	P161-0010	38TZA 030 Ser.2/30/32/33	34-15/16	30	27-13/16
P161-0010	38TPA 042 Ser.30/31	34-15/16	30	27-13/16	P161-0004	38TZA 036	34-15/16	30	26-1/2
P161-0010	38TPA 048 Ser.30/31	34-15/16	30	27-13/16	P161-0010	38TZA 036 Ser.2/30/32/33/34	34-15/16	30	27-13/16
P161-0034	38TPA 060 Ser.30/31	34-15/16	30	39-13/16	P161-0004	38TZA 042	34-15/16	30	26-1/2
P161-0005	38TR 024 Ser. 0	35	30	29-1/8	P161-0010	38TZA 042 Ser.2/30/32/33	34-15/16	30	27-13/16
P161-0006	38TR 030 Ser. 0	35	30	35-1/8	P161-0004	38TZA 048	34-15/16	30	26-1/2
P161-0005	38TR 036 Ser. 0	35	30	29-1/8	P161-0010	38TZA 048 Ser.2/30/32/33	34-15/16	30	27-13/16
P161-0006	38TR 042 Ser. 0	35	30	35-1/8	P161-0034	38TZA 060 Ser. 2/30/32/33	34-15/16	30	39-13/16
P161-0006	38TR 048 Ser. 0	35	30	35-1/8	P161-0023	38XD 118	29-1/4	27	25-7/8
P161-0007	38TR 060 Ser. 0	45	38-5/8	37-7/8	P161-0024	38XD 124	29-1/4	DIA.	32-3/32
P161-0003	38TRA 018 Ser. 0/32/33	27-1/2	22-1/2	31-7/8	P161-0024	38XD 130	29-1/4	DIA.	32-3/32
P161-0004	38TRA 024 Ser. 0/1/32/33/34	34-15/16	30	26-1/2	P161-0025	38XD 136	29-7/32	DIA.	37-3/4
P161-0011	38TRA 030 Ser. 0/1/32/33	34-15/16	30	33-13/16	P161-0026	38XD 142	38-63/64	DIA.	32-3/32
P161-0034	38TRA 036 Ser. 0/1/2	34-15/16	30	39-13/16	P161-0026	38XD 148	38-63/64	DIA.	32-3/32
P161-0011	38TRA 036 Ser.3/33/34	34-15/16	30	33-13/16	P161-0006	38YXA 024 Ser.0	35	30	35-1/8
P161-0005	38TRA 042 Ser. 0/1/2	35	30	29-1/8	P161-0011	38YXA 030 Ser.0	34-15/16	30	33-13/16
P161-0034	38TRA 042 Ser.3/33/34	34-15/16	30	39-13/16	P161-0010	38YXA 036 Ser.0	34-15/16	30	27-13/16
P161-0034	38TRA 048 Ser. 0/1/2/3/33/34/35	34-15/16	30	39-13/16	P161-0010	38YXA 042 Ser.0	34-15/16	30	27-13/16
P161-0005	38TRA 048 Ser. 36	35	30	29-1/8	P161-0034	38YXA 048 Ser.0	34-15/16	30	39-13/16
P161-0007	38TRA 060 Ser. 0	45	38-5/8	37-7/8	P161-0034	38YXA 060 Ser.1	34-15/16	30	39-13/16
P161-0034	38TRA 060 Ser. 1/2/3/33/34	34-15/16	30	39-13/16	P161-0009	38YZA 018 Ser.1	27-1/2	22-1/2	31-7/8
P161-0034	38TSA 024 Ser. 2	34-15/16	30	39-13/16	P161-0009	38YZA 024 Ser.1	27-1/2	22-1/2	31-7/8
P161-0010	38TSA 024 Ser. 30,32	34-15/16	30	27-13/16	P161-0010	38YZA 030 Ser.1	34-15/16	30	27-13/16
P161-0005	38TSA 024 Ser. 34	35	30	29-1/8	P161-0034	38YZA 036 Ser.1	34-15/16	30	39-13/16
P161-0034	38TSA 030 Ser. 2,33	34-15/16	30	39-13/16	P161-0014	38EB 024	21-3/4	DIA.	25-3/8
P161-0010	38TSA 030 Ser. 30,32	34-15/16	30	27-13/16	P161-0014	38EB 030	21-3/4	DIA.	25-3/8
P161-0034	38TSA 036 Ser. 2,33	34-15/16	30	39-13/16					

Covers For Condensing Unit No. : 20-- To 40--

Part Number	Condensing Unit Model	L	W	H
P161-0015	38EC 024	29-1/4	DIA.	23
P161-0015	38EC 030	29-1/4	DIA.	23
P161-0015	38EC 036	29-1/4	DIA.	23
P161-0024	38ED 030	29-1/4	DIA.	32-3/32
P161-0026	38ED 048	38-63/64	DIA.	32-3/32
P161-0019	38EH 018	21-1/2	DIA.	26-1/2
P161-0019	38EH 024	21-1/2	DIA.	26-1/2
P161-0020	38EH 036	29-1/4	DIA.	26-1/2
P161-0020	38EH 042/048/060	29-1/4	DIA.	26-1/2
P161-0016	38EN 018	18	DIA.	20
P161-0016	38EN 024	18	DIA.	20
P161-0017	38EN 036	21-1/2	DIA.	31
P166-0007	38ESG 024 Ser.30	30	30	33-15/16
P166-0007	38ESG 030 Ser.30	30	30	33-15/16
P166-0007	38ESG 036 Ser.30	30	30	33-15/16
P166-0007	38ESG 042 Ser.30	30	30	33-15/16
P166-0006	38ESG 048 Ser.30	30	30	39-15/16
P166-0006	38ETG 018 Ser.30	30	30	39-15/16
P166-0006	38ETG 024 Ser.30	30	30	39-15/16
P166-0006	38ETG 030 Ser.30	30	30	39-15/16
P166-0006	38ETG 036 Ser.30	30	30	39-15/16
P166-0006	38ETG 042 Ser.30	30	30	39-15/16
P166-0006	38ETG 048 Ser.30	30	30	39-15/16
P166-0007	38ETG 060 Ser.30	30	30	33-15/16
P166-0017	38EZA018 Ser.0	22-1/2	22-1/2	27-15/16
P166-0018	38EZA024 Ser.1	22-1/2	22-1/2	31-15/16
P166-0017	38EZA030 Ser.1	22-1/2	22-1/2	27-15/16
P166-0019	38EZA036 Ser.1	22-1/2	22-1/2	33-15/16
P166-0004	38EZA036 Ser.2	30	30	28
P166-0004	38EZA042 Ser.1	30	30	28
P166-0004	38EZA048 Ser.1	30	30	28
P166-0006	38EZA060 Ser.0	30	30	39-15/16
P166-0006	38EZA060 Ser.1	30	30	39-15/16
P166-0006	38EZA060 Ser.2	30	30	39-15/16
P166-0017	38EZG 018 Ser.30	22-1/2	22-1/2	27-15/16
P166-0018	38EZG 024 Ser.30	22-1/2	22-1/2	31-15/16
P166-0017	38EZG 030 Ser.30/50	22-1/2	22-1/2	27-15/16
P166-0019	38EZG 036 Ser.30/50	22-1/2	22-1/2	33-15/16
P166-0004	38EZG 036 Ser.31	30	30	28
P166-0004	38EZG 042 Ser.30/50	30	30	28
P166-0004	38EZG 048 Ser.30/50	30	30	28
P166-0006	38EZG 060 Ser.30/31/50	30	30	39-15/16
P161-0021	38GP 036	27-1/4	DIA.	26-1/2
P161-0030	38GS 042	34-1/4	22-1/4	26-1/4
P161-0030	38GS 048	34-1/4	22-1/4	26-1/4
P161-0030	38GS 060	34-1/4	22-1/4	26-1/4
P161-0027	38HD 024	37	14-1/2	25-1/8
P161-0027	38HD 030	37	14-1/2	25-1/8
P161-0028	38HD 048	44-1/2	17-1/8	37-3/16
P161-0028	38HD 060	44-1/2	17-1/8	37-3/16
P161-0027	38HDC 018	37	14-1/2	25-1/8
P161-0027	38HDC 024	37	14-1/2	25-1/8
P161-0027	38HDC 030	37	14-1/2	25-1/8
P161-0027	38HDC 036	37	14-1/2	25-1/8
P161-0028	38HDC 048	44-1/2	17-1/8	37-3/16
P161-0028	38HDC 060	44-1/2	17-1/8	37-3/16
P161-0069	38HDF030	36-15/16	14-9/16	31-1/8
P161-0027	38HDL 018	37	14-1/2	25-1/8
P161-0027	38HDL 024	37	14-1/2	25-1/8
P161-0027	38HDL 030	37	14-1/2	25-1/8
P161-0027	38HDL 036	37	14-1/2	25-1/8

Part Number	Condensing Unit Model	L	W	H
P161-0028	38HDL 048	44-1/2	17-1/8	37-3/16
P161-0028	38HDL 060	44-1/2	17-1/8	37-3/16
P161-0068	38HDR018	36-15/16	14-9/16	25-1/8
P161-0069	38HDR024	36-15/16	14-9/16	31-1/8
P161-0070	38HDR030	44-9/16	17-1/16	37-3/16
P161-0070	38HDR036	44-9/16	17-1/16	37-3/16
P161-0071	38HDR060	44-9/16	17-1/16	43-3/16
P161-0027	38HDS 024	37	14-1/2	25-1/8
P161-0028	38HDS 048	44-1/2	17-1/8	37-3/16
P161-0072	38HDV012	30	11	23
P161-0012	38RE 024	29-1/2	DIA.	27
P161-0012	38RE 030	29-1/2	DIA.	27
P161-0019	38SM 015	21-1/2	DIA.	26-1/2
P161-0019	38SM 018	21-1/2	DIA.	26-1/2
P161-0019	38SM 024	21-1/2	DIA.	26-1/2
P161-0006	38TD 048 Ser. 0	35	30	35-1/8
P161-0006	38TD 060 Ser. 0	35	30	35-1/8
P161-0034	38TDA 048 Ser. 0	34-15/16	30	39-13/16
P161-0034	38TDA 060 Ser. 0	34-15/16	30	39-13/16
P161-0034	38TDB 036 Ser.030	34-15/16	30	39-13/16
P161-0034	38TDB 037 Ser.030	34-15/16	30	39-13/16
P161-0034	38TDB 048 Ser.030	34-15/16	30	39-13/16
P161-0034	38TDB 060 Ser.030/031	34-15/16	30	39-13/16
P161-0013	38TE 030	29-1/2	DIA.	26
P161-0001	38TG 018 Ser. 0	27-1/2	22-1/2	20-1/2
P161-0001	38TG 024 Ser. 0	27-1/2	22-1/2	20-1/2
P161-0004	38TG 048 Ser. 0	34-15/16	30	26-1/2
P161-0034	38TG 060 Ser. 0/1	34-15/16	30	39-13/16
P161-0001	38TH 014 Ser. 0	27-1/2	22-1/2	20-1/2
P161-0001	38TH 014DL Ser. 0	27-1/2	22-1/2	20-1/2
P161-0001	38TH 018 Ser. 0	27-1/2	22-1/2	20-1/2
P161-0001	38TH 018DL Ser. 0	27-1/2	22-1/2	20-1/2
P161-0002	38TH 024 Ser. 0	27-1/2	22-1/2	23-13/16
P161-0002	38TH 024DL Ser. 0	27-1/2	22-1/2	23-13/16
P161-0002	38TH 030 Ser. 0/1	27-1/2	22-1/2	23-13/16
P161-0002	38TH 030DL Ser. 0/1	27-1/2	22-1/2	23-13/16
P161-0004	38TH 036 Ser. 0	34-15/16	30	26-1/2
P161-0004	38TH 036DL Ser. 0	34-15/16	30	26-1/2
P161-0005	38TH 042DL Ser. 0/1/2/3	35	30	29-1/8
P161-0005	38TH 048 Ser. 0/1/2	35	30	29-1/8
P161-0005	38TH 048DL Ser. 0/1/2	35	30	29-1/8
P161-0005	38TH 060 DL Ser. 0	35	30	29-1/8
P161-0005	38TH 060 Ser. 0	35	30	29-1/8
P161-0004	38TK 018 Ser. 0	34-15/16	30	26-1/2
P161-0002	38TK 018 Ser. 1	27-1/2	22-1/2	23-13/16
P161-0004	38TK 018DL Ser. 0	34-15/16	30	26-1/2
P161-0002	38TK 018DL Ser. 1	27-1/2	22-1/2	23-13/16
P161-0005	38TK 024 Ser. 0	35	30	29-1/8
P161-0002	38TK 024 Ser. 1	27-1/2	22-1/2	23-13/16
P161-0005	38TK 024DL Ser. 0	35	30	29-1/8
P161-0002	38TK 024DL Ser. 1	27-1/2	22-1/2	23-13/16
P161-0005	38TK 030 Ser. 0/1/3	35	30	29-1/8
P161-0004	38TK 030 Ser. 2	34-15/16	30	26-1/2
P161-0005	38TK 030DL Ser. 0/1	35	30	29-1/8
P161-0004	38TK 030DL Ser. 2	34-15/16	30	26-1/2
P161-0003	38TK 030DL Ser. 3	27-1/2	22-1/2	31-7/8
P161-0006	38TK 036 Ser. 0/1/2	35	30	35-1/8
P161-0006	38TK 036DL Ser. 0/1	35	30	35-1/8
P161-0004	38TK 036DL Ser. 2	34-15/16	30	26-1/2
P161-0010	38YZA 042 Ser.1	34-15/16	30	27-13/16
P161-0034	38YZA 048 Ser.1	34-15/16	30	39-13/16
P161-0034	38YZA 060 Ser.1	34-15/16	30	39-13/16

TOTALINE® WINTER COVERS

Covers for Condensing Unit No. : 40-- To 60--

Part Number	Condensing Unit Model	L	W	H
P164-0003	51AGA 108-1 (Beige)	16-3/4	20	14-7/8
P163-0003	51AGA 108-1 (Gray)	16-3/4	20	14-7/8
P164-0004	51CMA 115-3 (Beige)	27-5/16	24-7/16	15-9/16
P163-0004	51CMA 115-3 (Gray)	27-5/16	24-7/16	15-9/16
P164-0007	51HKA 333-3 (Beige)	32-1/4	27-1/2	22-3/8
P163-0007	51HKA 333-3 (Gray)	32-1/4	27-1/2	22-3/8
P164-0001	51KMC 006-1 (Beige)	25-5/8	14-1/2	10-1/2
P163-0001	51KMC 006-1 (Gray)	25-5/8	14-1/2	10-1/2
P164-0006	51KYD 110-1 (Beige)	25-1/2	14-1/2	20-5/8
P163-0006	51KYD 110-1 (Gray)	25-1/2	14-1/2	20-5/8
P164-0002	51ZMA 108-1(Beige)	17-1/8	20-1/16	14
P163-0002	51ZMA 108-1(Gray)	17-1/8	20-1/16	14

Part Number	Condensing Unit Model	L	W	H
P164-0004	51CMB 109-1 (Beige)	27-5/16	24-7/16	15-9/16
P163-0004	51CMB 109-1 (Gray)	27-5/16	24-7/16	15-9/16
P164-0004	51CME 012-3 (Beige)	27-5/16	24-7/16	15-9/16
P163-0004	51CME 012-3 (Gray)	27-5/16	24-7/16	15-9/16
P164-0004	51CME 112-1 (Beige)	27-5/16	24-7/16	15-9/16
P163-0004	51CME 112-1 (Gray)	27-5/16	24-7/16	15-9/16
P164-0004	51CVA 209-1 (Beige)	27-5/16	24-7/16	15-9/16
P163-0004	51CVA 209-1 (Gray)	27-5/16	24-7/16	15-9/16
P164-0004	51CVB 212-3 (Beige)	27-5/16	24-7/16	15-9/16
P163-0004	51CVB 212-3 (Gray)	27-5/16	24-7/16	15-9/16
P164-0005	51GMA 118-3 (Beige)	28-1/4	26	17-9/16
P163-0005	51GMA 118-3 (Gray)	28-1/4	26	17-9/16
P164-0005	51GMA 121-3 (Beige)	28-1/4	26	17-9/16
P163-0005	51GMA 121-3 (Gray)	28-1/4	26	17-9/16
P164-0005	51GMA 124-3 (Beige)	28-1/4	26	17-9/16
P163-0005	51GMA 124-3 (Gray)	28-1/4	26	17-9/16
P164-0005	51GMA 228-3 (Beige)	28-1/4	26	17-9/16
P163-0005	51GMA 228-3 (Gray)	28-1/4	26	17-9/16
P164-0005	51GMB 009-1 (Beige)	28-1/4	26	17-9/16
P163-0005	51GMB 009-1 (Gray)	28-1/4	26	17-9/16
P164-0005	51GMC 114-1 (Beige)	28-1/4	26	17-9/16
P163-0005	51GMC 114-1 (Gray)	28-1/4	26	17-9/16
P164-0005	51GYA 315-3 (Beige)	28-1/4	26	17-9/16
P163-0005	51GYA 315-3 (Gray)	28-1/4	26	17-9/16
P164-0005	51GYB 324-3 (Beige)	28-1/4	26	17-9/16
P163-0005	51GYB 324-3 (Gray)	28-1/4	26	17-9/16
P164-0007	51HKB 229-3 (Beige)	32-1/4	27-1/2	22-3/8
P163-0007	51HKB 229-3 (Gray)	32-1/4	27-1/2	22-3/8
P164-0002	51ZMB 705-1 (Beige)	17-1/8	20-1/16	14
P163-0002	51ZMB 705-1 (Gray)	17-1/8	20-1/16	14
P164-0002	51ZMB 706-1 (Beige)	17-1/8	20-1/16	14
P163-0002	51ZMB 706-1 (Gray)	17-1/8	20-1/16	14

Covers For Condensing Unit No : 60-- To 80--

Part Number	Condensing Unit Model	L	W	H
P164-0014	73GCA005101B (Beige)	18	20-1/8	12-13/16
P163-0014	73GCA005101B (Gray)	18	20-1/8	12-13/16

Part Number	Condensing Unit Model	L	W	H
P164-0008	73DCA1801D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	73DCA1801D (Gray)	23-3/4	25-3/16	16-3/4
P164-0014	73GCA006101B (Beige)	18	20-1/8	12-13/16
P163-0014	73GCA006101B (Gray)	18	20-1/8	12-13/16
P164-0014	73GCA007101B (Beige)	18	20-1/8	12-13/16
P163-0014	73GCA007101B (Gray)	18	20-1/8	12-13/16
P164-0014	73GCA008101B (Beige)	18	20-1/8	12-13/16
P163-0014	73GCA008101B (Gray)	18	20-1/8	12-13/16
P161-0022	77CB 018A	21-1/8	DIA.	21
P161-0018	77CB 024	21-1/8	21-1/8	26-9/16
P161-0018	77CB 030	21-1/8	21-1/8	26-9/16
P161-0018	77CB 036	21-1/8	21-1/8	26-9/16
P161-0021	77CB 042	27-1/4	DIA.	26-1/2
P161-0021	77CB 048	27-1/4	DIA.	26-1/2

TOTALINE® WINTER COVERS

Covers For Condensing Unit No : 100-- To 200--

Part Number	Condensing Unit Model	L	W	H
P162-0025	113ANA018000 Ser.A	25-3/4	25-3/4	25-1/8
P162-0048	113ANA018000 Ser.D	23-1/2	23-1/2	24-13/16
P162-0026	113ANA030000 Ser.A	25-3/4	25-3/4	28-7/16
P162-0049	113ANA030000 Ser.E	23-1/2	23-1/2	28-7/16
P162-0028	113ANA036000 Ser.A	25-3/4	25-3/4	35-1/4
P162-0027	113ANA036000 Ser.E	25-3/4	25-3/4	31-13/16
P162-0032	113ANA042000 Ser.A	31-3/16	31-3/16	32-5/16
P162-0034	113ANA048000 Ser.A	31-3/16	31-3/16	39-1/4
P162-0033	113ANA048000 Ser.E	31-3/16	31-3/16	35-3/4
P162-0038	113ANA060000 Ser.A	35	35	39-1/4
P162-0030	113ANA060000 Ser.F	31-3/16	31-3/16	25-1/2
P162-0050	113ANC042000 Ser.B	35	35	28-15/16
P162-0036	113ANC048000 Ser.B	35	35	32-5/16
P162-0031	113RNA036000 Ser.A/B	31-3/16	31-3/16	28-15/16
P162-0037	113RNA048000 Ser.A/B/C/D	35	35	35-3/4
P162-0040	113RNA060000 Ser.A/C/D	35	35	45-15/16
P162-0035	114ANA424000 Ser.A	31-3/16	31-3/16	42-1/2
P162-0039	123RNA048000 Ser.A/C	35	35	42-1/2
P162-0041	163ANA018000 Ser.A	33	29-1/4	30
P162-0042	163ANA030000 Ser.A	33	29-1/4	36-13/16
P162-0043	163ANA036000 Ser.A	33	29-1/4	40-1/4
P162-0046	163ANA042000 Ser.A	40	35-1/2	44
P162-0045	163ANA060000 Ser.A	40	35-1/2	38
P162-0047	164ANA042000 Ser.A	40	35-1/2	47-3/4
P162-0044	165ANA030000 Ser.A/B	40	35-1/2	37-9/16
P161-0067	180ANA024000 Ser.B	40	35-1/2	47-1/4

Part Number	Condensing Unit Model	L	W	H
P162-0025	113ANA024000 Ser.A	25-3/4	25-3/4	25-1/8
P162-0048	113ANA024000 Ser.D	23-1/2	23-1/2	24-13/16
P162-0027	113ANC018000 Ser.A/B	25-3/4	25-3/4	31-13/16
P162-0028	113ANC024000 Ser.A/B	25-3/4	25-3/4	35-1/4
P162-0032	113ANC030000 Ser.A/B	31-3/16	31-3/16	32-5/16
P162-0034	113ANC036000 Ser.A/B	31-3/16	31-3/16	39-1/4
P162-0050	113ANC060000 Ser.B	35	35	28-15/16
P162-0026	113RNA018000 Ser.A	25-3/4	25-3/4	28-7/16
P162-0025	113RNA018000 Ser.D	25-3/4	25-3/4	25-1/8
P162-0026	113RNA024000 Ser.B	25-3/4	25-3/4	28-7/16
P162-0025	113RNA024000 Ser.E	25-3/4	25-3/4	25-1/8
P162-0027	113RNA030000 Ser.B	25-3/4	25-3/4	31-13/16
P162-0026	113RNA030000 Ser.E	25-3/4	25-3/4	28-7/16
P162-0030	113RNA036000 Ser.D/E	31-3/16	31-3/16	25-1/2
P162-0034	113RNA042000 Ser.A/C	31-3/16	31-3/16	39-1/4
P162-0038	113RNA060000 Ser.D/H	35	35	39-1/4
P162-0033	114ANA018000 Ser.C	31-3/16	31-3/16	35-3/4
P162-0050	114ANA024000 Ser.D	35	35	28-15/16
P162-0050	114ANA030000 Ser.D	35	35	28-15/16
P162-0037	114ANA036000 Ser.C	35	35	35-3/4
P162-0038	114ANA042000 Ser.D	35	35	39-1/4
P162-0038	114ANA048000 Ser.D	35	35	39-1/4
P162-0038	114ANA060000 Ser.D	35	35	39-1/4
P162-0033	114ANA418000 Ser.A	31-3/16	31-3/16	35-3/4
P162-0035	114ANA430000 Ser.A	31-3/16	31-3/16	42-1/2
P162-0037	114ANA436000 Ser.A	35	35	35-3/4

Part Number	Condensing Unit Model	L	W	H
P162-0040	114ANA442000 Ser.A	35	35	45-15/16
P162-0036	114ANA448000 Ser.A	35	35	32-5/16
P162-0040	114ANA460000 Ser.A	35	35	45-15/16
P162-0025	123ANA018000 Ser.A/C	25-3/4	25-3/4	25-1/8
P162-0025	123ANA024000 Ser.A/C	25-3/4	25-3/4	25-1/8
P162-0026	123ANA030000 Ser.A/B/C	25-3/4	25-3/4	28-7/16
P162-0028	123ANA036000 Ser.A/B/C	25-3/4	25-3/4	35-1/4
P162-0032	123ANA042000 Ser.A/B/C	31-3/16	31-3/16	32-5/16
P162-0034	123ANA048000 Ser.A/B/C	31-3/16	31-3/16	39-1/4
P162-0038	123ANA060000 Ser.A/B/	35	35	39-1/4
P162-0026	123RNA018000 Ser.A/C	25-3/4	25-3/4	28-7/16
P162-0027	123RNA024000 Ser.A/C	25-3/4	25-3/4	31-13/16
P162-0030	123RNA030000 Ser.A/C	31-3/16	31-3/16	25-1/2
P162-0032	123RNA036000 Ser.A/C	31-3/16	31-3/16	32-5/16
P162-0034	123RNA042000 Ser.A/C	31-3/16	31-3/16	39-1/4
P162-0036	123RNA060000 Ser.A/G/H	35	35	32-5/16
P162-0028	123RNC018000 Ser.A	25-3/4	25-3/4	35-1/4
P162-0034	123RNC024000 Ser.A	31-3/16	31-3/16	39-1/4
P162-0034	123RNC030000 Ser.A	31-3/16	31-3/16	39-1/4
P162-0034	123RNC036000 Ser.A	31-3/16	31-3/16	39-1/4
P162-0050	123RNC042000 Ser.A	35	35	28-15/16
P162-0038	123RNC048000 Ser.A	35	35	39-1/4
P162-0040	123RNC060000 Ser.A	35	35	45-15/16
P162-0033	124ANA018000 Ser.A/C	31-3/16	31-3/16	35-3/4
P162-0035	124ANA024000 Ser.A	31-3/16	31-3/16	42-1/2
P162-0050	124ANA024000 Ser.D	35	35	28-15/16
P162-0035	124ANA030000 Ser.A	31-3/16	31-3/16	42-1/2
P162-0050	124ANA030000 Ser.D	35	35	28-15/16
P162-0037	124ANA036000 Ser.A/C	35	35	35-3/4
P162-0040	124ANA042000 Ser.A	35	35	45-15/16
P162-0050	124ANA042000 Ser.D	35	35	28-15/16
P162-0036	124ANA048000 Ser.A/C	35	35	32-5/16
P162-0040	124ANA060000 Ser.A/C	35	35	45-15/16
P162-0041	163ANA024000 Ser.A	33	29-1/4	30
P162-0046	163ANA048000 Ser.A	40	35-1/2	44
P162-0043	164ANA018000 Ser.A	33	29-1/4	40-1/4
P162-0043	164ANA024000 Ser.A	33	29-1/4	40-1/4
P162-0042	164ANA030000 Ser.A	33	29-1/4	36-13/16
P162-0045	164ANA036000 Ser.A	40	35-1/2	38
P162-0047	164ANA048000 Ser.A	40	35-1/2	47-3/4
P162-0047	164ANA060000 Ser.A	40	35-1/2	47-3/4
P162-0043	165ANA018000 Ser.A/B	33	29-1/4	40-1/4
P162-0043	165ANA024000 Ser.A/B	33	29-1/4	40-1/4
P162-0044	165ANA036000 Ser.A/B	40	35-1/2	37-9/16
P162-0047	165ANA042000 Ser.A/B	40	35-1/2	47-3/4
P162-0047	165ANA048000 Ser.A/B	40	35-1/2	47-3/4
P162-0047	165ANA060000 Ser.A/B	40	35-1/2	47-3/4
P161-0067	180ANA036000 Ser.B	40	35-1/2	47-1/4
P161-0067	180ANA048000 Ser.B	40	35-1/2	47-1/4
P161-0067	180ANA060000 Ser.B	40	35-1/2	47-1/4
P162-0042	187ANA024000 Ser.B	33	29-1/4	36-13/16
P162-0044	187ANA036000 Ser.B	40	35-1/2	37-9/16
P162-0045	187ANA048000 Ser.B	40	35-1/2	38
P162-0045	187ANA060000 Ser.B	40	35-1/2	38

TOTALINE® WINTER COVERS

Covers For Condensing Unit No : 400-- To 999--

Part Number	Condensing Unit Model	L	W	H
P164-0012	461AAC006BA (Beige)	11	19	14
P163-0012	461AAC006BA (Gray)	11	19	14
P164-0010	461AAC008BA (Beige)	14-1/2	22	15-1/2
P163-0010	461AAC008BA (Gray)	14-1/2	22	15-1/2
P164-0009	462AAC006BA (Beige)	23	19-3/16	13-3/16
P163-0009	462AAC006BA (Gray)	23	19-3/16	13-3/16
P164-0013	462AAC012BA (Beige)	21-1/2	22	15
P163-0013	462AAC012BA (Gray)	21-1/2	22	15
P164-0008	462AAH010BA (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	462AAH010BA (Gray)	23-3/4	25-3/16	16-3/4
P164-0005	462AJC021BA (Beige)	28-1/4	26	17-9/16
P163-0005	462AJC021BA (Gray)	28-1/4	26	17-9/16
P162-0017	550A 024 Ser. A/D/E	33	30	33-13/16
P162-0016	550A 024 Ser. G	33	30	27-13/15
P162-0018	550A 042 Ser. A/D/E/F	33	30	39-13/16
P166-0025	552A 018 Ser. E/F	27-1/2	22-1/2	33-13/16
P162-0021	556A 060 Ser.A	42-1/16	38-5/8	39-13/16
P162-0022	565B 030	21-1/4	21-1/4	24
P166-0021	568D 024	42	30	25-5/16
P166-0022	568D 036	42	30	31-5/16
P166-0023	568D 048	42	30	41-5/16
P162-0001	590A 014 Ser. A	26-1/4	22-1/2	21-7/8
P162-0002	590A 030 Ser. A	26-5/8	22-7/8	22-7/8
P162-0003	590A 036 Ser. A/ B	26-1/4	22-1/2	30
P162-0004	590A 042 Ser. A/B/C	33	30	25-7/8
P162-0006	590A 060 Ser. B	33	30	37-7/8
P162-0023	591B 018 Ser.A/B	27-1/2	22-1/2	23-13/16
P162-0024	591B 024 Ser.A/B	27-1/2	22-1/2	27-13/16
P162-0005	592A 042 Ser. A/B/C/D	33	30	31-7/8
P162-0011	593C 014 Ser. A	26-3/16	22-1/2	23-13/16
P162-0012	593C 030 Ser. A/ B/C/D/E	26-3/16	22-1/2	27-3/16
P162-0013	593C 036 Ser. A/B/C/D/E	26-3/16	22-1/2	33-13/16
P162-0007	594A 060 Ser. A	42-1/4	38-3/4	37
P166-0008	710A 018 Ser. A/ B	22-1/2	DIA.	21-15/16
P166-0009	710A 024 Ser. A/B/C	23-15/16	DIA.	22
P166-0010	710A 030 Ser. B	22-1/2	DIA.	27-15/16
P166-0011	710A 042 Ser. A/ B	29-15/16	DIA.	22-1/2
P166-0012	710A 048 Ser. A/ B	30	DIA.	27-15/16
P166-0013	710A 060 Ser. A/ B	30	DIA.	39-15/16
P166-0020	711A030 Ser.A	22-1/2	DIA.	35-15/16
P166-0014	711A048 Ser.B	30	DIA.	33-15/16

Part Number	Condensing Unit Model	L	W	H
P164-0010	461AAC010BA (Beige)	14-1/2	22	15-1/2
P163-0010	461AAC010BA (Gray)	14-1/2	22	15-1/2
P164-0012	461BAC005BA (Beige)	11	19	14
P163-0012	461BAC005BA (Gray)	11	19	14
P164-0009	462AAC008BA (Beige)	23	19-3/16	13-3/16
P163-0009	462AAC008BA (Gray)	23	19-3/16	13-3/16
P164-0013	462AJC012BA (Beige)	21-1/2	22	15
P163-0013	462AJC012BA (Gray)	21-1/2	22	15
P164-0008	462AJC015BA (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	462AJC015BA (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	462AJC018BA (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	462AJC018BA (Gray)	23-3/4	25-3/16	16-3/4
P164-0005	462AJC024BA (Beige)	28-1/4	26	17-9/16
P163-0005	462AJC024BA (Gray)	28-1/4	26	17-9/16
P164-0005	462AJC027BA (Beige)	28-1/4	26	17-9/16
P163-0005	462AJC027BA (Gray)	28-1/4	26	17-9/16
P164-0008	462AJH012BA (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	462AJH012BA (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	462AJH018BA (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	462AJH018BA (Gray)	23-3/4	25-3/16	16-3/4
P166-0017	533A 018 Ser. A	22-1/2	22-1/2	27-15/16
P166-0018	533A 024 Ser. B	22-1/2	22-1/2	31-15/16
P166-0018	533A 030 Ser. A/B	22-1/2	22-1/2	31-15/16
P166-0019	533A 036 Ser. A/B	22-1/2	22-1/2	33-15/16
P166-0004	533A 036 Ser. C	30	30	28
P166-0004	533A 042 Ser. A/B	30	30	28
P166-0004	533A 048 Ser. A/B	30	30	28
P166-0006	533A 060 Ser. A/B/C	30	30	39-15/16
P166-0017	533G 018 Ser. A	22-1/2	22-1/2	27-15/16
P166-0018	533G 024 Ser. A	22-1/2	22-1/2	31-15/16
P166-0018	533G 030 Ser. A	22-1/2	22-1/2	31-15/16
P166-0019	533G 036 Ser. A	22-1/2	22-1/2	33-15/16
P166-0004	533G 036 Ser. B	30	30	28
P166-0004	533G 042 Ser. A	30	30	28
P166-0004	533G 048 Ser. A	30	30	28
P166-0006	533G 060 Ser. A/B	30	30	39-15/16
P166-0005	537G 024 Ser. A	30	30	33-15/16
P166-0005	537G 030 Ser. A	30	30	33-15/16
P166-0005	537G 036 Ser. A	30	30	33-15/16
P166-0005	537G 042 Ser. A	30	30	33-15/16
P166-0006	537G 048 Ser. A	30	30	39-15/16
P161-0027	538ANR 018	37	14-1/2	25-1/8
P161-0028	538ANR 030	44-1/2	17-1/8	37-3/16
P161-0028	538ANR 036	44-1/2	17-1/8	37-3/16
P161-0027	538ANX 018	37	14-1/2	25-1/8
P161-0027	538ANX 024	37	14-1/2	25-1/8
P161-0027	538ANX 030	37	14-1/2	25-1/8
P161-0027	538ANX 036	37	14-1/2	25-1/8
P161-0028	538ANX 048	44-1/2	17-1/8	37-3/16
P161-0028	538ANX 060	44-1/2	17-1/8	37-3/16
P166-0006	539G 018 Ser. A	30	30	39-15/16
P166-0006	539G 024 Ser. A	30	30	39-15/16
P166-0006	539G 030 Ser. A	30	30	39-15/16
P166-0006	539G 036 Ser. A	30	30	39-15/16
P166-0006	539G 042 Ser. A	30	30	39-15/16
P166-0006	539G 048 Ser. A	30	30	39-15/16
P166-0005	539G 060 Ser. A	30	30	33-15/16
P162-0016	550A 030 Ser. A/D/E/F	33	30	27-13/15
P162-0017	550A 036 Ser. A/D/E/F	33	30	33-13/16
P162-0018	550A 048 Ser. A/D/E/F	33	30	39-13/16
P162-0018	550A 060 Ser. D/E/G/H	33	30	39-13/16
P162-0016	552A 024 Ser. A/E	33	30	27-13/15
P166-0025	552A 024 Ser. G	27-1/2	22-1/2	33-13/16

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Covers For Condensing Unit No : 400-- To 999--

Part Number	Condensing Unit Model	L	W	H
P162-0016	552A 030 Ser. A/E/F	33	30	27-13/15
P162-0016	552A 036 Ser. A/E/F/G	33	30	27-13/15
P162-0016	552A 042 Ser. A/E/F	33	30	27-13/15
P162-0016	552A 048 Ser. A/E/F	33	30	27-13/15
P162-0018	552A 060 Ser. A/E/F	33	30	39-13/16
P162-0018	556A 024 Ser. A/D/E/G	33	30	39-13/16
P162-0016	556A 024 Ser. C	33	30	27-13/15
P162-0018	556A 030 Ser. A/D/E/F	33	30	39-13/16
P162-0016	556A 030 Ser. C	33	30	27-13/15
P162-0018	556A 036 Ser. A/D/E/F	33	30	39-13/16
P162-0016	556A 036 Ser. C	33	30	27-13/15
P162-0018	556A 042 Ser. A/D/E/F	33	30	39-13/16
P162-0016	556A 042 Ser. C	33	30	27-13/15
P162-0018	556A 048 Ser. A	33	30	39-13/16
P166-0001	561A 018 Ser. A/ B	22-1/2	22-1/2	19-1/4
P166-0015	561A 018 Ser. C/E	18	18	21-15/16
P166-0001	561A 018 Ser.A/B	22-1/2	22-1/2	19-1/4
P166-0001	561A 024 Ser. A/ B	22-1/2	22-1/2	19-1/4
P166-0016	561A 024 Ser. C/E	18	18	23-1/4
P166-0001	561A 030 Ser. A/C	22-1/2	22-1/2	19-1/4
P166-0002	561A 030 Ser. B	22-1/2	DIA.	23-1/4
P166-0002	561A 036 Ser. A/D/E	22-1/2	DIA.	23-1/4
P166-0017	561A 036 Ser. B/C	22-1/2	22-1/2	27-15/16
P166-0003	561A 042 Ser. A/B/C	30	30	23-15/16
P166-0017	561A 042 Ser. D/E	22-1/2	22-1/2	27-15/16
P166-0004	561A 048 Ser. B/C/D/E/F/G	30	30	28
P166-0005	561A 060 Ser. B/F	30	30	33-15/16
P166-0006	561A 060 Ser. C/D/E	30	30	39-15/16
P166-0015	561C 018 Ser. A/B/D/E	18	18	21-15/16
P166-0016	561C 018 Ser.C	18	18	23-1/4
P166-0016	561C 024 Ser. A/B/C/D/E	18	18	23-1/4
P166-0001	561C 030 Ser. A/B/C/D/E	22-1/2	22-1/2	19-1/4
P166-0002	561C 036 Ser. A/B/C/D/E/F	22-1/2	DIA.	23-1/4
P166-0017	561C 042 Ser. A/B/C/E/F	22-1/2	22-1/2	27-15/16
P166-0017	561C 047 Ser.A	22-1/2	22-1/2	27-15/16
P166-0004	561C 048 Ser. A/B/C	30	30	28
P166-0019	561C 048 Ser. G	22-1/2	22-1/2	33-15/16
P166-0017	561C 048 Ser.F	22-1/2	22-1/2	27-15/16
P166-0005	561C 060 Ser. A/E	30	30	33-15/16
P166-0004	561C 060 Ser. B/D	30	30	28
P166-0007	561C 060 Ser.H	30	30	33-15/16
P166-0015	561G 018 Ser.A/D/E	18	18	21-15/16
P166-0016	561G 024 Ser.A/D/E	18	18	23-1/4
P166-0001	561G 030 Ser.A/D/E	22-1/2	22-1/2	19-1/4
P166-0002	561G 036 Ser.A/B/E/F	22-1/2	DIA.	23-1/4
P166-0018	561G 042 Ser.A/B/F	22-1/2	22-1/2	31-15/16
P166-0019	561G 048 Ser. G	22-1/2	22-1/2	33-15/16
P166-0004	561G 048 Ser.A/B	30	30	28
P166-0005	561G 060 Ser.A/H	30	30	33-15/16
P166-0004	561G 060 Ser.B	30	30	28
P166-0016	561M 024 Ser. C/E	18	18	23-1/4
P166-0001	561M 030 Ser. A/C	22-1/2	22-1/2	19-1/4
P166-0002	561M 036 Ser. D/E	22-1/2	DIA.	23-1/4
P166-0004	561M 048 Ser. F/G	30	30	28
P166-0016	561N 024 Ser.A/B/C/D	18	18	23-1/4
P166-0001	561N 030 Ser.A/B/D	22-1/2	22-1/2	19-1/4
P166-0002	561N 030 Ser.C	22-1/2	DIA.	23-1/4
P166-0002	561N 036 Ser.A/B/C/D/E	22-1/2	DIA.	23-1/4
P166-0018	561N 042 Ser.A/B	22-1/2	22-1/2	31-15/16
P166-0004	561N 048 Ser.A/B	30	30	28
P166-0015	561S 018 Ser.A	18	18	21-15/16
P166-0002	561S 024 Ser.A	22-1/2	DIA.	23-1/4
P166-0017	561S 030 Ser.A	22-1/2	22-1/2	27-15/16

Part Number	Condensing Unit Model	L	W	H
P166-0019	561S 036 Ser.A	22-1/2	22-1/2	33-15/16
P166-0004	561S 042 Ser.A/B	30	30	28
P166-0007	561S 048 Ser.A	30	30	33-15/16
P166-0004	561S 060 Ser.A	30	30	28
P166-0015	561W 018 Ser.A/C/D	18	18	21-15/16
P166-0016	561W 018 Ser.B	18	18	23-1/4
P166-0016	561W 024 Ser.A/B	18	18	23-1/4
P166-0001	561W 030 Ser.A/B/C	22-1/2	22-1/2	19-1/4
P166-0002	561W 036 Ser.A/B/C/D	22-1/2	DIA.	23-1/4
P166-0018	561W 042 Ser.A/B/C/E	22-1/2	22-1/2	31-15/16
P166-0004	561W 048 Ser.A/B	30	30	28
P166-0005	561W 060 Ser.A/B/C	30	30	33-15/16
P166-0001	562A 018 Ser. A	22-1/2	22-1/2	19-1/4
P166-0018	562A 024 Ser. A	22-1/2	22-1/2	31-15/16
P166-0003	562A 036 Ser. A	30	30	23-15/16
P166-0004	562A 036 Ser. B	30	30	28
P166-0004	562A 042 Ser. A/ B	30	30	28
P166-0004	562A 048 Ser. A	30	30	28
P166-0005	562A 048 Ser. B	30	30	33-15/16
P166-0005	562A 060 Ser. A	30	30	33-15/16
P166-0006	562A 060 Ser. B	30	30	39-15/16
P166-0001	562C 018 Ser. A/B	22-1/2	22-1/2	19-1/4
P166-0018	562C 024 Ser. A/B	22-1/2	22-1/2	31-15/16
P166-0019	562C 030 Ser. A/B	22-1/2	22-1/2	33-15/16
P166-0004	562C 036 Ser. A/C	30	30	28
P166-0004	562C 042 Ser. A/C	30	30	28
P166-0005	562C 048 Ser. A	30	30	33-15/16
P166-0006	562C 060 Ser. A	30	30	39-15/16
P166-0004	563A 024 Ser. A	30	30	28
P166-0007	563A 030 Ser. A	30	30	33-15/16
P166-0007	563A 036 Ser. A	30	30	33-15/16
P166-0006	563A 042 Ser. A	30	30	39-15/16
P166-0007	563A 048 Ser. A	30	30	33-15/16
P166-0006	563A 060 Ser. A	30	30	39-15/16
P166-0017	563C 018 Ser. B	22-1/2	22-1/2	27-15/16
P166-0018	563C 018 Ser. C	22-1/2	22-1/2	31-15/16
P166-0004	563C 024 Ser. A	30	30	28
P166-0018	563C 024 Ser. D/E	22-1/2	22-1/2	31-15/16
P166-0003	563C 024 Ser.B	30	30	23-15/16
P166-0005	563C 030 Ser. A	30	30	33-15/16
P166-0004	563C 030 Ser.B/C/D	30	30	28
P166-0005	563C 036 Ser. A/B/D	30	30	33-15/16
P166-0004	563C 036 Ser.C/E/F	30	30	28
P166-0006	563C 042 Ser. A/B/D	30	30	39-15/16
P166-0007	563C 042 Ser.C/E/F	30	30	33-15/16
P166-0005	563C 048 Ser. A/B/C/D/E	30	30	33-15/16
P166-0006	563C 048 Ser. H	30	30	39-15/16
P166-0006	563C 060 Ser. A/B/C/D/G	30	30	39-15/16
P166-0018	563G 018 Ser. A/B	22-1/2	22-1/2	31-15/16
P166-0018	563G 024 Ser. A/B	22-1/2	22-1/2	31-15/16
P166-0004	563G 030 Ser. A/B	30	30	28
P166-0004	563G 036 Ser. A/B/C	30	30	28
P166-0005	563G 042 Ser. A/B/C	30	30	33-15/16
P166-0006	563G 048 Ser. B	30	30	39-15/16
P166-0006	563G 060 Ser. A/B	30	30	39-15/16
P166-0021	568D 030	42	30	25-5/16
P166-0022	568D 042	42	30	31-5/16
P166-0023	568D 060	42	30	41-5/16
P162-0001	590A 018 Ser. A	26-1/4	22-1/2	21-7/8
P162-0001	590A 024 Ser. A	26-1/4	22-1/2	21-7/8
P162-0004	590A 048 Ser. B	33	30	25-7/8
P162-0001	591A 014 Ser. A	26-1/4	22-1/2	21-7/8
P162-0001	591A 018 Ser. A	26-1/4	22-1/2	21-7/8

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Part Number	Condensing Unit Model	L	W	H
P162-0002	591A 024 Ser. A/ B	26-5/8	22-7/8	22-7/8
P162-0002	591A 030 Ser. A	26-5/8	22-7/8	22-7/8
P162-0004	591A 036 Ser. A	33	30	25-7/8
P162-0004	591A 042 Ser. A/B/C/D	33	30	25-7/8
P162-0004	591A 048 Ser. A/B/C	33	30	25-7/8
P162-0004	591A 060 Ser. A	33	30	25-7/8
P162-0024	591B 030 Ser.A/B	27-1/2	22-1/2	27-13/16
P166-0025	591B 036 Ser.A/B	27-1/2	22-1/2	33-13/16
P162-0016	591B 042 Ser.A/B	33	30	27-13/15
P162-0016	591B 048 Ser.A/B	33	30	27-13/15
P162-0018	591B 060 Ser.A/B	33	30	39-13/16
P162-0001	592A 014 Ser. A	26-1/4	22-1/2	21-7/8
P162-0001	592A 018 Ser. A	26-1/4	22-1/2	21-7/8
P162-00fa02	592A 024 Ser. A	26-5/8	22-7/8	22-7/8
P162-0002	592A 030 Ser. A/ B	26-5/8	22-7/8	22-7/8
P162-0004	592A 036 Ser. A	33	30	25-7/8
P162-0005	592A 048 Ser. A/B/C	33	30	31-7/8
P162-0005	592A 060 Ser. A	33	30	31-7/8
P162-0004	593A 018 Ser. A	33	30	25-7/8
P162-0005	593A 024 Ser. A	33	30	31-7/8
P162-0005	593A 030 Ser. A/ B	33	30	31-7/8
P162-0004	593A 030 Ser. C	33	30	25-7/8
P162-0006	593A 036 Ser. A/ B	33	30	37-7/8
P162-0004	593A 036 Ser. C	33	30	25-7/8
P162-0005	593A 042 Ser. A	33	30	31-7/8
P162-0006	593A 048 Ser. A/ B	33	30	37-7/8
P162-0011	593C 018 Ser. A/ B/C/D/E	26-3/16	22-1/2	23-13/16
P162-0011	593C 024 Ser. A/ B/C/D/E	26-3/16	22-1/2	23-13/16
P162-0016	593C 042 Ser. A/ B/C/E	33	30	27-13/15
P162-0017	593C 048 Ser. A/ B/C/D/E	33	30	33-13/16
P162-0018	593C 060 Ser. A/ B/C/D	33	30	39-13/16
P162-0004	594A 018 Ser. A	33	30	25-7/8
P162-0005	594A 024 Ser. A	33	30	31-7/8
P162-0005	594A 030 Ser. A/ B	33	30	31-7/8
P162-0004	594A 030 Ser. C	33	30	25-7/8
P162-0006	594A 036 Ser. A/ B	33	30	37-7/8
P162-0004	594A 036 Ser. C	33	30	25-7/8
P162-0005	594A 042 Ser. A/ B	33	30	31-7/8
P162-0006	594A 048 Ser. A/ B	33	30	37-7/8
P162-0012	594C 024 Ser. A/ B	26-3/16	22-1/2	27-3/16
P162-0013	594C 030 Ser. A/ B	26-3/16	22-1/2	33-13/16
P162-0016	594C 036 Ser. A/ B	33	30	27-13/15
P162-0017	594C 042 Ser. A/B/C	33	30	33-13/16
P162-0018	594C 048 Ser. A	33	30	39-13/16
P162-0017	594C 060 Ser. A	33	30	33-13/16
P162-0012	594D 014 Ser.A	26-3/16	22-1/2	27-3/16
P162-0012	594D 018 Ser.A	26-3/16	22-1/2	27-3/16
P162-0002	594D 018 Ser.E/F	26-5/8	22-7/8	22-7/8
P162-0012	594D 024 Ser.A/E/F/G	26-3/16	22-1/2	27-3/16
P162-0013	594D 030 Ser.A	26-3/16	22-1/2	33-13/16
P162-0012	594D 030 Ser.E/F	26-3/16	22-1/2	27-3/16
P162-0016	594D 036 Ser.A/E/F	33	30	27-13/15
P162-0017	594D 042 Ser.A/E/F	33	30	33-13/16
P162-0017	594D 048 Ser.A/E/F/G	33	30	33-13/16
P162-0018	594D 048 Ser.B	33	30	39-13/16
P162-0018	594D 060 Ser.A/E/F	33	30	39-13/16
P162-0004	596A 018 Ser. A/ B	33	30	25-7/8
P162-0005	596A 024 Ser. A	33	30	31-7/8
P162-0006	596A 030 Ser. A	33	30	37-7/8
P162-0005	596A 036 Ser. A	33	30	31-7/8
P162-0006	596A 042 Ser. A	33	30	37-7/8
P162-0005	597A 024 Ser. A	33	30	31-7/8

Part Number	Condensing Unit Model	L	W	H
P162-0006	597A 030 Ser. A	33	30	37-7/8
P162-0005	597A 036 Ser. A	33	30	31-7/8
P162-0006	597A 042 Ser. A	33	30	37-7/8
P162-0017	597B 024 Ser. A	33	30	33-13/16
P162-0018	597B 030 Ser. A	33	30	39-13/16
P162-0017	597B 036 Ser. A	33	30	33-13/16
P162-0018	597B 042 Ser. A	33	30	39-13/16
P162-0018	597B 048 Ser. A	33	30	39-13/16
P162-0021	597B 060 Ser. A	42-1/16	38-5/8	39-13/16
P162-0013	597C 018 Ser. A/B/F/G	26-3/16	22-1/2	33-13/16
P162-0016	597C 024 Ser. A/ B/C/F/H	33	30	27-13/15
P162-0017	597C 030 Ser. A/ B/C/F/G	33	30	33-13/16
P162-0018	597C 036 Ser. A/B/C	33	30	39-13/16
P162-0017	597C 036 Ser. D/F/G	33	30	33-13/16
P162-0017	597C 042 Ser. A/B/C	33	30	33-13/16
P162-0018	597C 042 Ser. D/F/G	33	30	39-13/16
P162-0018	597C 048 Ser. A/B/C/D/F	33	30	39-13/16
P162-0017	597C 048 Ser. J	33	30	33-13/16
P162-0021	597C 060 Ser. A	42-1/16	38-5/8	39-13/16
P162-0018	597C 060 Ser. B/C/D/F	33	30	39-13/16
P162-0018	597C 060 Ser. G	33	30	39-13/16
P162-0018	598A 036 Ser. A/C/D	33	30	39-13/16
P162-0018	598A 048 Ser. A/C/D	33	30	39-13/16
P162-0018	598A 060 Ser. A/C/D	33	30	39-13/16
P162-0013	598B 024 Ser.A	26-3/16	22-1/2	33-13/16
P162-0018	598B 036 Ser.A	33	30	39-13/16
P162-0018	598B 048 Ser.A	33	30	39-13/16
P162-0018	598B 060 Ser.A/B	33	30	39-13/16
P162-0018	650A 024 Ser.A/C	33	30	39-13/16
P162-0017	650A 030 Ser.A/C	33	30	33-13/16
P162-0016	650A 036 Ser.A/C	33	30	27-13/15
P162-0016	650A 042 Ser.A/C	33	30	27-13/15
P162-0018	650A 048 Ser.A/C	33	30	39-13/16
P162-0018	650A 060 Ser.B/C	33	30	39-13/16
P162-0017	652A 024 Ser.A	33	30	33-13/16
P162-0016	652A 030 Ser.A	33	30	27-13/15
P162-0018	652A 036 Ser.A	33	30	39-13/16
P162-0016	652A 042 Ser.A	33	30	27-13/15
P162-0018	652A 048 Ser.A	33	30	39-13/16
P162-0018	652A 060 Ser.A	33	30	39-13/16
P162-0017	697C 024 Ser. A/B/C	33	30	33-13/16
P162-0017	697C 030 Ser. A/B/C	33	30	33-13/16
P162-0018	697C 036 Ser. A/B/C	33	30	39-13/16
P162-0017	697C 042 Ser. A/B/C	33	30	33-13/16
P162-0018	697C 048 Ser. A/B/C	33	30	39-13/16
P162-0021	697C 060 Ser. A/B/C	42-1/16	38-5/8	39-13/16
P166-0009	710A 030 Ser. A/C	23-15/16	DIA.	22
P166-0010	710A 036 Ser. A/ B	22-1/2	DIA.	27-15/16
P166-0009	710A 036 Ser. C	23-15/16	DIA.	22
P166-0010	710A 042 Ser. C	22-1/2	DIA.	27-15/16
P166-0008	711A018 Ser.A	22-1/2	DIA.	21-15/16
P166-0010	711A024 Ser.A	22-1/2	DIA.	27-15/16
P166-0012	711A036 Ser.B	30	DIA.	27-15/16
P166-0012	711A042 Ser.B	30	DIA.	27-15/16
P166-0013	711A060 Ser.B	30	DIA.	39-15/16
P166-0012	712A 024 Ser. A	30	DIA.	27-15/16
P166-0014	712A 030 Ser. A	30	DIA.	33-15/16
P166-0014	712A 036 Ser. A	30	DIA.	33-15/16
P166-0013	712A 042 Ser. A	30	DIA.	39-15/16
P166-0013	712A 048 Ser. A	30	DIA.	39-15/16
P166-0013	712A 060 Ser. A	30	DIA.	39-15/16

TOTALINE® WINTER COVERS

Covers For Condensing Unit No. : A-- To G--

Part Number	Condensing Unit Model	L	W	H
P166-0001	AA1A018 Ser.A/B	22-1/2	22-1/2	19-1/4
P166-0001	AA1A024 Ser.A/B	22-1/2	22-1/2	19-1/4
P166-0001	AA1A030 Ser.A	22-1/2	22-1/2	19-1/4
P166-0002	AA1A030 Ser.B	22-1/2	DIA.	23-1/4
P166-0002	AA1A036 Ser.A	22-1/2	DIA.	23-1/4
P166-0018	AA1A036 Ser.B	22-1/2	22-1/2	31-15/16
P166-0003	AA1A042 Ser.A/B	30	30	23-15/16
P166-0004	AA1A048 Ser.B/C/E	30	30	28
P166-0005	AA1A060 Ser.B	30	30	33-15/16
P166-0006	AA1A060 Ser.C/E	30	30	39-15/16
P166-0008	AA1B 018 Ser. A/ B	22-1/2	DIA.	21-15/16
P166-0009	AA1B 024 Ser. A/ B	23-15/16	DIA.	22
P166-0009	AA1B 030 Ser. A	23-15/16	DIA.	22
P166-0010	AA1B 030 Ser. B	22-1/2	DIA.	27-15/16
P166-0010	AA1B 036 Ser. A/ B	22-1/2	DIA.	27-15/16
P166-0011	AA1B 042 Ser. A/ B	29-15/16	DIA.	22-1/2
P166-0012	AA1B 048 Ser. A	30	DIA.	27-15/16
P166-0013	AA1B 060 Ser. A	30	DIA.	39-15/16
P166-0015	AA1C018 Ser.B	18	18	21-15/16
P166-0016	AA1C024 Ser.A/B	18	18	23-1/4
P166-0001	AA1C030 Ser.A/B	22-1/2	22-1/2	19-1/4
P166-0002	AA1C036 Ser.A/B/C	22-1/2	DIA.	23-1/4
P166-0017	AA1C042 Ser.A/B	22-1/2	22-1/2	27-15/16
P166-0004	AA1C048 Ser.A/B	30	30	28
P166-0005	AA1C060 Ser.A	30	30	33-15/16
P166-0007	AA1C060 Ser.B	30	30	33-15/16
P166-0001	AB1C018 Ser.A	22-1/2	22-1/2	19-1/4
P166-0018	AB1C024 Ser.A	22-1/2	22-1/2	31-15/16
P166-0019	AB1C030 Ser.A	22-1/2	22-1/2	33-15/16
P166-0004	AB1C036 Ser.A	30	30	28
P166-0004	AB1C042 Ser.A	30	30	28
P166-0005	AB1C048 Ser.A	30	30	33-15/16
P166-0006	AB1C060 Ser.A	30	30	39-15/16
P166-0012	AC1B 024 Ser. A	30	DIA.	27-15/16
P166-0014	AC1B 030 Ser. A	30	DIA.	33-15/16
P166-0014	AC1B 036 Ser. A	30	DIA.	33-15/16
P166-0013	AC1B 042 Ser. A	30	DIA.	39-15/16
P166-0013	AC1B 048 Ser. A	30	DIA.	39-15/16
P166-0013	AC1B 060 Ser. A	30	DIA.	39-15/16
P166-0004	AC1C024 Ser.A	30	30	28
P166-0005	AC1C030 Ser.A	30	30	33-15/16
P166-0005	AC1C036 Ser.A/B	30	30	33-15/16
P166-0006	AC1C042 Ser.A/B	30	30	39-15/16
P166-0005	AC1C048 Ser.A/B/C	30	30	33-15/16
P166-0006	AC1C060 Ser.A/B/C	30	30	39-15/16
P164-0007	ACA313D (Beige)	32-1/4	27-1/2	22-3/8
P163-0007	ACA313D (Gray)	32-1/4	27-1/2	22-3/8
P164-0013	ECB121D (Beige)	21-1/2	22	15
P163-0013	ECB121D (Gray)	21-1/2	22	15
P164-0013	ECB123D (Beige)	21-1/2	22	15
P163-0013	ECB123D (Gray)	21-1/2	22	15

Covers For Condensing Unit No. : G-- To P--

Part Number	Condensing Unit Model	L	W	H
P164-0011	LCA061P (Beige)	20-1/16	22-9/16	7-1/16
P163-0011	LCA061P (Gray)	20-1/16	22-9/16	7-1/16

Part Number	Condensing Unit Model	L	W	H
P164-0013	GCA121D (Beige)	21-1/2	22	15
P163-0013	GCA121D (Gray)	21-1/2	22	15
P164-0007	HCA313D (Beige)	32-1/4	27-1/2	22-3/8
P163-0007	HCA313D (Gray)	32-1/4	27-1/2	22-3/8
P164-0007	HCA333D (Beige)	32-1/4	27-1/2	22-3/8
P163-0007	HCA333D (Gray)	32-1/4	27-1/2	22-3/8

Covers For Condensing Unit No. : P-- To Z--

Part Number	Condensing Unit Model	L	W	H
P166-1033	PA13ER060 Ser.A/C/E	30	30	43-15/16
P162-0051	PA13NA 036 Ser.B	23-1/2	23-1/2	35-3/16

Part Number	Condensing Unit Model	L	W	H
P166-0008	PA10JA 018 Ser.A/B/C	22-1/2	DIA.	21-15/16
P166-0009	PA10JA 024 Ser.A/B	23-15/16	DIA.	22
P166-0008	PA10JA 024 Ser.C	22-1/2	DIA.	21-15/16
P166-0010	PA10JA 030 Ser.A/B	22-1/2	DIA.	27-15/16
P166-0009	PA10JA 030 Ser.C	23-15/16	DIA.	22
P166-0010	PA10JA 036 Ser.A/B/C	22-1/2	DIA.	27-15/16
P166-0011	PA10JA 042 Ser.A	29-15/16	DIA.	22-1/2
P166-0010	PA10JA 042 Ser.B/C	22-1/2	DIA.	27-15/16
P166-0010	PA10JA 047 Ser.C	22-1/2	DIA.	27-15/16
P166-0012	PA10JA 048 Ser.A/B	30	DIA.	27-15/16
P166-0010	PA10JA 048 Ser.C	22-1/2	DIA.	27-15/16
P166-0013	PA10JA 060 Ser.A/B/C	30	DIA.	39-15/16
P166-0008	PA11JA 018 Ser.A	22-1/2	DIA.	21-15/16
P166-0010	PA11JA 024 Ser.A	22-1/2	DIA.	27-15/16
P166-0020	PA11JA 030 Ser.A	22-1/2	DIA.	35-15/16
P166-0011	PA11JA 036 Ser.A	29-15/16	DIA.	22-1/2
P166-0012	PA11JA 042 Ser.A	30	DIA.	27-15/16
P166-0012	PA11JA 048 Ser.A	30	DIA.	27-15/16
P166-0011	PA12NA 024 Ser.A	29-15/16	DIA.	22-1/2
P166-0012	PA12NA 030 Ser.A	30	DIA.	27-15/16
P166-0012	PA12NA 036 Ser.A	30	DIA.	27-15/16
P166-0014	PA12NA 042 Ser.A	30	DIA.	33-15/16
P166-0013	PA12NA 048 Ser.A	30	DIA.	39-15/16
P166-0013	PA12NA 060 Ser.A	30	DIA.	39-15/16
P162-0033	PA13ER060 Ser.H	31-3/16	31-3/16	35-3/4
P162-0048	PA13NA 018 Ser.B	23-1/2	23-1/2	24-13/16
P162-0048	PA13NA 024 Ser.B	23-1/2	23-1/2	24-13/16
P162-0049	PA13NA 030 Ser.B	23-1/2	23-1/2	28-7/16
P162-0032	PA13NA 042 Ser.B	31-3/16	31-3/16	32-5/16
P162-0034	PA13NA 048 Ser.B	31-3/16	31-3/16	39-1/4
P162-0031	PA13NA 060 Ser.B	31-3/16	31-3/16	28-15/16
P166-0018	PA13NR018 Ser.A/E	22-1/2	22-1/2	31-15/16
P166-0004	PA13NR018 Ser.C	30	30	28
P162-0048	PA13NR018 Ser.H	23-1/2	23-1/2	24-13/16
P166-0004	PA13NR024 Ser.A/B/E	30	30	28
P166-0007	PA13NR024 Ser.C	30	30	33-15/16
P162-0049	PA13NR024 Ser.H	23-1/2	23-1/2	28-7/16
P166-0007	PA13NR030 Ser.A	30	30	33-15/16
P166-0004	PA13NR030 Ser.B/E	30	30	28
P166-0006	PA13NR030 Ser.C	30	30	39-15/16

TOTALINE® WINTER COVERS

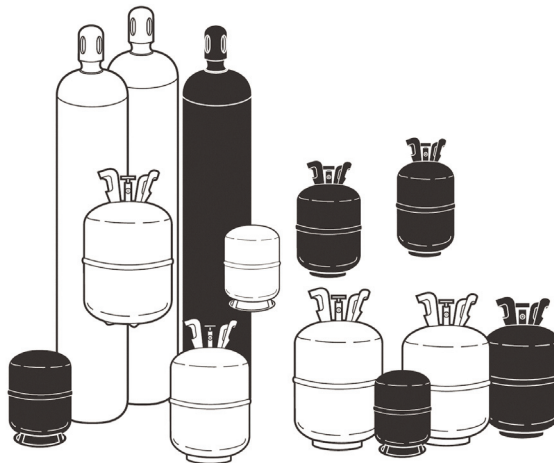
Covers For Condensing Unit No. : P-- To Z--

Part Number	Condensing Unit Model	L	W	H
P162-0049	PA13NR030 Ser.H	23-1/2	23-1/2	28-7/16
P166-0005	PA13NR036 Ser.A/D/E	30	30	33-15/16
P166-0006	PA13NR036 Ser.C	30	30	39-15/16
P162-0030	PA13NR036 Ser.H	31-3/16	31-3/16	25-1/2
P166-0005	PA13NR042 Ser.A/E	30	30	33-15/16
P166-0007	PA13NR042 Ser.C	30	30	33-15/16
P162-0032	PA13NR042 Ser.H	31-3/16	31-3/16	32-5/16
P166-1033	PA13NR048 Ser.A/E	30	30	43-15/16
P166-0006	PA13NR048 Ser.C	30	30	39-15/16
P162-0035	PA13NR048 Ser.H	31-3/16	31-3/16	42-1/2
P166-1033	PA13NR060 Ser.A/C/E	30	30	43-15/16
P162-0033	PA13NR060 Ser.H	31-3/16	31-3/16	35-3/4
P162-0051	PA13PA 036 Ser.B	23-1/2	23-1/2	35-3/16
P162-0034	PA13PA 048 Ser.B	31-3/16	31-3/16	39-1/4
P162-0031	PA13PA 060Ser.B	31-3/16	31-3/16	28-15/16
P166-0005	PA13PR036 Ser.A/C/E	30	30	33-15/16
P166-0007	PA13PR036 Ser.D	30	30	33-15/16
P166-1033	PA13PR048 Ser.A/E	30	30	43-15/16
P166-0006	PA13PR048 Ser.C	30	30	39-15/16
P162-0035	PA13PR048 Ser.H	31-3/16	31-3/16	42-1/2
P166-1033	PA13PR060 Ser.A/C/E	30	30	43-15/16
P162-0033	PA13PR060 Ser.H	31-3/16	31-3/16	35-3/4
P162-0033	PA14NA018 Ser.A	31-3/16	31-3/16	35-3/4
P162-0035	PA14NA024 Ser.A	31-3/16	31-3/16	42-1/2
P162-0035	PA14NA030 Ser.A	31-3/16	31-3/16	42-1/2
P162-0037	PA14NA036 Ser.A	35	35	35-3/4
P162-0038	PA14NA042 Ser.A	35	35	39-1/4
P162-0038	PA14NA048 Ser.A	35	35	39-1/4
P162-0038	PA14NA060 Ser.A	35	35	39-1/4
P162-0025	PA3ANA018 Ser.A	25-3/4	25-3/4	25-1/8
P162-0025	PA3ANA024 Ser.A	25-3/4	25-3/4	25-1/8
P162-0025	PA3ANA030 Ser.A	25-3/4	25-3/4	25-1/8
P162-0028	PA3ANA036 Ser.A	25-3/4	25-3/4	35-1/4
P162-0032	PA3ANA042 Ser.A	31-3/16	31-3/16	32-5/16
P162-0034	PA3ANA048 Ser.A	31-3/16	31-3/16	39-1/4
P162-0037	PA3ANA060 Ser.A	35	35	35-3/4
P162-0033	PA4ANA018 Ser.A	31-3/16	31-3/16	35-3/4
P162-0035	PA4ANA024 Ser.A	31-3/16	31-3/16	42-1/2
P162-0035	PA4ANA030 Ser.A	31-3/16	31-3/16	42-1/2
P162-0037	PA4ANA036 Ser.A	35	35	35-3/4
P162-0040	PA4ANA042 Ser.A	35	35	45-15/16
P162-0036	PA4ANA048 Ser.A	35	35	32-5/16
P162-0040	PA4ANA060 Ser.A	35	35	45-15/16
P162-0034	PA4RNG018 Ser.B	31-3/16	31-3/16	39-1/4
P162-0036	PA4RNG024 Ser.B	35	35	32-5/16
P162-0037	PA4RNG030 Ser.B	35	35	35-3/4
P162-0038	PA4RNG036 Ser.B	35	35	39-1/4
P162-0038	PA4RNG042 Ser.B	35	35	39-1/4
P162-0040	PA4RNG048 Ser.B	35	35	45-15/16
P162-0040	PA4RNG060 Ser.B	35	35	45-15/16
P164-0006	SCA101D (Beige)	25-1/2	14-1/2	20-5/8
P163-0006	SCA101D (Gray)	25-1/2	14-1/2	20-5/8
P163-0008	SXD121D (Grey)	23-3/4	25-3/16	16-3/4
P164-0012	TCA051B (Beige)	11	19	14
P163-0012	TCA051B (Gray)	11	19	14
P164-0012	TCA051D (Beige)	11	19	14
P163-0012	TCA051D (Gray)	11	19	14
P164-0012	TCA061D (Beige)	11	19	14
P163-0012	TCA061D (Gray)	11	19	14
P164-0010	TCA081D (Beige)	14-1/2	22	15-1/2
P163-0010	TCA081D (Gray)	14-1/2	22	15-1/2
P164-0010	TCA081P (Beige)	14-1/2	22	15-1/2
P163-0010	TCA081P (Gray)	14-1/2	22	15-1/2
P164-0010	TCA101D (Beige)	14-1/2	22	15-1/2
P163-0010	TCA101D (Gray)	14-1/2	22	15-1/2

Part Number	Condensing Unit Model	L	W	H
P164-0010	TCA121D (Beige)	14-1/2	22	15-1/2
P163-0010	TCA121D (Gray)	14-1/2	22	15-1/2
P164-0012	TCB061D (Beige)	11	19	14
P163-0012	TCB061D (Gray)	11	19	14
P164-0009	UCA051B (Beige)	23	19-3/16	13-3/16
P163-0009	UCA051B (Gray)	23	19-3/16	13-3/16
P164-0009	UCA061B (Beige)	23	19-3/16	13-3/16
P163-0009	UCA061B (Gray)	23	19-3/16	13-3/16
P164-0009	UCB101B (Beige)	23	19-3/16	13-3/16
P163-0009	UCB101B (Gray)	23	19-3/16	13-3/16
P164-0009	UCD081B (Beige)	23	19-3/16	13-3/16
P163-0009	UCD081B (Gray)	23	19-3/16	13-3/16
P164-0008	XCA101D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCA101D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCA121D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCA121D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCA123D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCA123D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCA141D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCA141D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCA183D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCA183D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCB121E (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCB121E (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCB123D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCB123D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCB153D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCB153D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCB183D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCB183D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCB183E (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCB183E (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCD121D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCD121D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCE101D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCE101D (Gray)	23-3/4	25-3/16	16-3/4
P164-0008	XCE183D (Beige)	23-3/4	25-3/16	16-3/4
P163-0008	XCE183D (Gray)	23-3/4	25-3/16	16-3/4
P163-0005	YCA243D (Beige)	28-1/4	26	17-9/16
P163-0005	YCA243D (Gray)	28-1/4	26	17-9/16
P164-0005	YCB213D (Beige)	28-1/4	26	17-9/16
P163-0005	YCB213D (Gray)	28-1/4	26	17-9/16
P164-0005	YCB213E (Beige)	28-1/4	26	17-9/16
P163-0005	YCB213E (Gray)	28-1/4	26	17-9/16
P164-0005	YCB213P (Beige)	28-1/4	26	17-9/16
P163-0005	YCB213P (Gray)	28-1/4	26	17-9/16
P164-0005	YCB243D (Beige)	28-1/4	26	17-9/16
P163-0005	YCB243D (Gray)	28-1/4	26	17-9/16
P164-0005	YCB243E (Beige)	28-1/4	26	17-9/16
P163-0005	YCB243E (Gray)	28-1/4	26	17-9/16
P164-0005	YCB243P (Beige)	28-1/4	26	17-9/16
P163-0005	YCB243P (Gray)	28-1/4	26	17-9/16
P164-0005	YCB273D (Beige)	28-1/4	26	17-9/16
P163-0005	YCB273D (Gray)	28-1/4	26	17-9/16
P164-0005	YCB273P (Beige)	28-1/4	26	17-9/16
P163-0005	YCB273P (Gray)	28-1/4	26	17-9/16
P164-0005	YCE273D (Beige)	28-1/4	26	17-9/16
P163-0005	YCE273D (Gray)	28-1/4	26	17-9/16

REFRIGERANT

HCFC Refrigerant



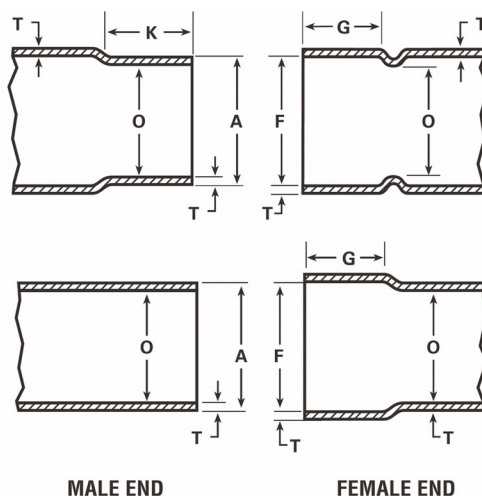
Part Number	Type	Cylinder Size
R22-2000D	R-22	TON (1750) LB CYL.
R22-0125D	R-22	125 LB CYL.
R22-0050	R-22	50 LB CYL.
R22-0030	R-22	30 LB CYL.
R134A-1750D	R-134	TON (1750) LB CYL.
R134A-0125D	R-134	125 LB CYL.
R134A-0030	R-134	30 LB CYL.
R404A-1300D	R-404A (FX70) (HP62)	TON (1300) LB CYL.
R404A-0100D	R-404A (FX70) (HP62)	100 LB CYL.
R404A-0024	R-404A (FX70) (HP62)	24 LB CYL.
R407C-0025	R-407C	25 LB CYL.
R410A-0100D	R-410A (AZ20)	100 LB CYL.
R410A-0025	R-410A (AZ20)	25 LB CYL.
R507-0025	R-507 (AZ50)	25 LB CYL.

Blends

Part Number	Type	Cylinder Size
RMP39-0125D	R-401A (MP39)	125 LB CYL.
RMP39-0030	R-401A (MP39)	30 LB CYL.
RMP66-0030	R-401B (MP66)	30 LB CYL.
RHP80-0027	R-402A (HP80)	27 LB CYL.
RHP81-0013	R-402B (HP81)	13 LB CYL.
RFX56-0125D	R-409A (FX56)	125 LB CYL.
RFX56-0030	R-409A (FX56)	30 LB CYL.
R408A-0100D	R-408A (FX10)	100 LB CYL.
R408A-0024	R-408A (FX10)	24 LB CYL.
R422D-0100D	R-422D	100 LB CYL.
R422D-0025	R-422D	25 LB CYL.

TOTALINE® COPPER FITTINGS

General Information



DIMENSIONS OF SOLDERED JOINT ENDS

(Dimensions in Inches)

STANDARD WATER TUBE SIZE	MALE END			FEMALE END			METAL THICKNESS T	INSIDE DIA. OF FITTING O
	OUTSIDE DIA. A		LENGTH K	INSIDE DIA. F		DEPTH G		
	MIN.	MAX.	MIN.	MIN.	MAX.	MIN.	MIN.	MIN.
1/8	0.248	0.251	0.38	0.252	0.256	0.31	0.022	0.18
1/4	0.373	0.376	0.38	0.377	0.381	0.31	0.026	0.3
3/8	0.497	0.501	0.44	0.502	0.506	0.38	0.031	0.39
1/2	0.622	0.626	0.56	0.627	0.631	0.5	0.036	0.52
5/8	0.747	0.751	0.69	0.752	0.756	0.62	0.038	0.63
3/4	0.872	0.876	0.81	0.877	0.881	0.75	0.041	0.74
1	1.122	1.127	0.97	1.128	1.132	0.91	0.046	0.98
1-1/4	1.372	1.377	1.03	1.378	1.382	0.97	0.05	1.23
1-1/2	1.621	1.627	1.16	1.628	1.633	1.09	0.055	1.47
2	2.121	2.127	1.41	2.128	2.133	1.34	0.064	1.94
2-1/2	2.621	2.627	1.53	2.628	2.633	1.47	0.074	2.42
3	3.121	3.127	1.72	3.128	3.133	1.66	0.083	2.89
3-1/2	3.621	3.627	1.97	3.628	3.633	1.91	0.093	3.37
4	4.121	4.127	2.22	4.128	4.133	2.16	0.101	3.84
5	5.121	5.127	2.72	5.128	5.133	2.66	0.115	4.7
6	6.121	6.127	3.22	6.128	6.133	3.09	0.13	5.72
8	8.119	8.127	4.09	8.128	8.133	3.97	0.186	7.55

Extracted from American National Standard Wrought-Copper and Wrought-Bronze Solder-Joint Pressure Fittings (ANSI B16.22) with the permission of the publisher. The American Society of Mechanical Engineers, 345 East 47th Street, New York, N.Y.

LARGE DIAMETER, WELDED DESIGN COPPER FITTINGS

FITTING MATERIAL: Copper Allow #122, Phosphorus Deoxidized- High Residual Phosphorus (DHP).
Composition: 99% Copper; .015-.040% Phosphorus.

WELD MATERIAL: Silicon Bronze. Meets specification American Welding Society (AWS) A5.7-69 and American Metals Society (AMS) 4616 B.

WELD SPECIFICATIONS: Tensile Strength - Up to 58,000 PSI
Yield Strength - Up to 25,000 PSI
Elongation in '2' - 53 to 55%
Hardness - 80 to 100 Brinell (500 kg. Load)
Temperature: Melt 1832°F, Flow 1931°F.

METHOD OF JOINING: Electric Weld.

DIMENSIONS & SPECIFICATIONS: Welded fittings are produced in accordance with specifications shown in American National Standard (ANSI) B16.22 for wrought copper, and bronze solder-joint pressure fittings.

TESTING: Each fitting is individually tested with air under water. The bursting pressure of the weld exceeds that of straight, seamless ASTM B88-70 Type "U" copper water tube, annealed, of comparable diameter.

TOTALINE® COPPER FITTINGS

Copper Tube Standard Dimensions And Weights

(Dimensions in Inches)

Dimensions in inches

NOMINAL TUBE SIZE	OUTSIDE DIA.	INSIDE DIAMETER				WALL THICKNESS				POUNDS PER LINEAR FOOT†			
	TYPES K-L-M DWV	TYPE K	TYPE L	TYPE M	TYPE DWV	TYPE K	TYPE L	TYPE M	TYPE DWV	TYPE K	TYPE L	TYPE M	TYPE DWV
1/4	0.375	0.305	0.315	-	-	0.035	0.03	0.025	-	0.145	0.126	0.106	-
3/8	0.5	0.402	0.43	-	-	0.049	0.035	0.025	-	0.269	0.198	0.145	-
1/2 5/8	.625 .750	0.527	0.545	--	--	0.049	0.04	0.028	--	0.344	0.285	0.204	--
		0.652	0.666			0.049	0.042	0.03		0.418	0.362	0.263	
3/4	0.875	0.745	0.785	-	-	0.065	0.045	0.032	-	0.641	0.455	0.328	-
1	1.125	0.995	1.025	-	-	0.065	0.05	0.035	-	0.839	0.655	0.465	-
1-1/4	1.375	1.245	1.265	1.291	1.295	0.065	0.055	0.042	0.04	1.04	0.884	0.682	0.65
1-1/2	1.625	1.481	1.505	1.527	1.541	0.072	0.06	0.049	0.042	1.36	1.14	0.94	0.809
2	2.125	1.959	1.985	2.009	2.041	0.083	0.07	0.058	0.042	2.06	1.75	1.46	1.07
2-1/2	2.625	2.435	2.465	2.495	-	0.095	0.08	0.065	-	2.93	2.48	2.03	-
3	3.125	2.907	2.945	2.981	3.035	0.109	0.09	0.072	0.045	4	3.33	2.68	1.69
3-1/2	3.625	3.385	3.425	3.459	-	0.12	0.1	0.083	-	5.12	4.29	3.58	-
4	4.125	3.857	3.905	3.935	4.009	0.134	0.11	0.095	0.058	6.51	5.38	4.66	2.87
5	5.125	4.805	4.875	4.907	4.981	0.16	0.125	0.109	0.072	9.67	7.61	6.66	4.43
6	6.125	5.741	5.845	5.881	5.959	0.192	0.14	0.122	0.083	13.9	10.2	8.92	6.1
8	8.125	7.583	7.725	7.785	-	0.271	0.2	0.17	-	25.9	19.3	16.5	-

†Slight variations from these weights must be expected in practice.

COPPER TUBE, CALCULATED BURSTING PRESSURE*

SOFTEN TUBE, CALCULATED BURSTING PRESSURE									
NOMINAL TUBE SIZE (in.)	OUTSIDE DIA. (in.)	INSIDE DIAMETER (in.)		WALL THICKNESS (in.)		BURSTING PRESSUR (lbs per sq in.)			
	TYPE K-L	TYPE K	TYPE L	TYPE K	TYPE L	TYPE K		TYPE L	
						HARD (DRAWN)	SOFT (ANNEALED)	HARD (DRAWN)	SOFT (ANNEALED)
1/4	0.375	0.305	0.315	0.035	0.03	6,700	5,600	5,800	4,800
3/8	0.5	0.402	0.43	0.049	0.035	7,100	5,900	5,000	4,200
1/2	0.625	0.527	0.545	0.049	0.04	5,600	4,700	4,600	3,800
5/8	0.75	0.652	0.666	0.049	0.042	4,700	3,900	4,000	3,400
3/4	0.875	0.745	0.785	0.065	0.045	5,300	4,500	3,700	3,100
1	1.125	0.995	1.025	0.065	0.05	4,200	3,500	3,200	2,700
1-1/4	1.375	1.245	1.265	0.065	0.055	3,400	2,800	2,900	2,400
1-1/2	1.625	1.481	1.505	0.072	0.06	3,200	2,700	2,700	2,200
2	2.125	1.959	1.985	0.083	0.07	2,800	2,300	2,400	2,000
2-1/2	2.625	2.435	2.465	0.095	0.08	2,600	2,200	2,200	1,800
3	3.125	2.907	2.945	0.109	0.09	2,500	2,100	2,100	1,700
3-1/2	3.625	3.385	3.425	0.12	0.1	2,400	2,000	2,000	1,700
4	4.125	3.857	3.905	0.134	0.11	2,300	1,900	1,900	1,600
5	5.125	4.805	4.875	0.16	0.125	2,200	1,900	1,800	1,500
6	6.125	5.741	5.845	0.192	0.14	2,300	1,900	1,600	1,400
8	8.125	7.583	7.725	0.271	0.2	2,400	2,000	1,800	1,500

*Bursting Pressures are calculated from the following formula for thin, hollow cylinders under tension:

$$P = 2tS/D$$

P= Bursting Pressure, lb. per sq. in.

t = Wall Thickness, inches

D = Outside Tube Diameter, inches

S = Tensile Strength (36,000 lb. per sq. in. for hard tubes and 30,000 for soft tubes)

With factor of safety of 5, maximum working pressure allowable by common usage up to 150°F can be taken at 1/5 the above bursting pressures.

TOTALINE® COPPER FITTINGS**Totaline® Copper Couplings and Adapters****100 Series - Coupling, Staked Stop - Copper to Copper**

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W10142FTG	5/16	50	1000	0.0059
W10143FTG	3/8	50	1000	0.008
W10144FTG	1/2	50	1000	0.014
W10145FTG	5/8	100	1000	0.026
W10157FTG	3/4	25	500	0.04
W10146FTG	7/8	50	500	0.061
W10147FTG	1-1/8	25	250	0.104
W10148FTG	1-3/8	20	200	0.15
W10149FTG	1-5/8	10	100	0.217
W10150FTG	2-1/8	5	50	0.401
W10151FTG	2-5/8	5	50	0.642
W10152FTG	3-1/8	5	40	0.97
W10153FTG	3-5/8	1	16	1.39
W10154FTG	4-1/8	2	16	2.04

101 Series - Coupling, No Stop

Part Number	OD Size (in)	Box Qty	Master Pack	Approx
W1901FTG	3/8	50	1000	0.008
W1902FTG	1/2	50	1000	0.014
W1903FTG	5/8	100	1000	0.028
W1904FTG	3/4	25	500	0.04
W1905FTG	7/8	50	500	0.06
W1906FTG	1-1/8	25	250	0.104
W1907FTG	1-3/8	20	200	0.15
W1908FTG	1-5/8	10	100	0.217
W1909FTG	2-1/8	5	50	0.401
W1910FTG	2-5/8	5	50	0.624
W1911FTG	3-1/8	5	40	0.97
W1913FTG	4-1/8	2	16	1.99

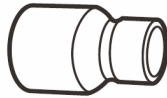
100RS Series - Coupling, Rolled Stop

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1001FTG	3/16	50	1000	0.0025
W1003FTG	1/4	50	1000	0.0041
W1009FTG	3/8	50	1000	0.008
W1017FTG	1/2	50	1000	0.014
W1022FTG	5/8	100	1000	0.026
W1028FTG	3/4	25	500	0.04
W1034FTG	7/8	50	500	0.061
W1040FTG	1	10	200	0.085
W1047FTG	1-1/8	25	250	0.104
W1055FTG	1-3/8	20	200	0.15
W1063FTG	1-5/8	10	100	0.217
W1072FTG	2-1/8	5	50	0.401
W1082FTG	2-5/8	5	50	0.642
W1092FTG	3-1/8	5	40	0.97
W10100FTG	3-5/8	1	16	1.39
W10107FTG	4-1/8	2	16	2.04

TOTALINE® COPPER FITTINGS

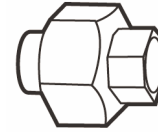
Totaline® Copper Couplings and Adapters

101R Series - Reducing Coupling - Copper to Copper



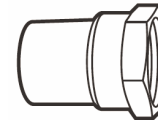
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1004FTG	1/4 x 3/16	50	1000	0.005
W1010FTG	3/8 x 5/16	50	1000	0.008
W1011FTG	3/8 x 1/4	50	1000	0.008
W1019FTG	1/2 x 3/8	50	1000	0.017
W1021FTG	1/2 x 1/4	50	1000	0.017
W1023FTG	5/8 x 1/2	50	1000	0.028
W1025FTG	5/8 x 3/8	50	1000	0.02
W1027FTG	5/8 x 1/4	50	1000	0.026
W1029FTG	3/4 x 5/8	25	500	0.035
W1030FTG	3/4 x 1/2	25	500	0.037
W1031FTG	3/4 x 3/8	25	500	0.033
W1035FTG	7/8 x 3/4	50	500	0.064
W1036FTG	7/8 x 5/8	50	500	0.059
W1037FTG	7/8 x 1/2	50	500	0.05
W1038FTG	7/8 x 3/8	50	500	0.053
W1049FTG	1-1/8 x 7/8	25	250	0.103
W1050FTG	1-1/8 x 3/4	25	250	0.1
W1051FTG	1-1/8 x 5/8	25	250	0.105
W1052FTG	1-1/8 x 1/2	25	250	0.094
W1056FTG	1-3/8 x 1-1/8	10	100	0.144
W1058FTG	1-3/8 x 7/8	10	100	0.13
W1060FTG	1-3/8 x 5/8	10	100	0.177
W1064FTG	1-5/8 x 1-3/8	10	100	0.21
W1065FTG	1-5/8 x 1-1/8	10	100	0.22
W1067FTG	1-5/8 x 7/8	10	100	0.218
W1069FTG	1-5/8 x 5/8	10	100	0.209
W1073FTG	2-1/8 x 1-5/8	10	100	0.386
W1074FTG	2-1/8 x 1-3/8	10	100	0.369
W1075FTG	2-1/8 x 1-1/8	10	100	0.382
W1077FTG	2-1/8 x 7/8	10	100	0.397
W1079FTG	2-1/8 x 5/8	10	100	0.402
W1083FTG	2-5/8 x 2-1/8	5	50	0.612
W1084FTG	2-5/8 x 1-5/8	5	50	0.66
W1085FTG	2-5/8 x 1-3/8	5	50	0.648
W1086FTG	2-5/8 x 1-1/8	5	50	0.64
W1093FTG	3-1/8 x 2-5/8	2	20	0.902
W1094FTG	3-1/8 x 2-1/8	2	20	0.95
W1095FTG	3-1/8 x 1-5/8	2	20	1.04
W10101FTG	3-5/8 x 3-1/8	1	16	1.36
W10108FTG	4-1/8 x 3-5/8	2	32	1.96
W10109FTG	4-1/8 x 3-1/8	2	32	1.95
W10110FTG	4-1/8 x 2-5/8	2	32	2.02

102 Series - Union



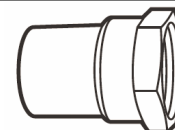
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W8001FTG	3/8	25	500	0.12
W8002FTG	1/2	25	250	0.17
W8003FTG	5/8	25	250	0.12
W8004FTG	7/8	20	200	0.31
W8005FTG	1-1/8	10	100	0.38
A11205FTG	1-3/8	5	50	0.76
A11206FTG	1-5/8	5	50	1.07
A11207FTG	2-1/8	1	25	1.77

103 Series - Female Adapter - Copper to N.P.T.

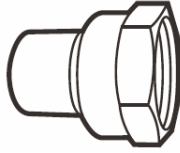


Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1207FTG	1/4 x 1/8	50	1000	0.024
W1215FTG	3/8 x 1/4	50	1000	0.03
W1225FTG	1/2 x 3/8	50	500	0.06
W1231FTG	5/8 x 1/2	50	500	0.09
W1246FTG	7/8 x 3/4	25	250	0.14
W1263FTG	1-1/8 x 1	25	250	0.22
W1271FTG	1-3/8 x 1-1/4	10	100	0.29
W1279FTG	1-5/8 x 1-1/2	10	100	0.42
W1287FTG	2-1/8 x 2	5	50	0.65
W1296FTG	2-5/8 x 2-1/2	2	20	1.2

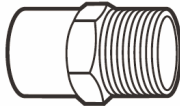
1032 Series - Female Street Adapter - Copper to N.P.T.



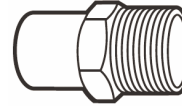
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1531FTG	5/8 x 1/2	50	500	0.096
W1546FTG	7/8 x 3/4	25	250	0.138
W1563FTG	1-1/8 x 1	25	250	0.199
W1571FTG	1-3/8 x 1-1/4	10	100	0.322
W1579FTG	1-5/8 x 1-1/2	10	100	0.5
W1587FTG	2-1/8 x 2	5	50	0.658

TOTALINE[®] COPPER FITTINGS**Totaline[®] Copper Couplings and Adapters****103R Series - Reducing Female Adapter - Copper To Fem. N.P.T.**

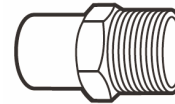
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1206FTG	1/4 x 1/4	50	1000	0.03
W1214FTG	3/8 x 3/8	50	1000	0.05
W1224FTG	1/2 x 1/2	50	500	0.08
W1230FTG	5/8 x 3/4	25	250	0.12
W1232FTG	5/8 x 3/8	50	500	0.05
W1233FTG	5/8 x 1/4	50	500	0.06
W1238FTG	3/4 x 3/4	25	250	0.13
W1239FTG	3/4 x 1/2	25	250	0.09
W1245FTG	7/8 x 1	25	250	0.231
W1247FTG	7/8 x 1/2	50	500	0.111
W1264FTG	1-1/8 x 3/4	25	250	0.171
W1265FTG	1-1/8 x 1/2	25	250	0.23
W1270FTG	1-3/8 x 1-1/2	10	100	0.414
W1272FTG	1-3/8 x 1	10	100	0.241
W1278FTG	1-5/8 x 2	5	50	0.658
W1280FTG	1-5/8 x 1-1/4	10	100	0.336

104 Series - Male Adapter Copper To Male N.P.T.

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1115FTG	3/8 x 1/4	50	1000	0.027
W1125FTG	1/2 x 3/8	50	500	0.049
W1131FTG	5/8 x 1/2	50	500	0.066
W1146FTG	7/8 x 3/4	25	250	0.116
W1163FTG	1-1/8 x 1	20	200	0.192
W1171FTG	1-3/8 x 1-1/4	10	100	0.372
W1179FTG	1-5/8 x 1-1/2	10	100	0.429
W1187FTG	2-1/8 x 2	5	50	0.794
W1196FTG	2-5/8 x 2-1/2	4	40	1.27
W1199FTG	3-1/8 x 3	2	20	2.27

1042 Series - Male Street Adapter

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1425FTG	1/2 x 3/8	50	1000	0.049
W1431FTG	5/8 x 1/2	50	500	0.074
W1446FTG	7/8 x 3/4	25	250	0.13
W1463FTG	1-1/8 x 1	20	200	0.23
W1471FTG	1-3/8 x 1-1/4	10	100	0.41

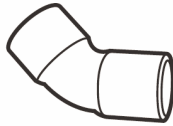
104R Series - Reducing Male Adapter Fitting To Male N.P.T.

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1106FTG	1/4 x 1/4	50	1000	0.033
W1123FTG	1/2 x 3/4	25	250	0.14
W1124FTG	1/2 x 1/2	50	500	0.07
W1126FTG	1/2 x 1/4	50	1000	0.04
W1129FTG	5/8 x 1	20	200	0.24
W1130FTG	5/8 x 3/4	25	250	0.14
W1132FTG	5/8 x 3/8	50	500	0.06
W1133FTG	5/8 x 1/4	50	500	0.07
W1138FTG	3/4 x 3/4	25	250	0.13
W1139FTG	3/4 x 1/2	25	500	0.08
W1145FTG	7/8 x 1	20	200	0.25
W1147FTG	7/8 x 1/2	25	250	0.11
W1161FTG	1-1/8 x 1-1/2	10	100	0.54
W1162FTG	1-1/8 x 1-1/4	10	100	0.39
W1164FTG	1-1/8 x 3/4	25	250	0.2
W1165FTG	1-1/8 x 1/2	25	250	0.18
W1170FTG	1-3/8 x 1-1/2	10	100	0.52
W1172FTG	1-3/8 x 1	10	100	0.3
W1178FTG	1-5/8 x 2	5	50	0.78
W1180FTG	1-5/8 x 1-1/4	10	100	0.43
W1181FTG	1-5/8 x 1	10	100	0.56
W1188FTG	2-1/8 x 1-1/2	5	50	0.74

TOTALINE® COPPER FITTINGS

Totaline® Copper Elbow

106 Series - 45° Elbow Copper To Copper



Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W3005FTG	1/4	50	1000	0.005
W3012FTG	3/8	50	1000	0.011
P805-W3012T	3/8	50	--	--
W3021FTG	1/2	50	1000	0.02
W3026FTG	5/8	100	1000	0.03
P805-W3026T	5/8	100	--	--
W3030FTG	3/4	25	250	0.06
P805-W3030T	3/4	25	--	--
W3034FTG	7/8	50	500	0.08
P805-W3034T	7/8	50	--	--
W3044FTG	1-1/8	25	250	0.15
P805-W3044T	1-1/8	25	--	--
W3050FTG	1-3/8	25	200	0.23
W3055FTG	1-5/8	20	160	0.34
W3059FTG	2-1/8	10	80	0.62
W3063FTG	2-5/8	5	40	0.97
W3067FTG	3-1/8	3	24	1.44
W3073FTG	4-1/8	1	8	3.1

107C Series - 90° Elbow Short Radius- Copper To Copper



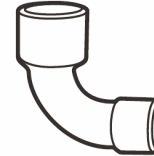
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2003FTG	1/4	50	1000	0.006
W2009FTG	3/8	50	1000	0.012
P805-W2009T	3/8	50	--	--
W2017FTG	1/2	50	1000	0.024
W2022FTG	5/8	100	1000	0.04
P805-W2022T	5/8	100	--	--
W2028FTG	3/4	25	250	0.06
W2034FTG	7/8	50	500	0.1
W2047FTG	1-1/8	20	200	0.18
W2084FTG	1-3/8	25	200	0.28
W2085FTG	1-5/8	20	120	0.4
W2086FTG	2-1/8	10	80	0.75
W2087FTG	2-5/8	5	40	1.18
W2088FTG	3-1/8	3	24	1.88
W2090FTG	4-1/8	1	8	4.22

105 Series —45° Street Elbow, Long Radius



Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2659FTG	2-1/8	5	40	1,010

107R Series —90° Reducing Elbow, Long Radius

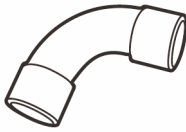


Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2723FTG	5/8 x 1/2	50	500	0.04
W2735FTG	7/8 x 3/4	25	250	0.12
W2736FTG	7/8 x 5/8	50	500	0.09
W2749FTG	1-1/8 x 7/8	25	250	0.17
W2756FTG	1-3/8 x 1-1/8	10	100	0.31

107L2 Series —90° Street Elbow, Long Radius



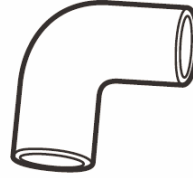
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2809FTG	3/8	50	1000	0.016
P805-W2809T	3/8	50	--	--
P805-W2817T	1/2	50	500	0.03
P805-W2822T	5/8	50	1000	0.05
P805-W2828T	3/4	25	250	0.08
W2834FTG	7/8	25	250	0.12
W2847FTG	1-1/8	10	100	0.21
W2350FTG	1-3/8	10	80	0.39
W2355FTG	1-5/8	10	80	0.58
W2359FTG	2-1/8	5	40	1.01
W2363FTG	2-5/8	1	10	1.67
W2368FTG	3-1/8	1	8	2.51

TOTALINE® COPPER FITTINGS**Totaline® Copper Elbow****107L Series — 90° Elbow, Long Radius**

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2715FTG	1/4	50	1000	0.008
W2710FTG	5/16	50	1000	0.013
W2716FTG	3/8	50	1000	0.016
P805-W2716T	3/8	50	--	--
W2717FTG	1/2	50	500	0.03
W2722FTG	5/8	100	1000	0.06
W2728FTG	3/4	25	250	0.08
W2734FTG	7/8	25	250	0.12
W2747FTG	1-1/8	10	100	0.21
P805-W2055T	1-3/8	50	80	0.39
W2063FTG	1-5/8	10	80	0.58
W2072FTG	2-1/8	5	40	1.02
W2082FTG	2-5/8	1	10	1.66
W2092FTG	3-1/8	1	8	2.52
W2095FTG	4-1/8	1	1	5.7

1062WROT Series —45° Street Elbow, Long Radius

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W3312FTG	3/8	50	1000	0.011
W3321FTG	1/2	50	1000	0.02
W3326FTG	5/8	100	1000	0.03
P805-W3330T	3/4	50	250	0.06
W3344FTG	1-1/8	50	250	0.15
W3350FTG	1-3/8	25	200	0.24
W3355FTG	1-5/8	20	160	0.34
W3359FTG	2-1/8	10	80	0.63
W3363FTG	2-5/8	5	40	0.98
W3373FTG	4-1/8	1	8	3.2

105C Series —90° Street Elbow, Short Radius

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2626FTG	5/8	25	500	0.05
W2634FTG	7/8	25	250	0.1
W2644FTG	1-1/8	10	100	0.18
W2684FTG	1-3/8	5	50	0.28

NOTE: Order Totaline Copper Fittings by Part Number and Model Series Number.

* Part Numbers Ending in 'T' are Totaline's China sourced Fittings.

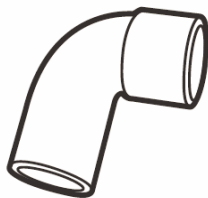
107CR Series —90° Reducing Elbow, Short Radius

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2023FTG	5/8 x 1/2	50	500	0.04
W2035FTG	7/8 x 3/4	25	500	0.026
W2036FTG	7/8 x 5/8	50	500	0.08
W2051FTG	1-1/8 x 5/8	25	250	0.12
W2049FTG	1-1/8 x 7/8	25	250	0.15
W2056FTG	1-3/8 x 1-1/8	10	100	0.23
W2077FTG	1-5/8 x 1-3/8	10	100	0.34
W2078FTG	2-1/8 x 1-5/8	5	40	0.6

TOTALINE® COPPER FITTINGS

Totaline® Copper Elbow

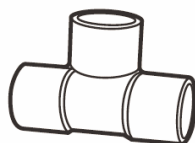
107C2 Series —90° Street Elbow, Short Radius



Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W2312FTG	3/8	50	1000	0.012
W2321FTG	1/2	50	1000	0.024
W2326FTG	5/8	100	1000	0.05
W2330FTG	3/4	25	250	0.06
W2334FTG	7/8	50	500	0.1
W2344FTG	1-1/8	25	250	0.18
W2384FTG	1-3/8	25	200	0.28
W2385FTG	1-5/8	20	120	0.39
W2386FTG	2-1/8	10	80	0.76
W2387FTG	2-5/8	5	40	1.18
W2388FTG	3-1/8	3	25	1.86
W2390FTG	4-1/8	1	8	4.2

Totaline® Copper Tees

111 Series — TEE

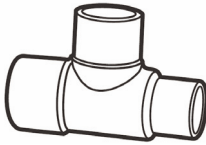


Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W40302FTG	3/16	50	1000	0.009
W40306FTG	1/4	50	1000	0.015
W40313FTG	5/16	50	1000	0.02
W4000FTG	3/8	50	1000	0.028
W4001FTG	1/2	50	500	0.047
W4006FTG	5/8	50	500	0.05
W4017FTG	3/4	25	250	0.1
P805-W4031T	7/8	25	250	0.16
W4048FTG	1-1/8	10	100	0.33
W4068FTG	1-3/8	5	50	0.46
W4084FTG	1-5/8	5	50	0.71
W40102FTG	2-1/8	5	40	1.29
W40123FTG	2-5/8	1	10	1.9
W40152FTG	3-1/8	1	10	2.75
W40190FTG	3-5/8	1	8	4.17
W40200FTG	4-1/8	1	8	6.62

TOTALINE® COPPER FITTINGS

Totaline® Copper Tees

111 R, RR or BH Series* — Reducing Tee



Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W40308FTG	1/4 x 1/4 x 3/16	50	1000	0.015
W40368FTG	1/4 x 1/4 x 3/8	50	1000	0.028
W40332FTG	3/8 x 1/4 x 1/4	50	1000	0.028
W40330FTG	3/8 x 1/4 x 3/8	50	1000	0.028
W4005FTG	3/8 x 3/8 x 1/2	50	500	0.047
W40324FTG	3/8 x 3/8 x 1/4	50	1000	0.028
W4016FTG	3/8 x 3/8 x 5/8	50	500	0.063
W40350FTG	1/2 x 1/2 x 1/4	50	500	0.047
W4002FTG	1/2 x 1/2 x 3/8	50	500	0.047
W4015FTG	1/2 x 1/2 x 5/8	50	500	0.063
W40363FTG	1/2 x 1/4 x 1/2	50	500	0.047
W4003FTG	1/2 x 3/8 x 1/2	50	500	0.047
W40358FTG	1/2 x 3/8 x 1/4	50	500	0.047
W4004FTG	1/2 x 3/8 x 3/8	50	500	0.047
W4067FTG	8 x 5/8 x 1-1/8	10	100	0.32
W4047FTG	5/8 x 5/8 x 7/8	25	250	0.11
W4029FTG	5/8 x 5/8 x 3/4	50	500	0.1
W4007FTG	5/8 x 5/8 x 1/2	50	500	0.06
W4008FTG	5/8 x 5/8 x 3/8	50	500	0.06
W4009FTG	5/8 x 1/2 x 5/8	50	500	0.06
W4010FTG	5/8 x 1/2 x 1/2	50	500	0.06
W4011FTG	8 x 1/2 x 1-3/8	50	500	0.06
W4027FTG	3/4 x 1/2 x 1/2	25	250	0.1
W4025FTG	3/4 x 1/2 x 3/4	25	250	0.1
W4020FTG	3/4 x 3/4 x 3/8	25	250	0.1
W4018FTG	3/4 x 3/4 x 5/8	25	250	0.1
W4046FTG	3/4 x 3/4 x 7/8	50	500	0.15
W4065FTG	8 x 7/8 x 1-1/8	10	100	0.33
W4032FTG	7/8 x 7/8 x 3/4	25	250	0.15
W4033FTG	7/8 x 7/8 x 5/8	25	250	0.14
W4034FTG	7/8 x 7/8 x 1/2	25	250	0.14
W4035FTG	7/8 x 7/8 x 3/8	25	250	0.1
W4041FTG	7/8 x 5/8 x 7/8	25	250	0.15
W4043FTG	7/8 x 5/8 x 5/8	25	250	0.13
W40231FTG	7/8 x 1/2 x 5/8	25	250	0.14
W4082FTG	8 x 1-1/8 x 1-3/8	5	50	0.46
W40101FTG	8 x 1-1/8 x 1-5/8	5	50	0.66
W4052FTG	1/8 x 1-1/8 x 1/2	10	100	0.27
W4051FTG	1/8 x 1-1/8 x 5/8	10	100	0.27
W4049FTG	1/8 x 1-1/8 x 7/8	10	100	0.31
W4061FTG	1/8 x 5/8 x 1-1/8	10	100	0.33
W4063FTG	1/8 x 5/8 x 5/8	10	100	0.27
W4062FTG	1/8 x 5/8 x 7/8	10	100	0.31
W4055FTG	1/8 x 7/8 x 1-1/8	10	100	0.33
W4058FTG	1/8 x 7/8 x 5/8	10	100	0.27

W4056FTG	1/8 x 7/8 x 7/8	10	100	0.31
W40100FTG	8 x 1-3/8 x 1-5/8	5	50	0.69
W40122FTG	8 x 1-3/8 x 2-1/8	5	40	1.29
W4069FTG	8 x 1-3/8 x 1-1/8	5	50	0.45
W4070FTG	3/8 x 1-3/8 x 7/8	5	50	0.37
W4071FTG	3/8 x 1-3/8 x 5/8	5	50	0.32
W4072FTG	3/8 x 1-3/8 x 1/2	5	50	0.32
W4073FTG	8 x 1-1/8 x 1-3/8	5	50	0.46
W4074FTG	8 x 1-1/8 x 1-1/8	5	50	0.45
W4075FTG	3/8 x 1-1/8 x 7/8	5	50	0.37
W4076FTG	3/8 x 1-1/8 x 5/8	5	50	0.33
W4078FTG	3/8 x 7/8 x 1-3/8	5	50	0.47
W4079FTG	3/8 x 7/8 x 1-1/8	5	50	0.47
W4080FTG	3/8 x 7/8 x 7/8	5	50	0.37
W4081FTG	3/8 x 7/8 x 5/8	5	50	0.32
W4083FTG	3/8 x 5/8 x 1-3/8	5	50	0.45
W4097FTG	1-5/8 x 1-1/8 x 1-1/8	5	50	0.61
W4096FTG	1-5/8 x 1-1/8 x 1-3/8	5	50	0.64
W4095FTG	1-5/8 x 1-1/8 x 1-5/8	5	50	0.69
W40237FTG	1-5/8 x 1-1/8 x 5/8	5	50	0.47
W4098FTG	1-5/8 x 1-1/8 x 7/8	5	50	0.56
W4092FTG	1-5/8 x 1-3/8 x 1-1/8	5	50	0.6
W4091FTG	1-5/8 x 1-3/8 x 1-3/8	5	50	0.64
W4090FTG	1-5/8 x 1-3/8 x 1-5/8	5	50	0.69
W4094FTG	1-5/8 x 1-3/8 x 5/8	5	50	0.47
W4093FTG	1-5/8 x 1-3/8 x 7/8	5	50	0.56
W4086FTG	1-5/8 x 1-5/8 x 1-1/8	5	50	0.61
W4085FTG	1-5/8 x 1-5/8 x 1-3/8	5	50	0.64
W40121FTG	1-5/8 x 1-5/8 x 2-1/8	5	40	1.29
W4088FTG	1-5/8 x 1-5/8 x 5/8	5	50	0.47
W4087FTG	1-5/8 x 1-5/8 x 7/8	5	50	0.57
W40244FTG	1-5/8 x 5/8 x 1-5/8	5	50	0.67
W40240FTG	1-5/8 x 7/8 x 1-1/8	5	50	0.6
W40239FTG	1-5/8 x 7/8 x 1-3/8	5	50	0.64
W4099FTG	1-5/8 x 7/8 x 1-5/8	5	50	0.68
W40243FTG	1-5/8 x 7/8 x 5/8	5	50	0.47
W40238FTG	1-5/8 x 7/8 x 7/8	5	50	0.55
W40247FTG	2-1/8 x 1-1/8 x 1-1/8	5	40	0.9
W40245FTG	2-1/8 x 1-1/8 x 2-1/8	5	40	1.29
W40118FTG	2-1/8 x 1-3/8 x 1-1/8	5	40	1
W40117FTG	2-1/8 x 1-3/8 x 1-3/8	5	40	1.03
W40116FTG	2-1/8 x 1-3/8 x 1-5/8	5	40	1.09
W40115FTG	2-1/8 x 1-3/8 x 2-1/8	5	40	1.3
W40112FTG	2-1/8 x 1-5/8 x 1-1/8	5	40	0.95
W40111FTG	2-1/8 x 1-5/8 x 1-3/8	5	40	1.03
W40110FTG	2-1/8 x 1-5/8 x 1-5/8	5	40	1.08
W40109FTG	2-1/8 x 1-5/8 x 2-1/8	5	40	1.3
W40113FTG	2-1/8 x 1-5/8 x 7/8	5	40	0.9
W40105FTG	2-1/8 x 2-1/8 x 1-1/8	5	40	0.99
W40104FTG	2-1/8 x 2-1/8 x 1-3/8	5	40	1.03
W40103FTG	2-1/8 x 2-1/8 x 1-5/8	5	40	1.08
W40144FTG	2-1/8 x 2-1/8 x 2-5/8	1	10	1.9
W40107FTG	2-1/8 x 2-1/8 x 5/8	5	40	0.86
W40106FTG	2-1/8 x 2-1/8 x 7/8	5	40	0.92
W40124FTG	2-5/8 x 2-5/8 x 2-1/8	1	10	1.66
W40125FTG	2-5/8 x 2-5/8 x 1-5/8	1	10	1.41
W40126FTG	2-5/8 x 2-5/8 x 1-3/8	1	10	1.32

TOTALINE® COPPER FITTINGS

Totaline® Copper Tees

111 R, RR or BH Series* — Reducing Tee

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W40127FTG	2-5/8 x 2-5/8 x 1-1/8	1	10	1.34
W40128FTG	2-5/8 x 2-5/8 x 7/8	1	10	1.25
W40129FTG	2-5/8 x 2-5/8 x 5/8	1	10	1.06
W40130FTG	2-5/8 x 2-1/8 x 1-5/8	1	10	1.89
W40131FTG	2-5/8 x 2-1/8 x 2-1/8	1	10	1.63
W40132FTG	2-5/8 x 2-1/8 x 1-5/8	1	10	1.41
W40220FTG	2-5/8 x 1-3/8 x 2-5/8	1	10	1.89
W40221FTG	2-5/8 x 1-1/8 x 2-5/8	1	10	1.86
W40222FTG	2-5/8 x 7/8 x 2-5/8	1	10	1.87
W40146FTG	3-1/8 x 3-1/8 x 7/8	1	10	1.69
W40147FTG	3-1/8 x 3-1/8 x 1-1/8	1	10	1.9
W40148FTG	3-1/8 x 3-1/8 x 1-3/8	1	10	1.92
W40149FTG	3-1/8 x 3-1/8 x 1-5/8	1	10	2.05
W40150FTG	3-1/8 x 3-1/8 x 2-1/8	1	10	2.27
W40151FTG	3-1/8 x 3-1/8 x 2-5/8	1	10	2.42
W40158FTG	3-1/8 x 2-5/8 x 2-5/8	1	10	2.4
W40164FTG	3-1/8 x 2-1/8 x 2-1/8	1	10	2.27
W40165FTG	3-1/8 x 2-1/8 x 2-5/8	1	10	2.22
W40192FTG	4-1/8 x 4-1/8 x 7/8	1	16	4.15
W40196FTG	4-1/8 x 4-1/8 x 2-1/8	1	8	4.91
W40197FTG	4-1/8 x 4-1/8 x 2-5/8	1	8	5.26
W40198FTG	4-1/8 x 4-1/8 x 3-1/8	1	8	5.66
W40204FTG	4-1/8 x 3-1/8 x 2-1/8	1	8	4.71
W40205FTG	4-1/8 x 3-1/8 x 2-5/8	1	8	5.08

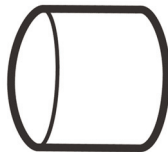
*111R - Reducing on Outlet. 111RR - Reducing on Run. 111BH - Large Diameter Outlet.

NOTE: Order Totaline® Copper Fittings by Part Number and Model Series Number.

* Part Numbers Ending in 'T' are Totaline's China sourced Fittings

Totaline® Copper Bushings, Fitting Reducers

117 Series — Tube Cap



Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W7002FTG	1/4	50	1000	0.003
W7004FTG	3/8	50	1000	0.005
W7006FTG	1/2	50	1000	0.009
W7007FTG	5/8	100	1000	0.016
W7008FTG	3/4	25	500	0.03
W7009FTG	7/8	50	500	0.04
W7011FTG	1-1/8	50	500	0.06
W7012FTG	1-3/8	25	250	0.1
W7013FTG	1-5/8	20	200	0.15
W7014FTG	2-1/8	10	100	0.26
W7015FTG	2-5/8	5	50	0.45

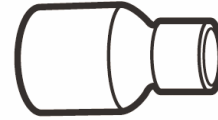
W7016FTG	3-1/8	5	50	0.69
W7018FTG	4-1/8	1	10	1.34

*111R — Reducing on Outlet. 111RR — Reducing on Run. 111BH — Large Diameter Outlet.

NOTE: Order Totaline® Copper Fittings by Part Number and Model Series Number.

* Part Numbers Ending in 'T' are Totaline's China sourced Fittings.

118 Series — Fitting Reducer



Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1306FTG	3/8 x 1/4	50	1000	0.007
P805-W1312T	1/2 x 3/8	50	1000	0.014
W1314FTG	1/2 x 1/4	50	1000	0.016
P805-W1315T	5/8 x 1/2	50	1000	0.027
W1317FTG	5/8 x 3/8	50	1000	0.023
P805-W1320T	3/4 x 5/8	25	500	0.033
W1321FTG	3/4 x 1/2	25	500	0.035
W1322FTG	3/4 x 3/8	25	500	0.034
P805-W1325T	7/8 x 3/4	50	500	0.06
P805-W1326T	7/8 x 5/8	50	500	0.06
W1327FTG	7/8 x 1/2	50	500	0.04
W1328FTG	7/8 x 3/8	50	500	0.05
W1337FTG	1-1/8 x 7/8	25	250	0.1
W1338FTG	1-1/8 x 3/4	25	250	0.09
W1339FTG	1-1/8 x 5/8	25	250	0.1
W1340FTG	1-1/8 x 1/2	25	250	0.09
W1343FTG	1-3/8 x 1-1/8	10	100	0.15
W1345FTG	1-3/8 x 7/8	10	100	0.12
W1347FTG	1-3/8 x 5/8	10	100	0.15
W1350FTG	1-5/8 x 1-3/8	10	100	0.21
W1351FTG	1-5/8 x 1-1/8	10	100	0.2
W1353FTG	1-5/8 x 7/8	10	100	0.2
W1355FTG	1-5/8 x 5/8	10	100	0.19
W1358FTG	2-1/8 x 1-5/8	10	100	0.38
W1359FTG	2-1/8 x 1-3/8	10	100	0.34
W1360FTG	2-1/8 x 1-1/8	10	100	0.36
W1362FTG	2-1/8 x 7/8	10	100	0.38
W1364FTG	2-1/8 x 5/8	10	100	0.39
W1367FTG	2-5/8 x 2-1/8	5	50	0.62
W1368FTG	2-5/8 x 1-5/8	5	50	0.64
W1369FTG	2-5/8 x 1-3/8	5	50	0.61
W1370FTG	2-5/8 x 1-1/8	5	50	0.6
W1376FTG	3-1/8 x 2-5/8	2	20	0.87
W1377FTG	3-1/8 x 2-1/8	2	20	0.95
W1378FTG	3-1/8 x 1-5/8	2	20	0.96
W1379FTG	3-1/8 x 1-3/8	2	20	1.02
W1386FTG	4-1/8 x 3-5/8	2	32	1.85
W1387FTG	4-1/8 x 3-1/8	2	32	1.87
W1388FTG	4-1/8 x 2-5/8	2	32	1.97
W1389FTG	4-1/8 x 2-1/8	2	32	2.06

TOTALINE® COPPER FITTINGS**Totaline® Copper Bushings, Fitting Reducers****119 Series — Flush Type Fitting Reducer**

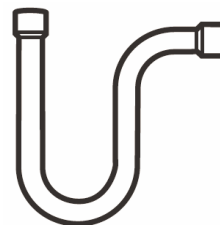
Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W1706FTG	3/8 x 1/4	50	1000	0.008
W1712FTG	1/2 x 3/8	50	1000	0.012
W1715FTG	5/8 x 1/2	50	1000	0.022
W1717FTG	5/8 x 3/8	50	1000	0.037
W1720FTG	3/4 x 5/8	25	500	0.03
W1725FTG	7/8 x 3/4	50	500	0.04
W1726FTG	7/8 x 5/8	50	500	0.08
W1737FTG	1-1/8 x 7/8	25	250	0.12
W1739FTG	1-1/8 x 5/8	25	250	0.22
W1743FTG	1-3/8 x 1-1/8	25	250	0.16
W1750FTG	1-5/8 x 1-3/8	20	200	0.21
W1758FTG	2-1/8 x 1-5/8	5	50	0.66

Totaline® Traps, Bends and Straps**120 Series - Strap**

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
A1203FTG	1/4	100	2000	0.005
A1278FTG	3/8	100	2000	0.007
A1366FTG	1/2	100	2000	0.008
A2529FTG	5/8	100	1000	0.009
A1467FTG	3/4	100	1000	0.011
A2574FTG	7/8	100	1000	0.012
A2614FTG	1-1/8	100	1000	0.014
A2650FTG	1-3/8	50	500	0.041
P805-A2675T	1-5/8	50	500	0.048
A2708FTG	2-1/8	100	800	0.063

NOTE: Order Totaline® Copper Fittings by Part Number and Model Series Number.

* Part Numbers Ending in 'T' are Totaline's China sourced Fittings.

123 Series — Suction Line P-Trap

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W60999FTG	5/8	5	50	0.2
W61008FTG	3/4	10	60	0.48
P805-W61000T	7/8	10	60	0.59
W61001FTG	1-1/8	10	10	1.09
W61002FTG	1-3/8	5	5	1.89
W61003FTG	1-5/8	5	5	3.71
W61009FTG	2-1/8	3	3	3.71

138 Series — Return Bend

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
W6020FTG	3/8 x 1-1/2	50	500	0.029
W6032FTG	1/2 x 1-1/2	25	250	0.053
W6092FTG	7/8 x 2-1/2	10	100	0.19
W60110FTG	1-1/8 x 3	5	50	0.33
W60140FTG	2-1/8 x 5-1/2	4	32	1.75
W60131FTG	1-5/8 x 4-1/2	—	—	—

125 Series - Perforated Strap

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
A1211FTG	25 Ft. Roll	6	72	1.8

Traps & Bends

Part Number	OD Size (in)	Box Qty	Master Pack	Approx Net Wt
A7812FTG	5/8 x 1/8	50	1000	0.036

PVC FITTINGS

NIBCO PVC Fittings

PVC fittings are widely used in the HVAC industry for both condensate drain and high efficiency gas furnace venting. Both the condensate drain and furnace venting fittings have the same wall thickness. Furnace venting fittings are referred to as DWV fittings while condensate drain fittings are called Schedule 40.

Schedule 40

SCHEDULE 40 PVC FITTINGS

Schedule 40 fittings are used in the condensate drain line on residential and commercial air conditioning, primarily in 1/2" and 3/4" sizes. The wide availability of Schedule 40 fittings has made them the most economical choice for HVAC applications. Schedule 40 fittings are designed to handle higher pressures than DWV fittings because they can be used in commercial irrigation and potable water supply lines. HVAC applications do not require a high pressure rating, however; DWV fittings are not available in the smaller sizes required for these applications.

Part Number	Std-Pk Qty	Description
401-005	50	401-005 1/2 SXSXS TEE PVC 40
401-007	50	401-007 3/4 SXSXS TEE PVC 40
401-025	10	401-025 2-1/2 SXSXS TEE PVC 40
402-005	50	402-005 1/2 SXSXFIPT TEE PVC40
402-007	50	402-007 3/4 SXSXFIPT TEE PVC40
406-005	50	406-005 1/2 SXS 90DG ELB PVC40
406-007	50	406-007 3/4 SXS 90DG ELB PVC40
406-025	10	406-025 2-1/2SXS 90DG ELB PVC40
407-005	50	1/2 SXFIPT 90DEGREE ELL PVC 40
407-007	50	3/4 SXFIPT 90 DEG.ELL PVC 40
409-005	50	1/2 SPGXS 90 STREET ELB.PVC 40
409-007	50	3/4 SPGXS 90 STREET ELB.PVC 40
417-005	50	1/2 SXS 45 DEG.ELBOW PVC 40
417-007	50	3/4 SXS 45 DEG.ELBOW PVC 40
417-025	10	2-1/2 SXS 45 DEG.ELBOW PVC 40
429-005	100	1/2 SLIP COUPLING PVC 40
429-007	50	3/4 SLIP COUPLING PVC 40
429-025	10	2-1/2 SLIP COUPLING PVC 40
435-005	100	1/2 SXFIPT FEMALE ADPT.PVC 40
435-007	50	3/4 SXFIPT FEMALE ADPT.PVC 40
436-005	100	1/2 MIPTXS MALE ADAPTER PVC 40
436-007	50	3/4 MIPTXS MALE ADAPTER PVC 40
437-101	100	3/4X1/2 SPXS RED BUSHING PVC40
437-339	10	3X21/2 SPXS RED BUSHING PVC 40
447-005	100	1/2 SLIP CAP PVC 40
447-007	100	3/4 SLIP CAP PVC 40
450-005	50	1/2 MIPT PLUG PVC 40
450-007	50	3/4 MIPT PLUG PVC 40

DWV Fittings

DWV fittings are used to vent high efficiency furnaces, primarily in 2" and 3" sizes (the most commonly found on OEM equipment). Occasionally, the OEM will supply a 2-1/2" fitting. Unfortunately, DWV fittings do not come in 2-1/2" and the contractor must use Schedule 40 fittings for the entire installation, or install a 2-1/2" to 3" fitting and complete the installation with 3" DWV fittings. DWV fittings are available in long turn elbows in order to have as free a flow as possible in venting applications; Schedule 40 fittings are not available in a long turn elbow.

Part Number	Std-Pk Qty	Description
4801-2	100	2 HXH COUPLING
4801-3	50	3 HXH COUPLING
4801-3X2	50	3X2 HXH COUPLING
4806-2	50	2 HXH 45 ELBOW
4806-2-2	50	2 SPGXH 45 STREET ELBOW
4806-2-3	20	3 SPGX 45 STREET ELBOW
4806-3	20	3 HXH 45 BELOW
4807-2	50	2 HXH 90 ELBOW
4807-2-2	50	2 SPGXH 90 STREET ELBOW
4807-2-3	20	3 SPGXH 90 STREET ELBOW
4807-2LT-2	20	2 SPGXH 90 ST.LONG TURN ELBOW
4807-2-LT-3	20	3 SPGXH 90 ST.LONG TURN ELBOW
4807-3	25	3 HXH 90 ELBOW
4807-LT-2	25	2 HXH 90 LONG TURN ELBOW
4807-LT-3	20	3 HXH 90 LONG TURN ELBOW
4811-2	35	2 HXHXH TEE
4811-3	20	3 HXHXH TEE

REFRIGERANT RECOVERY

Totaline® Oil-Less Refrigerant Recovery Unit



When dependability and durability is critical, choose the Totaline P920-RECOVERY115 Oil-Less Refrigerant Recovery Unit.

- With our patented 3/4hp Platinum Plus Compressor, the Totaline P920-RECOVERY115 is capable of recovering direct liquid. A larger 1-1/8" piston allows for movement of greater volumes of refrigerant. This feature saves your customer time when servicing a system.
- The larger piston also provides the Totaline Refrigerant Recovery Unit increased durability and longevity in the field.
- The simple operation consists of one-line-in, one-line-out technology. Easily self evacuate the lines to ensure air is not entering the recovery cylinder, then simply switch the valves to recover and go about your work. When recovery is done, evacuate the unit with a switch of the valve to ensure refrigerants are not cross contaminated.
- The Totaline Refrigerant Recovery Unit is designed with the technician in mind. The unit is compact with a low center of gravity. No worrying about this unit sliding around in the truck.
- With our compact design comes a lighter unit with extra ease of mobility. Weighing in at only 34 lbs. the unit can easily be carried up ladders or stairs to any jobsite.
- Totaline incorporates the latest technology in injection mold design with internal channels increasing airflow across the compressor head and motor.
- Field repairable with only one kit.
- Assembled in the U.S.A.

Accessories:

- KIT006 Low Pressure Cut-Out Kit for 115v and 230v models.
KIT007 Tank Full Kit for 115v Models.

Replacement Parts:

- C-032-F - 3cu. Replacement Filter Drier
RGA502 - Replacement Low Pressure Gauge
RGA802 - Replacement High Pressure Gauge
CPK076 - Compressor O-Ring Rebuild Kit
CPK077 - Compressor Piston Rebuild Kit
CPK078 - Compressor Head Rebuild Kit
RSC019 - Shaft Seal - Compr. to Motor
CPK079 - Complete Compressor Kit -
Contains all above except replacement gauges and filter drier.

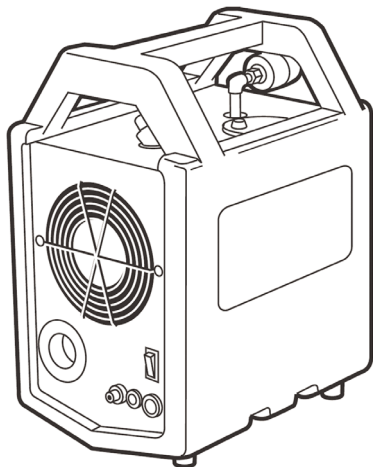
Part Number	Volts	Hertz	Phase	Safety limit switches		Dimensions (L x W x H)	Minimum Circuit Ampacity	Weight	Description
				High pressure	Low pressure				
P920-RECOVERY115	115	50/60	1	550-psi	10-in Hg (opt)	16-in x 10-in x 13-in	15	34-lbs/15.4-kg	Oil-Less Refrigerant Recovery Unit

Recovery Rates - Per ARI 740 Standard

P920-RECOVERY115	R22	R410a	R134a	R407c
Push/Pull Liquid	13.60lbs/min.	13.99bs/min.	10.58bs/min.	13.75bs/min.
Direct Liquid	4.08lbs/min.	4.98lbs/min.	3.79lbs/min.	5.02lbs/min.
Direct Vapor	.35lbs/min.	.23lbs/min.	.23lbs/min.	.31lbs/min.

REFRIGERANT RECOVERY

Totaline® Refrigerant Recovery Unit



Features:

- Enjoy faster more reliable recovery — larger 3/4-hp oil free compressor easily services larger cooling systems.
- Finish sooner — 30% faster recovery rates versus our previous Totalvac design.
- Now has covers

More Durable

- Don't "baby sit" the liquid recovery process — special ball discharge valve prevents slugging and premature compressor failure.
- Enjoy longer service life — switch halts recovery when A/C system is under a 10" vacuum to prevent excess wear to compressor components.
- Worry less — top handle shields valves, ports and gauges for better protection. Rugged double-walled plastic housing absorbs shock and abrasion.

Easier to Operate

- Simplify recovery — two hand valves perform self-evacuation and recovery in fewer steps.
- Start recovery then do other things — automatically halts vapor recovery when process is complete.
- Comfortably tote the compact 30-lb unit to your jobsite by its included shoulder strap. Easy to Field Service
- Prevent downtime — compressor may be overhauled in the field with simple tools and readily available spare parts in about 30 minutes.

Specifications

Vapor Recovery 0.31-lb/min

Recovery Rates (R-22) Liquid Recovery 5.04-lb/min Push/Pull 14.50-lb/min

Power Supply: Unit is equipped with a flanged inlet power receptacle. Overseas models included an adapter for different power cords. Recommended maximum length on 14 gauge power cord is 20 ft.

Included with Purchase

- Shoulder strap
- Now optional see below
- One 3-cubic inch in-line filter

Accessories

12RA680106.....30 lb. Cylinder (Puron)
 12RA680105.....50 lb. Cylinder (Puron)
 12RA680107.....50 lb. Cylinder with liquid switch (Puron)

Optional Float Accessory Kit

KIT002 115V for P706.0001-L
 KIT003 220V for P706.0002-L

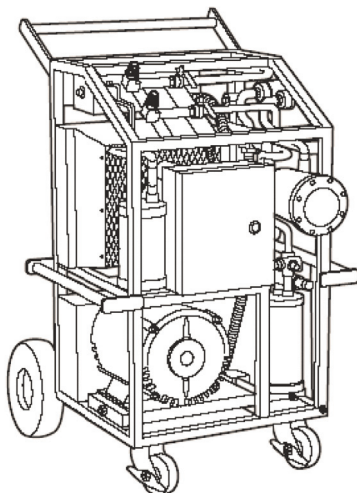
Includes:

6 ft. float cable Full indicator light, Float By-pass switch Hard wiring instructions

Part Number	Dimensions (L x W x H)	Compressor	Weight	Description
P706-0001-L	13.5" x 9" x 17"	0.75-hp oil free	30-lb 38-lb Shipping	With low pressure switch, 115/60/1
P706-0002-L	13.5" x 9" x 17"	0.75-hp oil free	30-lb 38-lb Shipping	With low pressure switch, 220/50/1

REFRIGERANT RECOVERY

Evac Commercial™ Open Drive High Pressure Recovery System



Shaves hours off recovery times on chillers and large A/C or refrigeration systems.

Faster Speed

- Recovers 325-lb/min liquid and 6-lb/min vapor (R-22).

High Durability

- Rugged 3-Hp open drive compressor provides years of reliable service, even on refrigerants heavily contaminated with oil, air, moisture, and acids.

Services Most HP Refrigerants

- R-12, R-22, R-114, R-134a, R-404, R-407, R-500, R-502, R-507, MP39 and other high pressure refrigerants or blends (does not service very high pressure refrigerants such as R-13 and R-23).

Easy Operations

- Purging lines and switching from liquid to vapor recovery modes simply involves turning three 3-way hand valves and rerouting a hose.

Included with Purchase:

Description	PART NO.
3 Ph units have separate 115V Controls Power cord.	---
Two cords total.	
Two each 3/4-5/8" and 5/8-1/2" reducing fittings	---
Two 48cu.in filter drier cores	FD-048-CR
One 3/4" x 20 ft hose	075-020-HP-FB
Two 3/4" x 10 ft hoses	075-010-HP-FB

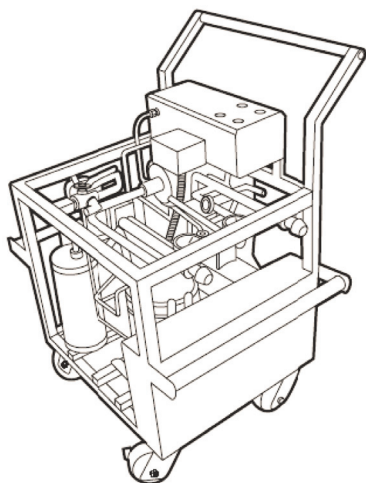
Optional Accessories:

Description	PART NO.
Spare filter driers - 48cu.in filter drier cores	FD-048-CR
Compressor fluid, 1 gal	OIL-POE-1G
100, 250 and 1,000 lb tanks	
with 3/4" ports and dip tubes	---
Custom sized ASME tanks	---

Part Number	Liquid Push/Pull	Vapor Rate	Final Vacuum	Motor	Power	Phase	Connections	Dimensions (L x W x H) Electromechanical	Weight Electromechanical	Shipping Weight
CRH-A-230-1-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240 VAC, 50/60Hz, 3Ph, 3 Hp, 15 A	1φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-A-230-3-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240 VAC, 50/60Hz, 3Ph, 3 Hp, 15 A	3φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-A-240-1-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240V, 50/60Hz, 1Ph, 3Hp, 20A	1φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-A-240-3-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240V, 50/60Hz, 1Ph, 3Hp, 20A	3φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-460-1-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	360-575V, 50/60Hz, 3Ph, 3Hp, 15A	1φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-A-460-3-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	360-575V, 50/60Hz, 3Ph, 3Hp, 15A	3φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-230-1-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240 VAC, 50/60Hz, 3Ph, 3 Hp, 15 A	1φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-230-3-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240 VAC, 50/60Hz, 3Ph, 3 Hp, 15 A	3φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-240-1-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240V, 50/60Hz, 1Ph, 3Hp, 20A	1φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-240-3-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	220-240V, 50/60Hz, 1Ph, 3Hp, 20A	3φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-460-1-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	360-575V, 50/60Hz, 3Ph, 3Hp, 15A	1φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb
CRH-W-460-3-E	325 lb/min	6.0 lb/min	15-in. Hg	3 Hp	360-575V, 50/60Hz, 3Ph, 3Hp, 15A	3φ	3/4" flare	32 in. x 29 in. x 45 in.(114 cm)	310 lb	375lb

REFRIGERANT RECOVERY

CRL SERIES



LOVAC outpaces other recover systems, especially when refrigerant is contaminated with moisture, oil, or noncondensibles

Faster Speed

- Recovers R-11 at 100-lb/min liquid and 0.66-lb/min vapor.

Noncondensibles? Not an issue!

- LOVAC's compressor works against very high head pressures and the water cooled condenser and subcools recovered refrigerant to minimize the effects of noncondensibles.

High Durability

- Rugged 2.0 Hp open drive compressor stands up to difficult recovery conditions better than vacuum pumps.

Refrigerant Compatibility

- Serves all low pressure refrigerants. Switching between R-11, R-123, and R-113 simply involves evacuating the recovery unit, changing fluid and replacing two external filters.

Easy Operation

- Purging lines and switching from liquid to vapor recovery modes simply involves turning three valves and rerouting hoses.

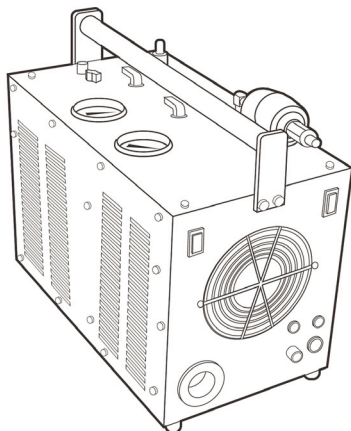
Included with Purchase	
Description	Part No.
One power cord 50 ft.	---
Two each 3/4-5/8" and 5/8-1/2" reducing fittings	---
-Two 48cu.in3 filter drier cores	FD-048-CR
-One 3/4" x 20 ft hose	075-020-HP-FB
-Two 3/4" x 10 ft hoses	075-010-HP-FB

Optional Accessories	
Description	Part No.
- 48-cu.in filter drier cores	FD-048-CR
Compressor fluid, 1 gal	OIL-POE-1G
440 and 880 lb recovery tanks with 3/4" ports	---
Tank float safety cables and adapters	---

Part Number	Liquid	Vapor	Final Vacuum	Power Recovery Unit	Weight		Connections	Warranty	Dimensions (L x W x H) Electromechanical
					Open Drive Model	Shipping			
CRL-115-E	100-b/min	0.66-lb/min	29-in Hg	103-127 VAC, 50/60 Hz, 1Ph, 2Hp	160-lbs	210-lbs	3/4" male flare fittings with ball valves	1-year Parts	23" x 27" x 34"
CRL-240-E	100-b/min	0.66-lb/min	29-in Hg	220-2240 VAC, 50/60 Hz, 1Ph, 2Hp	160-lbs	210-lbs	3/4" male flare fittings with ball valves	1-year Parts	23" x 27" x 34"

REFRIGERANT RECOVERY

Handivac™ High Capacity Oil-Less Recovery System



Extra condensing capacity and higher horsepower for faster refrigerant transfer rates and longer component life.

High ARI Certified Recovery Rates (R-22)

Speed Enhancing Features

- Dual 0.75 hp oil-less compressors double recovery rates for servicing commercial cooling units.
- Unit self-evacuates prior to performing recovery.
- Compressor pulls directly on liquid with safeties to protect against slugging.

Less Maintenance

- Oil-free compressor lessens maintenance hassles. Easily switches between R-12, R-22, R-134a, R-500, R-502, R-409, R-410a, MP39 and other high pressure refrigerants and blends.
- Dual fans provide abundant air flow to properly cool the compressor motor & head as well as other internal components for longer service life.

Safety Features

- High head pressure shut off at 425-psi.
- Low pressure shut off at 15-in Hg.
- Operational 80% tank full float valve shut off.

Push/Pull* direct liquid vapor

RTO-500 25-lb/min 7.8-lb/min 0.62-lb/min

* Push/pull rates using 3/8" hose.

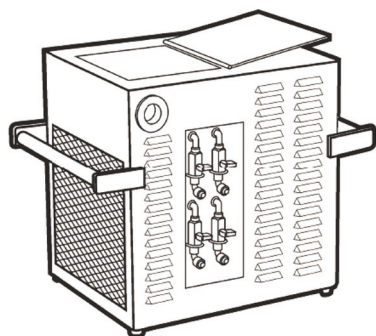
Description	Part No.
3/8" male flare x 3/8" female flare	RFD154
6-ft float cable and 3 pin (BH) connector	FVC-006

Optional Accessories	
Description	Part No.
Spare filter driers: -In-line filter 3 in 3, 1/4" flare	FD-003-25
-3/8" male flare x 3/8" female flare	RFD154
5, 10 and 20 ft x 1/4" hoses	---
30, 50, 250 and 1,000 lb recover tanks	---

Part Number	Push/Pull	Direct Liquid	Vapor	Motor	Connections	Dimensions (L x W x H)	Float Connection	Low-Pressure Switch	Weight
RTO-500-115-F	25-lb/min	7.8-lb/min	0.62-lb/min	1.5 Hp	3/8" Flare	18" x 10" x 16"	3-pin BH	15" Hg	63-lbs
RTO-500-240-F	25-lb/min	7.8-lb/min	0.62-lb/min	1.5 Hp	3/8" Flare	18" x 10" x 16"	3-pin BH	15" Hg	63-lbs

REFRIGERANT RECOVERY

Mityvac™ Lightweight Open Drive Recovery System



Offers the additional speed and durability of an open drive compressor in a lightweight package.

Accelerates Recovery Procedures To Save Labor And Reduce Cooling System Downtime

- 2.0-hp compressor moves refrigerant through a 1/2" port and valving system at sizzling rates of 55- lb/min liquid and 1.56-lb/min vapor (R- 22).
- High capacity air cooled condenser with 700-cfm fan maintains recovery rates at high ambient temperatures.

Rugged Design Offers Longer Service Life And Greater Flexibility

- Open drive compressor is virtually impervious to the acids and contaminants that burnout hermetic or oil-less compressors.
- Services R-12, R-22, R-500, R-502, R-134a, MP39, R-409a, R-507 and other high pressure refrigerants and blends. Can be reprogrammed to service newly introduced refrigerants.

Simple Operating Procedures

- Purging lines and switching from liquid to vapor recovery modes simply involves turning three 3-way hand valves — no switching hoses is necessary.

Included with Purchase	
(Hoses not included):	
Description	Part No.
50 ft. power cord	---
Two in-line 30cu.in filter driers	FD-030-50

Optional Accessories	
Description	Part No.
Recovery hoses - four required:	
1/2" x 10 ft. hoses	050-010-HP-FB
1/2" x 20 ft. hoses	050-020-HP-FB
Spare filter driers	FD-030-50
Recovery tanks (float valves optional)	
-1000-lb capacity	CYL-0250
Tank float safety cables and adapters	CYL-1000

Part Number	Liquid Push/Pull	Vapor Rate	Final Vacuum	Shipping Weight	Motor	Connections	Dimensions: (L x W x H)	Power	Weight
MRH-115-E	55 lb/min	1.56 lb/min	15 in. Hg	180	2.0 Hp	1/2" Flare	18" x 14" x 19"(46cm x 35cm x 48cm)	103-127V,50/60Hz, 1Ph,2.0Hp,20A	145 lbs.
MRH-240-E	55 lb/min	1.56 lb/min	15 in. Hg	180	2.0 Hp	1/2" Flare	18" x 14" x 19"(46cm x 35cm x 48cm)	220-240V,50/60Hz, 1Ph,2.0Hp,20A	145 lbs.

RECOVERY ACCESSORIES

Recovery Cylinders

Features:

- Standard recovery tanks have small diameter ports that restrict refrigerant flow and slow your recovery procedures. Carrier 1000-lb and 250-lb tanks have been fitted with full port 3/4" service valves and copper dip tubes that eliminate restrictions and enhance throughput for faster recovery.
- Available in 30 lb, 50 lb, 250 lb, and 1000 lb capacities. Customer ASME vessels exceeding 1000 lbs and with larger ports are also available.

Part Number	Port Size	Dims (OD X H)	Dry Weight	Description
CYL-1000	3/4"	30" x 58"	358 lbs	1000 lb Tank only
CYL-1000-LS	3/4"	30" x 58"	359 lbs	1000 lb w/80% shut off switch
CYL-0250	3/4"	15" x 49"	86 lbs	250 lb Tank only
CYL-0250-LS	3/4"	15" x 49"	87 lbs	250 lb w/80% shut off switch

Asme Cylinders

ASME Tank Features:

- Mounted on casters
- Dual pressure relief valves
- Pressure gauge
- Liquid level indicator
- 80% tank full float switch
- Bottom drain connection
- Liquid and vapor ports

Part Number	Water Capacity	Length (A)	Diameter (B)	Height (C)	Dry Weight
ASME-250-075-LP	250 gal	94 in.	30 in.	42 in.	650 lbs
ASME-250-075-HP	250 gal	94 in.	30 in.	42 in.	650 lbs
ASME-500-075-LP	500 gal	113 in.	37 in.	49 in.	1,200 lbs
ASME-500-075-HP	500 gal	113 in.	37 in.	49 in.	1,200 lbs

Refrigerant Capacity at 80% Full		
	ASME250	ASME500
R-12	2,195 lbs	4,390 lbs
R-22	2,000 lbs	4,000 lbs
R-134a	2,105 lbs	4,030 lbs
R-500	2,034 lbs	4,068 lbs
R-11	2,459 lbs	4,929 lbs
R-123	2,440 lbs	4,880 lbs

Float Valve Cable

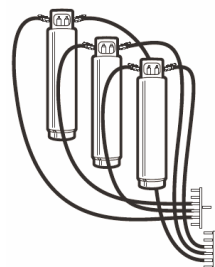
Part Number	Description
FVC-006	6-ft. Cable and connector for 80% shut off switches on Cylinders
FVC-012	12-ft. Cable and connector for 80% shut off switches on Cylinders

Recovery Hoses



Part Number	Hose Size	Description
025-010-HP-FB	1/4 inch	1/4" x 10 ft, flare w/ball valves
025-020-HP-FB	1/4 inch	1/4" x 20 ft, flare w/ball valves
025-010-HP	1/4 inch	1/4" x 10 ft, no isolation
025-020-HP	1/4 inch	1/4" x 20 ft, no isolation
038-010-HP-FB	3/8 inch	3/8" x 10 ft, flare w/ball valves
038-020-HP-FB	3/8 inch	3/8" x 20 ft, flare w/ball valves
038-010-HP	3/8 inch	3/8" x 10 ft, no isolation
038-020-HP	3/8 inch	3/8" x 20 ft, no isolation
050-010-HP-FB	1/2 inch	1/2" x 10 ft, flare w/ball valves
050-020-HP-FB	1/2 inch	1/2" x 20 ft, flare w/ball valves
050-010-HP	1/2 inch	1/2" x 10 ft, no isolation
050-020-HP	1/2 inch	1/2" x 20 ft, no isolation
075-010-HP-FB	3/4 inch	3/4" x 10 ft, hi pressure, flare w/ball
075-010-HP-QC	3/4 inch	4" x 10 ft, hi pressure quick connect
075-020-HP-FB	3/4 inch	3/4" x 20 ft, hi pressure, flare w/ball
075-020-HP-QC	3/4 inch	4" x 20 ft, hi pressure, quick connect

Manifolds

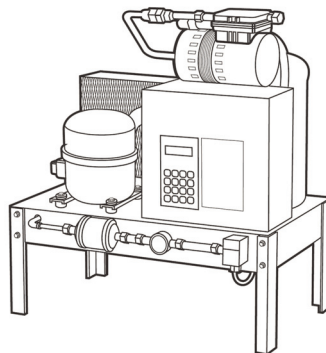


Manifolds allow recovery operator to transfer refrigerant simultaneously to multiple tanks or to pull vapor or liquid from multiple pickup points on the cooling system for faster speed.

Part Number	Description
RM-075-6	3/4" connections, 6 valves
RM-050-6	1/2" connections, 6 valves

RECOVERY ACCESSORIES

Enviropurge™ High Performance Purge System



Fast, reliable purging for low-pressure chillers. The Enviro-Purge system removes air and other noncondensibles from low pressure centrifugal chillers while minimizing the loss of refrigerant that normally accompanies the purging process. Purging is fast and microprocessor-controlled to match each chiller's requirements, and to provide historical data for studying purge trends and troubleshooting.

- **Fast, efficient, noncondensable separation** — Nearly twice the evaporator coil surface area of typical purge units means fast, efficient refrigerant separation.
- **Easy, hassle-free installation** — Ships pre-assembled and connects to existing ports on all types of chillers. Mounts conveniently near floor level.
- **Simple operation** — Application-specific microprocessor controls enhance purge capabilities and provide a user-friendly software interface.
- **High reliability, low maintenance** — Prefilter drier system removes moisture and debris from refrigerant before it enters the purge vessel. Stainless steel construction further protects the purge tank against corrosion.
- **Safeguards Refrigerant** — Four temperature sensors monitor and control purge operations; alarms alert operator to "trouble" conditions so refrigerant loss can be avoided. Display can be in °F or °C.

Rapid Noncondensable Separation

The 1/3-hp condensing unit and oversized 350-cu.-in. purge vessel combine to process more refrigerant vapor — faster. A patented reheat/re-expansion circuit provides maximum separation efficiency, and Enviro-Purge discharges only 0.48 lb. of refrigerant per pound of noncondensibles, or just 0.0049 lb when the optional carbon canister is used.

Conserves Refrigerant

Enviro-Purge's microprocessor control improves purge efficiency and prevents refrigerant loss, using multiple safeguards against "false purging." Four temperature sensors provide continuous monitoring of purge operating conditions in either °F or °C. When excessive purging is detected, the LCD alerts the operator to increasing chiller leaks.

Convenient Remote Interface

Built-in RS-232-C interface allows energy management systems or any remote PC to monitor and control purge operations.

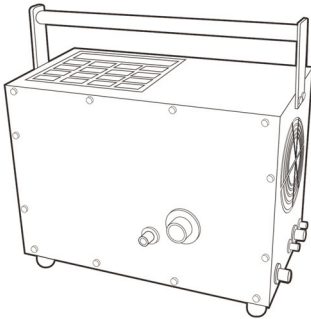
Specifications

Safety Certification-ETL listed to UL, CSA and CE safety standards.

Part Number	Refrig	Approximate Dimensions	Condensing Unit Refrigerant	Weight	Description
EMS611-011	11	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	110 VAC, 50/60 Hz, 1, 15A
EMS522-011	11	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	220 VAC, 50 Hz, 1, 15A
EMS611-113	113	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	110 VAC, 50/60 Hz, 1, 15A
EMS522-113	113	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	220 VAC, 50 Hz, 1, 15A
EMS611-114	114	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	110 VAC, 50/60 Hz, 1, 15A
EMS522-114	114	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	220 VAC, 50 Hz, 1, 15A
EMS522-123	123	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	220 VAC, 50/60 Hz, 1, 15A
EMS611-123	123	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	110 VAC, 50/60 Hz, 1, 15A
CARBCAN	--	36" x 25" x 30"	R-134a	175 lbs./ Shipping 210	Carbon canister

RECOVERY ACCESSORIES

Minipurge™ Portable High And Low Pressure Purge Unit



During normal operation the unit continuously displays and scrolls several system temperatures plus the current total pumpout time and cycle count. Eliminate air from high or low pressure cooling systems to improve cooling efficiency and reduce energy costs.

Universal Compatibility
Eliminates air from either high or low pressure refrigerants. Simply evacuate the unit before using on different refrigerant types.

Highly Portable
Smallest and lightest purge unit on the market. At 65-lbs in weight, it is readily hand carried.

Fast Purge Speed
Oil-less transfer compressor accelerates the purge process by pulling vapor from the cooling system and forcing processed refrigerant liquid back into the cooling system.

Higher Efficiency For Better Refrigerant Containment

- Vapor is pumped through a high capacity condenser then compressed in a purge vessel. Microprocessor controls calculate the most efficient time to purge noncondensibles.
- Achieves discharge efficiency as high as 0.2 lb-refg/lb-noncondensibles on some refrigerants. Three to four times more efficient than thermal purge units on the market.

Part No	Description
FD-003-25	1/4 in. flare in-line filters
025-010-HP-FB	Refrigerant Hoses: 1/4" x 10-ft with ball valves
025-020-HP-FB	Refrigerant Hoses: 1/4" x 20-ft with ball valves

Part Number	Connections	Dimensions (L x W x H)	Operating Environment	Storage Environment	Warranty	Weight
MPS-115	3/8" flares	18" x 10" x 16" (35 cm x 35 cm x 35 cm)	32-120°F, 5-95% RH, noncondensing	(-40)-150°F, 5-95% RH, noncondensing	1-year parts	65 lb
MPS-240	3/8" flares	18" x 10" x 16" (35 cm x 35 cm x 35 cm)	32-120°F, 5-95% RH, noncondensing	(-40)-150°F, 5-95% RH, noncondensing	1-year parts	65 lb

VACUUM PUMPS

Totaline® Dual Stage Vacuum Pumps



The HVAC/R professional's best friend, Totaline Vacuum Pumps are affordable, reliable, built to last and available in three sizes: 1.8 CFM, 4 CFM and 7 CFM.

- High ultimate vacuum: 3 x 10-1Pa (25 microns)
- Quick flow rate
- Portable, smaller and lighter in design
- Stable equipped with thermal protector
- Reliable force feed lubrication system
- Power plug easy connection with various plugs
- One year limited warranty

Part Number	Voltage 110-220 Volt/50-60 Hz	Pa	Microns	Stage	Power HP	Intake Fitting	Oil Capacity ml	Dimensions Inch	Net Weight lbs
P920-VAC4D015	1.5 CFM@50Hz 1.8 CFM@60Hz	3 x 10-1	25	2	1/4	1/4" Flare	200	12.1" x 4.8" x 9.0"	18.5
P920-VAC4D035	3.5 CFM@50Hz 4.0 CFM@60Hz	3 x 10-1	25	2	1/3	1/4" & 3/8"Flare	350	13.2" x 5.4" x 9.8"	24.7
P920-VAC4D060	6 CFM@50Hz 7 CFM@60Hz	3 x 10-1	25	2	3/4	1/4" & 3/8"Flare	700	15.7" x 5.7" x 10.6"	36.4

3/4hp Platinum Plus Compressor Assembly

Item 7 - Discharge ball & spring Suction valve spring & clip

Item 9 - Front plate o-ring Head o-rings

1. BLOCK
2. COMPRESSOR CYLINDER
3. COMPRESSOR HEAD
4. LIP SEAL
5. COVER PLATE
6. COMPRESSOR COUNTER WEIGHT
7. COMPRESSOR HEAD KIT
8. COMPRESSOR PISTON KIT
9. COMPRESSOR O-RING KIT
10. SCREW SOCKET HEAD CAP 1/4 -20 X 1.00 LONG STEEL BLACK
11. SCREW SOCKET HEAD CAP 1/4 -20 X 3.00 LONG STEEL BLACK
12. SUCTION VALVE PLUG
13. DISCHARGE PLUG / WITH O-RING

Ordering Information:

Replacement Parts:

C-032-F..... 3cu. Replacement Filter Drier

RGA502 Replacement Low Pressure Gauge

RGA802 Replacement High Pressure Gauge

CPK076 Compressor O-Ring Rebuild Kit

CPK077 Compressor Piston Rebuild Kit

CPK078 Compressor Head Rebuild Kit

RSC019 Shaft Seal - Compr. to Motor

CPK079 Complete Compressor Kit - Contains all above except replacement gauges and filter drier.

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® EZ Digital Multimeter



The Totaline P920-100 EZ Multimeter switches automatically between AC and DC Voltage as well as resistance measurements. No more guessing what range to switch your meter to! The Totaline P920-100

EZ Multimeter does it automatically.

Use the P920-100 to:

- Measure line and control circuit voltages
- Measure resistance of motor windings, transformers, and solenoids
- Make general AC and DC voltage and resistance measurements
- Measure the resistance of elements and electric heater cores
- Test continuity of wiring
- Verify voltage at breakers and outlets
- Use as a back-up meter in your tool box

Features:

- EZ to use one-button operation
- Automatically measures DC volts, AC volts, and Ohms (resistance)
- Large 4,000 count display
- 0 to 600 volts AC and DC
- 10M Ohm impedance
- Auto power off after 10 minutes
- Includes test lead set, batteries, and protective rubber boot
- 3-Year limited warranty



Part Number	Size	Safety	Power Supply	Battery Life	Weight
P920-100	33mm x 86mm x 187 (1.3" x 3.4" x 7.4")	CAT II 1,000-V / CATIII 600V	(2) 1.5 Volt "AA" Batteries	560 hrs. Alkaline	340g (12oz)

Function	Range	Resolution	Accuracy
DCV	1.5V to 4V 40.00V 400.0V	0.001V 0.01V 0.1V	±(0.5% + 4)
	600V	0.1V	±(0.8% + 4)
ACV	1.7V to 4V 40.00V 400.0V	0.001V 0.01V 0.1V	±(0.8% + 4)
	600V	1V	±(1.2% + 4)
OHM	400.0 4.000k 40.0k 400.0k 4.000M	0.1 0.001k 0.01k 0.1k 0.001M	±(0.8% + 4)
	40.00M	0.01M	±(2.0% + 4)

Standard Accessories	
A040	Test lead set
A002	1.5V battery (2)
A101	Protective rubber boot

Optional Accessories	
SDK1C	Deluxe test lead set
TLS2000BC	IEC 1010 deluxe test lead kit
A140	Push-on alligator clips
A103	Boot hook
A100	Soft carrying case

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Clamp-On Tester with Digital Multimeter



10" x 1.3" x 2.5

Perfect for tight, narrow, spaces.

The new P920-270 with slim jaw and body is ideal for cramped work areas and crowded electrical panels. It can help you:

- Measure flame safety control current, Test run and start capacitors and motors
- Measure motor run current and capture peak motor start up amperage
- Measure heat anticipator current, Determine thermocouple voltage
- Test line and control voltages, Measure heating element resistance
- Measure air temperature in ducts
- Test for the presence of voltage in circuits without contacting the circuit
- Measure temperature differential using relative mode

Features:

- Max display count: 4,000
- Auto & manual ranging
- Analog bar graph (41 segments)
- Data hold, Low battery indicator
- Over range indication ("OL")
- Peak hold, Relative mode
- Min/Max
- Hi voltage indicator(>30V AC/DC)
- Non-contact voltage detection
- Auto power off after 30 minutes
- Separate battery compartment
- Low Ohm range (400V), Amps AC resolution: 0.01A
- VDC/VAC resolution: 0.1mV
- DCµA measurement (0.01µA resolution)
- Temperature measurement, Capacitance measurement
- 3-Year limited warranty

Part Number	Basic DC accuracy	DC Maximum		AC Maximum		Maximum			Overall dimensions	Weight
		voltage	Amps	voltage	Amps	Resistance	Frequency	Capacitance		
P920-270	0.5%	600V	400µA	600V	400A	40MV	400MHz	40,000µF	10" x 1.3" x 2.5" (255 x 32.5 x 65mm)	.8 lbs (363g)

Part Number	Description
GK11M	Standard K-type thermocouple probe
A085	UL listed silicone test lead set with alligator clips (clip-on)
A270	Soft carrying pouch
A202	Line splitter
A771	Carbon monoxide adapter
A620	Pressure adapter
TLS2000RB	Deluxe test lead kit

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Digital Manometer

**Experience faster, more accurate measurements with a Totaline manometer**

Utility and HVAC troubleshooters choose TOTALINE for value and quality. Replace messy U-tubes and expensive pressure gauges with TOTALINE's P920-620 manometer. Isolating difficult pressure problems on natural gas and propane systems has never been easier. Test for leaks in low-pressure gas systems with the confidence of TOTALINE products. Basic accuracy of $\pm 0.5\%$ reading with 0.01 InH₂O resolution.

Use to:

- Adjusting appliance regulators
- Setting delivery pressures
- Leakage "shut-in" tests
- Regulator adjustment for pressure and lock-up tests
- Test pressure switch operation on a 2-stage gas furnace in both positive and negative pressures
- Static pressure in air ducts for air balancing
- Check air filters for measuring pressure drop

Features:

- Fast, accurate and affordable
- Auto range
- Easy to read
- Temperature storage
- Auto power off after 40 minutes
- Low battery indication
- 9 Volt alkaline battery included
- Temperature range: 0°C to 50°C
- Optional protective rubber boot
- 3-Year limited warranty
- Battery - 9 volt battery Manual

Part Number	Auto		Accuracy	Resolution	Over pressure maximum	Low battery detection	Temperature		Relative humidity	Power	Weight
	Range	Power off					Operating	Storage			
P920-620	-15 to 48 In H ₂ O	Yes after 40 minutes	$\pm 0.5\%$ of reading + 5 digits	0.01 In H ₂ O	200 InH ₂ O	Yes	0°C to 40°C	-10°C to 50°C	0% ~ 80%	9V alkaline battery	7oz (200g)

Part Number	Description
A774	Silicone tubing
A603	Brass hose barb fitting (1/4" Hose Barb x 1/8" NPT thread)
A612	Optional rubber boot

Standard Accessories

A774
Silicone Tubing



A603
Brass Hose
Barb Fitting



A612
Protective Boot

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Dual K-type Thermometer



Size: 5.75" x 2.75" x 1.5"
41mm x 152mm x 77mm



Tilt Stand For The P920-343

Got a 2-channel K-type thermometer that takes simultaneous readings with T1/T2 selection.

The Totaline P920-343 is a reliable, water-resistant tester that accepts K-type thermocouples, the most common type used today. The P920-343 has the ability to be field calibrated, with an easy two step process performed through the keypad, it does not require the use of additional tools. The P920-343 has many uses, including:

- HVAC/R Temperatures: Ambient air, calibrate thermostats, vents, compressor heads, temperature differential and registers
- Food Temperatures: Grill and surface temperatures
- Electrical Temperatures: Cables, circuit breakers, connections, machinery, motors and transformers

Features:

- Temperature range -58°F to 2,462°F (-50°C to 1,350°C)
- Easy-to-read main display - displays OFL to show disengaged or open probe
- Thermocouple type indicator
- Display mode indicator (T1, T2, T1-T2)
- On/off button with guard to prevent accidental engagement
- Freezes the reading on the display
- Select input T1 or T2 and display temperature differential (T1-T2)
- Select between Celsius or Fahrenheit display
- Record and display minimum and maximum temperatures
- Comes complete with: 2 GK13M, carrying pouch, rubber boot with tilt stand, battery and manual
- 3-Year limited warranty

Accuracy

±3°F(±1.6°C); -58°F to 32°F (-50°C to 0°C), ±0.3% of rdg +1.8°F (1°C), 32°F to 1,100°F (0°C to 600°C), ±0.4% of rdg +1.8°F (1°C), 1,100°F to 2,462°F (600°C to 1,350°C)

Part Number	Input	Temperature			Update Rate	Key Buttons	Field Calibration	Battery	Battery Life	Display
		Range	Operating	Storage						
P920-343	Dual K-type thermocouple	-58°F to 2,462°F (-50°C to 1,350°C) Auto range	32°F to 122°F (0°C to 50°C)	-13°F to 158°F (-25°C to 70°C)	2.5 times/second	On/Off, T1, T2, T1-T2, °C, °F, HOLD	By key operation	9V	200 hours (alkaline)	0.1°C/°F : up to 999.9°C/°F, 1.0°C/°F : above 1,000°C/F

Totaline® Non-Contact Thermometer



Measure hard-to-reach, sensitive, or large moving target temperatures

Use the P920-381 non-contact thermometer to measure surface temperature and watch the LCD immediately display accurate data without the using a probe.

- HVAC/R surface temperatures: Compressor heads, vents, insulation, leaks around cooler or freezer doors, steam traps and registers
- Food Surface Temperatures: Grill & surface temperatures, holding cabinets, serving temperatures and storage temperatures
- Electrical Surface Temperatures: Cables, circuit breakers, connections, machinery, motors and transformers

Features:

- Easy to use single button operation
- 0.1 resolution for best reading
- Last reading hold
- Soft holster pouch included
- 8:1 distance to spot ratio
- Large, easy to read display
- °C and °F selectable
- 9V battery included
- Temperature range: 0°F to 500°F (-18°C to 260°C)
- 3-Year limited warranty

Part Number	Range	Temperature		Response		Emissivity : Fixed	Distance to Spot Size	Display	Weight	Dimension
		Operating	Storage	Time	Spectral					
P920-381	-18°C ~ 260°C (0°F ~ 500°F)	0°C ~ 50°C	-25°C ~ 70°C without battery	500 m second	7µm ~ 14µm	0.95	8:1	4 digits	7oz (200g)	155mm x 127mm x 35mm

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Digital Pocket Thermometer

**Convenient, accurate & affordable**

The P920-315 is ruggedly designed to withstand a 10' drop. It has a tapered tip for use with "Pete's" plug. Great for many uses like these applications:

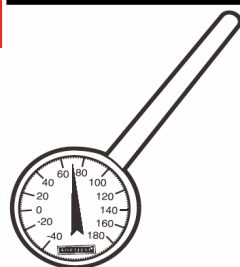
- HVAC/R Temperatures: Ambient air, calibrate thermostats, vents, compressor heads and registers
- Food Temperatures: Grill and surface temperatures, holding cabinets, serving temperatures and storage temperatures
- Electrical Temperatures: Motor temperatures, motor oil temperatures and transformer temperatures

Features:

- Water resistant
- Easy to read
- Data hold freezes the reading
- Auto power off after 35 minutes
- Low battery indication
- Magnetic case attaches itself to grates and vents
- °C and °F selectable
- LR44 battery included
- Temperature range: -58°F to 300°F (-50°C to 150°C)
- 3-Year limited warranty

Part Number	Temperature		Accuracy	Response Time	°C/°F Select	Display Resolution	Display Hold	Low Battery Detection	Power
	Range	Operating							
P920-315	-50°C ~ 150°C (-58°F ~ 300°F)	-50°C ~ 150°C (-58°F ~ 300°F)	±1°C or ±2°F	500 m Second	Yes	0.1	Yes	Yes	LR44 button battery

Totaline® Pocket Thermometer Analog, Round Head And Digital Thermometers

**Features:**

- 5" Stainless Steel stem
- Unbreakable lens
- Readout high visibility pointer and numbers
- Can be Recalibrated
- Pocket sheath with safety cup
- +1% division accuracy

Part Number	Type	Packaging	STD Pack	Description
P906-1006	ANALOG,ROUND	Blister pack	12	1-3/4" Round, 0 to 220° F & 0 to 100° C Temperature Range
P906-1002	ANALOG,ROUND	Blister pack	12	1" Round, -40 to 180° F Temp Range
P906-2002	ANALOG,ROUND	Blister pack	12	1" Round, -40 to 70° C Temp Range
P906-1004	ANALOG,ROUND	Blister pack	12	1" Round, 0 to 220° F Temp Range
P906-2009	DIGITAL	Blister pack	12	Swivel, -40 to 100° C Temp Range

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® AC Safety Volt Check



Non-contact detection of 50-1000 VAC, with sound and visual alert.
Determine the presence or absence of AC voltage in insulated wires, wall receptacles, fuses, junction boxes, switches, and any other voltage carrying electrical system. It is not necessary to disconnect the system in question because no contact is required for operation and current flow is not necessary to locate voltage. Simply touch the plastic tip to a connection point or move it along an insulated wire. If AC voltage is present, The P920-C50 will sound an audio alert and an LED light in the probe tip will glow bright red. The illumination will stop at a break in the circuit or wire, and this allows the AC sensor to be used as a troubleshooting instrument. Check for presence or absence of AC voltage in: wires, wall receptacles, fuses, junction boxes, switches, defective grounds, breaker panels, motors, compressors and any other voltage carrying electrical systems.



AC Voltage in junction boxes



AC Voltage in wall receptacles



AC Voltage in switches

- Benefits:**
- Help prevent electrical shocks
 - Non-contact detection of 50 to 1000 VAC
 - Troubleshoot electrical circuits
 - No switch required. Always ready for use Competing products require an ON/OFF switch
 - Sound & visual Alert Sound and bright red glow indicates voltage. Buzzer will not react to static electricity, only AC voltage

Part Number	Operating		Accuracy	Response Time	°C/°F Select	Power
	Range	Temperature				
P920-C50	50 to 1000 VAC	-20°C ~ 55°C (-4°F ~ 131°F)	±1°C or ±2°F	500 m Second	Yes	2 1.5Volt alkaline batteries

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Clamp-On Tester with Frequency and Capacitance



8" x 3"

Perfect for tight, narrow, spaces

The new P920-265 with slim jaw and body is ideal for cramped work areas and crowded electrical panels. It can help you:

- Test start and run capacitors
- Measure motor run current
- Measure heat anticipator current
- Determine thermocouple voltage
- Test line and control voltages
- Measure heating element resistance
- Measure and adjust variable frequency drives

Features:

- Slim jaw and body design for use in crowded electrical panels
- 4,000 count display
- Capacitance range up to 4,000 microfarads to test run and start capacitors
- 0.1 DC millivolt resolution to accurately measure thermocouples and use optional adapters
- 0.01 AC Amp resolution to measure heat anticipator current
- Frequency measurement capability
- AC/DC volts up to 600V and AC Amps up to 400A
- Diode, resistance, and audible continuity ranges
- Auto / manual ranging
- Data hold
- Auto power off
- CAT III 600V rated
- 3-Year limited warranty

Part Number	Basic DC Accuracy	Maximum					Overall Dimensions	Weight
		DC Voltage	AC Voltage	Frequency	AC Amps	Capacitance		
P920-265	0.5%	600V	600V	400MHz	400A	4,000µF	8" x 1.5" x 3.0" (203 x 38.1 x 76.2mm)	.6 lbs (272g)

Accessories

Part Number	Description
GK11M	Standard K-Type Thermocouple Probe
A085	UL Listed Silicone Test Lead Set with Alligator Clips (clip-on)
A270	Soft Carrying Pouch
A202	Line Splitter
A771	Carbon Monoxide Adapter
A620	Pressure Adapter
TLS2000RB	Deluxe Test Lead Kit
A301	Single Input Temperature Adapter
A312	Dual Input Temperature Adapter
A213	Microamp Adapter

Totaline® Refrigerant Leak Detector



The P920-750A automatically detects all existing refrigerants and blends including 404A, PURON® 410A and R-507 (AZ50).

Whether testing for leaks in air conditioning, refrigeration, or automotive AC, the versatile 700 series spans the diverse needs of technicians, refrigeration engineers, and maintenance personnel around the globe. From freezer coils to heat pumps, experience fast, reliable results that save you both time and money.

Features:

- Fully adjustable tic rate to eliminate background concentration and pinpoint leaks
- Visual and audible tic rate
- Optional earphone attachment
- One hand operation
- 3-Year limited warranty

Part Number	Sensor Type	Spare Sensor Included	Operation	Gooseneck Handle Length	Adjustable Tic Rate	Battery Included	Standard Carrying Case
P920-750A	Corrona discharge	Yes	Thumb wheel	16"	Yes	Yes, 2 C-cell	A700 Soft pouch

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Combustible Gas Detector



Easily operate the P920-720B with one hand while detecting the presence of combustible gases including natural gas, methane, propane (LPG), gasoline, diesel, and kerosene Pinpoint leak sources with its audible and visual indicators. An adjustable “tic” rate helps eliminate background gas concentration in contaminated environments.

Use the P920-720B to:

- Trace natural gas lines and fittings for leaks.
- Check gas applications for leaks.
- Check propane tanks, fitting lines, and heaters for leaks.
- Check gas generators for fuel leaks.
- Test confined spaces for gas build-up.

Features

- Instant response
- 10 ppm sensitivity
- Adjustable tic rate
- One-hand operation
- Visual and audible leak indication
- 16" gooseneck
- Soft carrying pouch
- 3-Year limited warranty

Part Number	Sensitivity	Operating Temp	Warm-up	Response Time	Battery	Battery Life	Weight
P920-720B	10 ppm	32° to 104°F (0° to 40° C)	7-10 seconds	Instantaneous	3 "C" batteries	20 continuous hours	1.1 lbs.

Totaline® Digital Vacuum Gauge



Use the P920-605 to Verify the vacuum before you change a refrigerant system.

- Prevents moisture and air being left in the system.
- Finds small leaks.

Features:

- Measure vacuum from 25 to 0 microns
- Reads vacuum in seven international units of measure (Microns, PSI, InHg, mBar, Pascals, Torr, and mTorr)
- Display updates every 0.5 seconds
- Auto power off after 10 minutes when vacuum above 12,000 microns (12 Torr)
- Built in hook for hanging
- Cleanable sensor
- 300 PSI overpressure
- 3-Year limited warranty

Part Number	Type		Vacuum Range	Accuracy	Units of Measure	Power Supply	Operating Temp
	Sensor	Connection					
P920-605	Thermistor	Standard 1/4" NPT male	0 - 12,000 microns (0 - 1600 Pascals)	10% of reading ±10 dgts	Microns, PSI, InHg, mBar, Pascals, Torr, mTorr	9 volt alkaline battery	0° - 40°C (32° to 104°F)

TOTALINE® METERS, THERMOMETERS & DETECTORS

Totaline® Vane and Hotwire Velocity Meter



- Use the P920-575 for:**
- Air flow measurements in heating, ventilation and air conditioning systems
 - Air duct analysis
 - Fume hoods
 - Flue Registers
 - Exhaust grills
 - Hotwire velocity meter enables user to read below 80fpm applications (low flow)

- Features:**
- (Vane) Air flow 0.4 to 25 m/s (Also reads km/s, ft/min, knots/h, miles/h)
 - (Hotwire) Air flow 0.2 to 20 m/s (Also reads km/s, ft/min, knots/h, miles/h)
 - Temperature -5° to 175° F (-20° to 80°C)
 - Data record function for maximum and minimum temperature and air velocity reaing
 - Download to a computer using the RS-232 port and optional A500 cable.
 - 39" cable length with Lemo connector
 - Data Hold
 - Auto Power Off
 - Protective boot and soft carrying case included
 - 3-Year limited warranty

Part Number	Display	Measurement	Air Flow		Operating		Powering
			(Vane)	(Hotwire)	Temperature	Humidity	
P920-575	Dual digits LCD with function annunciation	m/s, km/s, ft/min, knots, mile/h, °C, °F	0.4 ~ 25 m/s (±2% of reading ±3 digits)	0.2 ~ 20 m/s (±5% of reading ±3 digits)	0 ~ 50°C (32°F ~ 122°F)	Less than 80% R/H	1.5V AAA x 6EA

Totaline® Tool Accessories

Gas Valve Pressure Adapter



Use for checking gas pressure on gas valve where the inlet gas is in a tight or hard to reach location. Can be used with any Totaline digital manometer.

Part Number	Description
P920-A611	Gas Valve Pressure Adapter

Temperature Probe



Part Number	Description
P920-CK20M	Pipe clamp probe for smaller diameter pipes -58° to 212°F (-50° to 100°C)
P920-CK21M	K-type thermocouple pipe clamp for pipe diameters up to 1.2" and temp. up to 212°F. -58° to 212°F (-50° to 100°C)
P920-GK13M	Teflon coated temperature probe. Measure temperatures up to 500°F. Use to measure temperature rise. -40° to 500°F (-40° to 260°C)

Silicone Tubing



6 Foot length of Silicone tubing for Pressure measurements. Very flexible and will not go hard in in cold temperatures.

Part Number	Description
P920-A774	Silicone Tubing

Universal T Fitting



Ideal for use on setting pressure switches.

Part Number	Description
P920-A605	Universal T Fitting

Test Leads



UL Listed

Part Number	Description
P920-A080	Test Leads P920-A080

Test Lead Kit



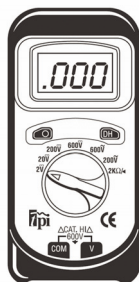
Includes:
A052 Adapters
A057 Back Probes
A067 Grabbers

Part Number	Description
P920-TLS10	Test Lead Kit P920-TLS10

OTHER METERS, THERMOMETERS & DETECTORS

Digital Multimeters

Model No.120


Features:

- Compact size fits in pocket
- 2 volt range, allows use of CO attachment and temperature attachment.
- 2k ohm range reads most contactor and relay coils.
- Standard accessories; test leads, batteries, protective boot, instruction manual, and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	Resistance
		AC	DC		
120	2000	600	600	0.50%	2K ohms

Model No.133



133

Features:

- Full function manual range DMM.
- Large LCD
- Measures amps to 10 amps both AC & DC.
- Measures DC micro amps for flame rectification circuits.
- Continuity buzzer and diode check.
- Standard accessories; test leads, batteries, protective boot, instruction manual, and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	Amps		Resistance
		AC	DC		AC	DC	
133	2000	750	1000	0.50%	10	10	20M ohms

Model No.163


Features:

- Full function auto ranging DMM.
- Test continuity in circuits and wires.
- Measure current draw of electrical circuits.
- Test diodes for shorts and opens.
- Measure resistance of components.
- Standard accessories; test leads, batteries, protective boot, instruction manual, and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	Amps		Resistance
		AC	DC		AC	DC	
163	3260	750	1000	0.50%	10	10	32.6M ohms

Model No.135


Features:

- Full function manual range DMM.
- Test continuity in circuits and wires.
- Measure current draw of electrical circuits.
- Measure start and run capacitors of motors and compressors.
- Test diodes for shorts and opens.
- Measure resistance of components.
- Standard accessories; test leads, batteries, protective boot, instruction manual, and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	Amps		Resistance
		AC	DC		AC	DC	
135	4000	750	1000	0.50%	10	10	40M ohms

Model No.153



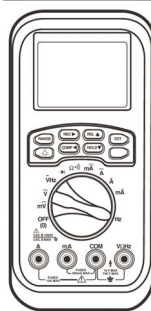
153

Features:

- Full function manual range DMM.
- Large LCD
- Measures amps to 10 amps both AC & DC.
- Measures DC micro amps for flame rectification circuits.
- Continuity buzzer and diode check.
- Standard accessories; test leads, batteries, protective boot, instruction manual, and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	Amps		Resistance
		AC	DC		AC	DC	
153	4000	750	1000	0.30%	10	10	40M ohms

Model No.183


Features:

- Auto ranging true RMS DMM.
- Measures Capacitance.
- Test continuity in circuits and wires.
- Measure current draw of electrical circuits.
- Test diodes for shorts and opens.
- Measure resistance of components.
- Standard accessories; test leads, batteries, protective boot instruction manual, and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	Amps		Resistance
		AC	DC		AC	DC	
183	4000	750	1000	0.30%	10	10	40M ohms

OTHER METERS, THERMOMETERS & DETECTORS

Digital Clamp-On Meters

Model No.255


Features:

- Autoranging
- Compact Size
- Test continuity in circuits and wires
- Measure current draw of electrical circuits.
- Measure resistance of components.
- Measure inrush current of motors, relays and solenoids.

Part Number	Display Count	Volts		Basis DC Accuracy	AC Amps	Resistance
		AC	DC			
255	4000	600	600	0.30%	400	40M ohms

Model No.291


Features:

- Manual range meter measures up to 700 AC amps.
- Peak hold and data hold functions.
- Continuity buzzer.
- Measures AC/DC volts and ohms to 4K ohms.
- Complete with soft pouch, test leads, instruction manual and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	AC Amps	Resistance
		AC	DC			
291	4000	600	400	0.75%	700	4K ohms

Model No.293


Features:

- Autoranging true RMS clamp-on
- Peak hold, trim mode and data hold functions.
- Measure AC/DC volts, frequency, AC amps and ohms to 40M ohms.
- Analog bar graph and continuity buzzer.
- Standard accessories include soft pouch test leads and a limited 3 year warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	AC Amps	Resistance
		AC	DC			
293	4000	600	600	0.75%	700	40K ohms

Model No.296


Features:

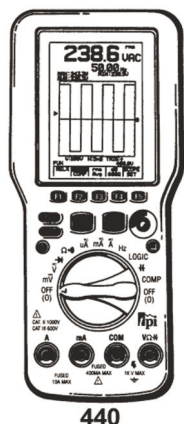
- True RMS and Harmonics features.
- Measures line and controls circuit voltage.
- Measures current draw of electrical circuits.
- Measures inrush current of motors, relays and solenoids.
- Measures resistance of components.
- Standard accessories include soft pouch, test leads and a 3 year limited warranty.

Part Number	Display Count	Volts		Basis DC Accuracy	AC Amps	Resistance
		AC	DC			
296	4000	600	600	0.75%	700	40K ohms

OTHER METERS, THERMOMETERS & DETECTORS

Digital Clamp-On Meters

Model No.440

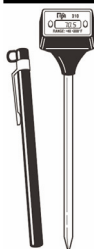

Features:

- Hand held oscilloscope with True RMS DMM capabilities
- View industrial signals such as motor control, UPS, switching power supplies and PLC controls with 1 MHz bandwidth.
- Capture noise spikes, glitches and evasive intermittents with 25 Mega samples per second sampling rate.
- Continuous autoset.
- Real time display with backlight.
- Waveform storage
- Clitch capture
- Trend mode
- Frequency counter
- Basic DC accuracy to 0.3%
- RS-232C Port
- Designed to meet IED 1010-1 600V Cat III rating.

Part Number	Band Width	Sample Rate	Frequency	Capacitance	Channels	Glitch Capture	Trend Mode	Auto Set	Description
440	1MHZ	20 Mega samples per second (single shot)	Up to 2 MHZ	Up to 400 microfarads	Single	Yes	Yes	Continuous	440 scope plus, 4,000 count true RMS DMM with wave form capabilities, insulated test leads with alligator clips, power supply

Digital Pocket Thermometers

Model No.310


Features:

- Flip the LCD to give best angle for viewing
- Easy to read, large LCD
- Data Hold for hard to reach areas
- Auto Power Off saves battery life
- Fahrenheit or Celsius

Part Number	Description
310	Digital Pocket Thermometers

Model No.312

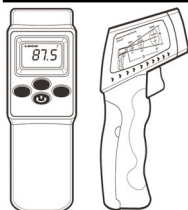

Features:

- Easy to read, large LCD - 33% larger than the competition
- Use in damp or wet environments - WATER RESISTANT
- Quick response and easy insertion into "Petes" plugs with 3.1 mm dia. stem
- Data Hold for hard to reach areas.
- Auto Power Off saves battery life
- Fahrenheit or Celsius

Part Number	Description
312	Digital Pocket Thermometers

OTHER METERS, THERMOMETERS & DETECTORS

Non Contact Thermometers

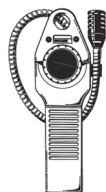


Features:

- Easy-to-read, large LCD
- Maintain reading display in hard to read areas with Display Hold (°F or °C Selectable)
- 0.95 Emissivity Provides best accuracy for most surfaces
- 8:1 Distance to Spot Ratio
- 0.1 Resolution provides increased accuracy of reading
- 3 Year limited Warranty

Part Number	Temp		Accuracy @ 23°C and .95 Emissivity	Response Time	Battery Type	Emissivity
	Ranges	Operating				
370	14° to 500°F, -10° to 260°C	32° to 120°F and 0° to 150°C	-2% of Reading or ±3.5°F whichever is greater above 30°F	500 milliseconds	9 Volt Alkaline	0.95
371		32° to 120°F and 0° to 150°C	-2% of Reading or ±3.5°F whichever is greater above 30°F	500 milliseconds	9 Volt Alkaline	0.95
373	14° to 950°F, -10° to 510°C	32° to 120°F and 0° to 150°C	-2% of Reading or ±3.5°F whichever is greater above 30°F	500 milliseconds	9 Volt Alkaline	0.95
375	0° to 950°F, -18° to 510°C	32° to 120°F and 0° to 150°C	30° to 950°F -1°F to 510°C; ±2% of reading or ±3.5°F, (2°C) whichever is greater	500 milliseconds	9 Volt Alkaline	0.3 to 0.99 adjustable
376	-58° to 950°F, -50° to 510°C	32° to 120°F and 0° to 150°C	30° to 950°F -1°F to 510°C; ±2% of reading or ±3.5°F, (2°C) whichever is greater	500 milliseconds	9 Volt Alkaline	0.3 to 0.99 adjustable
377	0° to 1832°F, -18° to 100°C	32° to 120°F and 0° to 150°C	30° to 950°F, -18° to 1000°C, ±2% of reading or ±3.5°F (2°C) whichever is greater	500 milliseconds	9 Volt Alkaline	0.3 to 0.99 adjustable
380	0° to 500°F, -18° to 260°C	32° to 120°F and 0° to 150°C	±2% or ±2°C or ±3°F whichever is greater	500 milliseconds	9 Volt Alkaline	0.95
381	0° to 500°F, -18° to 260°C	32° to 120°F and 0° to 150°C	±2% or ±2°C or ±3°F whichever is greater	500 milliseconds	9 Volt Alkaline	0.95

Combustible Gas Leak Detectors



Used to detect gas leaks in the following areas:

- Furnaces
- Water Heaters
- Pinpoint combustible gas leaks in storage tanks
- Gas appliances

Part Number	Sensitivity	Sensor Type	Warm-up	Response Time	Duty Cycle	Probe Length	Power Supply
720B	10 ppm	Low power semiconductor	30 Seconds	Instantaneous	Continuous	16 inches	3 "C" Cell Batteries

Digital Manometers

600 Series



Applications

- Adjusting appliance regulators
- Setting delivery pressures
- Leakage "shut-in" tests
- Regulator adjustments for pressure and lock-up tests
- Test pressure switch operation on a 2-stage gas furnace in both positive and negative pressures

Part Number	Input Type	Trim Mode	Zero Adjust	Record Min/Max	Units	Data Hold
610	Single	Yes	Yes	No	1	No
615	Single	Yes	Yes	Yes	7	Yes
620	Differential	Yes	Yes	No	1	No
625	Differential	Yes	Yes	Yes	7	Yes

OTHER METERS, THERMOMETERS & DETECTORS

Digital Manometers

Model No.707



Single Gas CO Analyzer with protective boot, soft shoulder strap carrying case, pump-protecting filter assembly, in-line filter assembly, flue probe. 3 "AA" batteries.

Part Number	Measurement				Excess-Air	Efficiency	Store Memory	Battery
	CO	O2	NO	CO2				
707	0-10,000 ppm	NA	NA	NA	NO	NO	10	3 "AA" Batteries

Infrared Printer

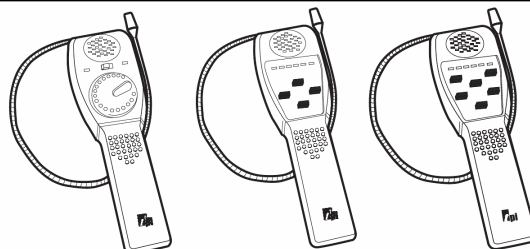


Features:

- Easy to use
- Battery operated
- Self test facility
- Adjustable contrast
- Manual paper feed
- Maximum transmitting distance – 16" (45 cm)
- Compatible with most other combustion analyzers.

Part Number	Description
A740	IR Portable Printer

Refrigerant Gas Leak Detectors



Part Number	Sensitivity in Ounces Per Year R-22 or R-134a	Pump	Sensor Type	Operation	Gooseneck Handle Length (in.)	Description
750A	0.3	NA	Corona Discharge	Thumb Wheel	16	Refrigeration Leak Detector and Soft Pouch
753A	0.2	Yes	AIT Microtip	Push Button	16	Refrigeration Leak Detector with Soft Pouch
755	0.1	Yes	AIT Microtip	Push Button	16	Refrigeration Leak Detector and Soft Shoulder Strap Carrying Case

Replacement Parts

Refrigerant Gas Leak Detectors

Part Number	Description
A712	750A Replacement Sensor Tip
A721	753 & 755 Replacement Sensor Tip
A710	Optional Earphone
A700	Soft Pouch
A755	Soft Shoulder Strap Carrying Case

EMERSON CLIMATE TECHNOLOGIES - TXV SELECT GUIDE

Application	Nominal Capacity		Valve Family	Adjustable Superheat	Internal Check	Style			Connections		Configuration		Port	
	R-22	R-410A				Hermetic	Replaceable Power Element	Field Serviceable	SAE	ODF	Angle	Straight	Conventional	Balanced
Air Conditioning and Refrigeration	1/4 to 5	1-1/4 to 5	AA	X		X				X		X	X	
	1/4 to 5	1-1/4 to 5	AN			X				X	X	X	X	
	1/4 to 5	1-1/4 to 5	AAC	X	X	X				X		X	X	
	1/4 to 5	1-1/4 to 5	ANC		X	X				X	X	X	X	
	1/4 to 5		AFA	X		X			X		X		X	
		1/2 to 7 1/2	C	X	X	X			X	X	X	X		X
	1/4 to 5 1/2		HFK	X			X	X	X	X	X	X		X
	1/4 to 5 1/2		HF	X			X		X	X	X	X		X
	8 to 20		HF EXT	X			X			X	X	X		X
	1/3 to 5		TI	X				X	X		X		X	
	8 to 20	12 to 20	TF	X			X			X		X		X
	1/2 to 12		TL					X	X	X	X	X	X	
	1/2 to 12		TCL	X				X	X	X	X	X	X	
	11 and 14		TJL	X				X		X	X	X	X	
	14 and 18		TJR	X				X		X	X	X		X
	22 to 45		TER	X				X		X	X	X		X
	55		TIR	X				X		X	X	X		X
	70 and 85		THR	X				X		X	X	X		X
	100		TMR	X				X		X	X	X		X
	10 to 40		TRA+	X			X			X		X		X
	50 to 70		TRA	X		X				X		X		X
Constant Pressure	1/2 to 5		ACP			X				X		X	X	
Ultra-Low Temp	3/4 to 8		ZZ	X				X	X	X	X	X	X	
De-Superheating			LA	X		X				X		X	X	
			LCL	X				X	X	X	X	X	X	

Charge Code Selector

Applications	Operating Ranges										
R-134a/R-12 Domestic Refrigerators and Freezers, Ice Makers, Dehumidifiers, Transport Refrigeration, Medium Temperature Supermarket Equipment, Medium Temperature Commercial Equipment	MC/FC										
	MZ/FZ										
	MW35/FW35 (MOP)										
	MW55										
R-22 Residential Air Conditioners & Heat Pumps, Commercial and Industrial Chillers, Medium Temperature Supermarket Equipment, Commercial Air Handlers	HCA/HAA AIR COND. & HEAT PUMP										
	HW/HW100										
	HC										
	HW65 (MOP)										
R-404A/R-507/R-502 Low Temperature Cases, Ice Makers, Commercial Air Handlers, Conditioners, Soft Ice Cream Machines, Environmental Chambers	HZ										
	SC/RC										
	SZ/RZ										
	SW45/RW45 (MOP)										
R-410A	ZW195										
	-50	-40	-30	-20	-10	0	+10	+20	+30	+40	+50

EMERSON CLIMATE TECHNOLOGIES - TXV A SERIES



The A-series is used for heat pump, air conditioning, food services and commercial applications.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Hermetic, leak-free construction
- Compact size allows installation in limited spaces
- Mass spectrometer tested to ensure less than 0.10 oz/year external leakage rate

Options

- ZW195 charge available for R-410A systems
- Adjustable or non-adjustable superheat
- SAE or ODF connections standard – Chatleff or Aeroquip are available
- External or internal equalizer
- Internal check valve allows reverse flow for heat pump applications, eliminating the need for external piping and external check valve
- Bleed type pressure equalization to accommodate PSC type compressors
- Pressure limiting charges (MOP) available

Specifications

Maximum working pressure: 700 psig

UL/CUL file number: SA 5312

Nomenclature example: AACEB 2 HC 30 IN 3/8 x 1/2 ODF ANG

A	A	C	E	B	2	H	C	30 IN	3/8 x 1/2	ODF	ANG
Valve Series	Superheat Adjustment	Internal Check Valve	Equalizer	Bleed Hole	Capacity	Refrigerant Code	Charge Code	Capillary Tube Length	Inlet x Outlet Connection Sizes	Connection Type	Configuration
Hermetic Design	A = Adjustable N = Non-Adjustable	(optional) Reverse Flow Bypass Application	E=External (Omit for Internal)	(optional) (Omit for no bleed hole)	Nominal Rating in Tons (See nominal capacity table below)	+F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A Z = R-410A	C = medium temp CA = heat pump W(MOP) = press. Limiting Z = low temp AA = wide range	30 IN & 5 FT (std)	1/4 x 3/8 3/8 x 1/2 1/2 x 5/8 5/8 x 7/8	SAE=flare ODF = solder Chatleff (optional) Aeroquip (optional)	S/T = straight-thru ANG = 90° angle

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

AA/AN Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22	R-410A	R-502	R-507/R-404A	R-407C
–	1/8 (0.4)	1/5 (0.7)	–	–	1/8 (0.4)	1/5
1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)	1/4 (0.9)	1/4 (0.9)
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/2 (1.8)
1/2 (1.8)	3/4 (2.7)	1 (3.5)	1 (3.5)	1/2 (1.8)	3/4	1 (3.5)
1 (3.5)	1 (3.5)	1-1/2 (5.3)	1-1/2 (5.3)	1 (3.5)	1 (3.5)	1-1/4 (4.4)
–	1-1/2 (5.3)	2 (7.0)	2 (7.0)	–	1-1/4 (4.4)	2 (7.0)
1-1/2 (5.3)	2 (7.0)	2-1/2 (8.8)	3 (11.0)	1-1/2 (5.3)	2 (7.0)	2-1/2 (8.8)
2 (7.0)	2-1/2 (9.0)	3 (11.0)	4 (14.0)	2 (7.0)	2-1/4 (8.0)	3-1/4 (11.5)
2-1/2 (9.0)	3 (11.0)	4 (14.0)	5 (17.0)	2-1/2 (8.8)	2-1/2 (8.8)	4 (14.0)
3 (11.0)	4 (14.0)	5 (17.0)	–	3 (11.0)	3-1/2 (12.0)	5-1/4 (19.0)

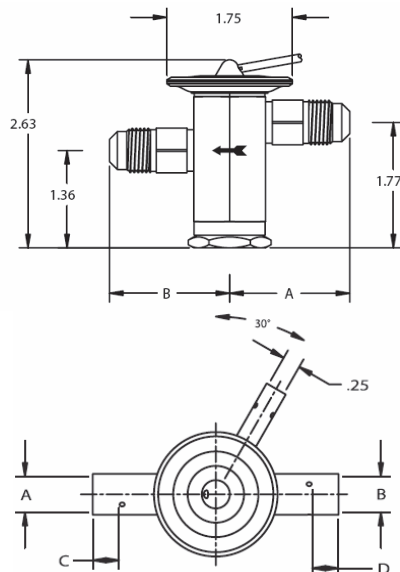
All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

EMERSON CLIMATE TECHNOLOGIES - TXV A SERIES

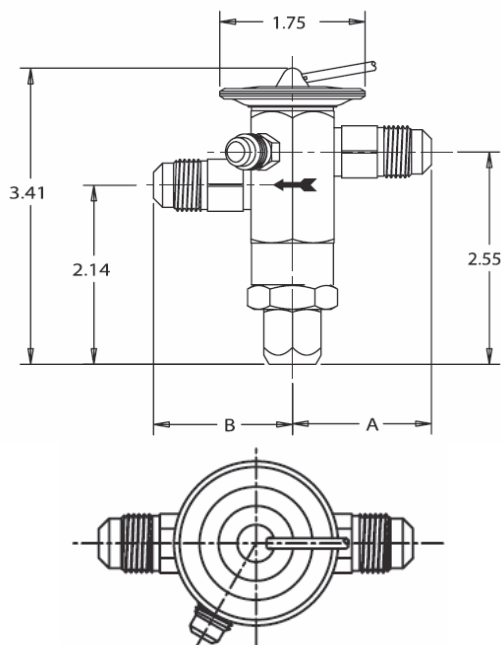
ANCE SAE Dimensional Data

Connection Size		A	B
Inlet	Outlet		
3/8 SAE	3/8 SAE	1.67	1.67
1/2 SAE	1/2 SAE	1.75	1.75



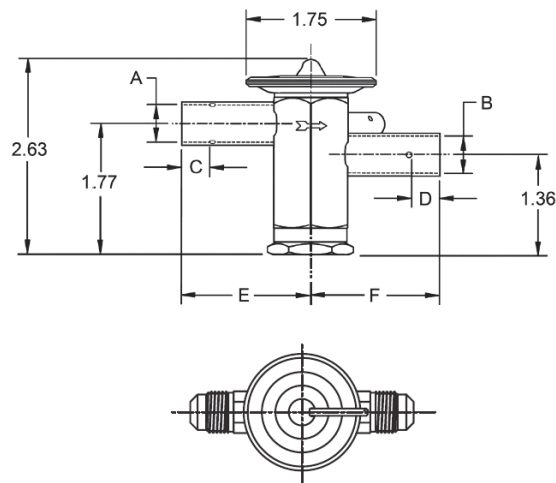
AACE SAE Dimensional Data

Connection Size		A	B
Inlet	Outlet		
3/8 SAE	3/8 SAE	1.67	1.67
1/2 SAE	1/2 SAE	1.75	1.75



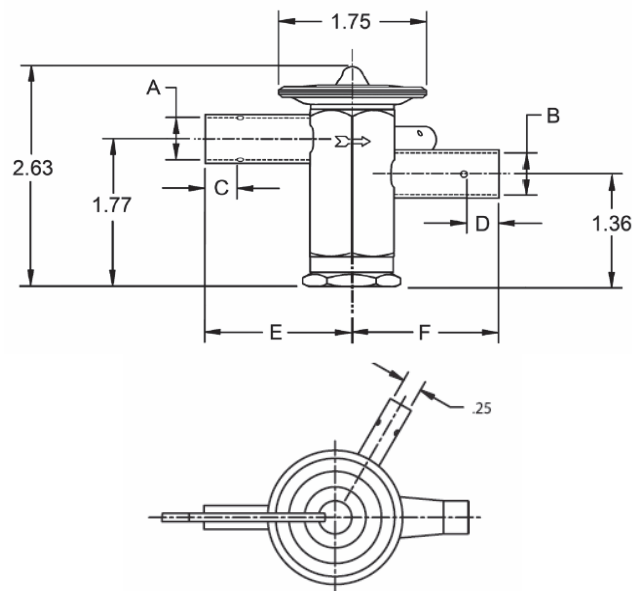
ANCE ODF Dimensional Data

Connection Size		A ± .002	B ± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.70	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73
1/2 ODF	5/8 ODF	0.63	0.61	0.38	0.50	1.75	1.75



AACE ODF Dimensional Data

Connection Size		A ± .002	B ± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.70	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73
1/2 ODF	5/8 ODF	0.63	0.61	0.38	0.50	1.75	1.75



Without Internal Checkvalve

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-066515	R-410A	AAE	1-1/2	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-064595	R-410A	AAE	3	ZW195	3/8 x 3/8 ODF S/T	30 IN
ALC-065579	R-410A	AAE	3	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-015776	R-410A	AAE	3	ZW195	CHATLEFF	30 IN
ALC-065580	R-410A	AAE	5	ZW195	1/2 x 5/8 ODF S/T	30 IN
ALC-015794	R-410A	AAE	5	ZW195	CHATLEFF	30 IN
ALC-066030	R-134a, R-12	AA	1/8	MC	1/4 x 3/8 ODF S/T	30 IN
ALC-065821	R-134a, R-12	AA	1/8	MC	1/4 x 1/2 ODF S/T	30 IN
ALC-062051	R-134a, R-12	AA	1/4	MC	1/4 x 3/8 ODF S/T	30 IN
ALC-065623	R-134a, R-12	AA	1/4	MC	1/4 x 1/2 ODF S/T	5 FT
ALC-065776	R-134a, R-12	AA	1	MC	3/8 x 1/2 ODF S/T	30 IN
ALC-058985	R-134a, R-12	AA	1/2	MC	1/4 x 3/8 SAE S/T	30 IN
ALC-065624	R-134a, R-12	AA	1/2	MC	1/4 x 1/2 ODF S/T	5 FT
ALC-058986	R-134a, R-12	AA	1/2	MZ	1/4 x 3/8 SAE S/T	30 IN
ALC-065630	R-134a, R-12	AAE	1/2	MC	1/4 x 1/2 ODF S/T	5 FT
ALC-065631	R-134a, R-12	AAE	1	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-056315	R-22, R-407C	AA	1/4	HC	1/4 x 3/8 ODF S/T	5 FT
ALC-055932	R-22, R-407C	AA	1/4	HC	1/4 x 1/2 ODF S/T	5 FT
ALC-065626	R-22, R-407C	AA	1/2	HC	1/4 x 1/2 ODF S/T	5 FT
ALC-056547	R-22, R-407C	AA	1/2	HC	3/8 x 3/8 ODF S/T	30 IN
ALC-057828	R-22, R-407C	AA	1/2	HC	3/8 x 1/2 SAE S/T	5 FT
ALC-065632	R-22, R-407C	AAE	1/2	HC	1/4 x 1/2 ODF S/T	5 FT
ALC-065633	R-22, R-407C	AAE	1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-057987	R-22, R-407C	AAE	1/2	HC	3/8 x 1/2 SAE ST	5 FT
ALC-059582	R-22, R-407C	AAE	1	HC	1/4 x 3/8 ODF ST	30 IN
ALC-065634	R-22, R-407C	AAE	1	HC	1/4 x 1/2 ODF S/T	5 FT
ALC-065635	R-22, R-407C	AAE	1	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-064424	R-22, R-407C	AAE	1-1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-064425	R-22, R-407C	AAE	2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-049632	R-22, R-407C	AAE	2	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-063648	R-22, R-407C	AAE	2-1/2	HAA	3/8 x 1/2 ODF S/T	30 IN
ALC-013938	R-22, R-407C	AAE	2-1/2	HAA	CHATLEFF	30 IN
ALC-049633	R-22, R-407C	AAE	2-1/2	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-062376	R-22, R-407C	AAE	3	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-056686	R-22, R-407C	AAE	3	HC	3/8 x 1/2 SAE S/T	5 FT
ALC-049634	R-22, R-407C	AAE	3	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-060643	R-22, R-407C	AAE	3	HCA	1/2 x 5/8 ODF S/T	30 IN
ALC-061960	R-22, R-407C	AAE	4	HC	1/2 x 5/8 ODF S/T	5 FT
ALC-049638	R-22, R-407C	AAE	4	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-061247	R-22, R-407C	AAE	4	HCA	1/2 x 1/2 ODF S/T	30 IN
ALC-063649	R-22, R-407C	AAE	5	HAA	3/8 x 1/2 ODF S/T	30 IN
ALC-013939	R-22, R-407C	AAE	5	HAA	CHATLEFF	30 IN
ALC-059565	R-22, R-407C	AAE	5	HC	1/2 x 5/8 ODF S/T	5 FT
ALC-061805	R-22, R-407C	AAE	5	HC	5/8 x 7/8 ODF S/T	30 IN
ALC-054024	R-22, R-407C	AAE	5	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-059683	R-22, R-407C	AAE	5	HCA	1/2 x 5/8 ODF S/T	30 IN
ALC-062088	R-22, R-407C	AAE	5	HW100	3/8 x 5/8 ODF S/T	5 FT
ALC-059616	R-22, R-407C	AAEB	2	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-059603	R-22, R-407C	AAEB	3	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-059605	R-22, R-407C	AAEB	4	HCA	1/2 x 1/2 ODF S/T	30 IN
ALC-059607	R-22, R-407C	AAEB	5	HCA	1/2 x 1/2 ODF S/T	30 IN
ALC-065921	R-404A, R-507, R-502	AAE	1/8	SC	1/4 x 3/8 ODF S/T 6A	30 IN
ALC-063503	R-404A, R-507, R-502	AAE	1/4	SC	1/4 x 1/2 ODF S/T	30 IN
ALC-065676	R-404A, R-507, R-502	AAE	1/4	SW45	1/4 x 3/8 ODF S/T	5 FT
ALC-065675	R-404A, R-507, R-502	AAE	1/4	SZ	1/4 x 3/8 ODF S/T	5 FT

EMERSON CLIMATE TECHNOLOGIES - TXV A SERIES

Without Internal Checkvalve

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-063504	R-404A, R-507, R-502	AAE	1/2	SC	1/4 x 1/2 ODF S/T	30 IN
ALC-065685	R-404A, R-507, R-502	AAE	1/2	SW45	1/4 x 1/2 ODF S/T	5 FT
ALC-065682	R-404A, R-507, R-502	AAE	1/2	SZ	1/4 x 1/2 ODF S/T	5 FT
ALC-063925	R-404A, R-507, R-502	AAE	1/2	SZ	3/8 x 1/2 ODF S/T	30 IN
ALC-066200	R-404A, R-507, R-502	AAE	3/4	SC	3/8 x 1/2 ODF S/T	30 IN
ALC-065686	R-404A, R-507, R-502	AAE	3/4	SW45	3/8 x 1/2 ODF S/T	30 IN
ALC-065149	R-404A, R-507, R-502	AAE	3/4	SZ	3/8 x 1/2 ODF S/T	30 IN
ALC-066201	R-404A, R-507, R-502	AAE	1	SC	3/8 x 1/2 ODF S/T	30 IN
ALC-066506	R-404A, R-507, R-502	AAE	1	SW45	3/8 x 1/2 ODF S/T	30 IN
ALC-063926	R-404A, R-507, R-502	AAE	1	SZ	3/8 x 1/2 ODF S/T	30 IN
ALC-066422	R-404A, R-507, R-502	AAE	1/4	SC	1/4 x 1/2 ODF S/T	30 IN
ALC-066508	R-404A, R-507, R-502	AAE	1/4	SW45	1/4 x 1/2 ODF S/T	30 IN
ALC-066435	R-404A, R-507, R-502	AAE	1/4	SZ	1/4 x 1/2 ODF S/T	30 IN
ALC-066423	R-404A, R-507, R-502	AAE	1/2	SC	1/4 x 1/2 ODF S/T	30 IN
ALC-066085	R-404A, R-507, R-502	AAE	1/2	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-065636	R-404A, R-507, R-502	AAE	1/2	SW45	1/4 x 1/2 ODF S/T	5 FT
ALC-065688	R-404A, R-507, R-502	AAE	1/2	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-066436	R-404A, R-507, R-502	AAE	1/2	SZ	1/4 x 1/2 ODF S/T	30 IN
ALC-065687	R-404A, R-507, R-502	AAE	1/2	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-066086	R-404A, R-507, R-502	AAE	3/4	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-066509	R-404A, R-507, R-502	AAE	3/4	SW45	3/8 x 1/2 ODF S/T	30 IN
ALC-066437	R-404A, R-507, R-502	AAE	3/4	SZ	1/4 x 1/2 ODF S/T	30 IN
ALC-066087	R-404A, R-507, R-502	AAE	1	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-065637	R-404A, R-507, R-502	AAE	1	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-065183	R-404A, R-507, R-502	AAE	1	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-066081	R-404A, R-507, R-502	AAE	1-1/4	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-066079	R-404A, R-507, R-502	AAE	1-1/4	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-066080	R-404A, R-507, R-502	AAE	1-1/4	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-066448	R-404A, R-507, R-502	AAE	1-1/2	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-061882	R-404A, R-507, R-502	AAE	1-1/2	SC	3/8 x 1/2 SAE S/T	30 IN
ALC-065698	R-404A, R-507, R-502	AAE	1-1/2	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-065697	R-404A, R-507, R-502	AAE	1-1/2	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-065330	R-404A, R-507, R-502	AAE	2	SC	3/8 x 1/2 ODF S/T	30 IN
ALC-065690	R-404A, R-507, R-502	AAE	2	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-065689	R-404A, R-507, R-502	AAE	2	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-066082	R-404A, R-507, R-502	AAE	2-1/4	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-066083	R-404A, R-507, R-502	AAE	2-1/4	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-066084	R-404A, R-507, R-502	AAE	2-1/4	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-061885	R-404A, R-507, R-502	AAE	2-1/2	SC	3/8 x 1/2 SAE S/T	30 IN
ALC-065148	R-404A, R-507, R-502	AAE	2-1/2	SW45	1/2 x 5/8 ODF S/T	5 FT
ALC-065691	R-404A, R-507, R-502	AAE	2-1/2	SZ	1/2 x 5/8 ODF S/T	5 FT
ALC-066510	R-404A, R-507, R-502	AAE	3	SC	3/8 x 1/2 ODF S/T	30 IN
ALC-065693	R-404A, R-507, R-502	AAE	3	SW45	3/8 x 1/2 ODF S/T	5 FT
ALC-065692	R-404A, R-507, R-502	AAE	3	SZ	3/8 x 1/2 ODF S/T	5 FT

EMERSON CLIMATE TECHNOLOGIES - TXV A SERIES

With Internal Checkvalve

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-065871	R-410A	AACE	1-1/2	ZW195	3/8 x 1/2 ODF S/T	5 FT
ALC-016432	R-410A	AACE	1-1/2	ZW195	CHATLEFF	30 IN
ALC-065872	R-410A	AACE	2	ZW195	3/8 x 1/2 ODF S/T	5 FT
ALC-016615	R-410A	AACE	2	ZW195	CHATLEFF	30 IN
ALC-065873	R-410A	AACE	3	ZW195	3/8 x 1/2 ODF S/T	5 FT
ALC-015795	R-410A	AACE	3	ZW195	CHATLEFF	30 IN
ALC-065874	R-410A	AACE	4	ZW195	3/8 x 1/2 ODF S/T	5 FT
ALC-016433	R-410A	AACE	4	ZW195	CHATLEFF	30 IN
ALC-065875	R-410A	AACE	5	ZW195	1/2 x 5/8 ODF S/T	5 FT
ALC-015796	R-410A	AACE	5	ZW195	CHATLEFF	30 IN
ALC-065946	R-410A	AACEB	1-1/2	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-065942	R-410A	AACEB	2	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-065943	R-410A	AACEB	3	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-065944	R-410A	AACEB	4	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-065945	R-410A	AACEB	5	ZW195	3/8 x 1/2 ODF S/T	30 IN
ALC-063795	R-22, R-407C	AACE	1	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-058923	R-22, R-407C	AACE	1-1/2	HCA	3/8 x 1/2 ODF S/T	5 FT
ALC-063676	R-22, R-407C	AACE	2	HCA	3/8 x 1/2 ODF S/T	30IN
ALC-064102	R-22, R-407C	AACE	2-1/2	HAA	3/8 x 1/2 ODF S/T	30 IN
ALC-014091	R-22, R-407C	AACE	2-1/2	HAA	CHATLEFF	30 IN
ALC-065868	R-22, R-407C	AACE	3	HCA	3/8 x 1/2 ODF S/T	5 FT
ALC-065797	R-22, R-407C	AACE	3	HCA	1/2 x 5/8 ODF S/T	5 FT
ALC-065869	R-22, R-407C	AACE	4	HCA	3/8 x 1/2 ODF S/T	5 FT
ALC-064103	R-22, R-407C	AACE	5	HAA	3/8 x 1/2 ODF S/T	30 IN
ALC-065863	R-22, R-407C	AACE	5	HAA	1/2 x 5/8 ODF S/T	5 FT
ALC-014092	R-22, R-407C	AACE	5	HAA	CHATLEFF	30 IN
ALC-065842	R-22, R-407C	AACEB	1-1/2	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-065959	R-22, R-407C	AACEB	2	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-065941	R-22, R-407C	AACEB	3	HCA	3/8 x 1/2 ODF S/T	30 IN
ALC-065844	R-22, R-407C	AACEB	4	HCA	3/8 x 5/8 ODF S/T	30 IN

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R- 507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

Chatleff Gasket Kit

Part Number	Description
ALC-066031	KG 10045

EMERSON CLIMATE TECHNOLOGIES - TXV AFA(E) SERIES



The AFA series is designed for air conditioning and commercial refrigeration applications requiring angle configuration SAE connections. The AFA is ideal for those applications requiring compact size combined with stable and accurate control over wide load and evaporator temperature ranges.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- External superheat adjustment, Replaceable inlet strainer
- SAE connections only, Wrench flats on inlet and outlet

Options

- External or internal equalizer

Specifications

- Maximum working pressure: 700 psig
- UL/CUL file number: SA 5312

Nomenclature example: AFAE 1/2 HC 5 FT 3/8 x 1/2 SAE ANG

AF	A	E	1/2	H	C	5 FT	3/8 x 1/2	SAE	ANG
Valve Series Hermetic Design, Flare Connections	Superheat Adjustment A = Adjustable	Equalizer E=External (Omit for Internal)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A Z = R-410A	Charge Code C = medium temp CA = heat pump W(MOP) = press. Limiting Z = low temp AA = wide range	Capillary Tube Length 30 IN & 5 FT (std)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type SAE=flare	Configuration ANG = 90° angle

+ = R-12 and R-134a are interchangeable refrigerant charges, * = R-507, R-502 and R-404A are interchangeable refrigerant charges, • = R-22 and R-407C are interchangeable refrigerant charges

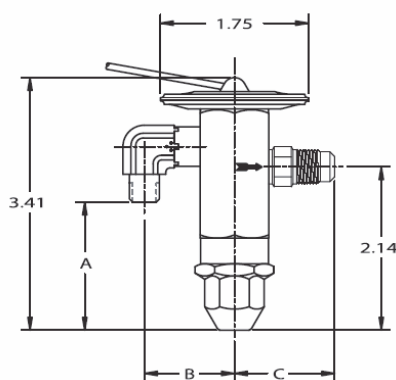
AFA Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22	R-502	R-507/R-404A	R-407C
—	1/8 (0.4)	1/5 (0.7)	—	1/8 (0.4)	1/5 (0.7)
1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)	1/4 (0.9)	1/4 (0.9)
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/2 (1.8)
1/2 (1.8)	3/4 (2.7)	1 (3.5)	1/2 (1.8)	3/4 (2.7)	1 (3.5)
1 (3.5)	1 (3.5)	1-1/2 (5.3)	1 (3.5)	1 (3.5)	1-1/4 (4.4)
—	1-1/2 (5.3)	2 (7.0)	—	1-1/4 (4.4)	2 (7.0)
1-1/2 (5.3)	2 (7.0)	2-1/2 (9.0)	1-1/2 (5.3)	2 (7.0)	2-1/2 (9.0)
2 (7.0)	2-1/2 (9.0)	3 (11.0)	2 (7.0)	2-1/4 (8.0)	3-1/4 (11.5)
—	3 (11.0)	—	—	2-1/2 (9.0)	4 (14.0)
3 (11.0)	4 (14.0)	5 (17.0)	3 (11.0)	3-1/2 (12.0)	5-1/4 (19.0)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

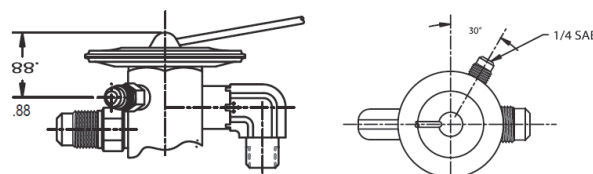
*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

Dimensional Data



Remote Bulb Tubing Length 30" or 5' Standard

AFA(E) Connections (in)				
Inlet	Outlet	A	B	C
1/4 SAE elbow	3/8 SAE 1/2 SAE	1.56	1.31	1.64
	5/8 SAE 3/8 – 1/2 SAE			1.35
				1.98
				1.73
3/8 SAE elbow	3/8 SAE 1/2 SAE	1.47	1.31	1.34
	5/8 SAE 3/8 – 1/2 SAE			1.36
				1.98
				1.73



EMERSON CLIMATE TECHNOLOGIES - TXV AFA(E) SERIES

Internally Equalized

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-047753	R-12	AFA	1/4	FC	1/4 x 3/8-1/2 SAE	5 FT
ALC-057047	R-12	AFA	1/4	FC	1/4 x 3/8-1/2 SAE	30 IN
ALC-054258	R-12	AFA	1/4	FC	3/8 x 3/8-1/2 SAE	5 FT
ALC-047752	R-12	AFA	1/2	FC	1/4 x 3/8-1/2 SAE	5 FT
ALC-057028	R-12	AFA	1/2	FC	1/4 x 3/8-1/2 SAE	30 IN
ALC-054226	R-12	AFA	1/2	FC	3/8 x 3/8-1/2 SAE	5 FT
ALC-057027	R-12	AFA	1/2	FC	3/8 x 3/8-1/2 SAE	30 IN
ALC-047758	R-12	AFA	1	FC	3/8 x 3/8-1/2 SAE	5 FT
ALC-057029	R-12	AFA	1	FC	3/8 x 3/8-1/2 SAE	30 IN
ALC-058536	R-134a, R-12	AFA	1/4	MC	1/4 x 3/8-1/2 SAE	5 FT
ALC-057607	R-134a, R-12	AFA	1/4	MC	1/4 x 3/8-1/2 SAE	30 IN
ALC-057606	R-134a, R-12	AFA	1/2	MC	1/4 x 3/8-1/2 SAE	30 IN
ALC-059625	R-134a, R-12	AFA	1/2	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-057605	R-134a, R-12	AFA	1	MC	1/4 x 3/8-1/2 SAE	30 IN
ALC-057261	R-22, R-407C	AFA	1/4	HC	1/4 x 3/8-1/2 SAE	30 IN
ALC-059575	R-22, R-407C	AFA	1/4	HZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-057260	R-22, R-407C	AFA	1/2	HC	1/4 x 3/8-1/2 SAE	30 IN
ALC-054229	R-22, R-407C	AFA	1/2	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-054231	R-22, R-407C	AFA	1	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-057555	R-22, R-407C	AFA	1	HZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-054232	R-22, R-407C	AFA	1-1/2	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-054233	R-22, R-407C	AFA	2	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-054234	R-22, R-407C	AFA	3	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-064072	R-404A, R-507, R-502	AFA	1/4	SC	1/4 x 3/8-1/2 SAE	5 FT
ALC-066498	R-404A, R-507, R-502	AFA	1/4	SW45	1/4 x 3/8-1/2 SAE	30 IN
ALC-066438	R-404A, R-507, R-502	AFA	1/4	SZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-066424	R-404A, R-507, R-502	AFA	1/2	SC	1/4 x 3/8-1/2 SAE	30 IN
ALC-066499	R-404A, R-507, R-502	AFA	1/2	SW45	1/4 x 3/8-1/2 SAE	30 IN
ALC-066439	R-404A, R-507, R-502	AFA	1/2	SZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-066425	R-404A, R-507, R-502	AFA	3/4	SC	3/8 x 3/8-1/2 SAE	30 IN
ALC-066500	R-404A, R-507, R-502	AFA	3/4	SW45	3/8 x 3/8-1/2 SAE	30 IN
ALC-066440	R-404A, R-507, R-502	AFA	3/4	SZ	3/8 x 3/8-1/2 SAE	30 IN
ALC-066426	R-404A, R-507, R-502	AFA	1	SC	3/8 x 3/8-1/2 SAE	30 IN
ALC-066501	R-404A, R-507, R-502	AFA	1	SW45	3/8 x 3/8-1/2 SAE	30 IN
ALC-066441	R-404A, R-507, R-502	AFA	1	SZ	3/8 x 3/8-1/2 SAE	30 IN

*For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected? Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

EMERSON CLIMATE TECHNOLOGIES - TXV AFA(E) SERIES

Externally Equalized

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-063898	R-134a, R-12	AFAE	1/4	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-057853	R-134a, R-12	AFAE	1/2	MC	1/4 x 3/8-1/2 SAE	30 IN
ALC-061904	R-134a, R-12	AFAE	1/2	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-057613	R-134a, R-12	AFAE	1	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-060865	R-134a, R-12	AFAE	1-1/2	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-061906	R-134a, R-12	AFAE	2	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-061908	R-134a, R-12	AFAE	3	MC	3/8 x 3/8-1/2 SAE	30 IN
ALC-054243	R-22, R-407C	AFAE	1/2	HC	1/4 x 3/8-1/2 SAE	5 FT
ALC-054246	R-22, R-407C	AFAE	1	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-054245	R-22, R-407C	AFAE	1	HC	1/4 x 3/8-1/2 SAE	5 FT
ALC-057163	R-22, R-407C	AFAE	1	HZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-054247	R-22, R-407C	AFAE	1-1/2	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-057950	R-22, R-407C	AFAE	1-1/2	HZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-057951	R-22, R-407C	AFAE	2	HZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-054248	R-22, R-407C	AFAE	2	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-054249	R-22, R-407C	AFAE	3	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-057556	R-22, R-407C	AFAE	3	HZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-054250	R-22, R-407C	AFAE	5	HC	3/8 x 3/8-1/2 SAE	5 FT
ALC-058484	R-22, R-407C	AFAE	5	HZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-066427	R-404A, R-507, R-502	AFAE	1/4	SC	1/4 x 3/8-1/2 SAE	30 IN
ALC-066502	R-404A, R-507, R-502	AFAE	1/4	SW45	1/4 x 3/8-1/2 SAE	30 IN
ALC-066442	R-404A, R-507, R-502	AFAE	1/4	SZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-066428	R-404A, R-507, R-502	AFAE	1/2	SC	1/4 x 3/8-1/2 SAE	30 IN
ALC-066453	R-404A, R-507, R-502	AFAE	1/2	SW45	3/8 x 3/8-1/2 SAE	30 IN
ALC-066503	R-404A, R-507, R-502	AFAE	1/2	SW45	1/4 x 3/8-1/2 SAE	30 IN
ALC-066443	R-404A, R-507, R-502	AFAE	1/2	SZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-061911	R-404A, R-507, R-502	AFAE	3/4	SC	3/8 x 3/8-1/2 SAE	30 IN
ALC-066504	R-404A, R-507, R-502	AFAE	3/4	SW45	3/8 x 3/8-1/2 SAE	30 IN
ALC-066444	R-404A, R-507, R-502	AFAE	3/4	SZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-061912	R-404A, R-507, R-502	AFAE	1	SC	3/8 x 3/8-1/2 SAE	30 IN
ALC-066452	R-404A, R-507, R-502	AFAE	1	SW45	3/8 x 3/8-1/2 SAE	30 IN
ALC-066445	R-404A, R-507, R-502	AFAE	1	SZ	1/4 x 3/8-1/2 SAE	30 IN
ALC-063464	R-404A, R-507, R-502	AFAE	1	SZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-066454	R-404A, R-507, R-502	AFAE	1-1/2	SC	3/8 x 3/8-1/2 SAE	5 FT
ALC-063465	R-404A, R-507, R-502	AFAE	1-1/2	SZ	3/8 x 3/8-1/2 SAE	5 FT
ALC-061914	R-404A, R-507, R-502	AFAE	2	SC	3/8 x 3/8-1/2 SAE	30 IN
ALC-066505	R-404A, R-507, R-502	AFAE	2	SW45	3/8 x 3/8-1/2 SAE	5 FT
ALC-061646	R-404A, R-507, R-502	AFAE	2	SZ	3/8 x 3/8-1/2 SAE	5 FT

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.
Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected? Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

EMERSON CLIMATE TECHNOLOGIES - TXV HF/HFK SERIES



The HF series is a balanced ported valve designed for refrigeration, air conditioning and heat pump applications.

Features

- Stainless steel replaceable power element eliminates corrosion and prevents valve failure
- Two body sizes provide capacities from 1/4 to 20 tons

Standard Body – HF & HFK

- The HF is offered several ways:
 - *Pre-packaged HFK service kits* – Include a mix of bodies and power elements with a complete set of cages to serve the most applications with a minimum of parts
 - *Individual components* – Bodies, cages, & power elements may be ordered separately
 - *Finished valves* – Assembled valves ready for immediate installation
- Bi-Flow capability up to 5-1/2 tons R-22 allows one valve to control the superheat in both cooling and heating modes

Extended Body – HF

- Capacity range from 8 to 20 tons (R-22)
- Finished valve only

NOTE: If the HF body is stamped HFK, then the cage is replaceable.

Options

- ODF or SAE connections
- Straight-through or angle flow configurations
- Removable inlet strainer (ODF only)
- Internal or external equalizer

Specifications

- Maximum working pressure: 450 psig
- UR/CUR file number: SA 5312

Nomenclature example: HFESC 2 HC 5 FT 3/8 x 1/2 ODF S/T

HF	N	E	S	C	B	2	H	C	5 FT	3/8 x 1/2	ODF	S/T
Valve Series Balanced Port Design	Superheat Adjustment N = Non-Adjustable Omit for Adjustable	Equalizer E=External (Omit for Internal)	Connection Type S = Solder (Omit for SAE Flare)	Removable Inlet Strainer (optional) C = Inlet Strainer (ODF only)	Bleed Hole (optional) (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C * P = R-507 * R = R-502 * S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp AA = wide range	Capillary Tube Length 5 FT (std)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type SAE = flare ODF = solder	Configuration ANG = 90° angle S/T = straight-thru

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

HF Series-Nominal* Capacity Tables in Tons (kW)

Standard Body HF

R-12	R-134a	R-22/R-407C	R-502/R-404A/R-507
1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)
1/2 (1.8)	3/4 (2.7)	1 (3.5)	1/2 (1.8)
1 (3.5)	1 (3.5)	1-1/2 (5.3)	1 (3.5)
1-1/4 (4.4)	1-1/2 (5.3)	2 (7.0)	1-1/4 (4.4)
1-1/2 (5.3)	1-3/4 (6.2)	2-1/2 (8.8)	1-1/2 (5.3)
2 (7.0)	2-1/2 (8.8)	3 (11.0)	2 (7.0)
3-1/2 (12.0)	4 (14.0)	5-1/2 (20.0)	3-1/2 (12.0)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

Extended Body HF

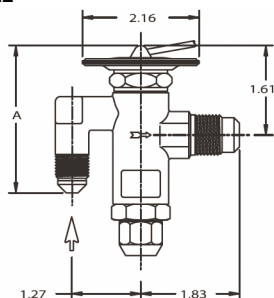
R-12	R-134a	R-22/R-407C	R-502/R-404A/R-507
5 (17.0)	6 (21.0)	8 (28.0)	5 (17.0)
6 (21.0)	7-1/2 (27.0)	10 (35.0)	7 (27.0)
9 (32.0)	11 (39.0)	15 (53.0)	10 (35.0)
12 (42.0)	14 (50.0)	20 (70.0)	13 (46.0)

EMERSON CLIMATE TECHNOLOGIES - TXV HF/HFK SERIES

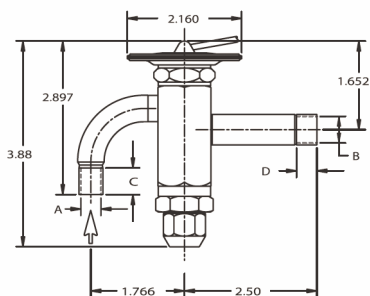
Dimensional Data

Standard Body HF

1/4 thru 5-1/2 tons R-22



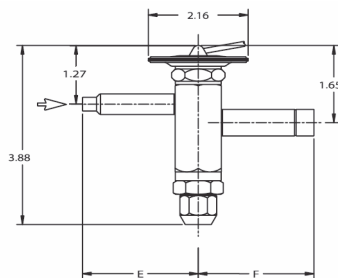
SAE



ODF

Extended Body HF

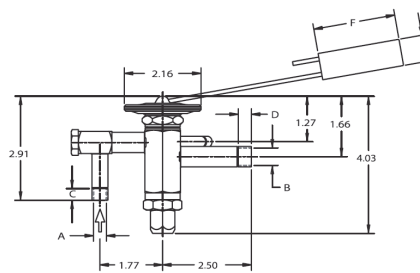
8, 10, 15 & 20 ton R-22



ODF

HF SAE

Connection Size		A	B	C
Inlet	Outlet			
1/4 SAE	1/2 SAE	3.11	1.27	1.83
3/8 SAE	1/2 SAE	2.72		



ODF
w/optional strainer
at inlet

HF ODF

Connection Size		A±	B±	C	D	E	F
Inlet	Outlet	.002	.002	MIN	MIN		
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.31	2.50	2.50
3/8 ODF	1/2 ODF	0.25	0.50	0.31	0.37		
3/8 ODF	1/2 ODF	0.38	0.50	0.37	0.37		

HFK Body Selection Table

Use the following tables to order individual components.

Part Number	Type	Connections (Inlet x Outlet)	Description
ALC-064881	HFK	1/4 x 1/2 SAE Ang Inlet	KT-20298-1
ALC-064882	HFK	3/8 x 1/2 SAE Ang Inlet	KT-20298-2
ALC-064883	HFKE	1/4 x 1/2 SAE Ang Inlet	KT-20298-3
ALC-064884	HFKE	3/8 x 1/2 SAE Ang Inlet	KT-20298-4
ALC-064885	HFKSC	3/8 x 1/2 ODF Ang Inlet w/Strainer	KT-20298-5
ALC-064886	HFKESC	3/8 x 1/2 ODF Ang Inlet w/Strainer	KT-20298-6
ALC-064887	HFKS	3/8 x 1/2 ODF S/T	KT-20298-7
ALC-064888	HFKS	3/8 x 5/8 ODF S/T	KT-20298-8
ALC-064889	HFKS	1/2 x 5/8 ODF S/T	KT-20298-9
ALC-064890	HFKS	1/2 x 7/8 ODF S/T	KT-20298-10
ALC-064891	HFKES	3/8 x 1/2 ODF S/T	KT-20298-11
ALC-064892	HFKES	3/8 x 5/8 ODF S/T	KT-20298-12
ALC-064895	HFKES	1/2 x 5/8 ODF S/T	KT-20298-13
ALC-064896	HFKES	1/2 x 7/8 ODF S/T	KT-20298-14

EMERSON CLIMATE TECHNOLOGIES - TXV HF/HFK SERIES

HF & HFK Power Element Table

Part Number	System Refrigerant(s)	Application	Description
ALC-053769	R-134a/R-12	Low Temp MOP	X26300-FW15-1
ALC-054798	R-134a/R-12	Low Temp MOP	X26300-FW35-1
ALC-063869	R-134a/R-12	Low Temp MOP	X26300-FW55-1
ALC-053766	R-134a/R-12	Low Temp	X26300-FZ-1
ALC-053763	R-134a/R-12	Medium Temp	X26300-FC-1
ALC-058074	R-134a	Medium Temp	X26300-MC-1
ALC-053767	R-22/R-407C	Low Temp	X26300-HZ-1
ALC-057834	R-22/R-407C	Heat Pump	X26300-HCA-1
ALC-057764	R-22/R-407C	AC MOP	X26300-HW100-1
ALC-053764	R-22/R-407C	A/C Med. Temp	X26300-HC-1
ALC-058085	R-404/ R-507/ R-502	Low Temp MOP	X26300-SW45-1
ALC-058082	R-404/ R-507/ R-502	Low Temp	X26300-SZ-1
ALC-058083	R-404/ R-507/ R-502	Medium Temp	X26300-SC-1

HFK Cage Nominal* Capacity Table

Part Number	Cage Code	R-12	R-22	R-134a	R-404	R-507	R-502	R-407C	
ALC-064868	0	1/8	1/4	1/4	1/8	1/8	1/8	1/4	KT-20299-0
ALC-064869	1	1/4	1/2	1/2	1/4	1/4	1/4	1/2	KT-20299-1
ALC-064870	2	1/2	1	3/4	1/2	1/2	1/2	1	KT-20299-2
ALC-064871	3	1	1-1/2	1	1	1	1	1-1/2	KT-20299-3
ALC-064872	4	1-1/4	2	1-1/2	1-1/4	1-1/4	1-1/4	2	KT-20299-4
ALC-064873	5	1-1/2	2-1/2	1-3/4	1-1/2	1-1/2	1-1/2	2-1/2	KT-20299-5
ALC-064874	6	2	3	2-1/2	2	2	2	3	KT-20299-6
ALC-064875	7	3-1/2	5-1/2	4	3-1/2	3-1/2	3-1/2	5-1/2	KT-20299-7

1 Cage Kit includes Cage, Insertion Tool and ID Clips.

*All capacities shown are at 100°F condensing, 40°F evaporator temperature.

See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

Cage Kit (P/N ALC-064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1-1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	16

Replacement Parts – SAE Inlet

Part Number	ECT Number	Description
ALC-027385	X-11176-1	Filter Screen
ALC-058707	27676-1	Seal Cap

Replacement Parts- HFSC & HFESC Only

Part Number	Kit Number	Description
ALC-057686	KT-20264	Includes seal cap, gasket o-ring, screen, spring

HFK Accessories

Part Number	Description
ALC-064897	Cage Box (Empty)
ALC-064898	Insertion Tool
ALC-064899	Oil Bottle
ALC-065203	Cage Gasket Kit

EMERSON CLIMATE TECHNOLOGIES - TXV HF/HFK SERIES

HFK Pre-Packaged Kits



The HFK is a pre-packaged kit consisting of a mix of popular bodies and power elements with a complete selection of cages. These kits provide great flexibility allowing valves to be assembled as needed for each application. Three kits are provided as shown below, along with the cage kit which is included in each pre-packaged kit. In addition, custom kits can be assembled by stocking an empty kit case with desired components.

SAE/ODF Kit (P/N ALC -065135)

Item	Qty
HFK 3/8 x 1/2 SAE ANG	1
HFKE 3/8 x 1/2 SAE ANG	1
HFKS 3/8 x 1/2 ODF S/T	1
HFKES 3/8 x 1/2 ODF S/T	1
Cage Kit (P/N ALC-064879)	1
Insertion Tool (P/N ALC-064898)	1
Service Box	1
FC Power Element	1
FZ Power Element	1
HC Power Element	1
HZ Power Element	1
SC Power Element	1
SW45 Power Element	1

SAE Kit (P/N ALC-064876)

Item	Qty
HFK 1/4 X 1/2 Body	1
HFK 3/8 X 1/2 Body	1
HFKE 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (P/N ALC-064879)	1

ODF Kit (P/N ALC-064877)

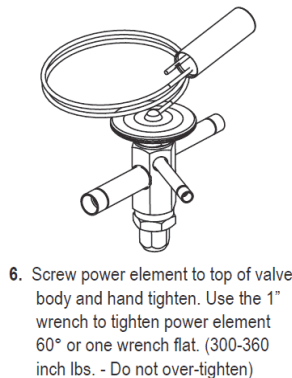
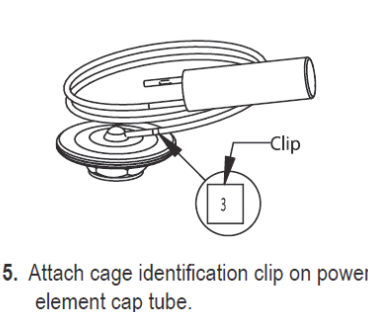
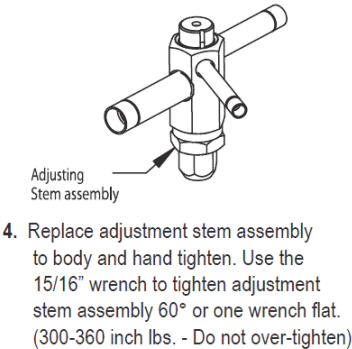
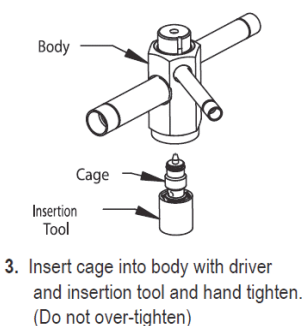
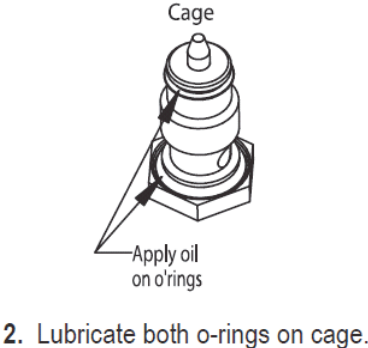
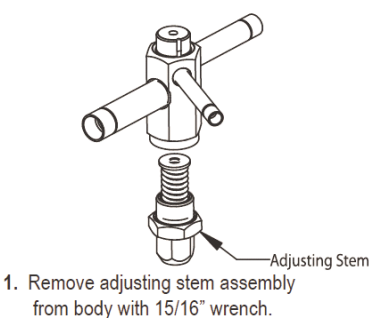
Item	Qty
HFKSC 3/8 X 1/2 Body	1
HFKES 3/8 X 1/2 Body	1
HFKESC 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (P/N ALC-064879)	1

Cage Kit (P/N ALC-064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1 1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	16

HFK Assembly Procedure

(see 6 assembly steps & diagrams below)



HF Series – Internally Equalized

Ordering Information

Use the following tables to order factory assembled valves.

AC&R Components

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-009811	R-12	HF HFS	1/4	FC	1/4 x 1/2 SAE ANG	5 FT
ALC-054134	R-12	HF HFS	1/4	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-009810	R-12	HF HFS	1/2	FC	1/4 x 1/2 SAE ANG	5 FT
ALC-056063	R-12	HF HFS	1/2	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-056013	R-12	HF HFS	1/2	FC	3/8 x 1/2 ODF S/T	5 FT
ALC-054966	R-12	HF HFS	1/2	FC	3/8 x 1/2 SAE	5 FT
ALC-054892	R-12	HF HFS	1/2	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-056119	R-12	HF HFS	1	FC	3/8 x 1/2 ODF S/T	5 FT
ALC-057619	R-12	HF HFS	1	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-054914	R-12	HF HFS	1-1/2	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-053060	R-12	HF HFS	2	FC	3/8 x 1/2 SAE	5 FT
ALC-058545	R-134a, R-12	HF HFS	1/4	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-057618	R-134a, R-12	HF HFS	1/4	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-058100	R-134a, R-12	HF HFS	1/2	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-057620	R-134a, R-12	HF HFS	1/2	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-065641	R-134a, R-12	HF HFS	1	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-058430	R-22, R-407C	HF HFS	1/4	HC	1/4 x 1/2 SAE ANG	5 FT
ALC-055493	R-22, R-407C	HF HFS	1/4	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-055633	R-22, R-407C	HF HFS	1/4	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054921	R-22, R-407C	HF HFS	1/4	HC	3/8 x 1/2 SAE	5 FT
ALC-059653	R-22, R-407C	HF HFS	1/4	HZ	1/4 x 1/2 SAE ANG	5 FT
ALC-056169	R-22, R-407C	HF HFS	1/4	HZ	3/8 x 1/2 ODF S/T	5 FT
ALC-009812	R-22, R-407C	HF HFS	1/2	HC	1/4 x 1/2 SAE ANG	5 FT
ALC-054723	R-22, R-407C	HF HFS	1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-054136	R-22, R-407C	HF HFS	1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054135	R-22, R-407C	HF HFS	1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-054364	R-22, R-407C	HF HFS	1/2	HZ	3/8 x 1/2 SAE	5 FT
ALC-055702	R-22, R-407C	HF HFS	1	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-055928	R-22, R-407C	HF HFS	1	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054927	R-22, R-407C	HF HFS	1	HC	3/8 x 1/2 SAE	5 FT
ALC-054928	R-22, R-407C	HF HFS	1	HZ	3/8 x 1/2 SAE	5 FT
ALC-055969	R-22, R-407C	HF HFS	1-1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-056018	R-22, R-407C	HF HFS	1-1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054933	R-22, R-407C	HF HFS	1-1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-054939	R-22, R-407C	HF HFS	2	HC	3/8 x 1/2 SAE	5 FT
ALC-054940	R-22, R-407C	HF HFS	2	HZ	3/8 x 1/2 SAE ANG	5 FT
ALC-054947	R-22, R-407C	HF HFS	2-1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-053316	R-22, R-407C	HF HFS	3	HC	3/8 x 1/2 SAE	5 FT
ALC-053915	R-22, R-407C	HF HFS	3	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-066516	R-404A, R-507, R-502	HF HFS	1/4	SC	1/4 x 1/2	30 IN
ALC-066517	R-404A, R-507, R-502	HF HFS	1/4	SW45	1/4 x 1/2	30 IN
ALC-066518	R-404A, R-507, R-502	HF HFS	1/4	SZ	1/4 x 1/2	30 IN
ALC-066519	R-404A, R-507, R-502	HF HFS	1/2	SC	1/4 x 1/2	30 IN
ALC-066520	R-404A, R-507, R-502	HF HFS	1/2	SW45	1/4 x 1/2	30 IN
ALC-066521	R-404A, R-507, R-502	HF HFS	1/2	SZ	1/4 x 1/2	30 IN
ALC-065643	R-404A, R-507, R-502	HF HFS	1	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-066522	R-404A, R-507, R-502	HF HFS	1	SW45	3/8 x 1/2	5 FT
ALC-066523	R-404A, R-507, R-502	HF HFS	1	SZ	3/8 x 1/2	5 FT
ALC-066524	R-404A, R-507, R-502	HF HFS	1-1/2	SC	3/8 x 1/2	5 FT
ALC-066525	R-404A, R-507, R-502	HF HFS	1-1/2	SW45	3/8 x 1/2	5 FT
ALC-066526	R-404A, R-507, R-502	HF HFS	1-1/2	SZ	3/8 x 1/2	5 FT

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-066527	R-404A, R-507, R-502	HF HFS	2	SC	3/8 x 1/2	5 FT
ALC-066528	R-404A, R-507, R-502	HF HFS	2	SW45	3/8 x 1/2	5 FT
ALC-066529	R-404A, R-507, R-502	HF HFS	2	SZ	3/8 x 1/2	5 FT
ALC-066530	R-404A, R-507, R-502	HF HFS	3-1/2	SC	3/8 x 1/2	5 FT
ALC-066531	R-404A, R-507, R-502	HF HFS	3-1/2	SW45	3/8 x 1/2	5 FT
ALC-066532	R-404A, R-507, R-502	HF HFS	3-1/2	SZ	3/8 x 1/2	5 FT
ALC-059304	R-502	HF HFS	1/4	RC	1/4 x 1/2 SAE ANG	5 FT
ALC-055490	R-502	HF HFS	1/4	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-054137	R-502	HF HFS	1/4	RC	3/8 x 1/2 SAE	5 FT
ALC-055792	R-502	HF HFS	1/4	RZ	1/4 x 3/8 ODF S/T	5 FT
ALC-056228	R-502	HF HFS	1/4	RZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054369	R-502	HF HFS	1/4	RZ	3/8 x 1/2 SAE	5 FT
ALC-054964	R-502	HF HFS	1/2	RC	3/8 x 1/2 SAE	5 FT
ALC-055874	R-502	HF HFS	1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-056008	R-502	HF HFS	1/2	RZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054965	R-502	HF HFS	1/2	RZ	3/8 x 1/2 SAE	5 FT
ALC-054976	R-502	HF HFS	1	RC	3/8 x 1/2 SAE	5 FT
ALC-054905	R-502	HF HFS	1	RC	3/8 x 1/2 SAE ANG	5 FT
ALC-054977	R-502	HF HFS	1	RZ	3/8 x 1/2 SAE	5 FT
ALC-054984	R-502	HF HFS	1-1/2	RC	3/8 x 1/2 SAE	5 FT
ALC-054986	R-502	HF HFS	1-1/2	RZ	3/8 x 1/2 SAE	5 FT
ALC-053061	R-502	HF HFS	2	RC	3/8 x 1/2 SAE	5 FT
ALC-055936	R-502	HF HFS	3-1/2	RC	3/8 x 1/2 SAE	5 FT
ALC-054360	R-12	HFE, HFES	1/4	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-009955	R-12	HFE, HFES	1/2	FC	1/4 x 1/2 SAE ANG	5 FT
ALC-056021	R-12	HFE, HFES	1/2	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-054895	R-12	HFE, HFES	1/2	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-055993	R-12	HFE, HFES	1	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-056151	R-12	HFE, HFES	1	FC	3/8 x 1/2 ODF S/T	5 FT
ALC-054909	R-12	HFE, HFES	1	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-055994	R-12	HFE, HFES	1-1/2	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-054917	R-12	HFE, HFES	1-1/2	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-053069	R-12	HFE, HFES	2	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-054138	R-12	HFE, HFES	3-1/2	FC	3/8 x 1/2 SAE ANG	5 FT
ALC-057860	R-134a, R-12	HFE, HFES	1/4	MC	3/8 x 1/2 SAE ANG	30 IN
ALC-065645	R-134a, R-12	HFE, HFES	1/2	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-057616	R-134a, R-12	HFE, HFES	1/2	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-057784	R-134a, R-12	HFE, HFES	3/4	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-059422	R-134a, R-12	HFE, HFES	3/4	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-058546	R-134a, R-12	HFE, HFES	1	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-065646	R-134a, R-12	HFE, HFES	1	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-057617	R-134a, R-12	HFE, HFES	1	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-057895	R-134a, R-12	HFE, HFES	1-1/2	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-065647	R-134a, R-12	HFE, HFES	1-3/4	MC	3/8 x 1/2 ODF S/T	5 FT
ALC-058152	R-134a, R-12	HFE, HFES	1-3/4	MC	3/8 x 1/2 SAE	5 FT
ALC-057896	R-134a, R-12	HFE, HFES	1-3/4	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-057897	R-134a, R-12	HFE, HFES	4	MC	3/8 x 1/2 SAE ANG	5 FT
ALC-057903	R-134a, R-12	HFE, HFES	6	MC	5/8 x 7/8 ODF S/T	5 FT
ALC-057906	R-134a, R-12	HFE, HFES	11	MC	5/8 x 7/8 ODF S/T	5 FT
ALC-058681	R-134a, R-12	HFE, HFES	11	MC	7/8 x 1 1/8 ODF S/T	5 FT
ALC-064000	R-134a, R-12	HFE, HFES	14	MC	7/8 x 1 3/8 ODF S/T	5 FT
ALC-055927	R-22, R-407C	HFE, HFES	1/4	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054924	R-22, R-407C	HFE, HFES	1/4	HC	3/8 x 1/2 SAE	5 FT
ALC-054925	R-22, R-407C	HFE, HFES	1/4	HZ	3/8 x 1/2 SAE	5 FT
ALC-059079	R-22, R-407C	HFE, HFES	1/2	HC	1/4 x 1/2 SAE ANG	5 FT
ALC-054838	R-22, R-407C	HFE, HFES	1/2	HC	3/8 x 1/2 ODF ANG	5 FT

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-055827	R-22, R-407C	HFE, HFES	1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054361	R-22, R-407C	HFE, HFES	1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-055889	R-22, R-407C	HFE, HFES	1/2	HZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054365	R-22, R-407C	HFE, HFES	1/2	HZ	3/8 x 1/2 SAE	5 FT
ALC-055494	R-22, R-407C	HFE, HFES	1	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-055708	R-22, R-407C	HFE, HFES	1	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054930	R-22, R-407C	HFE, HFES	1	HC	3/8 x 1/2 SAE	5 FT
ALC-054932	R-22, R-407C	HFE, HFES	1	HW 35	3/8 x 1/2 SAE	5 FT
ALC-054931	R-22, R-407C	HFE, HFES	1	HZ	3/8 x 1/2 SAE	5 FT
ALC-055495	R-22, R-407C	HFE, HFES	1-1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-055863	R-22, R-407C	HFE, HFES	1-1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054936	R-22, R-407C	HFE, HFES	1-1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-055870	R-22, R-407C	HFE, HFES	1-1/2	HZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054937	R-22, R-407C	HFE, HFES	1-1/2	HZ	3/8 x 1/2 SAE	5 FT
ALC-055706	R-22, R-407C	HFE, HFES	2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054942	R-22, R-407C	HFE, HFES	2	HC	3/8 x 1/2 SAE	5 FT
ALC-054946	R-22, R-407C	HFE, HFES	2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-054943	R-22, R-407C	HFE, HFES	2	HZ	3/8 x 1/2 SAE	5 FT
ALC-056042	R-22, R-407C	HFE, HFES	2-1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-055931	R-22, R-407C	HFE, HFES	2-1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054950	R-22, R-407C	HFE, HFES	2-1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-054756	R-22, R-407C	HFE, HFES	3	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-053916	R-22, R-407C	HFE, HFES	3	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-053317	R-22, R-407C	HFE, HFES	3	HC	3/8 x 1/2 SAE	5 FT
ALC-064761	R-22, R-407C	HFE, HFES	3	HC	1/2 x 5/8 ODF ANG	5 FT
ALC-061730	R-22, R-407C	HFE, HFES	3	HCA	1/2 x 5/8 ODF S/T	5 FT
ALC-053191	R-22, R-407C	HFE, HFES	3	HZ	3/8 x 1/2 SAE	5 FT
ALC-054141	R-22, R-407C	HFE, HFES	5-1/2	HC	3/8 x 1/2 ODF S/T	5 FT
ALC-054140	R-22, R-407C	HFE, HFES	5-1/2	HC	3/8 x 1/2 SAE	5 FT
ALC-054778	R-22, R-407C	HFE, HFES	5-1/2	HC	1/2 x 5/8 ODF ANG	5 FT
ALC-055187	R-22, R-407C	HFE, HFES	5-1/2	HC	1/2 x 7/8 ODF S/T	5 FT
ALC-054779	R-22, R-407C	HFE, HFES	5-1/2	HC	5/8 x 7/8 ODF S/T	5 FT
ALC-065649	R-22, R-407C	HFE, HFES	5-1/2	HCA	3/8 x 1/2 ODF S/T	5 FT
ALC-057378	R-22, R-407C	HFE, HFES	5-1/2	HCA	1/2 x 5/8 ODF ANG	5 FT
ALC-054780	R-22, R-407C	HFE, HFES	5-1/2	HZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054777	R-22, R-407C	HFE, HFES	5-1/2	HZ	3/8 x 1/2 SAE	5 FT
ALC-057312	R-22, R-407C	HFE, HFES	8	HC	1/2 x 5/8 ODF S/T	5 FT
ALC-057313	R-22, R-407C	HFE, HFES	8	HC	5/8 x 1 1/8 ODF ST	5 FT
ALC-056818	R-22, R-407C	HFE, HFES	8	HCA	1/2 x 7/8 ODF S/T	5 FT
ALC-056819	R-22, R-407C	HFE, HFES	8	HCA	5/8 x 1 1/8 ODF ST	5 FT
ALC-057315	R-22, R-407C	HFE, HFES	8	HC	1/2 x 5/8 ODF S/T	5 FT
ALC-057256	R-22, R-407C	HFE, HFES	10	HC	5/8 x 7/8 ODF S/T	5 FT
ALC-057316	R-22, R-407C	HFE, HFES	10	HC	7/8 x 1 1/8 ODF S/T	5 FT
ALC-056820	R-22, R-407C	HFE, HFES	10	HCA	5/8 x 7/8 ODF S/T	5 FT
ALC-056821	R-22, R-407C	HFE, HFES	10	HCA	58 x 1 1/8 ODF S/T	5 FT
ALC-062737	R-22, R-407C	HFE, HFES	12	HC	5/8 x 1 1/8 ODF S/T	5 FT
ALC-057317	R-22, R-407C	HFE, HFES	15	HC	5/8 x 7/8 ODF S/T	5 FT
ALC-057318	R-22, R-407C	HFE, HFES	15	HC	7/8 x 1 1/8 ODF S/T	5 FT
ALC-056824	R-22, R-407C	HFE, HFES	15	HCA	5/8 x 1 1/8 ODF S/T	5 FT
ALC-056823	R-22, R-407C	HFE, HFES	15	HCA	5/8 x 7/8 ODF S/T	5 FT
ALC-056825	R-22, R-407C	HFE, HFES	15	HCA	7/8 x 1 1/8 ODF S/T	5 FT
ALC-062055	R-22, R-407C	HFE, HFES	20	HC	7/8 x 1 1/8 ODF S/T	5 FT
ALC-058490	R-22, R-407C	HFE, HFES	20	HCA	7/8 x 1 1/8 ODF S/T	5 FT
ALC-066533	R-404A, R-507, R-502	HFE, HFES	1/4	SC	1/4 x 1/2 ODF S/T	30 IN
ALC-065734	R-404A, R-507, R-502	HFE, HFES	1/4	SW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-066623	R-404A, R-507, R-502	HFE, HFES	1/4	SW 45	3/8 x 1/2 SAE ANG	5 FT

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-065733	R-404A, R-507, R-502	HFE, HFES	1/4	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-058975	R-404A, R-507, R-502	HFE, HFES	1/2	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-065736	R-404A, R-507, R-502	HFE, HFES	1/2	SW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-066040	R-404A, R-507, R-502	HFE, HFES	1/2	SW 45	3/8 x 1/2 SAE ANG	5 FT
ALC-058995	R-404A, R-507, R-502	HFE, HFES	1/2	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-065735	R-404A, R-507, R-502	HFE, HFES	1/2	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-065650	R-404A, R-507, R-502	HFE, HFES	1	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-058976	R-404A, R-507, R-502	HFE, HFES	1	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-059086	R-404A, R-507, R-502	HFE, HFES	1	SW 45	3/8 x 1/2 ODF ANG	5 FT
ALC-066624	R-404A, R-507, R-502	HFE, HFES	1	SW 45	3/8 x 1/2 SAE ANG	5 FT
ALC-065651	R-404A, R-507, R-502	HFE, HFES	1	SW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-064289	R-404A, R-507, R-502	HFE, HFES	1	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-058977	R-404A, R-507, R-502	HFE, HFES	1-1/4	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-057976	R-404A, R-507, R-502	HFE, HFES	1-1/4	SW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-065737	R-404A, R-507, R-502	HFE, HFES	1-1/4	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-057974	R-404A, R-507, R-502	HFE, HFES	1-1/2	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-065738	R-404A, R-507, R-502	HFE, HFES	1-1/2	SW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-066625	R-404A, R-507, R-502	HFE, HFES	1-1/2	SW 45	3/8 x 1/2 SAE ANG	5 FT
ALC-064290	R-404A, R-507, R-502	HFE, HFES	1-1/2	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-057958	R-404A, R-507, R-502	HFE, HFES	2	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-065740	R-404A, R-507, R-502	HFE, HFES	2	SW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-066627	R-404A, R-507, R-502	HFE, HFES	2	SW 45	3/8 x 1/2 SAE ANG	5 FT
ALC-065739	R-404A, R-507, R-502	HFE, HFES	2	SZ	3/8 x 1/2 ODF S/T	5 FT
ALC-065652	R-404A, R-507, R-502	HFE, HFES	3-1/2	SC	3/8 x 1/2 ODF S/T	5 FT
ALC-062151	R-404A, R-507, R-502	HFE, HFES	3-1/2	SC	5/8 x 7/8 ODF S/T	5 FT
ALC-066534	R-404A, R-507, R-502	HFE, HFES	3-1/2	SW 45	1/2 x 5/8 ODF S/T	5 FT
ALC-061694	R-404A, R-507, R-502	HFE, HFES	3-1/2	SZ	1/2 x 5/8 ODF S/T	5 FT
ALC-066535	R-404A, R-507, R-502	HFE, HFES	5	SC	5/8 x 7/8 ODF S/T	5 FT
ALC-064170	R-404A, R-507, R-502	HFE, HFES	5	SW 45	5/8 x 7/8 ODF S/T	5 FT
ALC-058451	R-404A, R-507, R-502	HFE, HFES	5	SZ	5/8 x 7/8 ODF S/T	5 FT
ALC-066536	R-404A, R-507, R-502	HFE, HFES	7	SC	5/8 x 7/8 ODF S/T	5 FT
ALC-066537	R-404A, R-507, R-502	HFE, HFES	7	SW 45	5/8 x 7/8 ODF S/T	5 FT
ALC-064291	R-404A, R-507, R-502	HFE, HFES	7	SZ	5/8 x 7/8 ODF S/T	5 FT
ALC-066538	R-404A, R-507, R-502	HFE, HFES	10	SC	5/8 x 7/8 ODF S/T	5 FT
ALC-064195	R-404A, R-507, R-502	HFE, HFES	10	SW 45	5/8 x 7/8 ODF S/T	5 FT
ALC-062828	R-404A, R-507, R-502	HFE, HFES	10	SZ	5/8 x 7/8 ODF S/T	5 FT
ALC-054366	R-502	HFE HFES	1/4	RC	3/8 x 1/2 SAE	5 FT
ALC-055092	R-502	HFE HFES	1/4	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-055491	R-502	HFE HFES	1/4	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-054370	R-502	HFE HFES	1/4	RZ	3/8 x 1/2 SAE	5 FT
ALC-055992	R-502	HFE HFES	1/2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-056022	R-502	HFE HFES	1/2	RC	3/8 x 1/2 ODF S/T	5 FT
ALC-054967	R-502	HFE HFES	1/2	RC	3/8 x 1/2 SAE	5 FT
ALC-055996	R-502	HFE HFES	1/2	RW 45	3/8 x 1/2 ODF ANG	5 FT
ALC-054969	R-502	HFE HFES	1/2	RW 45	3/8 x 1/2 SAE	5 FT
ALC-055497	R-502	HFE HFES	1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-056024	R-502	HFE HFES	1/2	RZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054968	R-502	HFE HFES	1/2	RZ	3/8 x 1/2 SAE	5 FT
ALC-054983	R-502	HFE HFES	1	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-056029	R-502	HFE HFES	1	RC	3/8 x 1/2 ODF S/T	5 FT
ALC-054979	R-502	HFE HFES	1	RC	3/8 x 1/2 SAE	5 FT
ALC-054981	R-502	HFE HFES	1	RW 45	3/8 x 1/2 SAE	5 FT
ALC-055496	R-502	HFE HFES	1	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-056225	R-502	HFE HFES	1	RZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054980	R-502	HFE HFES	1	RZ	3/8 x 1/2 SAE	5 FT
ALC-055657	R-502	HFE HFES	1-1/2	RC	3/8 x 1/2 ODF ANG	5 FT

EMERSON CLIMATE TECHNOLOGIES - TXV HF/HFK SERIES

HF Series – Internally Equalized

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-056031	R-502	HFE HFES	1-1/2	RC	3/8 x 1/2 ODF S/T	5 FT
ALC-054988	R-502	HFE HFES	1-1/2	RC	3/8 x 1/2 SAE	5 FT
ALC-055991	R-502	HFE HFES	1-1/2	RW 45	3/8 x 1/2 ODF ANG	5 FT
ALC-056032	R-502	HFE HFES	1-1/2	RW 45	3/8 x 1/2 ODF S/T	5 FT
ALC-054990	R-502	HFE HFES	1-1/2	RW 45	3/8 x 1/2 SAE	5 FT
ALC-055498	R-502	HFE HFES	1-1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-054989	R-502	HFE HFES	1-1/2	RZ	3/8 x 1/2 SAE	5 FT
ALC-054768	R-502	HFE HFES	2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-053270	R-502	HFE HFES	2	RC	3/8 x 1/2 ODF S/T	5 FT
ALC-053070	R-502	HFE HFES	2	RC	3/8 x 1/2 SAE	5 FT
ALC-054992	R-502	HFE HFES	2	RW 45	3/8 x 1/2 SAE	5 FT
ALC-053271	R-502	HFE HFES	2	RZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054844	R-502	HFE HFES	2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-053071	R-502	HFE HFES	2	RZ	3/8 x 1/2 SAE	5 FT
ALC-054783	R-502	HFE HFES	3-1/2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-054143	R-502	HFE HFES	3-1/2	RC	3/8 x 1/2 ODF S/T	5 FT
ALC-054142	R-502	HFE HFES	3-1/2	RC	3/8 x 1/2 SAE	5 FT
ALC-058907	R-502	HFE HFES	3-1/2	RW 45	3/8 x 1/2 ODF ANG	5 FT
ALC-054785	R-502	HFE HFES	3-1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-054784	R-502	HFE HFES	3-1/2	RZ	3/8 x 1/2 ODF S/T	5 FT
ALC-054145	R-502	HFE HFES	3-1/2	RZ	3/8 x 1/2 SAE	5 FT
ALC-058875	R-502	HFE HFES	5	RC	3/8 x 1/2 ODF S/T	5 FT
ALC-058608	R-502	HFE HFES	5	RC	5/8 x 7/8 ODF S/T	5 FT
ALC-058305	R-502	HFE HFES	5	RW 45	5/8 x 7/8 ODF S/T	5 FT
ALC-061196	R-502	HFE HFES	5	RZ	1/2 x 5/8 ODF ANG	5 FT
ALC-058607	R-502	HFE HFES	7	RC	5/8 x 7/8 ODF S/T	5 FT
ALC-059291	R-502	HFE HFES	7	RW 45	5/8 x 7/8 ODF S/T	5 FT
ALC-058808	R-502	HFE HFES	10	RC	5/8 x 7/8 ODF S/T	5 FT

HFESC Series – Externally Equalized

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-057397	R-12	HFESC	1/2	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-057398	R-12	HFESC	1	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-057399	R-12	HFESC	1-1/2	FC	3/8 x 1/2 ODF ANG	5 FT
ALC-057572	R-134a, R-12	HFESC	1/4	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-058069	R-134a, R-12	HFESC	1/2	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-057570	R-134a, R-12	HFESC	1	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-057568	R-134a, R-12	HFESC	1-1/2	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-058421	R-134a, R-12	HFESC	2-1/2	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-057409	R-22, R-407C	HFESC	1/4	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057428	R-22, R-407C	HFESC	1/4	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057291	R-22, R-407C	HFESC	1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057429	R-22, R-407C	HFESC	1/2	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057410	R-22, R-407C	HFESC	1	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057430	R-22, R-407C	HFESC	1	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057292	R-22, R-407C	HFESC	1-1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057321	R-22, R-407C	HFESC	1-1/2	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057433	R-22, R-407C	HFESC	2	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057294	R-22, R-407C	HFESC	2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057411	R-22, R-407C	HFESC	2-1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057434	R-22, R-407C	HFESC	2-1/2	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057412	R-22, R-407C	HFESC	3	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057748	R-22, R-407C	HFESC	3	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057781	R-22, R-407C	HFESC	5-1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-058609	R-22, R-407C	HFESC	8	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-066539	R-22, R-407C	HFESC	1/4	SC	1/4 x 1/2 ODF ANG	30 IN
ALC-066540	R-22, R-407C	HFESC	1/4	SW45	1/4 x 1/2 ODF ANG	30 IN
ALC-066542	R-22, R-407C	HFESC	1/4	SZ	1/4 x 1/2 ODF ANG	30 IN
ALC-066543	R-22, R-407C	HFESC	1/2	SC	1/4 x 1/2 ODF ANG	30 IN
ALC-066544	R-22, R-407C	HFESC	1/2	SW45	1/4 x 1/2 ODF ANG	30 IN
ALC-066545	R-22, R-407C	HFESC	1/2	SZ	1/4 x 1/2 ODF ANG	30 IN
ALC-058135	R-22, R-407C	HFESC	1	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-058157	R-22, R-407C	HFESC	1	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-058118	R-22, R-407C	HFESC	1	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-058119	R-22, R-407C	HFESC	1-1/2	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-058136	R-22, R-407C	HFESC	1-1/2	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-058121	R-22, R-407C	HFESC	1-1/2	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-058122	R-22, R-407C	HFESC	2	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-058212	R-22, R-407C	HFESC	2	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-058214	R-22, R-407C	HFESC	2	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-058071	R-22, R-407C	HFESC	3-1/2	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-066547	R-22, R-407C	HFESC	3-1/2	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-066548	R-22, R-407C	HFESC	3-1/2	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-058220	R-22, R-407C	HFESC	5	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-058221	R-22, R-407C	HFESC	5	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-066549	R-22, R-407C	HFESC	5	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-065458	R-22, R-407C	HFESC	7	SC	5/8 x 7/8 ODF ANG	5 FT
ALC-066550	R-22, R-407C	HFESC	7	SW45	5/8 x 7/8 ODF ANG	5 FT
ALC-064058	R-22, R-407C	HFESC	7	SZ	5/8 x 7/8 ODF ANG	5 FT
ALC-064219	R-22, R-407C	HFESC	10	SC	5/8 x 7/8 ODF ANG	5 FT
ALC-066551	R-22, R-407C	HFESC	10	SW45	5/8 x 7/8 ODF ANG	5 FT
ALC-064059	R-22, R-407C	HFESC	10	SZ	5/8 x 7/8 ODF ANG	5 FT
ALC-057436	R-404A, R-507, R-502	HFESC	1/4	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057454	R-404A, R-507, R-502	HFESC	1/4	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057437	R-404A, R-507, R-502	HFESC	1/2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057455	R-404A, R-507, R-502	HFESC	1/2	RZ	3/8 x 1/2 ODF ANG	5 FT

EMERSON CLIMATE TECHNOLOGIES - TXV HF/HFK SERIES

HFESC Series – Externally Equalized

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-057438	R-404A, R-507, R-502	HFESC	1	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057446	R-404A, R-507, R-502	HFESC	1	RW 45	3/8 x 1/2 ODF ANG	5 FT
ALC-057456	R-404A, R-507, R-502	HFESC	1	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057439	R-404A, R-507, R-502	HFESC	1-1/2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057448	R-404A, R-507, R-502	HFESC	1-1/2	RW 45	3/8 x 1/2 ODF ANG	5 FT
ALC-057322	R-404A, R-507, R-502	HFESC	1-1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057440	R-404A, R-507, R-502	HFESC	2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057457	R-404A, R-507, R-502	HFESC	2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057441	R-404A, R-507, R-502	HFESC	2-1/2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057458	R-404A, R-507, R-502	HFESC	2-1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-058595	R-404A, R-507, R-502	HFESC	5	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-059654	R-404A, R-507, R-502	HFESC	5	RZ	3/8 x 1/2 ODF ANG	5 FT

HFSC Internally Equalized

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-057573	R-134a, R-12	HFSC	1/4	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-058067	R-134a, R-12	HFSC	1/2	MC	3/8 x 1/2 ODF ANG	5 FT
ALC-057467	R-22, R-407C	HFSC	1/4	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057293	R-22, R-407C	HFSC	1/2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057482	R-22, R-407C	HFSC	1/2	HZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057468	R-22, R-407C	HFSC	1	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-057470	R-22, R-407C	HFSC	2	HC	3/8 x 1/2 ODF ANG	5 FT
ALC-058248	R-404A, R-507, R-502	HFSC	1/8	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-066552	R-404A, R-507, R-502	HFSC	1/8	SW45	1/4 x 1/2 ODF ANG	30 IN
ALC-066553	R-404A, R-507, R-502	HFSC	1/8	SZ	1/4 x 1/2 ODF ANG	30 IN
ALC-058249	R-404A, R-507, R-502	HFSC	1/4	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-066554	R-404A, R-507, R-502	HFSC	1/4	SW45	1/4 x 1/2 ODF ANG	30 IN
ALC-066555	R-404A, R-507, R-502	HFSC	1/4	SZ	1/4 x 1/2 ODF ANG	30 IN
ALC-058250	R-404A, R-507, R-502	HFSC	1/2	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-066556	R-404A, R-507, R-502	HFSC	1/2	SW45	1/4 x 1/2 ODF ANG	30 IN
ALC-066557	R-404A, R-507, R-502	HFSC	1/2	SZ	1/4 x 1/2 ODF ANG	30 IN
ALC-058251	R-404A, R-507, R-502	HFSC	1	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-066558	R-404A, R-507, R-502	HFSC	1	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-066559	R-404A, R-507, R-502	HFSC	1	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-058252	R-404A, R-507, R-502	HFSC	1-1/4	SC	3/8 x 1/2 ODF ANG	5 FT
ALC-066560	R-404A, R-507, R-502	HFSC	1-1/4	SW45	3/8 x 1/2 ODF ANG	5 FT
ALC-066561	R-404A, R-507, R-502	HFSC	1-1/4	SZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057487	R-502	HFSC	1/4	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057484	R-502	HFSC	1/4	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057488	R-502	HFSC	1/2	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057485	R-502	HFSC	1/2	RZ	3/8 x 1/2 ODF ANG	5 FT
ALC-057489	R-502	HFSC	1	RC	3/8 x 1/2 ODF ANG	5 FT
ALC-057486	R-502	HFSC	1	RZ	3/8 x 1/2 ODF ANG	5 FT

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

EMERSON CLIMATE TECHNOLOGIES - TXV TRAE+ SERIES



The TRAE Plus series is a large capacity valve designed for refrigeration, air conditioning, heat pump, and chiller applications.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Suitable for Bi-Flow applications
- Replaceable power element and cage assembly for full serviceability
- Double balanced port design improves operation and stability over wide loads and evaporator temperature ranges
- Square body with straight-thru connections
- Solid copper connections
- External superheat adjustment
- Large diaphragm provides superior stability
- Permanent inlet strainer

Options

- Cages

Specifications

- Maximum working pressure: 450 psig
- Torque Power Assembly: 375 - 425 in. lb.
- UL/CUL file number: SA 5312

Nomenclature example: TRAE+ 30 HC 10 FT 7/8 x 1-1/8 ODF S/T

TRA	E	+	30	H	C	10 FT	7/8 x 1-1/8	ODF	S/T
Valve Series	Equalizer	Replaceable Components	Capacity	Refrigerant Code	Charge Code	Capillary Tube Length	Inlet x Outlet Connection Sizes	Connection Type	Configuration
Double Balanced Port Design	E=External 1/4"SAE	Cage and Power Assembly	Nominal Rating in Tons (See nominal capacity table below)	+F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	10 FT (std)	5/8 x 7/8 7/8 x 1-1/8 1-1/8 x 1-3/8	ODF = solder (Only)	S/T = straight-thru (Only)

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

TRAE+ Series – Nominal* Capacity Table in Tons (kW)

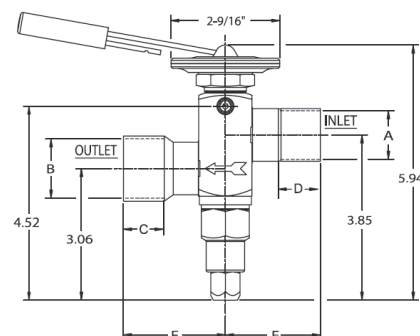
R-12	R-134a	R-22/R-407C	R-507/R-404A/ R-502
7-1/2 (27)	9 (32)	10 (35)	8 (28)
10 (35)	13 (46)	15 (53)	12 (42)
12 (42)	14 (50)	20 (71)	14 (50)
18 (64)	22 (78)	30 (106)	20 (71)
25 (88)	30 (106)	40 (142)	30 (106)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

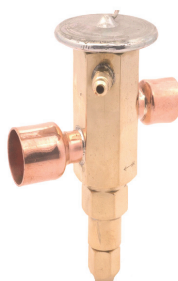
*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

TRAE+ Dimensional Data (in)

TRA Valve Type	Nominal Inlet (B)	Sizes (ODF) Outlet (E)	Inlet		Inlet	
			A	C	D	F
TRAE+ 10-40 Tons	5/8	7/8	1.57	0.50	2.09	0.75
	5/8	1-1/8	1.57	0.50	2.21	0.91
	7/8	7/8	2.09	0.75	2.09	0.75
	7/8	1-3/8	2.09	0.75	2.21	0.91
	7/8	1-3/8	2.09	0.75	2.39	0.97
	1-1/8	1-1/8	2.21	0.91	2.21	0.97
	1-1/8	1-3/8	2.21	0.91	2.39	0.97



EMERSON CLIMATE TECHNOLOGIES - TXV TRAE SERIES



The TRAE series is a large capacity valve for chiller, heat pump, refrigeration, and air conditioning applications.

Features

- Suitable for Bi-Flow applications
- External superheat adjustment
- Integral body with straight-thru connections
- Balanced port design improves valve operation and stability over wide loads and evaporator temperature range
- Solid copper connections
- Large diaphragm provides superior stability

Specifications

- Maximum Working Pressure: 450 psig
- UL/CUL file number: SA 5312

Nomenclature example: TRAE 50 HC 10 FT 7/8 x 1-1/8 ODF S/T

TRA	E	50	H	C	10 FT	7/8 x 1-1/8	ODF	S/T
Valve Series	Equalizer	Capacity Nominal Rating in Tons	Refrigerant Code	Charge Code	Capillary Tube Length	Inlet x Outlet Connection Sizes	Connection Type	Configuration
Hermetic Balanced Port Design	E=External 1/4" SAE	(See nominal capacity table below)	+F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	10 FT (std)	1/4 x 3/8 3/8 x 1/2	ODF = solder (Only)	S/T = straight-thru (Only)

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

TRAE Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22/R-407C	R-507/R-404A/R-502
30 (106)	40 (142)	50 (177)	35 (124)
35 (124)	45 (159)	60 (212)	40 (142)
40 (142)	50 (177)	70 (248)	50 (177)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

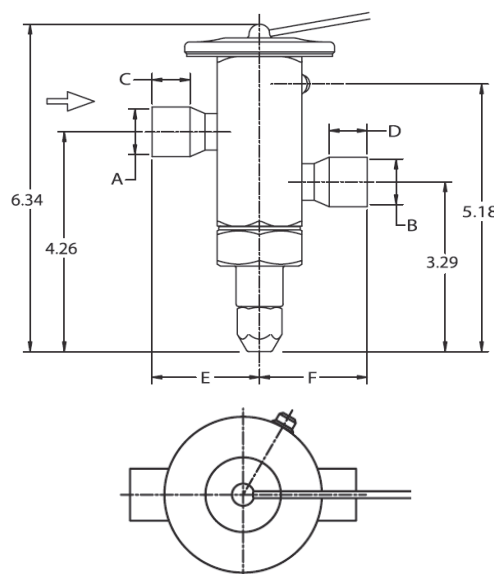
Dimensional Data (in)

Remote Bulb Tubing Length 10' Standard

Connection Size		A	B	C MIN	D MIN	E	F
Inlet	Outlet						
7/8 ODF	7/8 ODF	0.88	0.88	0.75	0.75	2.09	2.09
7/8 ODF	1-1/8 ODF	0.88	1.13	0.75	0.91	2.90	2.21
7/8 ODF	1-3/8 ODF	0.88	1.38	0.75	0.97	2.90	2.39
1-1/8 ODF	1-1/8 ODF	1.13	1.13	0.91	0.91	2.21	2.21
1-1/8 ODF	1-3/8 ODF	1.13	1.38	0.91	0.97	2.21	2.39
1-3/8 ODF	1-3/8 ODF	1.38	1.38	0.91	0.97	2.39	2.39

Remote Bulb Table

Remote Bulb Tubing Length	Bulb Length
5, 10, 15 ft.	4-7/8
20, 30 ft.	6-3/16
40, 50 ft.	



EMERSON CLIMATE TECHNOLOGIES - TXV TRAE/TRAE + SERIES

Part Number	Refrigerant	Series	Tons*	Charge	Connections	Cap Tube
ALC-062718	R-22, R-407C, R-404A, R-134A	TRAE+	10	HC	5/8 x 7/8 ODF S/T	5 FT
ALC-063138	R-22, R-407C, R-404A, R-134A	TRAE+	10	HCA	5/8 x 7/8 ODF S/T	10 FT
ALC-063554	R-22, R-407C, R-404A, R-134A	TRAE+	10	HCA	7/8 x 1-1/8 ODF S/T	10 FT
ALC-063100	R-22, R-407C, R-404A, R-134A	TRAE+	10	HC	7/8 x 1-1/8 ODF S/T	15 FT
ALC-062721	R-22, R-407C, R-404A, R-134A	TRAE+	15	HC	7/8 x 1-1/8 ODF S/T	10 FT
ALC-063510	R-22, R-407C, R-404A, R-134A	TRAE+	15	HCA	5/8 x 7/8 ODF S/T	10 FT
ALC-062722	R-22, R-407C, R-404A, R-134A	TRAE+	15	HCA	7/8 x 1-1/8 ODF S/T	10 FT
ALC-063141	R-22, R-407C, R-404A, R-134A	TRAE+	15	HCA	7/8 x 1-3/8 ODF S/T	10 FT
ALC-063103	R-22, R-407C, R-404A, R-134A	TRAE+	15	HW100	5/8 x 7/8 ODF S/T	10 FT
ALC-063650	R-22, R-407C, R-404A, R-134A	TRAE+	20	HC	7/8 x 1-3/8 ODF S/T	10 FT
ALC-062725	R-22, R-407C, R-404A, R-134A	TRAE+	20	HCA	7/8 x 1-1/8 ODF S/T	10 FT
ALC-064581	R-22, R-407C, R-404A, R-134A	TRAE+	20	HCA	1-1/8 x 1-1/8 ODF S/T	10 FT
ALC-064018	R-22, R-407C, R-404A, R-134A	TRAE+	20	HW90	7/8 x 1-1/8 ODF S/T	15 FT
ALC-062724	R-22, R-407C, R-404A, R-134A	TRAE+	20	HC	7/8 x 1-1/8 ODF S/T	10 FT
ALC-063461	R-22, R-407C, R-404A, R-134A	TRAE+	20	SC	7/8 x 1-1/8 ODF S/T	10 FT
ALC-064923	R-22, R-407C, R-404A, R-134A	TRAE+	20	SZ	5/8 x 7/8 ODF S/T	10 FT
ALC-062727	R-22, R-407C, R-404A, R-134A	TRAE+	30	HC	7/8 x 1-1/8 ODF S/T	10 FT
ALC-062728	R-22, R-407C, R-404A, R-134A	TRAE+	30	HC	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-062730	R-22, R-407C, R-404A, R-134A	TRAE+	30	HCA	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-063425	R-22, R-407C, R-404A, R-134A	TRAE+	30	HW100	7/8 x 1-3/8 ODF S/T	5 FT
ALC-064001	R-22, R-407C, R-404A, R-134A	TRAE+	30	MC	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-062733	R-22, R-407C, R-404A, R-134A	TRAE+	40	HC	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-063153	R-22, R-407C, R-404A, R-134A	TRAE+	40	HC	1-1/8 x 1-3/8 ODF S/T	15 FT
ALC-062734	R-22, R-407C, R-404A, R-134A	TRAE+	40	HCA	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-064217	R-22, R-407C, R-404A, R-134A	TRAE	35	SC	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-063941	R-22, R-407C, R-404A, R-134A	TRAE	40	MC	1-1/8 x 1-3/8 ODF S/T	15 FT
ALC-061700	R-22, R-407C, R-404A, R-134A	TRAE	50	HC	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-061865	R-22, R-407C, R-404A, R-134A	TRAE	60	HC	1-1/8 x 1-3/8 ODF S/T	10 FT
ALC-061866	R-22, R-407C, R-404A, R-134A	TRAE	70	HC	1-1/8 x 1-3/8 ODF S/T	10 FT

(+) Replaceable Power Assembly

Cage Replacement Kits for TRAE+ Series Valves

Cage kits are cross referenced by capacity and tonnage in the table below. Each cage kit consists of a replacement cage and cage removal wrench. In addition, the cage removal wrench (KT-20294) can be ordered as a separate item.

Part Number	TRAE+ KIT	Nominal Capacity - Tons		
		R-22	R-12/R-134a	R-507/R-404A/ R-502
ALC-063387	KT-20289 CAGE KIT	10	9	8
ALC-063388	KT-20290 CAGE KIT	15	13	12
ALC-063389	KT-20291 CAGE KIT	20	14	14
ALC-063390	KT-20292 CAGE KIT	30	22	20
ALC-063391	KT-20293 CAGE KIT	40	30	30
ALC-063392	KT-20294 CAGE WRENCH KIT	All tonnages	All tonnages	All tonnages

Replacement Parts

Part Number	ECT Number	Description
ALC-063414	X-28458 HCA-2	Power Assembly
ALC-063593	X-28458 MC	Power Assembly
ALC-065439	X-28458 SC	Power Assembly
ALC-063416	X-28458 HW100-2	Power Assembly
ALC-065298	X-28458 SW45-2	Power Assembly
ALC-058707	27676-1	Seal Nut

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART



The T-series Take-Apart valves, with adjustable superheat and replaceable, interchangeable components are ideal for original equipment and field replacements in air conditioning, heat pump, and refrigeration applications.

Features

- Take-Apart construction for easy field service
- External superheat adjustment
- Bi-Flow capability
- Stainless steel power assembly up to 18 tons

Options

- Interchangeable, replaceable cages
- Interchangeable body flanges
- Interchangeable power assemblies
- 1/4 to 100 tons capacity

Specifications

- Maximum working pressure: 450 psig
- Torque Bolts: 300 in. lb.

Nomenclature example: TCLEB 5 HC 5 FT 3/8 x 1/2 SAE ANG

TCL	E	B	5	H	C	5 FT	3/8 x 1/2	SAE	ANG
Valve Series	Equalizer	Bleed Hole (optional) B=Bleed Hole (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See Cage Assembly Interchangeability Tables)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length	Inlet x Outlet Connection Sizes Various sizes are available (valve is also available less flange)	Connection Type SAE=flare ODF=solder	Configuration ANG = 90° angle S/T=straight-thru
Take-Apart Adjustable	E=External (Omit for Internal)								

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

Single Outlet "T" Series Body Flanges with Bleed Hole for Use with PSC Compressors

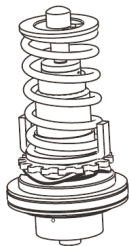
Valve Type			Bleed Hole Diameter ¹ for % Capacity Bypass											
R-12/R-134a	R-22/R-407C	R-507/R-502/R-404A	10%		15%		20%		25%		30%		40%	
			Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size
TCL1/4F	TCL1/2H	TCL1/2R	—	—	0.02	1/64	0.02	77	0.02	76	0.02	74	0.03	72
TCL1/2F	TCL1H	TCL1/2R	0.02	77	0.02	75	0.02	73	0.03	71	0.03	69	0.04	65
TCL1F	TCL2H	TCL1R	0.03	71	0.03	1/32	0.04	64	0.04	60	0.05	56	0.05	55
TCL2F	TCL3H	TCL2R	0.03	70	0.04	65	0.04	60	0.04	57	0.05	54	0.06	54
TCL3F	TCL5H	TCL3R	0.04	65	0.04	57	0.05	55	0.06	54	0.06	1/16	0.07	50
TCL4F	TCL7-1/2H	TCL4-1/2R	0.04	57	0.05	55	0.06	53	0.07	51	0.08	48	0.09	44
TCL6-1/2F	TCL10H	TCL7R	0.05	55	0.06	53	0.07	50	0.08	47	0.09	44	0.10	39
TCL7-1/2F	TCL12H	TCL8R	0.05	55	0.06	53	0.07	50	0.08	47	0.09	44	0.10	39

¹Bleed hole sizes shown above are based on a percent of full effective port area of the valve. This does not necessarily indicate the percent of valve capacity that will be bypassed. The hole sizes shown above should be used for reference only. Normal industry practice is to equalize systems 3 to 5 minutes.

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Small Capacity 1/2 to 18 tons(R-22 Nominal – Bi Flow) - Select Cage

Externally Adjustable Cage Assembly



Step 1: Select Cage from Capacity Table

Part Number	Valve Type	Nominal Capacity - Tons						
		R-12	R-134a	R-22	R-404A R-507	R-502	R-407C	
ALC-037034	TCL, TCLE	1/4	1/4	1/2	1/4	1/4	1/2	X22440B1A
ALC-037035	TCL, TCLE	1/4	1/4	1/2	1/4	1/4	1/2	X22440B1B
ALC-037036	TCL, TCLE	1/2	3/4	1	1/2	1/2	1	X22440B2A
ALC-037037	TCL, TCLE	1/2	3/4	1	1/2	1/2	1	X22440B2B
ALC-037038	TCL, TCLE	1	1-1/2	2	1	1	2	X22440B3A
ALC-037039	TCL, TCLE	1	1-1/2	2	1	1	2	X22440B3B
ALC-037040	TCL, TCLE	2	2-1/2	3	2	2	3	X22440B4A
ALC-037041	TCL, TCLE	2	2-1/2	3	2	2	3	X22440B4B
ALC-037043	TCL, TCLE	3	3-1/2	5	3	3	5	X22440B5B
ALC-037045	TCL, TCLE	4	5-1/2	7-1/2	4-1/2	4-1/2	7-1/2	X22440B6B
ALC-037047	TCL, TCLE	6-1/2	7-1/2	10	7	7	10	X22440B7B
ALC-037049	TCL, TCLE	7-1/2	9	12	8	8	12	X22440B8B
ALC-093343	TJLE	7	9	11	7	7	11	XC724B4B
ALC-038699	TJLE	8	11	14	9	9	14	XC724B5B
ALC-088837	TJR	8	11	14	9	9	14	X11873B4B
ALC-089058	TJR	11	13	18	12	12	18	X11873B5B

1 Gaskets included on cage.

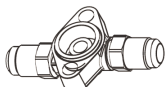
Gasket strip X13455-1 replaces all older T-Series Gasket kits.

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Small Capacity 1/2 to 18 tons(R-22 Nominal – Bi Flow) - Select Flange



Angle, ODF



Straight-Thru, SAE

Step 2: Select Flange

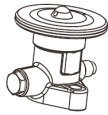
Part Number	Valve Type	Flow	Size & Style Connections		Body Flange Part
			Inlet	Outlet	Number
ALC-056932	TCL, TCLE	Angle	3/8 SAE	1/2 SAE	C500-4
ALC-057153	TCL, TCLE	Angle	3/8 SAE	5/8 SAE	C500-5
ALC-056294	TCL, TCLE	Angle	1/2 SAE	5/8 SAE	C500-6
ALC-065527	TCL, TCLE	Angle	3/8 ODF	1/2 ODF	C501-4
ALC-065748	TCL, TCLE	Angle	3/8 OFD	5/8 ODF	C501-5
ALC-065861	TCL, TCLE	Angle	1/2 ODF	5/8 ODF	C501-7
ALC-027764	TCL, TCLE	Angle	5/8 ODF or 7/8 ODM	7/8 ODF or 1-1/8 ODM	A576
ALC-051176	TCL, TCLE	Straight- Thru	3/8 SAE	1/2 SAE	x6669-4
ALC-050563	TCL, TCLE	Straight- Thru	3/8 SAE	5/8 SAE	x6669-1
ALC-083378	TCL, TCLE	Straight- Thru	1/2 SAE	1/2 SAE	x6669-5
ALC-050842	TCL, TCLE	Straight- Thru	1/2 SAE	5/8 SAE	x6669-2
ALC-027769	TCL, TCLE	Straight- Thru	3/8 ODF	1/2 ODF	9761-5
ALC-027771	TCL, TCLE	Straight- Thru	3/8 ODF	5/8 ODF	9761-3
ALC-027766	TCL, TCLE	Straight- Thru	1/2 ODF	1/2 ODF	9761-6
ALC-027268	TCL, TCLE	Straight- Thru	1/2 ODF	5/8 ODF	9761-4
ALC-027770	TCL, TCLE	Straight- Thru	1/2 ODF	7/8 ODF	9761-2
ALC-044733	TCL, TCLE	Straight- Thru	5/8 ODF	5/8 ODF	x6346-16
ALC-044846	TCL, TCLE	Straight- Thru	5/8 ODF	7/8 ODF	x6346-17
ALC-094038	TCL, TCLE	Straight- Thru	5/8 ODF	1-1/8 ODF	x6346-18
ALC-071757	TCL, TCLE	Straight- Thru	7/8 ODF	1-1/8 ODF	x6346-34
ALC-044984	TJLE	Angle	5/8 ODF or 7/8 ODM	7/8 ODF or 1-1/8 ODM	B504
ALC-094289	TJLE	Straight- Thru	5/8 ODF	1-1/8 ODF	x6347-2
ALC-057210	TJLE	Straight- Thru	7/8 ODF	1-1/8 ODF	x6347-6
ALC-057323	TJLE	Straight-Thru	7/8 ODF	1-3/8 ODF	x6347-7
ALC-029411		Angle	5/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	10331
ALC-032988		Straight-Thru	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	10332

2 TJR is balanced ported. TJR flange includes extended length capscrews.

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Small Capacity 1/2 to 18 tons(R-22 Nominal – Bi Flow) - Select Power Assembly

TCL-TCLE-TJLE-TJR Power Assemblies³



Superheat Plug
X28124-1 (ODM)
(P/N ALC-058336)



Capscrews

Step 3: Select Power Assembly

Part Number	Refrigerant	Equalizer Type	Cap Tube Length	Temp. Range		
ALC-052951	R-12	Internal	5 FT	-20 to +50	NONE	XB-1019FC1A
ALC-049881	R-12	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019FC1B
ALC-032374	R-12	Internal	10 FT	-20 to +50	NONE	XB-1019FC2A
ALC-052954	R-12	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019FC2B
ALC-058569	R-12	1/4 SAE	15 FT	-20 to +50	NONE	XB-1019FC3B
ALC-079346	R-12	1/4 SAE	5 FT	-50 to +50	35	XB-1019FW351B
ALC-057432	R-12	1/4 SAE	5 FT	-50 to +50	55	XB-1019FW551B
ALC-050981	R-12	1/4 SAE	10 FT	-50 to +50	55	XB-1019FW552B
ALC-077063	R-12	1/4 SAE	5 FT	-50 to 0	15	XB-1019FW151B
ALC-062078	R-22	Internal	5 FT	-20 to +50	NONE	XB-1019HC1A
ALC-053416	R-22	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019HC1B
ALC-054390	R-22	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019HC2B
ALC-056039	R-22	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019HCA1B
ALC-089975	R-22	1/4 SAE	5 FT	-50 to +5	35	XB-1019HW351B
ALC-039152	R-22	1/4 SAE	5 FT	-50 to +20	55	XB-1019HW551B
ALC-089445	R-22	1/4 SAE	5 FT	-50 to +30	65	XB-1019HW651B
ALC-062437	R-22	1/4 SAE	5 FT	-50 to +50	100	XB-1019HW1001B
ALC-055703	R-22	1/4 SAE	20 FT	-10 to +50	NONE	XB-1019HW4B
ALC-062658	R-22	1/4 SAE	10 FT	-50 to +50	100	XB-1019HW1002B
ALC-040568	R-22	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019HZ1B
ALC-054105	R-22	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019HZ2B
ALC-064837	R-407C	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019NC1B
ALC-063069	R-407C	1/4 SAE	5 FT	-20 to +50	100	XB-1019NW1001B
ALC-061949	R-507	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019PC1B
ALC-064200	R-507	1/4 SAE	5 FT	-50 to 0	40	XB-1019PW401B
ALC-061951	R-507	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019PZ1B
ALC-057878	R-134a	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019MC1B
ALC-059548	R-134a	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019MC2B
ALC-057370	R-134a	1/4 SAE	5 FT	-50 to +50	55	XB-1019MW551B
ALC-061946	R-134a	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019MZ1B
ALC-052955	R-502	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019RC1B
ALC-054415	R-502	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019RC2B
ALC-070346	R-502	1/4 SAE	5 FT	-50 to +20	15	XB-1019RW151B
ALC-063644	R-502	1/4 SAE	5 FT	-50 to +5	35	XB-1019RW351B
ALC-055881	R-502	1/4 SAE	5 FT	-50 to +5	45	XB-1019RW451B
ALC-055704	R-502	1/4 SAE	10 FT	-50 to +5	45	XB-1910RW452B
ALC-063114	R-502	1/4 SAE	5 FT	-50 to +25	65	XB-1019RW651B
ALC-046474	R-502	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019RZ1B
ALC-047358	R-502	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019RZ2B
ALC-059189	R-404A	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019SC-1B
ALC-059130	R-404A	1/4 SAE	5 FT	-50 to 0	40	XB-1019SW401B
ALC-063541	R-404A	1/4 SAE	5 FT	-50 to +25	65	XB-1019SW651B
ALC-061948	R-404A	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019SZ2B
ALC-037389	Misc.	Internal	5 FT	Liquid Injection	NONE	XB-1019A-1A
ALC-034803	Misc.	1/4 SAE	5 FT	Liquid Injection	NONE	XB-1019A-1B
ALC-032207	Misc.	1/4 SAE	5 FT	Liquid Injection	NONE	XB-1019B-1B
ALC-035162	Misc.	1/4 SAE	5 FT	Liquid Injection	NONE	XB-1019C-1B
ALC-084768	Misc.	1/4 SAE	5 FT	Liquid Injection	NONE	XB-1019CW-1B

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Small Capacity 1/2 to 18 tons(R-22 Nominal – Bi Flow) - Select Power Assembly

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

⁵ Power Assembly final character: A=Internally Equalized, B=Externally Equalized

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

Large Capacity 22 to 100 tons (R22 Nominal – Balanced Ported and Bi Flow) - Select Cage

Externally Adjustable Double Ported Cage Assembly



Step 1: Select Cage from Capacity Table

Part Number	Valve Type	Nominal Capacity - Tons						
		R-12	R-134a	R-22	R-404A, R-507	R-502	R-407C	
ALC-077896	TER	13	16	22	14	14	22	X9117B6B
ALC-078117	TER	15	19	26	16	16	26	X9117B7B
ALC-071155	TER	20	25	35	21	21	35	X9117B8B
ALC-029429	TER	25	31	45	27	27	45	X9117B9B
ALC-070738	TIR	35	45	55	37	37	55	X9166B10B
ALC-071238	THR	35	45	55	37	37	55	X9144B10B
ALC-020846	THR	45	55	75	48	48	70	X9144B11B
ALC-021067	THR	55	68	85	60	60	85	X9144B13B
ALC-065123	TMR	55	68	100	60	--	100	X9144B14B

¹Gaskets included on cage.

Gasket strip X13455-1 replaces all older T-Series Gasket kits.

Large Capacity 22 to 100 tons (R22 Nominal – Balanced Ported and Bi Flow) - Select Flange



Angle, ODF



Straight-Thru, ODF

Step 2: Select Flange

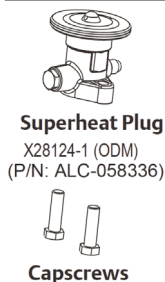
Part Number	Valve Type	Style	Size & Style Connections		Body Flange Part Number
			Inlet	Outlet	
ALC-027919		Angle	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9153
ALC-027918		Straightthru	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9152
ALC-027926	TIR	Angle	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9151
ALC-028849	TIR	Straightthru	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9150
ALC-028030	THR	Angle	1-1/8 ODM	1-1/8 ODM	9149
ALC-028032	THR	Straightthru	1-1/8 ODM	1-1/8 ODM	9148
ALC-065124		Angle	1-1/8 ODM	1-1/8 ODM	9149-1
ALC-065125		Straightthru	1-1/8 ODM	1-1/8 ODM	9148-1

² TER-TMR Flange includes extended length capscrews.

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Large Capacity 22 to 100 tons (R22 Nominal – Balanced Ported and Bi Flow) - Select Power Assembly

TER-TIR-THR-TMR Power Assemblies³



Step 3: Select Power Assembly

Part Number	Refrigerant	Equalizer Type	Cap Tube Length	Application		Power Assembly
				Temp. Range		
ALC-052957	R-12	1/4 SAE	10 FT	-20 to +40	NONE	XC-726FC2B
ALC-035000	R-12	1/4 SAE	10 FT	-50 to +50	55	XC-726FW552B
ALC-056421	R-22	1/4 SAE	10 FT	-20 to +50	NONE	XC-726HC2B
ALC-024511	R-22	1/4 SAE	10 FT	-50 to +50	35	XC-726HW352B
ALC-025011	R-22	1/4 SAE	10 FT	-50 to +30	65	XC-726HW652B
ALC-059333	R-22	1/4 SAE	10 FT	-20 to +50	NONE	XC-726HCA2B
ALC-036750	R-22	1/4 SAE	10 FT	-50 to +50	100	XC-726HW1002B
ALC-040569	R-22	1/4 SAE	10 FT	-50 to +10	NONE	XC-726HZ2B
ALC-057235	R-134A	1/4 SAE	10 FT	-20 to +50	NONE	XC-726MC2B
ALC-057372	R-134A	1/4 SAE	10 FT	-50 to +50	55	XC-726MW552B
ALC-063075	R-134A	1/4 SAE	10 FT	-50 to +10	NONE	XC-726MZ2B
ALC-052958	R-502	1/4 SAE	10 FT	-20 to +50	NONE	XC-726RC2B
ALC-023351	R-502	1/4 SAE	10 FT	-50 to +20	15	XC-726RW152B
ALC-070866	R-502	1/4 SAE	10 FT	-50 to +50	35	XC-726RW352B
ALC-071421	R-502	1/4 SAE	10 FT	-50 to +25	65	XC-726RW652B
ALC-046692	R-502	1/4 SAE	10 FT	-50 to +10	NONE	XC-726RZ2B
ALC-062303	R-404A	1/4 SAE	10 FT	-20 to +50	NONE	XC-726SC2B
ALC-063127	R-404A	1/4 SAE	10 FT	-50 to +10	40	XC-726SW402B
ALC-061692	R-404A	1/4 SAE	10 FT	-50 to +25	65	XC-726SW652B
ALC-063974	R-404A	1/4 SAE	10 FT	-50 to +10	NONE	XC-726SZ2B

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

Large Capacity 22 to 100 tons (R22 Nominal – Balanced Ported and Bi Flow)

Additional Parts

Part Number	Description
ALC-039862	Packing Nut Wrench
ALC-027579	Gasket Strip
ALC-058336	Superheat Adjustment Plug

NOTE: Nominal capacities shown here are based on 40°F evaporator emperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Valves less Flange – (VLF)

TCLE, TJLE & TJRE

SAE External 5 FT. Cap Tube Length

Nomenclature Cross-Reference

Refrigerant	New	Old
R-12	TJLE7	TJLE800
	TJLE8	TJLE1100
R-22	TJLE11	TJLE1400
	TJLE14	TJLE1800
R-502	TJLE7	TJLE900
	TJLE9	TJLE1200

Part Number	Refrigerant	Valve Type
ALC-054413	R-12	TCLE 1/2 FC
ALC-052940	R-12	TCLE 1 FC
ALC-052941	R-12	TCLE 2 FC
ALC-052942	R-12	TCLE 3 FC
ALC-052943	R-12	TCLE 4 FC
ALC-052944	R-12	TCLE 6-1/2 FC
ALC-052945	R-12	TCLE 7-1/2 FC
ALC-055104	R-12	TJLE 8 FC
ALC-055105	R-12	TJRE 11 FC
ALC-062884	R-22	TCLE 1 HC
ALC-061724	R-22	TCLE 2 HC
ALC-054395	R-22	TCLE 3 HC
ALC-054399	R-22	TCLE 5 HC
ALC-054401	R-22	TCLE 7-1/2 HC
ALC-054079	R-22	TCLE 7-1/2 HW100
ALC-054404	R-22	TCLE 10 HC
ALC-059076	R-22	TCLE 10 HW100
ALC-060854	R-22	TCLE 12 HC
ALC-060855	R-22	TJLE 11 HC
ALC-060856	R-22	TJLE 14 HC
ALC-060857	R-22	TJRE 14 HC
ALC-060858	R-22	TJRE 18 HC
ALC-061215	R-502	TCLE 2 RC
ALC-055501	R-502	TCLE 3 RC
ALC-063501	R-502	TCLE 8 RC

TCLE/TJLE/TJRE

Rapid Response Power Assemblies

Part Number	Description
ALC-031654	X-8019 FWS 1B
ALC-055652	X-8019 HWS 1B
ALC-055873	X-8019 HWS 2B
ALC-032131	X-8019 RWS 1A
ALC-042426	X-8019 RWS 2B

EMERSON CLIMATE TECHNOLOGIES - TXV T SERIES TAKE-APART

Valves less Flange – (VLF)

TER/TIR/THR

Rapid Response Power Assemblies

Part Number	Description
ALC-035083	X-7726 FWS 2B
ALC-093565	X-7726 HWS 2B
ALC-036616	X-7726 RWS 2B

TER, TIR & THR

10 FT. Cap Tube Length

Part Number	Refrigerant	Valve Type
ALC-055109	R-12	TER 20 FC
ALC-055111	R-12	TER 25 FC
ALC-061673	R-22	TER 22 HC
ALC-058582	R-22	TER 22 HW100
ALC-061674	R-22	TER 26 HC
ALC-061675	R-22	TER 35 HC
ALC-058038	R-22	TER 35 HW100
ALC-061676	R-22	TER 45 HC
ALC-061677	R-22	TIR 55 HC
ALC-064961	R-22	THR 75 HC
ALC-062036	R-22	THR 100 HC
ALC-052912	R-22	THR 100 HW100
ALC-060788	R-502	TER 14 RC

Replacement Cap Screw Kits

Part Number	Contains Screw #	Pcs. Per Pkg.	Description
ALC-054571	PS-259	10	KT-30023
ALC-054572	PS-370	10	KT-30024
ALC-054573	PS-514-5	10	KT-30025
ALC-054574	PS-517-5	10	KT-30026

EMERSON CLIMATE TECHNOLOGIES - TXV TLE SERIES



The TLE series is designed for air conditioning, heat pumps, transportation and commercial refrigeration. Take-Apart construction improves serviceability with replaceable/interchangeable parts. TLE valves do not have an external superheat adjustment.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Non-adjustable superheat to maintain factory setting
- Bi-Flow capability for heat pump applications (external equalizer required)
- Take-Apart construction for easy field service

Options

- Interchangeable capacity cages, power assemblies and Flanges

Specifications

- Maximum working pressure: 450 psig
- Capscrew Torque: 300 in. lbs.

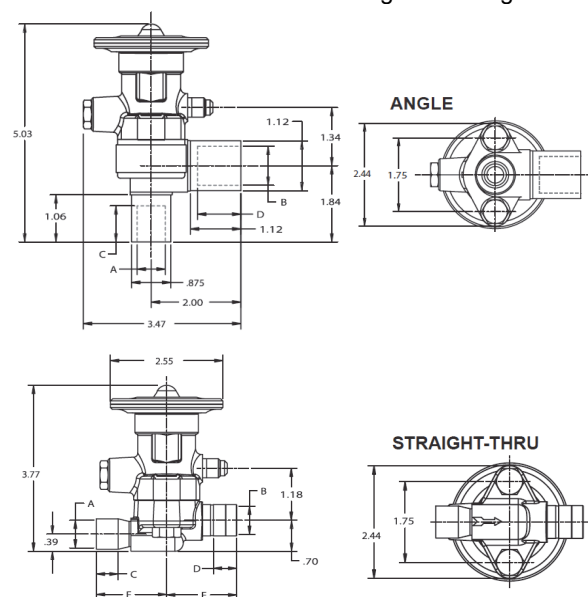
Nomenclature example: TLEB 5 HCA 5 FT 3/8 x 1/2 ODF S/T

TL	E	B	5	H	C	5 FT	3/8 x 1/2	ODF	S/T
Valve Series* Take-Apart	Equalizer E=External 1/4" SAE Standard 1/4" ODF Available (Omit for Internal)	Bleed Hole (optional) B=Bleed Hole (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See Cage Capacity Table)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 5 FT (std)	Inlet x Outlet Connection Sizes Various sizes are available (valve is available also less flange)	Connection Type SAE=flare ODF=solder	Configuration ANG = 90° angle S/T = straight-thru

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges



Dimensional Data (in)

TLE Angle

Connection Size		A	B	C MIN	D MIN
Inlet	Outlet				
ODF:ODM 5/8:7/8	ODF:ODM 7/8:1-1/8	0.63	0.88	0.81	1.00

TLE Straight Thru

Connection Size		A	B	C MIN	D MIN	E	F
Inlet	Outlet						
5/8 ODF	1-1/8 ODF	0.63	1.13	0.53	0.91	1.63	2.50
7/8 ODF	1-1/8 ODF	0.88	1.13	0.75	0.91	1.94	2.50
7/8 ODF	1-3/8 ODF	0.88	1.38	0.75	0.97	1.94	2.69

Allow 2-1/8" above valve for removal of power assembly.

EMERSON CLIMATE TECHNOLOGIES - TXV TLE SERIES

Valve Less Flange (VLF)

Part Number		Equalizer Type	Refrigerant
--	TLE 1/2 HW	1/4 SAE External	R-22
--	TLE 1 HW	1/4 SAE External	R-22
--	TLE 2 HW	1/4 SAE External	R-22
ALC-041734	TLE 3 HW	1/4 SAE External	R-22
ALC-054793	TLE 5 HW	1/4 SAE External	R-22
ALC-055125	TLE 10 HW	1/4 SAE External	R-22

¹Also available with "HCA" charge for heat pump and air conditioning applications.

Cage Capacities in Tons

Part Number	R-12	R-134A	R-22/R-407C	R-404/ R-507/ R-502	Description
ALC-041551	1/4	1/4	1/2	1/4	X-22517 B1B
ALC-041556	1	1-1/2	2	1	X-22517 B3B
ALC-041560	2	2-1/2	3	2	X-22517 B4A
ALC-041558	2	2-1/2	3	2	X-22517 B4B
ALC-041562	3	3-1/2	5	3	X-22517 B5B
ALC-041564	4	5-1/2	7-1/2	4-1/2	X-22517 B6B
ALC-041564	6-1/2	7-1/2	10	7	X-22517 B7B

Flanges

Part Number	Connections	Description
ALC-027770	1/2 x 7/8 ODF S/T	9761-2
ALC-027771	3/8 x 5/8 ODF S/T	9761-3
ALC-027268	1/2 x 5/8 ODF S/T	9761-4
ALC-027769	3/8 x 1/2 ODF S/T	9761-5
ALC-027766	1/2 x 1/2 ODF S/T	9761-6
ALC-027764	5/8 x 7/8 ODF ANG	A-576
ALC-056932	3/8 x 1/2 SAE ANG	C-500-4
ALC-057153	3/8 x 5/8 SAE ANG	C-500-5
ALC-056294	1/2 x 5/8 SAE ANG	C-500-6
ALC-065527	3/8 x 1/2 ODF ANG	C-501-4
ALC-065748	3/8 x 5/8 ODF ANG	C-504-5
ALC-065861	1/2 x 5/8 ODF ANG	C-504-7
ALC-044733	5/8 x 5/8 ODF S/T	X-6346-16
ALC-044846	5/8 x 7/8 ODF S/T	X-6346-17
ALC-094038	5/8 x 1-1/8 ODF S/T	X-6346-18
ALC-071757	7/8 x 1-1/8 ODF S/T	X-6346-34
ALC-050563	3/8 x 5/8 SAE S/T	X-6669-1
ALC-050842	1/2 x 5/8 SAE S/T	X-6669-2
ALC-051176	3/8 x 1/2 SAE S/T	X-6669-4
ALC-083378	1/2 x 1/2 SAE S/T	X-6669-5

Replacement Power Assemblies - Power Assembly Nomenclature

Description
XB-1033 XXX-YZ
xxx = charge code
y = cap tube length code
z = internal (A) or external (B) equalizer

Replacement Power Assemblies - Power Assembly Nomenclature

Part Number	Description
ALC-083765	XB1033 FW25-1B
ALC-061760	XB1033 HW-1B
ALC-077201	XB1033 HW-15A
ALC-089748	XB1033 HW-75B
ALC-095534	XB1033 HW100-15B
ALC-095813	XB1033 HW100-1B

EMERSON CLIMATE TECHNOLOGIES - TXV R-22 TFE SERIES

HCA Charge (R-22 Heat Pump)



The TFE R-22 series is designed for large tonnage heat pump, air conditioning, and commercial refrigeration applications.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Replaceable power element
- External superheat adjustment
- ODF connections
- Balanced port construction compensates for changes in operating pressures due to varying ambients, or widely varying evaporator loads
- Bi-directional control capability
- External equalizer

Specifications

- Maximum working pressure: 450 psig

TFE Nominal* Capacity Table in Tons

R-134a	R-22/R-407C	R-502, R-404a/R-507
6	8	5
8	10	7
10	12	9
15	20	14

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750

Nomenclature example: TFES 10 HCA 5/8 x 7/8 ODF S/T

TF	E	S	10	H	CA	5/8 x 7/8	ODF	S/T
Valve Series	Equalizer	Connection Type	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code • H = R-22 M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump	Inlet x Outlet Connection Sizes (See ordering information table below)	Connection Type ODF=solder	Configuration S/T = Straightthru
Balanced Port, Replaceable Power Assembly	E=External 1/4" ODF	S = solder (Only)						

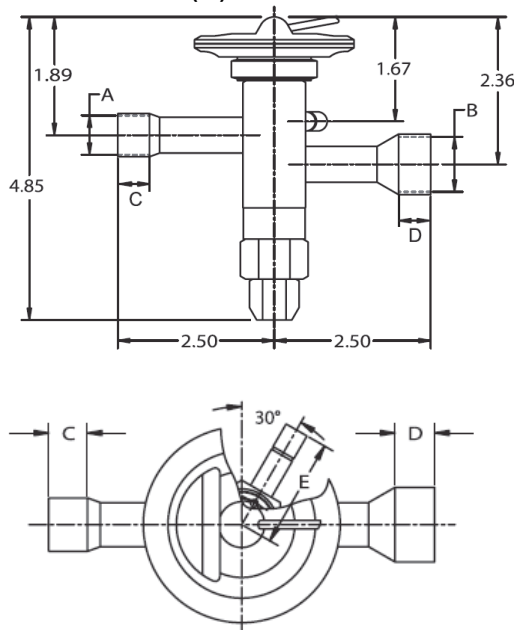
* = R-507, R-502 and R-404A are interchangeable refrigerant charges, • = R-22 and R-407C are interchangeable refrigerant charges

Part Number	Capacity Tons* (R-22 Nominal)	Connections
ALC-061608	8	5/8 x 7/8 ODF
ALC-061610	10	5/8 x 7/8 ODF
ALC-061609	12	5/8 x 7/8 ODF
ALC-064493	20	5/8 x 7/8 ODF

EMERSON CLIMATE TECHNOLOGIES - TXV R-22 TFE SERIES

HCA Charge (R-22 Heat Pump)

Dimensional Data (in)



Inlet/Outlet Fittings Dimensional Data (in)

Connections		Inlet		Outlet		Equalizer	
Inlet	Outlet	A	B	C MIN.	D MIN.	1/4 ODF	SAE
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.31	1.70	1.65
	1/2 ODF	0.25	0.50		0.37		
	5/8 ODF	0.25	0.63		0.50		
3/8 ODF	3/8 ODF	0.38	0.38		0.31		
	1/2 ODF	0.38	0.50		0.37		
	5/8 ODF	0.38	0.63		0.50		
	7/8 ODF	0.38	0.88		0.76		
1/2 ODF	1/2 ODF	0.50	0.50	0.37	0.37		
	5/8 ODF	0.50	0.63	0.37	0.50		
	7/8 ODF	0.50	0.88	0.37	0.76		
5/8 ODF	5/8 ODF	0.63	0.63	0.50	0.50		
	7/8 ODF	0.63	0.88	0.50	0.76		
7/8 ODF	1-1/8 ODF	0.63	1.13	0.50	0.91		
	7/8 ODF	0.88	0.88	0.76	0.76		
7/8 ODF	1-1/8 ODF	0.88	1.13	0.76	0.91		

Remote Bulb

Charge	Tubing Length (Ft)	F	G
C,A,Z	2, 2-1/2, 5	3.06	0.63
	10	3.56	
	15, 20, 30	4.81	
	40, 50	6.19	0.76
CA, AA	2-1/2, 5, 10	2.31	

Replacement Parts

Part Number	Description
ALC-063414	Power Assembly, X-28458 HCA-2
ALC-063416	Power Assembly, X-28458 HW100-2
ALC-065298	Power Assembly, X-28458 SW45-2
ALC-058707	Seal Nut, 27676-1

EMERSON CLIMATE TECHNOLOGIES - TXV TFE R-410A SERIES



The TFE R-410A series is designed for large tonnage heat pump, air conditioning, and commercial refrigeration applications.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Replaceable power element
- External superheat adjustment
- ODF connections
- Balanced port construction compensates for changes in operating pressures due to varying ambients, or widely varying evaporator loads
- Bi-directional control capability
- External equalizer
- ZAA charge for R-410A systems

Specifications

- Maximum working pressure: 630 psig

TFE Nominal* Capacity Table in Tons

Model	Typical System Application
TFE 12	10-13 Tons
TFE 16	14-17 Tons
TFE 20	18-20 Tons

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750

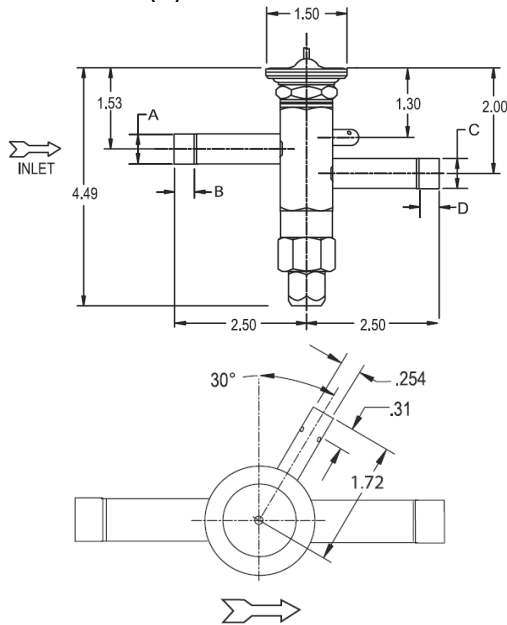
Nomenclature example: TFES 16 ZAA 5/8 x 7/8 ODF S/T

TF	E	S	16	Z	AA	5/8 x 7/8	ODF	S/T
Valve Series Balanced Port, Replaceable Power Assembly	Equalizer E=External 1/4" ODF	Connection Type S = solder	Capacity Nominal Rating in Tons	Refrigerant Code Z = R-410A	Charge Code AA = wide range	Inlet x Outlet Connection Sizes (See ordering information table below)	Connection Type ODF=solder	Configuration S/T = Straight- thru

Part Number	Refrigerant	Tons	Bleed	Inlet x Outlet	Sensing Bulb Capillary Tube Length
ALC-066146	R-410A	12	-	5/8 ODF x 7/8 ODF	5 ft.
ALC-066147	R-410A	12	15%	5/8 ODF x 7/8 ODF	5 ft.
ALC-066148	R-410A	12	-	7/8 ODF x 1-1/8 ODF	10 ft.
ALC-066149	R-410A	16	-	5/8 ODF x 7/8 ODF	5 ft.
ALC-066150	R-410A	16	15%	5/8 ODF x 7/8 ODF	5 ft.
ALC-066151	R-410A	16	-	7/8 ODF x 1-1/8 ODF	10 ft.
ALC-066152	R-410A	20	-	5/8 ODF x 7/8 ODF	5 ft.
ALC-066153	R-410A	20	15%	5/8 ODF x 7/8 ODF	5 ft.
ALC-066154	R-410A	20	-	7/8 ODF x 1-1/8 ODF	10 ft.

EMERSON CLIMATE TECHNOLOGIES - TXV TFE R-410A SERIES

Dimensional Data (in)



Inlet/Outlet Fittings Dimensional Data (in)

Connections		Inlet		Outlet	
Inlet	Outlet	A	B MIN	C	D MIN.
1/2 ODF	1/2ODF	0.50	0.37	0.50	0.37
	5/8 ODF	0.50	0.37	0.63	0.50
	7/8ODF	0.50	0.37	0.88	0.76
5/8 ODF	5/8 ODF	0.63	0.50	0.63	0.50
	7/8ODF	0.63	0.50	0.88	0.76
	1-1/8 ODF	0.63	0.50	1.13	0.91
7/8 ODF	7/8ODF	0.88	0.76	0.88	0.76
	1-1/8 ODF	0.88	0.76	1.13	0.91

Replacement Parts

Part Number	Description
ALC-066155*	R-410A Power Assembly (10 ft.)*
ALC-058707	Seal Nut 27676-1

*Approved for use only on TFE-Series R-410A valves (with ZAA charge)

EMERSON CLIMATE TECHNOLOGIES - TXV TI SERIES

Interchangeable Cages



The TI series has interchangeable cages capable of changing valve capacity in the field.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Wrench flats on inlet and outlet
- Forged brass valve body
- Inlet strainer assembly

Options

- Interchangeable capacity cages

Specifications

- Inlet connection size: 3/8" SAE, Outlet 1/2" SAE
- Maximum working pressure: 450 psig
- Maximum bulb temperature: 165°F

Nomenclature example: TIE4 HW

TI	E	4	H	W
Valve Series	Equalizer	Orifice Size Valves sold less cage (Select proper cage from interchangeability table below)	Refrigerant Code • H = R-22 • M = R-134a • N = R-407C • P = R-507 • S = R-404A	Charge Code W = medium temp W(MOP) = press. limiting
	E=External (Omit for internal)			

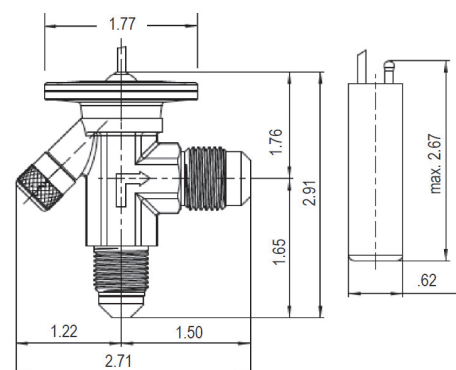
* = R-507 and R-404a are interchangeable refrigerant charges

= R-22 and R-407C are interchangeable refrigerant charges

Part Number	Cage Size	Type	Nominal Capacity (kW)		
			R-134a	R-22/R-407C	R-404A/R-507
ALC-065087	0	TIO-00X	0.03	0.05	0.04
ALC-065088	0	TIO-000	0.08	1.30	1.00
ALC-065090	1	TIO-001	1.90	3.20	2.30
ALC-065091	2	TIO-002	3.10	5.30	3.90
ALC-065092	3	TIO-003	5.00	8.50	6.20
ALC-065093	4	TIO-004	8.30	13.90	10.10
ALC-065094	5	TIO-005	10.10	16.90	12.30
ALC-065095	6	TIO-006	11.70	19.50	14.20

NOTE: Nominal capacities shown on pages at the end of this section are based on European standards of +38°C condensing temperature, +4°C evaporating temperature and 1°K liquid subcooling at the inlet of the expansion valve. This methodology varies from the rest of the capacity tables in this catalog.

Dimensional Data (in)



TI(E) Series – Valve Bodies, Flare Type

Part Number	Refrigerant	Evaporating Temp Range °F	Equalizer Type	Valve
ALC-066387	R-134a	-10 to +40	internal	TI-MW
ALC-066388	R-134a	-10 to +40	external	TIE-MW
ALC-066389	R-22/R-407C	-10 to +40	internal	TI-HW
ALC-066390	R-22/R-407C	-10 to +40	external	TIE-HW
ALC-066391	R-404A/R-507	-10 to +40	internal	TI-SW
ALC-066392	R-404A/R-507	-10 to +40	external	TIE-SW

EMERSON CLIMATE TECHNOLOGIES - TXV ZZ SERIES - FOR ULTRA LOW TEMPS



The ZZ series is designed for ultra low temperature applications such as environmental test chambers and other applications where the desired evaporator temperature is below -40°F.

Features:

- Take-Apart construction for easy field service
- Improved internal construction extends valve life
- External equalizer standard
- Exclusive cage bellows eliminates friction at low temperatures
- External superheat adjustment

Options:

- Interchangeable cages, power assemblies, and flanges for maximum flexibility

Specifications•

- Maximum working pressure: 450 psig

Nomenclature example: ZCC 6 B G125 10 FT 3/8 x 5/8 ODF ANG

ZZC	6	B	G125	10 FT	3/8 x 5/8	ODF	ANG
Valve Series Ultra Low Temperature Take-Apart	Capacity (nominal @ -40°F) Tons	Refrigerant Code B = R-13/R-23 H = R-22 R = R-502	Charge Code Z = low temp G(MOP) = press.limiting	Capillary Tube Length 10 FT (std)	Inlet x Outlet Connection Sizes	Connection Type SAE = flare ODF=solder	Configuration ANG = 90° angle S/T = straight-thru

R-13/R-23 Valve Type	R-22 Valve Type	Standard Connections
ZZC 1BG	ZZC 3/4HZ	3/8 ODF x 5/8 ODF
ZZC 2-1/2BG	ZZC 1-1/2HZ	
ZZC 4BG	ZZC 2-1/2HZ	
ZZC 6BG	ZZC 4HZ	1/2 ODF x 5/8 ODF
ZZC 9BG	ZZC 6HZ	
ZZC 13BG	ZZC 8HZ	
ZZ ER 20BG	--	7/8 ODF x 1-1/8 ODM

NOTE: Nominal capacities shown here are based upon the following conditions:

Refrigerant	Evaporator Temperature	Liquid Temperature at Valve Inlet	Pressure Drop Across Valve
R-23	-40°F	0°F	150 psig
R-22	-40°F	20°F	150 psig

EMERSON CLIMATE TECHNOLOGIES - TXV ZZ SERIES - FOR ULTRA LOW TEMPS

Cage Assemblies & Gaskets

Part Number	Valve	Description
ALC-021288	ZZC1BG, ZZC3/4RHW, ZZC3/4RW	X10110-B1B
ALC-020871	ZZC2-1/2BG, ZZC1-1/2HW, ZZC1-1/2RW	X10110-B2B
ALC-096091	ZZC4BG, ZZC2-1/2HW, ZZC2-1/2RW	X10110-B3B
ALC-096312	ZZC6BG, ZZC4HW, ZZC3-1/2RW	X10110-B4B
ALC-096425	ZZC9BG, ZZC6HW, ZZC5RW	X10110-B5B
ALC-096646	ZZC13BG, ZZC8HW, ZZC8RW	X10110-B6B
ALC-045362	ZZER6BG, ZZER4HW, ZZC3-1/2RW	X10059-B4B
ALC-033697	ZZER9BG, ZZER6HW, ZZER5RW	X10059-B5B
ALC-030071	ZZER20BG, ZZER12HW, ZZER11RW	X10059-B6B
ALC-025100	ZZER21BG, ZZER13HW, ZZER13RW	X10059-B7B
ALC-025101	ZZER29BG, ZZER18HW, ZZER18RW	X10059-B8B
ALC-025090	ZZIR48BG, ZZIR30HW, ZZIR29RW	X10060-B10B
ALC-089306	ZZJR16BG, ZZJR10HW, ZZJR9RW	X10111-B5B

Flanges

Part Number	Connections	Description
ALC-027770	1/2 x 7/8 ODF S/T	9761-2
ALC-027771	3/8 x 5/8 ODF S/T	9761-3
ALC-027268	1/2 x 5/8 ODF S/T	9761-4
ALC-027769	3/8 x 1/2 ODF S/T	9761-5
ALC-027766	1/2 x 1/2 ODF S/T	9761-6
ALC-027764	5/8 x 7/8 ODF ANG	A-576
ALC-056932	3/8 x 1/2 SAE ANG	C-500-4
ALC-057153	3/8 x 5/8 SAE ANG	C-500-5
ALC-056294	1/2 x 5/8 SAE ANG	C-500-6
ALC-065527	3/8 x 1/2 ODF ANG	C-501-4
ALC-065748	3/8 x 5/8 ODF ANG	C-501-5
ALC-065861	1/2 x 5/8 ODF ANG	C-501-7
ALC-044733	5/8 x 5/8 ODF S/T	X-6346-16
ALC-044846	5/8 x 7/8 ODF S/T	X-6346-17
ALC-094038	5/8 x 1-1/8 ODF S/T	X-6346-18
ALC-071757	7/8 x 1-1/8 ODF S/T	X-6346-34
ALC-050563	3/8 x 5/8 SAE S/T	X-6669-1
ALC-050842	1/2 x 5/8 SAE S/T	X-6669-2
ALC-051176	3/8 x 1/2 SAE S/T	X-6669-4
ALC-083378	1/2 x 1/2 SAE S/T	X-6669-5

Power Assemblies

Part Number	Description
ALC-094594	XC-726 BG 30-2B 10FT. SAE EE
ALC-039130	XC-726 BG 125-2B 10 FT. SAE EE
ALC-024511	XC-726 HW 35-2B 10 FT. SAE EE
ALC-025011	XC-726 HW 65-2B 10 FT. SAE EE
ALC-023357	XC-726 HW 85-3B 15 FT. SAE EE
ALC-036750	XC-726 HW 100-2B 10FT. SAE EE
ALC-040569	XC-726 HZ-2B 10FT. SAE EE

Replacement Power Assembly consists of: power assembly, and bulb clamps

Replacement Gasket Set

Part Number	Description
X13455-1	X13455-1

Gasket Set includes necessary body flange gasket & seat gasket

EMERSON CLIMATE TECHNOLOGIES - TXV ACP(E) - AUTOMATIC



The ACP is designed for small cooling units where the heat load is reasonably constant. The ACP is ideal for room air conditioners, domestic refrigerators, drink dispensers, food dispensers, ice cream cabinets, bottle coolers, home freezers, ice cube makers, ice cream freezers, and milk coolers.

Features:

- Friction-free floating design
- Can be used as a small capacity hot gas bypass valve
- Fully adjustable from 0-80 psig (factory setting 40 psig)
- Wrench flats on inlets and outlets

Options

- Internal or external equalizer
- SAE or ODF connections

Specifications

- Maximum working pressure: 500 psig
- Maximum working temperature: 300°F
- UL/CUL file number: SA5312

Nomenclature example: ACPE 6 SAE EE 1/4 x 3/8 ODF ANG

ACP	E	6	SAE EE	1/4 x 3/8	ODF	ANG
Valve Series	Equalizer E=External (optional)	Port Size (diameter) see table below	External Equalizer Type	Inlet x Outlet Connection Sizes	Connection Type ODF or SAE	Body Style ANG = Angle S/T = Straight-thru

ACP(E)- Nominal* Capacity Table in Tons

Valve	Port Diameter (in)	R-12/R-134a	R-407C/R-22	R-502/R-404A/R-507
		Pressure Drop Across Valve – PSI		
		60	100	100
ACP(E)1	0.05	0.31	0.44	0.29
ACP(E)2	0.06	0.41	0.57	0.38
ACP(E)3	0.10	0.65	0.91	0.61
ACP(E)4	0.11	0.90	1.30	0.87
ACP(E)5	0.13	1.40	1.96	1.31
ACP(E)6	0.14	1.90	2.67	1.78
ACP(E)7	0.17	2.30	3.28	2.19
ACP(E)8	0.20	2.70	3.75	2.50
ACP(E)9	0.23	3.80	5.32	3.55

*All capacities shown are at 100°F Condensing, 40°F Evaporator Temperature, with a solid column of liquid at the valve inlet.

Part Number	Description
ALC-046838	ACP 1 IE 1/4 x 3/8-1/2 SAE ANG
ALC-047652	ACP 6 IE 1/4 x 3/8 ODF ANG
ALC-047680	ACP 1 IE 1/4 x 3/8 ODF ANG
ALC-056240	ACP 1 IE 1/4 x 3/8 SAE ANG
ALC-046839	ACP 2 IE 1/4 x 3/8 SAE ANG
ALC-047651	ACP 2 IE 1/4 x 3/8 ODF ANG
ALC-047283	ACP 3 IE 1/4 x 3/8 ODF ANG
ALC-046840	ACP 3 IE 1/4 x 3/8 SAE ANG
ALC-047105	ACP 4 IE 1/4 x 3/8 ODF ANG
ALC-047101	ACP 4 IE 1/4 x 3/8 SAE ANG
ALC-047284	ACP 5 IE 1/4 x 3/8 ODF ANG
ALC-047332	ACP 5 IE 1/4 x 3/8 SAE ANG

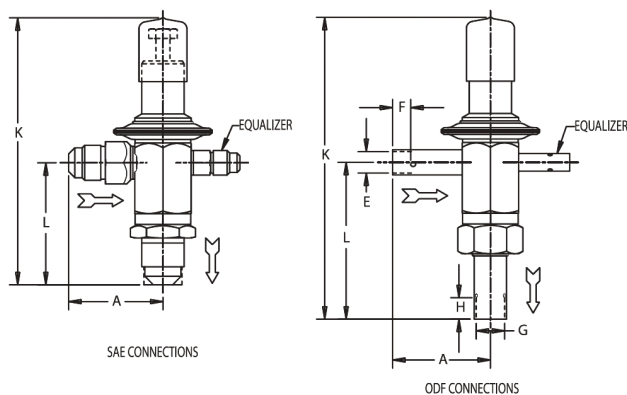
EMERSON CLIMATE TECHNOLOGIES - TXV ACP(E) - AUTOMATIC

Part Number	Description
ALC-053374	ACP 5 IE 3/8 x 3/8 ODF ANG
ALC-049204	ACP 5 IE 3/8 x 3/8-1/2 SAE ANG
ALC-047653	ACP 6 IE 1/4 x 3/8 SAE ANG
ALC-057233	ACP 1 IE 1/4 x 3/8 ODF S/T
ALC-065922	ACP 6 IE 3/8 x 3/8 ODF ANG
ALC-047654	ACP 7 IE 3/8 x 1/2 ODF ANG
ALC-047285	ACP 7 IE 3/8 x 3/8-1/2 SAE ANG
ALC-047655	ACP 8 IE 3/8 x 1/2 ODF ANG
ALC-047657	ACP 9 IE 3/8 x 1/2 ODF ANG
ALC-057209	ACP 9 IE 3/8 x 3/8 ODF ANG
ALC-057771	ACP 9 IE 1/2 x 5/8 ODF ANG
ALC-052773	ACP 9 IE 1/4 x 3/8 ODF ANG
ALC-047658	ACP 9 IE 3/8 x 3/8-1/2 SAE ANG
ALC-057327	ACP 9 IE 3/8 x 3/8 SAE S/T
ALC-047280	ACPE 1 SAE EE 1/4 x 3/8 SAE S/T
ALC-053231	ACPE 1 SAE EE 1/4 x 3/8 ODF ANG
ALC-047790	ACPE 7 SAE EE 3/8 x 1/2 ODF ANG
ALC-048657	ACPE 9 SAE EE 3/8 x 1/2 ODF S/T
ALC-058674	ACPE 9 SAE EE 1/2 x 5/8 ODF S/T
ALC-057017	ACPE 9 ODF EE 3/8 x 1/2 ODF ANG

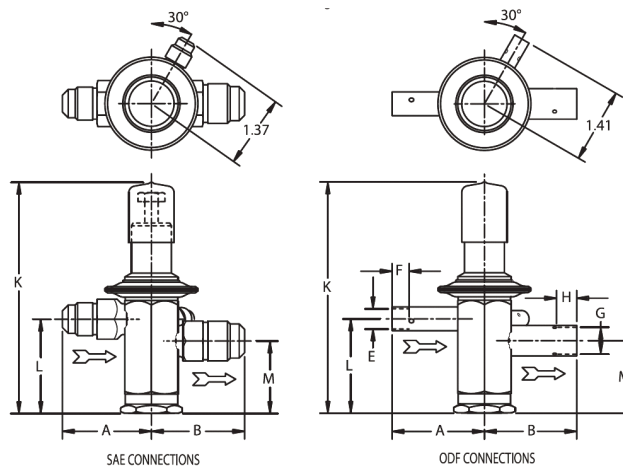
EMERSON CLIMATE TECHNOLOGIES - TXV ACP(E) - AUTOMATIC

ACP Dimensional Data

ACP Angle



ACP Straight-Thru



Dimensional Data (in)

Performance Data (in)											
ACP(E) Valve Type	Inlet	Outlet	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L	
Angle SAE	1/4	3/8	1.50	—	—	—	—	—	4.50	2.13	
	3/8	3/8 - 1/2	1.64								
	1/2		1.72								
	1/4	5/8	1.50						4.61	2.23	
	3/8		1.64								
	1/2		1.72								
Angle ODF	1/4	3/8	1.25	—	0.25	0.32	0.37	0.32	4.55	2.17	
	3/8	1/2	1.19		0.37	0.32					0.50
	1/2				5/8	1.38	0.50	0.38	0.62	0.50	4.73
	5/8	1.38	0.62				0.50				
	1/4	1.25	0.25				0.32				
	3/8	1.19	0.37				0.32				
	1/4	1/2	1.25		0.25	0.32	0.50	0.38	4.55	2.17	
	1/2	7/8	1.19		0.50	0.38	0.87	0.75	5.11	2.73	

ACP(E) Valve Type	Inlet	Outlet	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L	M			
Straight-Thru SAE	1/4	3/8	1.50	1.64		—	—	—						
	3/8		1.64											
	1/2	1/2	1.72	1.72										
	1/4		1.50											
	3/8	5/8	1.64	1.98										
	1/2		1.72											
Straight-Thru ODF	1/4	3/8	1.25	1.19	0.25	0.32	0.37	0.32	4.25	1.88	1.48			
	3/8	1/2	1.19		0.37	0.32		0.50				0.38		
	1/2				0.50	0.38	0.62					0.50		
	5/8	5/8	1.38	1.38	0.62	0.50								
	1/4		1.25		0.25	0.32								
	3/8		1.19		0.37	0.32								
	1/4	1/2	1.25	1.19	0.25	0.32	0.50	0.38						
	1/2	7/8	1.19		0.50	0.38	0.87	0.75						
	3/8			1.75	0.37	0.32	0.87	0.75						

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS

Quick Select Guide - Refrigeration Applications

Application	Feature	Valve	Nominal Liquid Capacity R-22 (in tons)*	Nominal Liquid Capacity R-410A (in tons)*
Liquid Line Discharge Gas Suction Line	Two Way, Normally Closed Solenoid Valve	100RB2	1.3	
		200RB2	3.6	
		200RB3	4.8	
		200RB4	8.0	
		200RB5	8.2	
		200RB6	9.5	
		200RB7	17.0	
		200RB9	30.5	
		200RB12	34.9	
		200RD 2		3.4
		200RD 3		4.5
		200RD 4		7.5
		200RD 5		7.7
		200RD 6		8.9
		240RA8	15.6	
		240RA9 (5/8)	23.3	
		240RA9 (1-1/8)	30.5	
		240RA12	34.9	
		240RA16	58.0	
		240RA20	95.4	
	Two Way, Normally Open Solenoid Valve	500RB2	3.1	
		500RB3	4.8	
		500RB4	5.6	
		500RB5	8.2	
		500RB6	10.0	
		500RB7	15.6	
		540RA8	15.6	
		540RA9 (5/8)	23.3	
		540RA9 (1-1/8)	30.5	
		540RA12	34.9	
		540RA16	58.0	
		540RA20	95.4	

* 3 psi pressure drop per ARI Standard 760.
All ratings are based on largest connection size.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 100RB



The 100RB is a direct-acting, 2-way, normally closed valve. 100 RB valves are used for liquid or discharge gas refrigerant service.

Features:

- One coil fits all valve sizes
- Extended ends for easy installation (standard)
- Long-life molded coils
- PTFE O-ring for superior external sealing

Options

- SAE or ODF connection sizes in 1/4" and 3/8", 1/4" NPTF

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MP 604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

Nomenclature example: 100RB 2F2 VLC

100R	B	2	F	2	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = NPTF	Connection Size (in 1/8")	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See coil assemblies for availability.

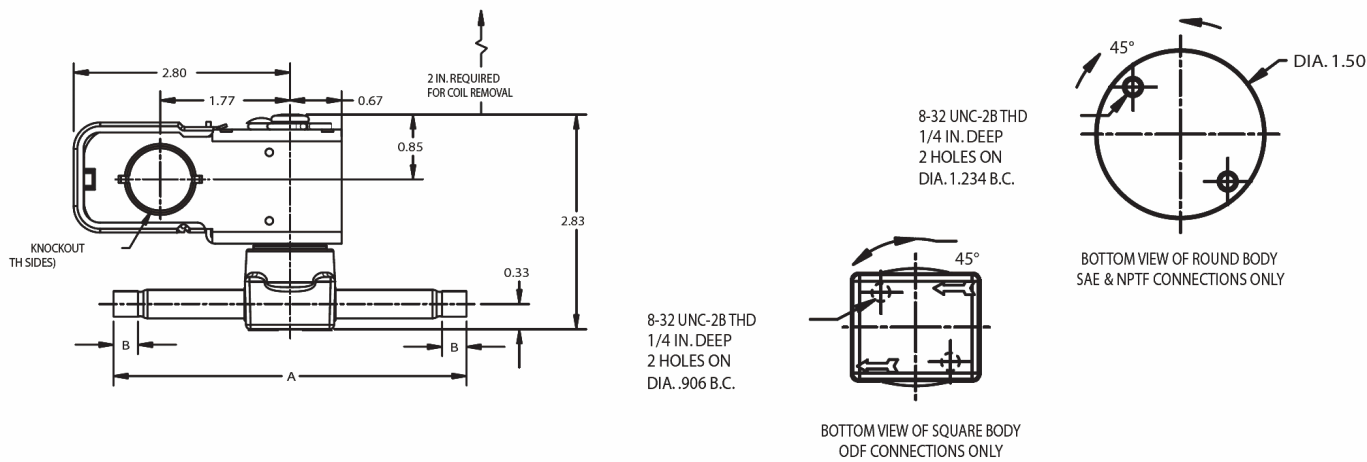
Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502	Description
100RB2S2	1/4" ODF	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	0.85 (3.0)	0.83 (2.9)	100RB2S2 VLC
100RB2S3	3/8" ODF	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	0.85 (3.0)	0.83 (2.9)	100RB2S3 VLC
100RB2S4	1/2" ODF	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	0.85 (3.0)	0.83 (2.9)	100RB2S4 VLC
100RB2F2	1/4" SAE	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	0.85 (3.0)	0.83 (2.9)	100RB2F2 VLC
100RB2F3	3/8" SAE	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	0.85 (3.0)	0.83 (2.9)	100RB2F3 VLC
100RB2P2	1/4" NPTF	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	0.85 (3.0)	0.83 (2.9)	100RB2P2 VLC

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

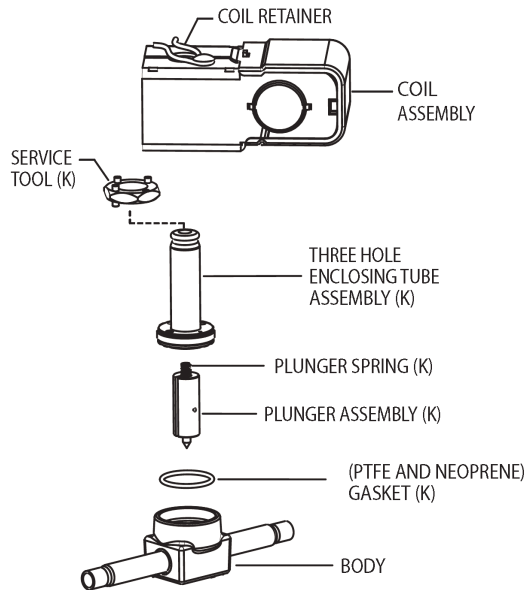
EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 100RB

Dimensional Data (in)



VALVE	CONNECTION SIZE	A	B
100RB 2S2 VLC	1/4 ODF	4.63	0.31
100RB 2S3 VLC	3/8 ODF	4.63	0.31
100RB 2S4 VLC	1/2 ODF	4.63	0.38
100RB 2F2 VLC	1/4 SAE	3.10	-
100RB 2F3 VLC	3/8 SAE	3.47	-
100RB 2P2 VLC	1/4 NPTF	1.56	-

Exploded View & Parts Kit Data



Valve Repair Kit

"K" indicates part is supplied in valve repair kit p/n **KS30112**
Note: Universal (2/3 hole) spanner wrench p/n X11981-1 included in complete repair kit.

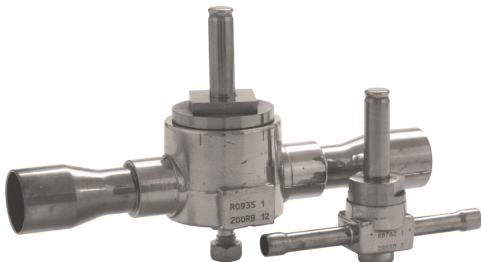
Coil Assembly

See coil assemblies for availability.

Parts Kit

KG-10041 P/N: ALC-054812
(Contains 12 pieces each of PTFE and neoprene O-rings.)

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RB



The 200RB is a pilot-operated, 2-way, normally closed valve. 200RB valves are used for liquid, discharge, or suction gas refrigerant service.

Features:

- One coil fits all valve sizes
- Extended ends for easy installation (standard)
- Long-life molded coils
- PTFE O-ring for superior external sealing

Options

- Available in 7 orifice sizes
- Manual stem or mounting stud
- Bi-Flow operation-conversion either factory assembled or with kit (except 200RB 7 & 9)

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- Minimum operating pressure drop: 2 psi
- MOPD: 300 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90o off vertical up position is not recommended.

Nomenclature example: 200RB 4T3M VLC

200R	B	4	T	3	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = NPTF T = Copper Extended Ends	Connection Size (In 1/8")	M = manual stem T = mounting stud (optional)	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See coil assemblies for availability.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RB

Standard Valve

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-12	R-134a	R-22	R-407c	R-404A/R-507	R-502	Description
200RB2F2	1/4 SAE	2.3 (8.1)	2.7 (9.5)	3.6 (12.7)	3.4 (12.0)	1.9 (6.7)	1.9 (6.7)	200RB 2 F 2
200RB2F3	3/8 SAE	2.3 (8.1)	2.7 (9.5)	3.6 (12.7)	3.4 (12.0)	1.9 (6.7)	1.9 (6.7)	200RB 2 F 3
200RB2T2	1/4 ODF	2.3 (8.1)	2.7 (9.5)	3.6 (12.7)	3.4 (12.0)	1.9 (6.7)	1.9 (6.7)	200RB 2 T 2
200RB2T3	3/8 ODF	2.3 (8.1)	2.7 (9.5)	3.6 (12.7)	3.4 (12.0)	1.9 (6.7)	1.9 (6.7)	200RB 2 T 3
200RB3F2	1/4 SAE	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 F 2
200RB3F3	3/8 SAE	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 F 3
200RB3F4	1/2 SAE	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 F 4
200RB3T2	1/4 ODF	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 T 2
200RB3T3	3/8 ODF	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 T 3
200RB3T4	1/2 ODF	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 T 4
200RB4F3	3/8 SAE	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 F 3
200RB4P3	3/8 NPTF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 P 3
200RB4S3	3/8 ODF x 1/2 ODM	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 S 3
200RB4S4	1/2 ODF x 5/8 ODM	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 S 4
200RB4T3	3/8 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 3
200RB4T4	1/2 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 4
200RB4T5	5/8 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 5
200RB5F4	1/2 SAE	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 F 4
200RB5F5	5/8 SAE	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 F 5
200RB5S4	1/2 ODF x 5/8 ODM	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 S 4
200RB5S5	5/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 S 5
200RB5T3	3/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 3
200RB5T4	1/2 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 4
200RB5T5	5/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 5
200RB6F5	5/8 SAE	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 F 5
200RB6S4	1/2 ODF x 5/8 ODM	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 S 4
200RB6S5	5/8 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 S 5
200RB6T4	1/2 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 T 4
200RB6T5	5/8 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 T 5
200RB7S5	5/8 ODF x 7/8 ODM	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 S 5
200RB7T5	5/8 ODF	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 T 5
200RB7T7	7/8 ODF	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 T 7
200RB9T7	7/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 7
200RB9T9	1 1/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 9

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

All ratings are based on largest connection size.

*See Extended Capacity Tables for ratings at a wide range of conditions.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RB

Mounting Stud¹

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-12	R-134a	R-22	R-407c	R-404A/R-507	R-502	Description
200RB2T2T	1/4 ODF	2.3 (8.1)	2.7 (9.5)	3.6 (12.7)	3.4 (12.0)	1.9 (6.7)	1.9 (6.7)	200RB 2 T 2
200RB2T3T	3/8 ODF	2.3 (8.1)	2.7 (9.5)	3.6 (12.7)	3.4 (12.0)	1.9 (6.7)	1.9 (6.7)	200RB 2 T 3
200RB3F3T	3/8 SAE	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 F 3
200RB3F4T	1/2 SAE	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 F 4
200RB3T3T	3/8 ODF	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 T 3
200RB4F3T	3/8 SAE	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 F 3
200RB4P3T	3/8 NPTF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 P 3
200RB4S3T	3/8 ODF x 1/2 ODM	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 S 3
200RB4S4T	1/2 ODF x 5/8 ODM	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 S 4
200RB4T3T	3/8 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 3
200RB4T4T	1/2 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 4
200RB4T5T	5/8 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 5
200RB5F4T	1/2 SAE	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 F 4
200RB5F5T	5/8 SAE	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 F 5
200RB5S4T	1/2 ODF x 5/8 ODM	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 S 4
200RB5S5T	5/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 S 5
200RB5T3T	3/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 3
200RB5T4T	1/2 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 4
200RB5T5T	5/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 5
200RB6F4T	1/2 SAE	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 F 4
200RB6F5T	5/8 SAE	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 F 5
200RB6S4T	1/2 ODF x 5/8 ODM	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 S 4
200RB6S5T	5/8 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 S 5
200RB6T4T	1/2 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 T 4
200RB6T5T	5/8 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 T 5
200RB7T5T	5/8 ODF	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 T 5
200RB7T7T	7/8 ODF	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 T 7
200RB9T5T	5/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 5
200RB9T7T	7/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 7
200RB9T9T	1 1/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 9

¹ Add "T" to the end of description for Mounting Stud

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

All ratings are based on largest connection size.

*See Extended Capacity Tables for ratings at a wide range of conditions.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RB

Manual Stem²

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-12	R-134a	R-22	R-407c	R-404A/R-507	R-502	Description
200RB3T3M	3/8 ODF	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 T 3
200RB3T4M	1/2 ODF	3.0 (10.6)	3.6 (12.7)	4.8 (16.9)	4.5 (15.8)	2.5 (8.8)	2.6 (9.1)	200RB 3 T 4
200RB4F3M	3/8 SAE	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 F 3
200RB4S3M	3/8 ODF x 1/2 ODM	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 S 3
200RB4S4M	1/2 ODF x 5/8 ODM	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 S 4
200RB4T3M	3/8 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 3
200RB4T4M	1/2 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 4
200RB4T5M	5/8 ODF	5.0 (17.6)	6.0 (21.1)	8.0 (28.1)	7.5 (26.4)	4.2 (14.8)	4.2 (14.8)	200RB 4 T 5
200RB5F4M	1/2 SAE	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 F 4
200RB5F5M	5/8 SAE	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 F 5
200RB5S4M	1/2 ODF x 5/8 ODM	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 S 4
200RB5S5M	5/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 S 5
200RB5T4M	1/2 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 4
200RB5T5M	5/8 ODF	5.2 (18.3)	6.2 (21.8)	8.2 (28.8)	7.7 (27.1)	4.3 (15.1)	4.5 (15.8)	200RB 5 T 5
200RB6F4M	1/2 SAE	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 F 4
200RB6F5M	5/8 SAE	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 F 5
200RB6S4M	1/2 ODF x 5/8 ODM	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 S 4
200RB6S5M	5/8 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 S 5
200RB6T4M	1/2 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 T 4
200RB6T5M	5/8 ODF	6.0 (21.1)	7.2 (25.3)	9.5 (33.4)	8.9 (31.3)	5.0 (17.6)	5.1 (17.9)	200RB 6 T 5
200RB7T5M	5/8 ODF	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 T 5
200RB7T7M	7/8 ODF	10.8 (38.0)	12.7 (44.7)	17.0 (59.8)	16.2 (57.0)	9.1 (32.0)	9.2 (32.4)	200RB 7 T 7
200RB9T5M	5/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 5
200RB9T7M	7/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 7
200RB9T9M	1 1/8 ODF	19.6 (68.9)	23.6 (83.0)	30.5 (107.3)	29.0 (102.0)	16.4 (57.7)	16.2 (57.0)	200RB 9 T 9

² Add "M" to the end of the description for Manual Stem

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

All ratings are based on largest connection size.

*See Extended Capacity Tables for ratings at a wide range of conditions.

Standard Valve - Bi-Flow Solenoids

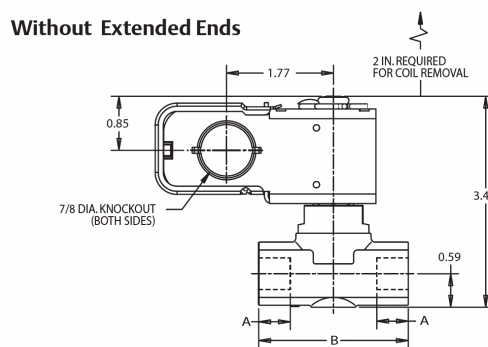
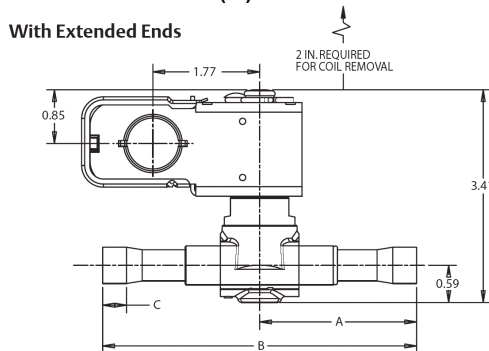
Ordering Information and Nominal Liquid Capacity Table for Bi-Flow Solenoids - Tons (kW)

Part Number	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502	Description
200RB3T3GS1925	3/8 ODF	3.7 (13.0)	4.4 (15.6)	4.8 (17.0)	4.5 (16.0)	3.2 (11.3)	3.1 (11.0)	200RB GS-1925 3 T 3
200RB4T3GS1926	3/8 ODF	4.4 (15.6)	5.3 (18.6)	5.6 (19.8)	5.3 (18.8)	3.7 (13.1)	3.6 (12.7)	200RB GS-1926 4 T 3
200RB5T4GS1928	1/2 ODF	6.5 (23.0)	7.8 (27.7)	8.2 (29.0)	7.8 (27.6)	54. (19.1)	5.3 (18.8)	200RB GS-1928 5 T 4
200RB5T5GS1929	5/8 ODF	6.5 (23.0)	7.8 (27.7)	8.2 (29.0)	7.8 (27.6)	54. (19.1)	5.3 (18.8)	200RB GS-1929 5 T 5
200RB6T5GS1930	5/8 ODF	7.8 (27.7)	9.4 (33.4)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)	200RB GS-1930 6 T 5

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RB

Dimensional Data

200RB 2-6 Dimensional Data (in)



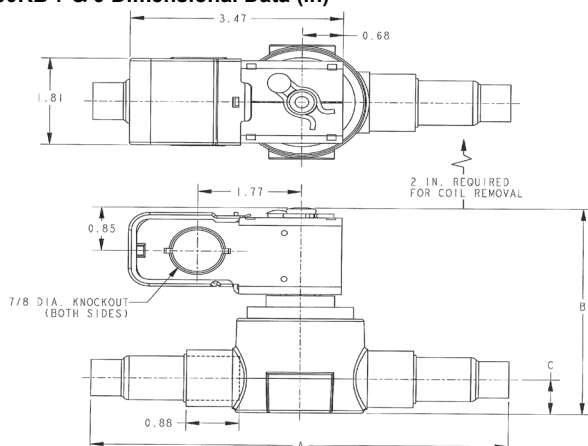
Without Extended Ends

Valve	Port Size	Conn. Size & Style	A	B
200RB 4P2	1/4	1/4 NPTF	-	2.37
200RB 4P3		3/8 NPTF	-	
200RB 4S3		3/8 ODF x 1/2 ODM	0.50	
200RB 4S4		1/2 ODF x 5/8 ODM	0.56	
200RB 4F3	5/16	3/8 SAE (male flare)	-	3.12
200RB 5P3		3/8 NPTF	-	
200RB 5S4		1/2 ODF x 5/8 ODM	0.56	
200RB 5S5		5/8 ODF	-	
200RB 5F4	3/8	1/2 SAE (male flare)	-	3.50
200RB 5F5		5/8 SAE (male flare)	-	
200RB 6P3		3/8 NPTF	-	
200RB 6S4		1/2 ODF x 5/8 ODM	0.56	
200RB 6S5	3/8	5/8 ODF	-	3.75
200RB 6F4		1/2 SAE (male flare)	-	
200RB 6F5		5/8 SAE (male flare)	-	

With Extended Ends

Valve	Port Size	Conn. Size & Style	A	B	C
200RB 2T2	1/8	1/4 ODF	2.42	4.62	0.25
200RB 2T3		3/8 ODF			0.31
200RB 3T2	3/16	1/4 ODF	2.50	5.00	0.25
200RB 3T3		3/8 ODF			0.31
200RB 3T4	1/4	1/2 ODF	3.25	6.50	0.38
200RB 4T4		5/8 ODF			0.50
200RB 4T5	5/16	3/8 ODF	2.31	4.62	0.31
200RB 5T3		1/2 ODF	2.50	5.00	0.38
200RB 5T4		5/8 ODF	3.25	6.50	0.50
200RB 6T3	3/8	3/8 ODF	2.31	4.62	0.31
200RB 6T4		1/2 ODF	2.50	5.00	0.38
200RB 6T5		5/8 ODF	3.25	6.50	0.50

200RB 7 & 9 Dimensional Data (in)

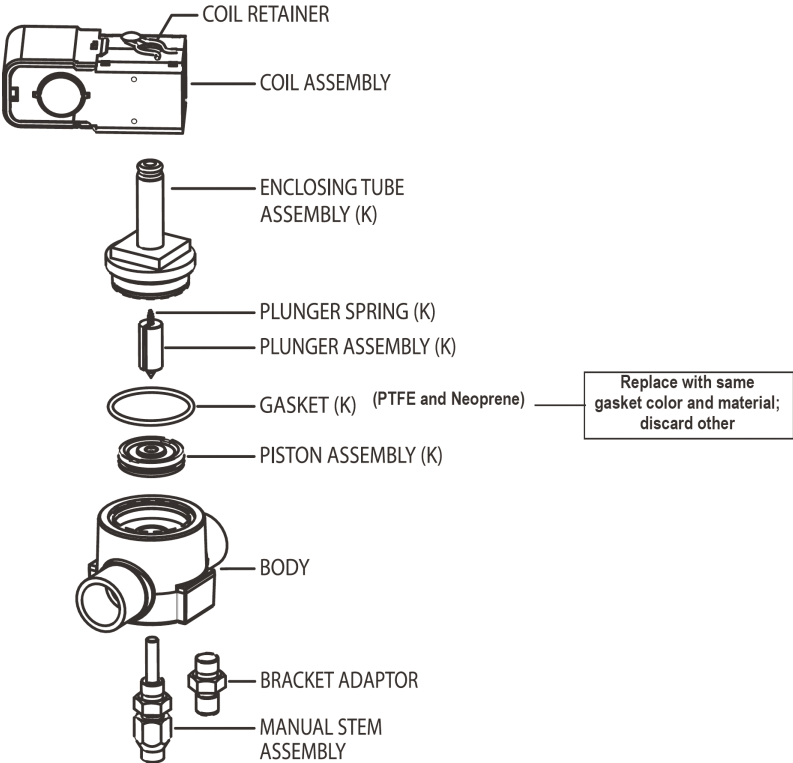


Valve	Port Size	Conn. Size & Style	A	B	C
200RB7S5	7/16	5/8 ODF x 7/8 ODM	2.98	3.69	0.53
200RB7T5		5/8 ODF x 5/8 ODF	6.88		
200RB7T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T5	9/16	5/8 ODF x 5/8 ODF	6.88	4.05	0.68
200RB9T6		3/4 ODF x 3/4 ODF	7.38		
200RB9T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T9		1 1/8 ODF x 1 1/8 ODF	8.50		

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RB

Exploded View & Parts Kit Data

Valve Repair Kit
“K” indicates part is supplied in
valve repair kit **KS30386**. (P/N ALC-066223)
Gasket Kit
Gasket Kit **ALC-049190**
(contains 12 pieces - each of
PTFE and neoprene O-rings)
Coil Assembly
See coil assemblies for availability.



Valve Kits

Valve	Complete Kit	Part Number	Manual Opening Kit	Part Number	Bi-Flow Kit	Part Number	Gasket Kit	Part Number
200RB2	KS30386	ALC-066223	N/A	N/A	KS30387	ALC-066224	KG10025	ALC-049190
200RB3	KS30386	ALC-066223			KS30387	ALC-066224	KG10025	ALC-049190
200RB4	KS30386	ALC-066223	KS30117	KS30117	KS30387	ALC-066224	KG10025	ALC-049190
200RB5	KS30386	ALC-066223	KS30117	KS30117	KS30387	ALC-066224	KG10025	ALC-049190
200RB6	KS30386	ALC-066223	KS30117	KS30117	KS30387	ALC-066224	KG10025	ALC-049190
200RB7	KS30354	ALC-064263	KS30361	KS30361	N/A	N/A	KG00002	KG00002
200RB9	KS30362	ALC-064825	KS30364	KS30364	N/A	N/A	KG00003	KG00003

200RB Bi-Flow Conversion

Standard 200RB uni-directional valves can be converted to Bi-Flow operation by replacing the internal parts with the components in kit KS30387 (P/N ALC-066224). Unlike the standard valve which permits flow in one direction only when energized, the Bi-Flow version allows the valve to flow in either direction, depending on differential pressures, when energized. If the valve is not energized when flowing in the reverse direction, valve “flutter” will occur. Also, with the valve de-energized, a higher downstream pressure than upstream (back-flow) will force the valve open.

NOTE: A 200RB7 and 200RB9 cannot be converted to a Bi-Flow valve.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RD



The 200RD is a pilot-operated, 2-way, normally closed solenoid valve that is suitable for all refrigerants, including R-410A. 200RD valves are used for liquid, discharge, or suction gas refrigerant service.

Features:

- One coil fits all valve sizes
- Extended ends for easy installation (standard)
- Long-life molded coils
- PTFE O-ring for superior external sealing

Options:

- Available in 7 orifice sizes
- Manual stem or mounting stud
- Bi-Flow operation-conversion either factory assembled or with kit except 200RD 7 and 200RD 9

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 680 psig
- Minimum operating pressure drop: 2 psi
- MOPD: 550 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

Nomenclature example: 200RD 4T3M VLC

200R	D	4	T	3	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = Copper Extended Ends	Connection Size (in 1/8")	M = manual stem T = mounting stud (optional)	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See available coil assemblies.

Standard Valve

Ordering Information and Nominal * Liquid Capacity - Tons (kW)

Part Number	Connection Size	R-410A	R-744	Description
ALC-066158	1/4 ODF	3.4 (11.9)	8.16 (28.7)	200RD 2 T 2
ALC-066159	3/8 ODF	3.4 (11.9)	8.16 (28.7)	200RD 2 T 3
ALC-066160	1/4 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 2
ALC-066161	3/8 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 3
ALC-066162	1/2 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 4
ALC-066163	3/8 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 3
ALC-066164	1/2 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 4
ALC-066165	5/8 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 5
ALC-066166	3/8 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 3
ALC-066167	1/2 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 4
ALC-066168	5/8 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 5
ALC-066169	1/2 ODF	8.9 (31.3)	21.49 (75.6)	200RD 6 T 4
ALC-066170	5/8 ODF	8.9 (31.3)	21.49 (75.6)	200RD 6 T 5
ALC-066172	5/8 ODF	15.7 (55.22)	37.62 (132.3)	200RD 7 T 5
ALC-066173	7/8 ODF	15.7 (55.22)	37.62 (132.3)	200RD 7 T 7
ALC-066174	5/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 5
ALC-066175	7/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 7
ALC-066176	1-1/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 9

Capacities based on ARI standard.

All ratings are based on largest connection size

*See Extended Capacity Tables for ratings at a wide range of conditions.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RD Mounting Stud¹

Ordering Information and Nominal * Liquid Capacity - Tons (kW)

Part Number	Connection Size	R-410A	R-744	Description
ALC-066179	1/4 ODF	3.4 (11.9)	8.16 (28.7)	200RD 2 T 2
ALC-066180	3/8 ODF	3.4 (11.9)	8.16 (28.7)	200RD 2 T 3
ALC-066182	3/8 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 3
ALC-066183	1/2 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 4
ALC-066184	3/8 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 3
ALC-066185	1/2 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 4
ALC-066186	5/8 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 5
ALC-066187	3/8 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 3
ALC-066188	1/2 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 4
ALC-066189	5/8 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 5
ALC-066190	1/2 ODF	8.9 (31.3)	21.49 (75.6)	200RD 6 T 4
ALC-066191	5/8 ODF	8.9 (31.3)	21.49 (75.6)	200RD 6 T 5
ALC-066195	5/8 ODF	15.7 (55.22)	37.62 (132.3)	200RD 7 T 5
ALC-066194	7/8 ODF	15.7 (55.22)	37.62 (132.3)	200RD 7 T 7
ALC-066202	5/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 5
ALC-066196	7/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 7
ALC-066197	1-1/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 9

¹ Add "T" to the end of description for Mounting Stud
Capacities based on ARI standard.

All ratings are based on largest connection size

*See Extended Capacity Tables for ratings at a wide range of conditions

Manual Stem²

Ordering Information and Nominal * Liquid Capacity - Tons (kW)

Part Number	Connection Size	R-410A	R-744	Description
ALC-066203	3/8 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 3
ALC-066204	1/2 ODF	4.5 (15.8)	10.86 (38.2)	200RD 3 T 4
ALC-066205	3/8 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 3
ALC-066206	1/2 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 4
ALC-066181	5/8 ODF	7.5 (26.4)	18.01 (63.3)	200RD 4 T 5
ALC-066208	3/8 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 3
ALC-066209	1/2 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 4
ALC-066210	5/8 ODF	7.7 (27.1)	18.62 (65.5)	200RD 5 T 5
ALC-066211	1/2 ODF	8.9 (31.3)	21.49 (75.6)	200RD 6 T 4
ALC-066212	5/8 ODF	8.9 (31.3)	21.49 (75.6)	200RD 6 T 5
ALC-066214	5/8 ODF	15.7 (55.22)	37.62 (132.3)	200RD 7 T 5
ALC-066215	7/8 ODF	15.7 (55.22)	37.62 (132.3)	200RD 7 T 7
ALC-066216	5/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 5
ALC-066217	7/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 7
ALC-066218	1-1/8 ODF	27.7 (97.59)	67.66 (238.0)	200RD 9 T 9

² Add "M" to the end of the description for Manual Stem
Capacities based on ARI standard.

All ratings are based on largest connection size

*See Extended Capacity Tables for ratings at a wide range of conditions

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RD

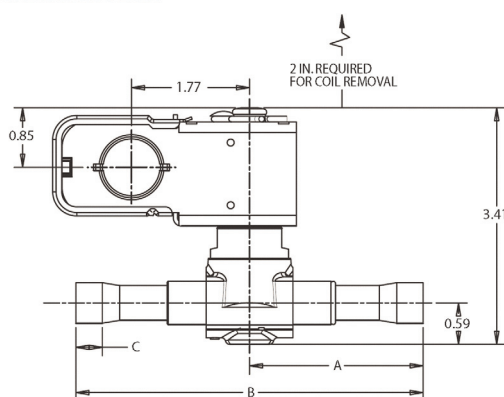
Ordering Information and Nominal Liquid Capacity Table for Bi-Flow Solenoids - Tons (kW)

Part Number	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502	R-410A	Description
ALC-016996	3/8 ODF	3.04 (10.69)	3.62 (12.73)	4.80 (16.88)	4.51 (15.86)	2.52 (8.86)	3.14 (11.04)	4.50 (15.83)	200RD3T3 VLC BF
ALC-016997	3/8 ODF	4.95 (17.41)	6.00 (21.10)	7.95 (27.96)	7.48 (26.31)	4.18 (14.70)	5.21 (18.32)	7.45 (26.20)	200RD4T3 VLC BF
ALC-016998	1/2 ODF	5.20 (18.29)	6.21 (21.84)	8.22 (28.91)	7.73 (27.19)	4.33 (15.23)	5.39 (18.96)	7.71 (27.11)	200RD5T4 VLC BF
ALC-016999	5/8 ODF	5.20 (18.29)	6.21 (21.84)	8.22 (28.91)	7.73 (27.19)	4.33 (15.23)	5.39 (18.96)	7.71 (27.11)	200RD5T5 VLC BF
ALC-017000	5/8 ODF	6.01 (21.14)	7.16 (25.18)	9.48 (33.34)	8.92 (31.37)	4.99 (17.55)	6.22 (21.87)	8.89 (31.26)	200RD6T5 VLC BF

Dimensional Data (in)

Ordering Information and Nominal Liquid Capacity Table for Bi-Flow Solenoids - Tons (kW)

With Extended Ends

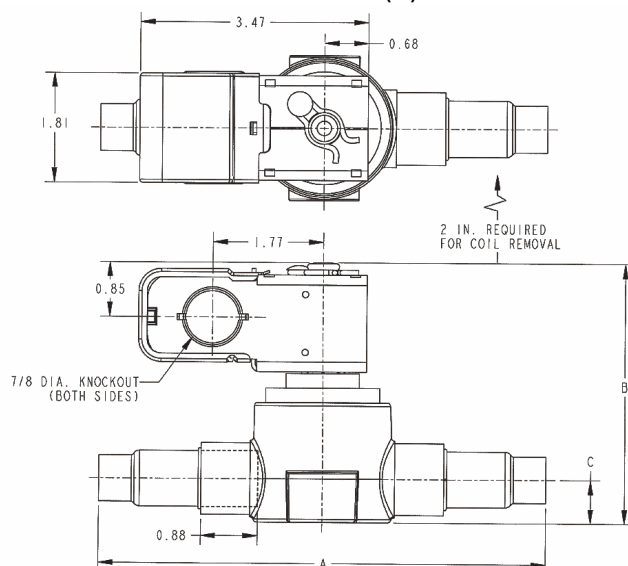


With Extended Ends

Valve	Port Size	Conn. Size & Style	A	B	C
200RD 2T2	1/8	1/4 ODF	2.42	4.62	0.25
200RD 2T3		3/8 ODF			0.31
200RD 3T2	3/16	1/4 ODF			0.25
200RD 3T3		3/8 ODF			0.31
200RD 3T4	1/4	1/2 ODF	2.50	5.00	0.38
200RD 4T4					
200RD 4T5	5/16	5/8 ODF	3.25	6.50	0.50
200RD 5T3		3/8 ODF	2.31	4.62	0.31
200RD 5T4		1/2 ODF	2.50	5.00	0.38
200RD 5T5		5/8 ODF	3.25	6.50	0.50
200RD 6T4	3/8	1/2 ODF	2.50	5.00	0.38
200RD 6T5		5/8 ODF	3.25	6.50	0.50

Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502	R410A
200RD3T3 VLC BF	3/8 ODF	3.04 (10.69)	4.4 (15.6)	4.80 (16.88)	4.51 (15.86)	2.52 (8.86)	3.14 (11.04)	4.50 (15.83)
200RD4T3 VLC BF	3/8 ODF	4.95 (17.41)	5.3 (18.6)	7.95 (27.96)	7.48 (26.31)	4.18 (14.7)	5.21 (18.32)	7.45 (26.20)
200RD5T4 VLC BF	1/2 ODF	5.2 (18.29)	7.8 (27.7)	8.22 (28.91)	7.73 (27.19)	4.33 (15.23)	5.39 (18.96)	7.71(27.11)
200RD5T5 VLC BF	5/8 ODF							
200RD6T5 VLC BF	5/8 ODF	6.01 (21.14)	9.4 (33.4)	9.48 (33.34)	8.92 (31.37)	4.99 (17.55)	6.22 (21.87)	8.89 (31.26)

200RD7 and 200RD9 Dimensional Data (in)



Valve	Port Size	Conn. Size & Style	A	B	C
200RD7S5	7/16	5/8 ODF x 7/8 ODM	2.98	3.69	0.53
200RD7T5		5/8 ODF x 5/8 ODF	6.88		
200RD7T7		7/8 ODF x 7/8 ODF	7.13		
200RD9T5	9/16	5/8 ODF x 5/8 ODF	6.88	4.05	0.68
200RD9T6		3/4 ODF x 3/4 ODF	7.38		
200RD9T7		7/8 ODF x 7/8 ODF	7.13		
200RD9T9		1 1/8 ODF x 1 1/8 ODF	8.50		

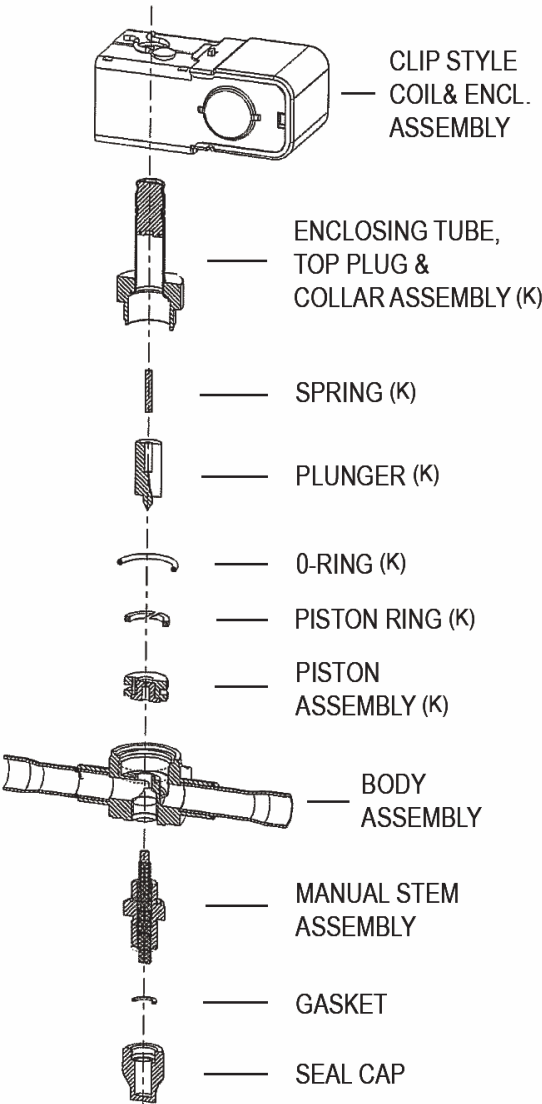
EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 200RD

Exploded View & Parts Kit Data

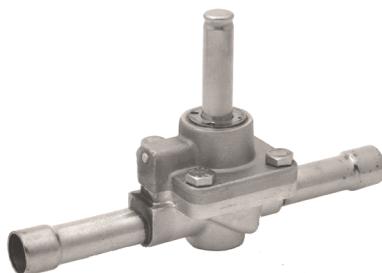
Ordering Information and Nominal Liquid Capacity Table for Bi-Flow Solenoids - Tons (kW)

AC&R Components

Valve Repair Kit
 "K" indicates part is supplied in valve repair kit **KS30386**. (P/N ALC-066223)
Gasket Kit
 Gasket Kit **KG10025** (P/N ALC-049190) (contains 12 pieces - each of PTFE and neoprene O-rings)
Coil Assembly
 See coil assemblies for availability.
Bi-Flow Conversion Kit
KS30387 (P/N ALC-066224)
 *Not available for 200RD7 and 200RD9



EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 240RA



The 240RA is a 2-way, normally closed diaphragm valve. 240RA valves are used for liquid, suction, and hot gas service.

Features:

- One coil fits all valve sizes
- Can be brazed into the line without disassembly
- PTFE diaphragm for high temperature applications
- Extended ends for easy installation (standard)
- Long-life molded coils
- Mounting stud models can be field converted to manual stem

Options

- Manual stem or mounting stud

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

Nomenclature example: 240RA 8T5M VLC

240R	A**	8	T	5	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = copper entended ends	Connection Size (in 1/8")	M = manual stem T = mounting stud (optional)	Coil*

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See coil assemblies for availability.

**NOTE: Letter "H" is no longer used since all 240RA valves now contain the high temperature diaphragm for hot gas.

Standard Valve

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-12	R-22	R-134a	R-407C	R-404A/R-507	R-502	Description
240RA8T5	5/8 ODF	12.2 (43.4)	15.6 (55.2)	14.8 (52.5)	14.8 (52.4)	8.4 (29.5)	10.1 (35.0)	240RA 8 T 5
240RA8T7	7/8 ODF	12.2 (43.4)	15.6 (55.2)	14.8 (52.5)	14.8 (52.4)	8.4 (29.5)	10.1 (35.0)	240RA 8 T 7
240RA9T5	5/8 ODF	18.2 (64.6)	23.3 (82.5)	22.0 (78.0)	22.1 (78.2)	15.3 (54.2)	15.1 (53.5)	240RA 9 T 5
240RA9T7	7/8 ODF	24.0 (85.0)	30.5 (108.0)	28.9 (102.3)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)	240RA 9 T 7
240RA9T9	1 1/8 ODF	24.0 (85.0)	30.5 (108.0)	28.9 (102.3)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)	240RA 9 T 9
240RA12T7	7/8 ODF	27.6 (97.6)	34.9 (124.0)	33.2 (117.5)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)	240RA 12 T 7
240RA12T9	1 1/8 ODF	27.6 (97.6)	34.9 (124.0)	33.2 (117.5)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)	240RA 12 T 9
240RA16T9	1 1/8 ODF	37.3 (132.0)	58.0 (205.0)	55.1 (195.1)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)	240RA 16 T 9
240RA16T11	1 3/8 ODF	37.3 (132.0)	58.0 (205.0)	55.1 (195.1)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)	240RA 16 T 11
240RA20T13	1 5/8 ODF	58.8 (208.0)	95.4 (338.0)	86.8 (307.4)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 13
240RA20T17	2 1/8 ODF	58.8 (208.0)	95.4 (338.0)	86.8 (307.4)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 17

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

*See Extended Capacity Tables for ratings at a wide range of conditions.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 240RA

Mounting Stud¹

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-134a	R-12	R-22	R-407C	R-404A/R-507	R-502	Description
240RA8T5T	5/8 ODF	14.8 (52.5)	12.2 (43.4)	15.6 (55.2)	14.8 (52.4)	8.4 (29.5)	10.1 (35.0)	240RA 8 T 5
240RA8T7T	7/8 ODF	14.8 (52.5)	12.2 (43.4)	15.6 (55.2)	14.8 (52.4)	8.4 (29.5)	10.1 (35.0)	240RA 8 T 7
240RA9T5T	5/8 ODF	22.0 (78.0)	18.2 (64.6)	23.3 (82.5)	22.1 (78.2)	15.3 (54.2)	15.1 (53.5)	240RA 9 T 5
240RA9T7T	7/8 ODF	28.9 (102.3)	24.0 (85.0)	30.5 (108.0)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)	240RA 9 T 7
240RA9T9T	1 1/8 ODF	28.9 (102.3)	24.0 (85.0)	30.5 (108.0)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)	240RA 9 T 9
240RA12T7T	7/8 ODF	33.2 (117.5)	27.6 (97.6)	34.9 (124.0)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)	240RA 12 T 7
240RA12T9T	1 1/8 ODF	33.2 (117.5)	27.6 (97.6)	34.9 (124.0)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)	240RA 12 T 9
240RA16T9T	1 1/8 ODF	55.1 (195.1)	37.3 (132.0)	58.0 (205.0)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)	240RA 16 T 9
ALC-240RA16T11T	1 3/8 ODF	55.1 (195.1)	37.3 (132.0)	58.0 (205.0)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)	240RA 16 T 11
240RA20T11T	1 3/8 ODF	86.8 (307.4)	58.8 (208.0)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 11
240RA20T13T	1 5/8 ODF	86.8 (307.4)	58.8 (208.0)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 13
240RA20T17T	2 1/8 ODF	86.8 (307.4)	58.8 (208.0)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 17

¹ Add "T" to the end of description for Mounting Stud

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

*See Extended Capacity Tables for ratings at a wide range of conditions.

Manual Stem²

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

Part Number	Connection Size	R-134a	R-12	R-22	R-407C	R-404A/R-507	R-502	Description
240RA8T5M	5/8 ODF	14.8 (52.5)	12.2 (43.4)	15.6 (55.2)	14.8 (52.4)	8.4 (29.5)	10.1 (35.0)	240RA 8 T 5
240RA8T5M	7/8 ODF	14.8 (52.5)	12.2 (43.4)	15.6 (55.2)	14.8 (52.4)	8.4 (29.5)	10.1 (35.0)	240RA 8 T 7
240RA9T5M	5/8 ODF	22.0 (78.0)	18.2 (64.6)	23.3 (82.5)	22.1 (78.2)	15.3 (54.2)	15.1 (53.5)	240RA 9 T 5
240RA9T7M	7/8 ODF	28.9 (102.3)	24.0 (85.0)	30.5 (108.0)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)	240RA 9 T 7
240RA9T9M	1 1/8 ODF	28.9 (102.3)	24.0 (85.0)	30.5 (108.0)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)	240RA 9 T 9
240RA12T7M	7/8 ODF	33.2 (117.5)	27.6 (97.6)	34.9 (124.0)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)	240RA 12 T 7
240RA12T9M	1 1/8 ODF	33.2 (117.5)	27.6 (97.6)	34.9 (124.0)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)	240RA 12 T 9
240RA16T9M	1 1/8 ODF	55.1 (195.1)	37.3 (132.0)	58.0 (205.0)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)	240RA 16 T 9
240RA16T11M	1 3/8 ODF	55.1 (195.1)	37.3 (132.0)	58.0 (205.0)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)	240RA 16 T 11
240RA20T11M	1 3/8 ODF	86.8 (307.4)	58.8 (208.0)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 11
240RA20T13M	1 5/8 ODF	86.8 (307.4)	58.8 (208.0)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 13
240RA20T17M	2 1/8 ODF	86.8 (307.4)	58.8 (208.0)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)	240RA 20 T 17

² Add "M" to the end of the description for Manual Stem

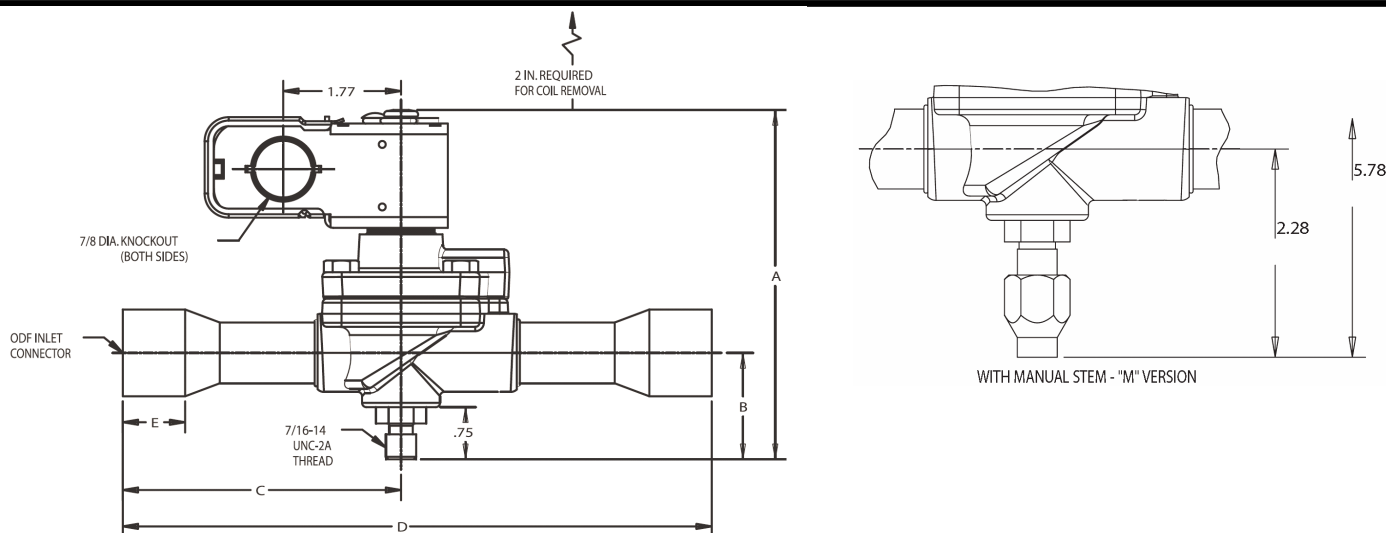
Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

*See Extended Capacity Tables for ratings at a wide range of conditions.

EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 240RA

Dimensional Data (in)

Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)



Valve	Port Size	Conn. Size	A	B	C	D	E
240RA8T5T	1/2	5/8 ODF	4.80	1.34	3.28	6.88	0.50
240RA8T5M			5.28	1.83			
240RA8T7T		7/8 ODF	4.80	1.34	3.41	7.13	0.75
240RA8T7M			5.28	1.83			
240RA9T5T	9/16	5/8 ODF	5.08	1.50	3.20	6.88	0.50
240RA9T5M			5.56	2.08			
240RA9T7T		7/8 ODF	5.08	1.50	3.33	7.13	0.75
240RA9T7M			5.56	2.08			
240RA9T9T		1-1/8 ODF	5.08	1.50	4.02	8.50	0.91
240RA9T9M			5.56	2.08			
240RA12T7T	3/4	7/8 ODF	5.08	1.50	3.52	7.50	0.75
240RA12T7M			5.56	2.08			
240RA12T9T		1-1/8 ODF	5.08	1.50	4.02	8.50	0.91
240RA12T9M			5.56	2.08			
240RA16T9T	1	1-1/8 ODF	5.34	1.66	4.13	9.06	0.91
240RA16T9M			5.80	2.23			
240RA16T11T		1-3/8 ODF	5.34	1.66	5.13	11.06	0.97
240RA16T11M			5.80	2.23			
240RA20T11T	1-1/4	1-3/8 ODF	5.45	1.31	5.11	10.81	1.09
240RA20T11M			6.47	2.33			
240RA20T13T			5.45	1.31	5.89	12.38	1.34
240RA20T13M		1-5/8 ODF	6.47	2.33			
240RA20T17T			5.45	1.31	6.58	13.75	1.34
240RA20T17M		2-1/8 ODF	6.47	2.33			

Valve	Complete Kit	Part Number	Manual Opener Kit	Part Number
240RA8	KS30321	KS30321	KS30066	KS30066
240RA9	KS30322	KS30322	KS30067	KS30067
240RA12	KS30323	KS30323	KS30067	KS30067
240RA16	KS30324	ALC-060629	KS30068	KS30068
240RA20	KS30325	KS30325	KS30098	KS30098

Gasket Kit for all 240RA valves is KG10028

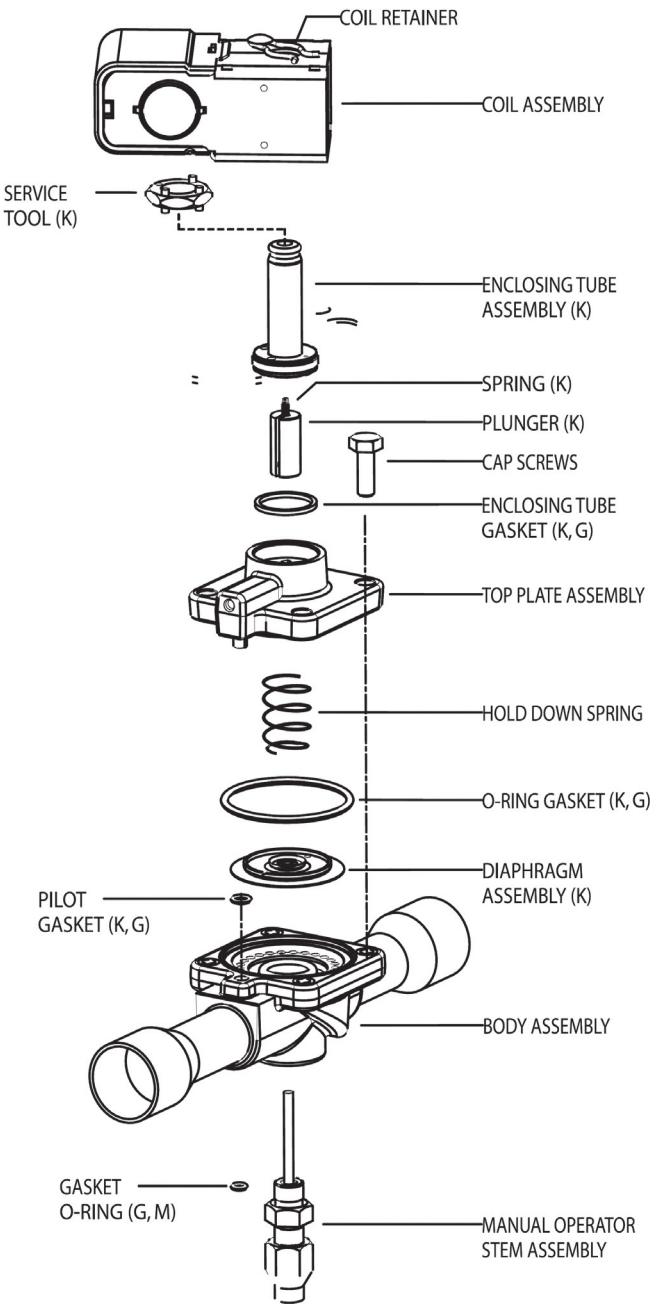
EMERSON CLIMATE TECHNOLOGIES - SOLENOID VALVES & COILS 240RA

Exploded View & Parts Kit Data

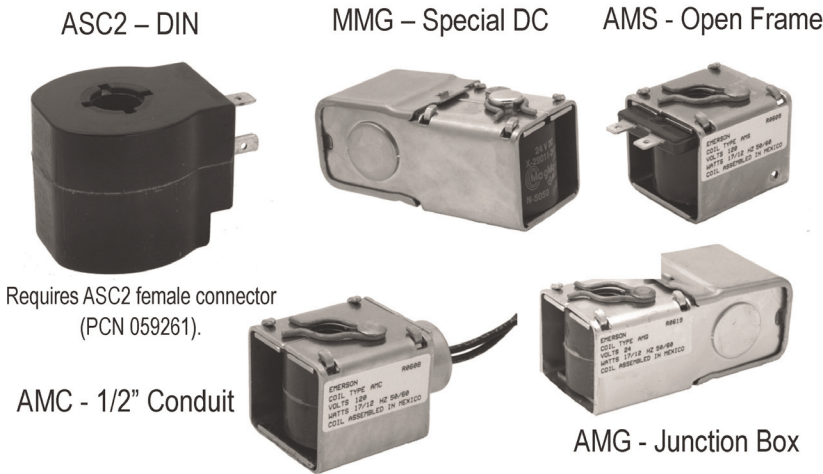
Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

AC&R Components

- Valve Repair Kit**
 "K" indicates part is supplied in complete valve repair kit.
- Manual Stem Kit**
 "M" indicates part is supplied in manual stem kit.
- Gasket Kit**
 "G" indicates gasket is supplied in gasket kit.
 Note: Spanner wrench (X11981-1 service tool) included in complete valve kit.
- Coil Assembly**
 See coil assemblies for availability.



EMERSON CLIMATE TECHNOLOGIES - COILS FOR SOLENOID VALVES



- Features:**
- Compact designs
 - Coil windings are insulated to provide shock and vibration protection
 - ASC2 is designed to provide weather protection
 - Interchangeable housings
- Voltage Options**
- 24V 50/60 Hz
 - 120V 50/60 Hz (standard)
 - 208-220/208-240V 50/60 Hz
 - 480V 50/60 Hz
 - 120-240V 50/60 Hz
 - 12V D.C. (MM Series recommended)
 - 24V D.C. (MM Series recommended)

Nomenclature		
Coil Code		
A	M	G
Series	Insulation	Enclosure
A = 12 Watt	B or G = Class B	C = Conduit Connection
B = 15 Watt	M = Class F	F = Open Frame Leads
C = 18 Watt	H = Class H	G = Junction Box
D = 7 Watt		L = Grommet 18" Leads
M = 4 Watt		S = Spade Connection

MAGMAX Coil (Type MM): For Use On DC Applications Only		
Voltage	Amperes Holding	Watts Holding
12VDC	0.4	4
24VDC	0.4	4

Solenoid Coil Prefix Selection Table 1) Select Prefix 2) Select Voltage 3) Select PCN

Valve Type	J-Box	Conduit	Leads	Spades	Molded-DIN With Connector
100RB	AMG	AMC	AMF	AMS	ASC2
200RB / 200RD	AMG	AMC	AMF	AMS	ASC2
222CB (Steam)	AHG	AHC	-	-	-
500RB	DMG	-	DMF	DMS	-
540RA	-	-	-	DMS	ASC2
222CB (Water)	AMG	AMC	AMF	AMS	ASC2
Special DC Application	MMG	-	MMF	-	-

* SML is OEM - RMF is Wholesale replacement
 Note - All coils NEMA1 except ASC2 NEMA2

EMERSON CLIMATE TECHNOLOGIES - COILS FOR SOLENOID VALVES

AM/EM Coil: 204CD, 214CB, 211CA, 222CB, 210CA

Nominal Voltage and Frequency	Applied Voltage and Frequency	204CD		214C		211CA		222CB		210CA	
		Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding
24/60	24/60	1.23	0.61	1.17	0.61	0.92	0.61	1.00	0.74	0.92	0.61
120/60	120/60	0.23	0.14	0.22	0.14	0.17	0.14	0.19	0.16	0.17	0.14
240/60	240/60	0.13	0.08	0.12	0.08	0.10	0.08	0.11	0.08	0.10	0.08
480/60	480/60	0.06	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04

See the MM (MAGMAX) Series Coil for DC Applications

AM Coil: 702RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.70	1.00	24	17/12	Class F Molded
24-50/60	24/60	1.41	0.64	15		
120-50/60	120/50	0.38	0.24	29		
120-50/60	120/60	0.32	0.16	19		
208-220/50 208-240/60	208/50	0.17	0.10	21		
208-220/50 208-240/60	208/60	0.15	0.06	13		
208-220/50 208-240/60	220/50	0.20	0.14	33		
208-220/50 208-240/60	240/60	0.22	0.09	22		
480-50/60	480/50	0.10	0.07	33		
480-50/60	480/60	0.09	0.04	22		

See the MM (MAGMAX) Series Coil for DC Applications

AM Coil: 100RB, 240RA, 710/713RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.20	.96	23	17/12	Class F Molded
24-50/60	24/60	1.0	.74	18		
120-50/60	120/50	.25	.21	25		
120-50/60	120/60	.19	.16	19		
208-220/50 208-240/60	208/50	.14	.08	17		
208-220/50 208-240/60	208/60	.12	.06	12		
208-220/50 208-240/60	220/50	.16	.10	24		
208-220/50 208-240/60	240/60	.13	.08	19		
480-50/60	480/50	.06	.05	24		
480-50/60	480/60	.05	.04	19		

See the MM (MAGMAX) Series Coil for DC Applications

AM Coil: 200RB/200RD

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	2.00	.96	23	17/12	Class F Molded
24-50/60	24/60	1.6	.74	18		
120-50/60	120/50	.45	.21	25		
120-50/60	120/60	.36	.16	19		
208-220/50 208-240/60	208/50	.19	.08	17		
208-220/50 208-240/60	208/60	.15	.06	12		
208-220/50 208-240/60	220/50	.24	.10	24		
208-220/50 208-240/60	240/60	.19	.08	19		
480-50/60	480/50	.11	.05	24		
480-50/60	480/60	.09	.04	19		

See the MM (MAGMAX) Series Coil for DC Applications

EMERSON CLIMATE TECHNOLOGIES - COILS FOR SOLENOID VALVES

ASC2 Coil: 200RB/200RD, 540RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	2.18	1.07	26	15/12	Class F Molded
24-50/60	24/60	1.90	.81	19		
120-50/60	120/50	.43	.21	25		
120-50/60	120/60	.38	.16	19		
240-50/60	240/50	.24	.12	30		
240-50/60	240/60	.21	.09	22		

DM Coil: 500RB

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.80	.71	17	17/12	Class F Molded
24-50/60	24/60	1.56	.52	12		
120-50/60	120/50	.36	.14	17		
120-50/60	120/60	.31	.10	12		
240-50/60	240/50	.19	.08	19		
240-50/60	240/60	.17	.06	14		

ASC2 Coil: 100RB, 240RA, 710/713RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.67	1.10	26	15/12	Class F Molded
24-50/60	24/60	1.41	.83	20		
120-50/60	120/50	.31	.22	26		
120-50/60	120/60	.26	.16	20		
240-50/60	240/50	.17	.13	31		
240-50/60	240/60	.15	.10	23		

DM Coil: 100RB, 240RA, 710/713RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.21	.72	17	17/12	Class F Molded
24-50/60	24/60	1.02	.52	13		
120-50/60	120/50	.24	.14	17		
120-50/60	120/60	.20	.10	12		
240-50/60	240/50	.13	.08	20		
240-50/60	240/60	.11	.06	14		

EMERSON CLIMATE TECHNOLOGIES - COILS FOR SOLENOID VALVES

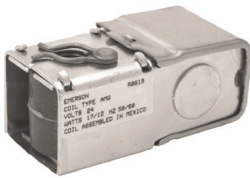
Ordering Information

AC&R Components

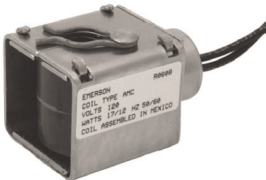
AMG - Junction Box

AMC - 1/2" Conduit

AMS - Open Frame



6" Leads



18" Leads



18" Leads or
1.4" Spades



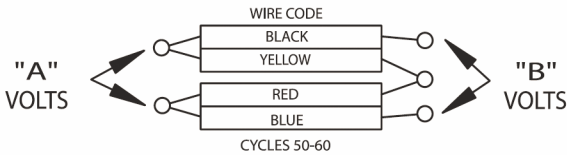
ASC2 - DIN



MMG

Part Number	Voltage/Frequency	Description
AHG-24/50-60	24V 50/60 Hz	AHG 24V 50/60 Hz
AMG-24/50-60	24V 50/60 Hz	AMG 24V 50/60 Hz
DMG-24/50-60	24V 50/60 Hz	DMG 24V 50/60 Hz
ALC-AHG-120	120V 50/60 Hz	AHG 120V 50/60 Hz
AMG-120/50-60	120V 50/60 Hz	AMG 120V 50/60 Hz
AHG-208-240/50-60	208-220/208-240 50/60 Hz	AHG 208-220/208-240 50/60 Hz
AMG-208-240/50-60	208-220/208-240 50/60 Hz	AMG 208-220/208-240 50/60 Hz
AMG-480	480V 50/60 Hz	AMG 480V 50/60 Hz
AMG-120-240/50-60	120-240V 50/60 Hz	AMG 120-240V 50/60 Hz
AMG-12V/DC	12V DC	AMG 12V DC
AMG-24V/DC	24V DC	AMG 24V DC
ALC-AMC/24V	24V 50/60 Hz	AMC 24V 50/60 Hz
AMC-120V	120V 50/60 Hz	AMC 120V 50/60 Hz
AMC-208-240V	208-220/208-240 50/60 Hz	AMC 208-220/208-240 50/60 Hz
AMC-24V/DC	24V DC	AMC 24V DC
AMF-24/50-60	24V 50/60 Hz	AMF 24V 50/60 Hz
ALC-065677	24V 50/60 Hz	RMF 24V 50/60 Hz
RMS24V50-60	24V 50/60 Hz	RMS 24V 50/60 Hz
AMS-120/50-60	120V 50/60 Hz	AMS 120V 50/60 Hz
AMF-208-240/50-60	208-220/208-240 50/60 Hz	AMF 208-220/208-240 50/60 Hz
ALC-065679	208-220/208-240 50/60 Hz	R M F 208-220/208-240 50/60 Hz
ALC-065681	208-220/208-240 50/60 Hz	RMS 208-220/208-240 50/60 Hz
ALC-062410	120-240V 50/60 Hz	AMF 120-240V 50/60 Hz
ALC-062792	24V 50/60 Hz	ASC2 24/50-60
ASC2GS-2562-1	120V 50/60 Hz	ASC2 GS-2562-1
ASC2208-240/50-60	208-220/208-240 50-60 Hz	ASC2 208-240/50-60
ALC-063524	12V	MMG 12V DC
ALC-062972	12V	MMF 12V DC

Dual Voltage Wiring Diagram



A	B
120	240
240	480

AM and ASC 2 style DC coils should not be used for direct replacements on OEM equipment. The use of this coil on new applications may result in the valve not opening. New applications should use the MM coil because of the significant increase in opening power of the MM Coil over the standard AM and ASC 2 style DC coil

Coil Enclosure Options

Options	Code
Junction Box	G
Conduit - 18" Leads	C
Open Frame - 18" Leads	F
Open Frame - Spades	S

EMERSON CLIMATE TECHNOLOGIES - SOLENOID MULTI-PURPOSE TOOL



The Solenoid Multi-Purpose Tool is a magnetic tool that holds key components together as the valve is disassembled. The manual stem adjustment makes it easy to open valves. This tool provides longer life utilizing its spanner wrench which not only makes it easier to service valves, but also protects the enclosing tube from damage.

Features:

- Magnet opens a normally closed Emerson solenoid valve that is in the de-energized state
- Incorporates a spanner wrench and drive socket which enable easy disassembly of Emerson solenoid valves 100RB & 240RA/540RA by using a 3/8" socket wrench
- Tool has a manual stem orifice used to manually adjust opening stem
- May reassemble valve with proper torque specifications on collar

Specifications

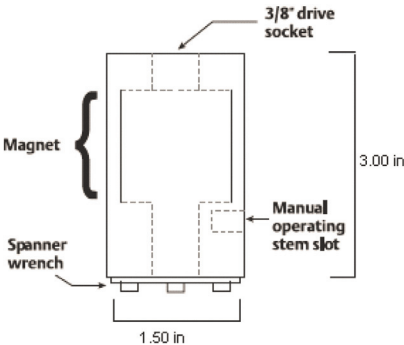
- Drive Socket size 3/8"

Torque Specifications

100RB Series	225 in. lbs.
240RA Series	150 in. lbs.
540RA Series	150 in. lbs.

Part Number	Description
ALC-066019	Solenoid Multi-Purpose Tool

Dimension Data



EMERSON CLIMATE TECHNOLOGIES - ACK CHECK VALVES

Ordering Information and Dimensional Data



The ACK check valve is a normally closed magnetic check valve that prevents reverse refrigerant flow in liquid lines and compressor discharge lines.

Features:

- Copper Connection Sizes 1/4" through 2-5/8"
- Hermetic Spun Copper Design
- Magnetic Checking Action
- Built-In 30 Mesh Stainless Steel Strainer
- Can Be Installed In Any Position

Specifications

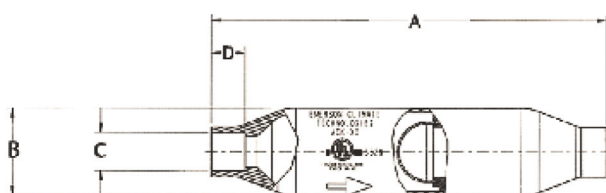
- UL/CUL File number: SA 5312

R-410A

Nomenclature example: ACK-4

ACK	4
Check Valve Series	Copper ODF Connection Size (in 1/16")

Part Number	Connection Size	Opening Pressure		MWP (psig)	Nominal Tons R-22 Suction 40°F @ 1 psi	Nominal Tons R-22 Liquid 40°F @ 1 psi	Cv	Description
		(oz/sq in)	(psig)					
ALC-064985	1/4 ODF	1.20	0.08	800	0.40	2.60	0.9	ACK-4
ALC-064986	3/8 ODF	1.30	0.08	800	0.60	3.10	1.0	ACK-6
ALC-064987	1/2 ODF	3.50	0.22	680	1.20	9.40	3.1	ACK-8
ALC-064988	5/8 ODF	3.50	0.22	680	1.40	13	3.6	ACK-10
ALC-064989	3/4 ODF	3.80	0.24	680	3.30	27	8.0	ACK-12
ALC-064990	7/8 ODF	3.80	0.24	680	3.70	29	9.2	ACK-14
ALC-064991	1-1/8 ODF	6.80	0.43	680	6	51	15.4	ACK-18
ALC-064992	1-3/8 ODF	10.20	0.64	680	9.50	79	23.8	ACK-22
ALC-064993	1-5/8 ODF	11.40	0.71	680	17	102	24.2	ACK-26
ALC-064994	2-1/8 ODF	18.10	1.13	680	30	213	38.7	ACK-34
ALC-064995	2-5/8 ODF	23.00	1.44	680	50	375	71.7	ACK-42

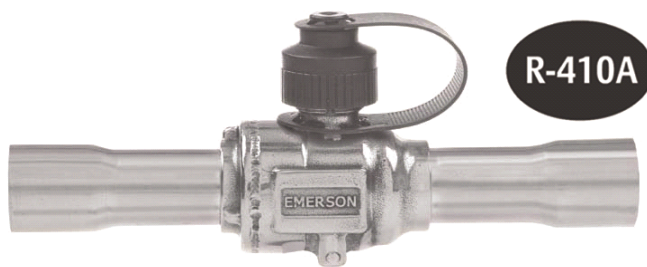


A	B	C	D
4.00	0.88	0.254 ± 0.002	0.19
		0.379 ± 0.002	0.40
5.00	1.13	0.504 ± 0.002	0.31
		0.629 ± 0.002	0.50
7.00	1.63	0.754 ± 0.002	0.63
		0.879 ± 0.003	0.42
8.38	2.13	1.130 ± 0.003	0.94
9.38	2.63	1.380 ± 0.003	1.04
10.50	3.13	1.630 ± 0.003	1.07
12.00	3.63	2.130 ± 0.003	1.34
13.00	4.13	2.630 ± 0.003	1.50

Cross Reference (Identical Lay-In)

Emerson	A-1 Components	Superior
ACK-4	MS-4	900M-4S
ACK-6	MS-6	900M-6S
ACK-8	MS-8	900M-8S
ACK-10	MS-10	900M-10S
ACK-12	MS-12	900M-12S
ACK-14	MS-14	900M-14S
ACK-18	MS-18	N/A
ACK-22	MS-22	N/A
ACK-26	MS-26	N/A
ACK-34	MS-34	N/A
ACK-42	MS-42	N/A

EMERSON CLIMATE TECHNOLOGIES - BV SERIES SHUT OFF VALVES



The BVE/BVS series welded refrigeration ball valves isolate suction, discharge, and liquid line pipework during maintenance shutdown periods.

Features:

- Forged brass body
- Compact, lightweight, hermetic welded design
- Compatible with HCFC and HFC refrigerants/lubricants including R-410A and CO₂
- Full flow design*
- Bi-directional flow characteristics
- Valve stem cap retained by strap attached to main body
- Integrated access port available on all sizes
- Low operating friction design

Specifications

- **Body:** Forged Brass
- **Extended tubes:** 100% Copper Connections
- **Maximum working pressure:** 650 psig
- **Fluid temperature range:** -40°F to 250°F (302°F short term)
- **UL/CUL file number:** SA 5312

Nomenclature example: BVE 1 1/8

BV	E	1/8
Ball Valve	Access Valve E = without S = with	Connection Size (in 1/8")

Models With Access Valve

Part Number	Connection Size (in.)	Dimensions					Port Size	Weight (lbs)
		A	B	C	D	E		
BVS-014	1/4 ODF	4.72	4.02	2.36	M3	0.59	Full Port	0.79
BVS-038	3/8 ODF	4.72	4.02	2.36	M3	0.59	Full Port	0.79
BVS-012	1/2 ODF	5.00	4.21	2.50	M4	0.87	Full Port	0.79
BVS-058	5/8 ODF	5.00	3.98	2.50	M4	0.87	Full Port	0.84
BVS-034	3/4 ODF	6.18	4.92	3.09	M4	1.22	Full Port	1.45
BVS-078	7/8 ODF	6.18	4.65	3.09	M4	1.22	Full Port	1.45
BVS-118	1 1/8 ODF	6.65	4.84	3.33	M4	1.50	Full Port	2.29
BVS-138	1 3/8 ODF	9.09	7.17	4.55	M6	1.89	Full Port	3.61
BVS-158	1 5/8 ODF	10.91	8.66	5.45	M6	2.17	Full Port	5.35
BVS-218	2 1/8 ODF	11.69	8.98	5.85	M6	2.91	2" Port	10.48
BVS-258*	2 5/8 ODF	11.69	8.74	5.85	M6	2.91	2" Port	12.2
BVS-318*	1 3/8 ODF	11.69	8.39	5.85	M6	2.91	2" Port	12.6

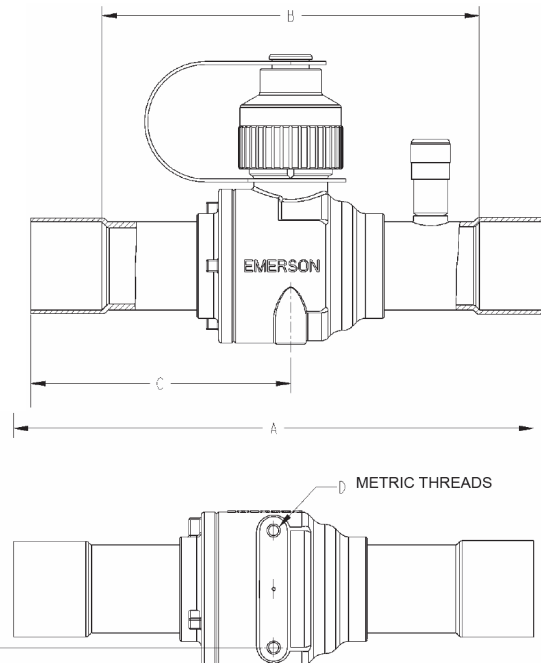
* 2" port

Models Without Access Valve

Part Number	Connection Size & Type	Dimensions					Port Size	Weight (lbs)
		A	B	C	D	E		
BVE-014	1/4 ODF	4.72	4.02	2.36	M3	0.59	Full Port	0.79
BVE-038	3/8 ODF	4.72	4.02	2.36	M3	0.59	Full Port	0.79
BVE-012	1/2 ODF	5.00	4.21	2.50	M4	0.87	Full Port	0.79
BVE-058	5/8 ODF	5.00	3.98	2.50	M4	0.87	Full Port	0.84
BVE-034	3/4 ODF	6.18	4.92	3.09	M4	1.22	Full Port	1.45
BVE-078	7/8 ODF	6.18	4.65	3.09	M4	1.22	Full Port	1.45
BVE-118	1 1/8 ODF	6.65	4.84	3.33	M4	1.50	Full Port	2.29
BVE-138	1 3/8 ODF	9.09	7.17	4.55	M6	1.89	Full Port	3.61
BVE-158	1 5/8 ODF	10.91	8.66	5.45	M6	2.17	Full Port	5.35
BVE-218*	2 1/8 ODF	11.69	8.98	5.85	M6	2.91	2" Port	10.48
BVE-258*	2 5/8 ODF	11.69	8.74	5.85	M6	2.91	2" Port	12.2
BVE-318*	1 3/8 ODF	11.69	8.39	5.85	M6	2.91	2" Port	12.6

* 2" port

Dimensional Data



Replacement Parts Locking Seal Caps

Part Number	BVE/BVS Valve Size (in.)	Quantity (per pack)
ALC-806770	1/4 - 7/8	10 pcs.
ALC-806771	1 1/8 - 1 3/8	10 pcs.
ALC-806772	1 5/8 - 2 5/8	10 pcs.

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

Quick Select Guide

Hermetic Filter Driers

Type	Filter Drier	Recommended Use	Function
Liquid	EK	CFC, HCFC, HFC	Premium Universal Replacement
Liquid	ADK	CFC, HCFC, HFC	High Acid and Water Removal
Liquid	BOK-HH	CFC, HCFC, HFC	Burnout Cleanup with Charcoal
Liquid	BFK	CFC, HCFC, HFC	Bi-Flow Heat Pump
Suction	SFD	CFC, HCFC, HFC	Suction Line Filter Drier
Suction	CSFD	CFC, HCFC, HFC	Compact Suction Line Filter Drier
Suction	ASD	CFC, HCFC, HFC	Premium Suction Line Filter Drier
Suction	ASK-HH	CFC, HCFC, HFC	Burnout Cleanup with Charcoal
Suction	ASF	CFC, HCFC, HFC	Filter Only

Take-Apart Filter Driers

Type	Filter Drier	Liquid	Suction
Take-Apart	STAS	X	X
Take-Apart	ADKS	X	X
Take-Apart	BTAS		X

Replaceable Cores/Filters for Take- Apart Shells

Type	Core/Filter	Recommended use	Function
Core	D-42/48	CFC, HCFC	High Acid Removal
Core	H-42/48/100	CFC, HCFC	High Acid and Water Removal
Core	W-42/48/100HH	CFC, HCFC, HFC	Burnout Cleanup w/Charcoal
Core	UK-48/100	CFC, HCFC, HFC	Premium Universal Replacement
Filter	F-48/100	CFC, HCFC, HFC	Filter Only
Core	RH-48	Reclaim Use Only	High Acid and Water Removal
Core	RW-48	Reclaim Use Only	Burnout Cleanup

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

Recommended System Tonnage

Take-Apart Liquid Line Filter Driers in Tons*

Description	Refrigeration, Low Temp. & Commercial Installations			Air Conditioning	
				Field Replacement & Field Installations	
	R-12/R-134a	R-22	R-404A/R-502/R-507A	R-12/R-134a	R-22/R-407C/R-410A
STAS 485T	8	10	8	8	10
STAS 487T	10	13	10	10	12 1/2
STAS 489T	10	15	10	10	15
STAS 4811T	13	20	13	13	20
STAS 967T	20	25	15	20	25
STAS 969T	25	30	20	25	30
STAS 9611T	30	35	25	30	35
STAS 9613T	35	40	30	35	40
STAS-9625S-V	40	45	35	40	45
STAS 1449T	30	40	30	30	40
STAS 14411T	40	50	35	40	50
STAS 14413T	45	55	40	45	55
STAS 14417T	60	50	45	50	60
STAS 19211T	50	70	45	50	70
STAS 19213T	60	80	55	60	80
STAS 19217T	65	85	60	65	85
ADKS 30013T	50	65	45	50	65
ADKS 30017T	60	80	50	60	80
ADKS 40017T	65	85	55	65	85
ADKS 40021T	75	100	65	75	100

* For kW, multiply tons by 3.5

+ Consult product catalog pages for R-410A suitability.

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

Recommended System Tonnage

Hermetic Liquid Line Filter Driers (EK, ADK, BFK, BOK)

(Recommended Capacities at 2 psi drop (See catalog page showing ARI data for capacity at 1 psi drop.)

Description	Refrigeration, Low Temp. & Commercial Installations			Air Conditioning Field Replacement & Field Installations				
	R-12/R-134a	R-22	R-404A/R-502/R-507	R-12/R-134a	R-22/R-407C/R-410A			
032	1/2	1/2	1/2	1	1-1/2			
032S								
033								
033S								
052	3/4	3/4						
052S								
053	1-1/2	2	1-1/2	3	4			
053S								
082	1	1	3/4	1-1/2	2			
082S		2	1	3	4			
0825S								
083	2	3	2	4	5			
083S		4		5	7-1/2			
084								
084S								
162	1-1/2	2	1	1-1/2	2			
162S	2	3	2	3	4			
1625S								
163	3	5	3	4	5			
163S				5	10			
164								
164S		7-1/2		7-1/2	12			
165								
165S	4	5	4	4	6			
303		7-1/2		7-1/2	10			
303S								
304								
304S	7-1/2	10	5	10	15			
305				7-1/2			18	24
305S							20	26
307S							5	5
309S	4	15	4	5	5			
413		7-1/2	7-1/2	12	18			
414								
414S								
415	10	10	10	5	12			
415S				7-1/2	7-1/2	12	18	
417S								
419S								
757S	20	25	15	22	30			
759S	22	30	20	25	34			

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

EK Liquid Line Filter Drier



The EK Liquid Line filter drier is a premium compacted bead filter drier with a 20 micron outlet pad for maximum filtration. The EK is a premium universal replacement liquid line filter drier for CFC, HCFC and HFC refrigerants including R-12, R-134a, R-22, R-404A, R-407C, R-410A, R-500, R-502, and R-507.

Features:

- Filtration first for more effective use of surface area of desiccant
- High moisture and acid removal capacity
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE Oils
- Shock resistant steel shell construction

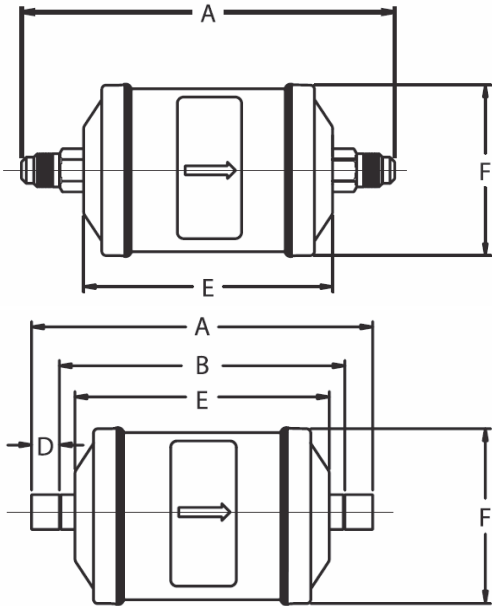
Specifications

- Desiccant blend - optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Nomenclature example: EK-083S

EK	08	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Dimensional Data



Part Number	Dimensions (In)					Average Weight (lbs)
	A	B	D	E	F	
EK032	4.38			2.57	1.75	0.48
EK032S	3.83	2.71	0.56	2.57	1.75	0.48
EK032FM	3.92			2.57	1.75	0.48
EK032MF	3.92			2.57	1.75	0.48
EK033	4.69			2.57	1.75	0.48
EK033S	4.03	2.79	0.62	2.57	1.75	0.48
EK052	4.83			3.02	2.64	1.04
EK052MF	4.37			3.02	2.64	1.04
EK0525S	4.20	3.56	0.32	3.02	2.64	1.04
EK052S	4.15	3.46	0.35	3.02	2.64	1.04
EK053	5.14			3.02	2.64	1.04
EK053S	4.48	3.24	0.62	3.02	2.64	1.04
EK082	5.64			3.83		1.23
EK082S	4.96	4.27	0.35	3.83		1.23
EK0825S	5.01	4.37	0.32	3.83		1.23
EK083MF	5.70			3.83		1.23
EK083	5.95			3.83		1.23
EK083S	5.29	4.05	0.62	3.83		1.23
EK084	6.17			3.83		1.23
EK084S	5.33	4.07	0.63	3.83		1.23
EK162	6.58			4.77		1.49
EK162S	5.90	5.21	0.35	4.77		1.49
EK1625S	5.95	5.31	0.32	4.77		1.49
EK163	6.89			4.77		1.49
EK163S	6.24	5.43	0.40	4.77		1.49
EK164	7.11			4.77		1.49
EK164S	6.33	5.33	0.50	4.77		1.49
EK165	7.57			4.77		1.49
EK165S	6.55	5.30	0.63	4.77		1.49
EK167S	7.13	5.63	0.75	4.77		1.49
EK303	9.66			7.54	3.14	3.01
EK303S	9.01	8.21	0.40	7.54	3.14	3.01
EK304	9.88			7.54	3.14	3.01
EK304S	9.10	8.10	0.50	7.54	3.14	3.01
EK305	10.34			7.54	3.14	3.01
EK305S	9.32	8.07	0.63	7.54	3.14	3.01
EK306S	9.73	8.48	0.63	7.54	3.14	3.01
EK307S	9.90	8.40	0.75	7.54	3.14	3.01
EK309S	10.26	8.45	0.90	7.54	3.14	3.01
EK413	9.79			7.67	3.64	3.35
EK414	10.01			7.67	3.64	3.35
EK414S	9.23	8.23	0.50	7.67	3.64	3.35
EK415	10.47			7.67	3.64	3.35
EK415S	9.45	8.20	0.63	7.67	3.64	3.35
EK417S	10.03	8.53	0.75	7.67	3.64	3.35
EK419S	10.39	8.58	0.91	7.67	3.64	3.35
EK757S	15.25	14.02	0.61	13.16	3.64	6.14
EK759S	15.88	14.07	0.91	13.16	3.64	6.14

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

EK Contractor's Choice Filter Drier



The EK Contractor's Choice filter drier is designed for foodservice and residential air conditioning applications.

Features:

- Extended solid copper connections
- Dual access valves for faster and easier system diagnosis
- Incorporates all the internal features of the premium EK

Specifications

- Desiccant blend – optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Part Number	Description
EK032SVV	Contractor's Choice EK
EK052SVV	Contractor's Choice EK
EK053SVV	Contractor's Choice EK
EK083SVV	Contractor's Choice EK
EK163SVV	Contractor's Choice EK

Standard Product Offering

EK Cap Tube Filter Drier



The EK Cap Tube filter drier is designed for foodservice refrigeration systems.

Features:

- Schrader valve on the inlet side acts as a maintenance and charging port
- Outlet is designed to accept capillary tubing without the need for crimping
- Extended solid copper 1/4 ODF connection inlet by cap tube
- Incorporates all the internal features of the premium EK

Specifications

- Desiccant blend - optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Part Number	Description
EK032SV	Cap Tube (3 cubic inch)
EK052SVCAP	Cap Tube (5 cubic inch)

Standard Product Offering

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

EK Filter Driers Capacity Tables

Description	Connections Inlet/Outlet	Flow Capacity Tons @ 1 psi ΔP ^{1,4} (For kW, multiply tons by 3.5)						Water Capacity ² Drops of Water ³																			
		R-12		R-134a		R-22/R-407C		R-404A/R-507		R-744		R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502		R-744	
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	10°F	25°F		
EK032FM	1/4 Fem/1/4 Male SAE	1.6	2.0	2.2	2.1	1.4	2.8	47	41	40	37	40	33	33	25	21	19	38	37	42	37	30	34				
EK032MF	1/4 Male/1/4 Fem SAE	1.6	2.0	2.2	2.1	1.4	2.8																				
EK032	1/4 SAE	1.6	2.0	2.2	2.1	1.4	2.8																				
EK032S	1/4 ODF	2.2	2.7	2.9	2.9	2.0	3.7																				
EK032SV	1/4 ODF	2.2	2.7	2.9	2.9	2.0	3.7																				
EK033	3/8 SAE	2.5	3.0	3.3	3.2	2.2	4.3																				
EK033S	3/8 ODF	2.5	3.0	3.3	3.2	2.2	4.3	133	119	116	106	114	97	95	75	64	58	109	106	120	107	81	89				
EK052FM	1/4 Fem/1/4 Male SAE	1.7	2.1	2.3	2.2	1.5	3.0																				
EK052MF	1/4 Male/1/4 Fem SAE	1.7	2.1	2.3	2.2	1.5	3.0																				
EK052	1/4 SAE	1.7	2.1	2.3	2.2	1.5	3.0																				
EK052S	1/4 ODF	2.7	3.3	3.6	3.5	2.4	4.6																				
EK053MF	3/8 Male/3/8 Fem SAE	2.9	3.5	3.8	3.7	2.5	4.9																				
EK053	3/8 SAE	2.9	3.5	3.8	3.7	2.5	4.9	274	240	237	218	235	200	195	155	159	118	224	217	245	217	163	180				
EK053S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	6.2																				
EK082FM	1/4 Fem/1/4 Male SAE	1.9	2.3	2.5	2.4	1.7	3.2																				
EK082MF	1/4 Male/1/4 Fem SAE	1.9	2.3	2.5	2.4	1.7	3.2																				
EK082	1/4 SAE	1.9	2.3	2.5	2.4	1.7	3.2																				
EK082S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	4.4																				
EK0825S	5/16 ODF	2.9	3.5	3.8	3.7	2.5	4.9	347	301	371	341	368	313	305	240	206	186	350	340	306	272	260	286				
EK083MF	3/8 Male/3/8 Fem SAE	3.3	4.0	4.3	4.3	2.9	5.5																				
EK083	3/8 SAE	3.3	4.0	4.3	4.3	2.9	5.5																				
EK083S	3/8 ODF	3.7	4.5	4.9	4.8	3.3	6.3																				
EK084	1/2 SAE	5.5	6.7	7.3	7.1	4.9	9.4																				
EK084S	1/2 ODF	5.8	7.1	7.7	7.5	5.1	9.9																				
EK162MF	1/4 Male/1/4 Fem SAE	1.9	2.3	2.5	2.4	1.7	3.2	601	526	664	611	657	561	548	434	515	355	627	608	536	477	458	504				
EK162	1/4 SAE	1.9	2.3	2.5	2.4	1.7	3.2																				
EK162S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	4.4																				
EK1625S	5/16 ODF	2.5	3.1	3.4	3.3	2.2	4.4																				
EK163	3/8 SAE	3.2	3.9	4.2	4.1	2.8	5.4																				
EK163S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	6.2																				
EK164	3/8 SAE	5	6.1	6.6	6.5	4.6	10.1	1104	971	938	854	919	785	765	607	715	465	876	850	991	884	638	702				
EK164S	1/2 ODF	7.0	8.5	9.2	9.0	6.2	11.9																				
EK165	5/8 SAE	8.0	9.7	10.5	10.3	7.0	13.5																				
EK165S	5/8 ODF	8.3	10.1	10.9	10.7	7.3	14.1																				
EK167S	7/8 ODF	12.7	15.5	16.8	16.5	11.2	21.7																				
EK303	3/8 SAE	3.5	4.3	4.7	4.6	3.1	6.1																				
EK303S	3/8 ODF	5.2	6.3	6.8	6.7	4.6	8.8	2368	2159	2159	2019	2159	1880	1810	1460	1460	1111	2019	2019	2229	2019	1578	1730				
EK304	1/2 SAE	6.6	8.1	8.8	8.6	5.9	11.4																				
EK304S	1/2 ODF	8.2	10.0	10.8	10.6	7.2	13.9																				
EK305	5/8 SAE	8.7	10.6	11.5	11.3	7.7	14.8																				
EK306S	3/4 ODF	12.1	14.8	16.0	15.7	10.7	20.6																				
EK307S	7/8 ODF	13.8	16.8	18.2	17.9	12.2	23.5																				
EK309S	1 1/8 ODF	16.1	19.6	21.2	20.8	14.2	27.3																				
EK413	3/8 SAE	3.5	4.3	4.7	4.6	3.1	6.1																				
EK414	1/2 SAE	8.5	10.4	11.3	11.1	7.5	14.6																				
EK414S	1/2 ODF	8.9	10.8	11.7	11.5	7.8	15.1																				
EK415	5/8 SAE	9.8	12.0	13.0	12.8	8.7	16.8																				
EK417S	7/8 ODF	16.6	20.3	22.0	21.6	14.7	28.4																				
EK419S	1 1/8 ODF	22.7	27.7	30.0	29.4	20.1	38.7																				
EK757S	7/8 ODF	18.2	22.2	24.1	23.6	16.1	31.1																				
EK759S	1 1/8 ODF	26.8	32.7	35.4	34.8	23.7	45.7																				

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature

5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507, R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12

³ 20 drops of water = 1 gram = 1 cc
⁴ For 2 PSI ΔP, Multiply values by 1.4

⁵ Since there is currently no ARI standard for R-744, values are based on 1 ton of refrigeration at 20°F liquid refrigerant temperature and -20°F saturated vapor temperature.

EK Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/R-507		R-502		R-744	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	20°F	-20°F
03	2.9	2.6	2.6	2.3	2.6	2.3	2.5	2.1	2.3	1.9	2.3	1.9	2.7	2.3	2.1	2.3
05	6.5	5.9	6.0	5.4	5.9	5.3	5.6	4.9	5.3	4.4	5.2	4.4	6.0	5.3	4.8	5.3
08	8.3	7.6	7.6	6.9	7.5	6.8	7.2	6.3	6.7	5.7	6.6	5.6	7.7	6.8	6.1	6.7
16	10.2	9.4	9.4	8.6	9.3	8.4	8.9	7.8	8.3	7.0	8.2	6.9	9.5	8.4	7.5	8.3
30	28.7	26.3	26.4	23.9	26.1	23.5	24.9	21.9	23.3	19.6	22.9	19.4	26.7	23.4	21.1	23.4
41	40.0	36.4	36.9	33.1	36.4	32.5	34.7	30.3	32.5	27.2	31.9	26.8	37.2	32.4	29.2	32.4
75	72.4	66.3	66.7	60.3	65.8	59.2	62.8	55.2	58.7	49.5	57.7	48.9	67.2	59.0	53.1	58.9

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ADK Filter Drier



The ADK is a solid core liquid line filter drier good for use with CFC, HCFC, and HFC refrigerants.

Features:

- Solid copper connections
- High moisture and acid removal capacity
- Corrosion resistant epoxy powder paint finish
- Copeland® products approved for POE oils

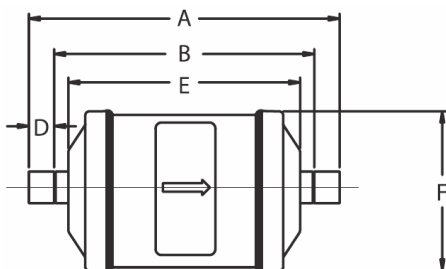
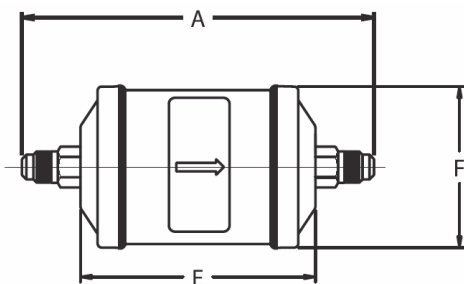
Specifications

- Desiccant Blend: optimized for high water capacity and acid capacity
- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Nomenclature example: ADK083S

ADK	08	3	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Dimensional Data



Part Number	Connection Size	Dimensions (In)					Average Weight (lbs)
		A	B	D	E	F1	
ADK032	1/4 SAE	4.38			2.57	2.57	0.51
ADK032S	1/4 ODF	3.83	2.71	0.56	2.57	2.57	0.51
ADK033	3/8 SAE	4.69			2.57	2.57	0.51
ADK033S	3/8 ODF	4.03	2.79	0.62	2.57	2.57	0.51
ADK052	1/4 SAE	4.84			3.03	3.03	1.05
ADK052S	1/4 ODF	4.17	3.48	0.35	3.03	3.03	1.05
ADK053	3/8 SAE	5.15			3.03	3.03	1.05
ADK053S	3/8 ODF	4.49	3.25	0.62	3.03	3.03	1.05
ADK082	1/4 SAE	5.66			3.85	3.85	1.25
ADK082S	1/4 ODF	4.99	4.29	0.35	3.85	3.85	1.25
ADK083	3/8 SAE	5.97			3.85	3.85	1.25
ADK083S	3/8 ODF	5.30	4.07	0.62	3.85	3.85	1.25
ADK084	1/2 SAE	6.19			3.85	3.85	1.25
ADK084S	1/2 ODF	5.35	4.09	0.63	3.85	3.85	1.25
ADK162S	1/4 ODF	5.35	4.66	0.35	4.78	4.78	1.53
ADK162	1/4 SAE	6.59			4.78	4.78	1.53
ADK163	3/8 SAE	6.90			4.78	4.78	1.53
ADK163S	3/8 ODF	6.23	5	0.62	4.78	4.78	1.53
ADK164	1/2 SAE	7.12			4.78	4.78	1.53
ADK164S	1/2 ODF	6.28	5.07	0.60	4.78	4.78	1.53
ADK165	5/8 SAE	7.58			4.78	2.64	1.53
ADK165S	5/8 ODF	6.55	5.09	0.73	4.78	2.64	1.53
ADK303	3/8 SAE	9.66			7.54	3.14	3.11
ADK303S	5/8 ODF	9.01	8.2	0.40	7.54	3.14	3.11
ADK304	1/2 SAE	9.88			7.54	3.14	3.11
ADK304S	1/2 ODF	9.10	8.1	0.50	7.54	3.14	3.11
ADK305	5/8 SAE	10.34			7.54	3.14	3.11
ADK305S	5/8 ODF	9.32	8.07	0.63	7.54	3.14	3.11
ADK307S	7/8 ODF	9.90	8.4	0.75	7.54	3.14	3.11
ADK309S	1-1/8 ODF	10.26	8.448	0.90	7.54	3.14	3.11
ADK413	3/8 SAE	9.82			7.70	3.64	3.78
ADK414	1/2 SAE	10.04			7.70	3.64	3.78
ADK414S	1/2 ODF	9.26	8.26	0.50	7.70	3.64	3.78
ADK415	5/8 SAE	10.50			7.70	3.64	3.78
ADK415S	5/8 ODF	9.48	8.23	0.63	7.70	3.64	3.78
ADK417S	7/8 ODF	10.06	8.56	0.75	7.70	3.64	3.78
ADK419S	1-1/8 ODF	10.42	8.60	0.91	7.70	3.64	3.78
ADK757S	7/8 ODF	15.55	14.05	0.75	13.19	3.64	6.53
ADK759S	1-1/8 ODF	15.91	14.10	0.90	13.19	3.64	6.53

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ADK Filter Drier Capacity Tables

Description	Connection	Flow Capacity Tons @ 1 psi ΔP ^{1,4} (For kW, multiply tons by 3.5)							Water Capacity ² Drops of Water ³															
									R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502		R-744	
		R-12	R-134a	R-22	R-410A	R-407C	R-404A/507	R-744	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	10°F	25°F	
ADK032	1/4 SAE	1.6	1.9	2.1	2.1	2.0	1.4	2.7	70	74	68	69	63	57	46	47	36	76	72	71	63	58	64	
ADK032S	1/4 ODF	1.9	2.3	2.5	2.5	2.4	1.7	3.2																
ADK033	3/8 SAE	2.2	2.7	2.9	2.9	2.9	2.0	3.7																
ADK033S	3/8 ODF	2.5	3.0	3.3	3.3	3.2	2.2	4.3																
ADK052	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	2.8	185	195	180	180	130	150	120	125	95	200	190	185	165	144	169	
ADK052S	1/4 ODF	2.4	2.9	3.1	3.1	3.1	2.1	4.0																
ADK053	3/8 SAE	3.0	3.7	4.0	4.0	3.9	2.7	5.2																
ADK53S	3/8 ODF	3.7	4.5	4.9	4.9	4.8	3.3	6.3																
ADK082	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	2.8	250	265	245	250	225	205	165	170	130	275	260	255	230	198	233	
ADK082S	1/4 ODF	2.5	3.1	3.4	3.4	3.3	2.2	4.4																
ADK083	3/8 SAE	3.5	4.3	4.7	4.7	4.6	3.1	6.1																
ADK083S	3/8 ODF	3.4	4.2	4.6	4.6	4.5	3.0	5.9																
ADK084	1/2 SAE	5.5	6.7	7.3	7.3	7.1	4.9	9.4	365	390	360	265	330	300	240	250	190	400	380	375	335	328	386	
ADK084S	1/2 ODF	5.7	7.0	7.6	7.6	7.4	5.1	9.8																
ADK162	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	2.8																
ADK163	1/4 SAE	3.6	4.4	4.8	4.8	4.7	3.2	6.2																
ADK163S	3/8 ODF	4.0	4.9	5.3	5.3	5.2	3.6	6.8	820	865	800	810	740	675	540	555	420	895	845	835	745	676	796	
ADK164	1/2 SAE	6.8	8.3	9.0	9.0	8.8	6.0	11.6																
ADK164S	1/2 ODF	7.1	8.6	9.3	9.3	9.1	6.2	12.0																
ADK165	5/8 SAE	9.7	11.8	12.8	12.8	12.5	8.6	16.5																
ADK165S	5/8 ODF	10.7	13.1	14.2	14.2	13.9	9.5	18.3	1120	1210	1100	1140	1010	945	740	780	580	1260	1156	1170	1020	900	1060	
ADK167S	7/8 ODF	13.1	16.0	17.3	17.3	17.0	11.8	22.3																
ADK303	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	6.6																
ADK304	1/2 SAE	7.1	8.6	9.3	9.3	9.1	6.2	12.0																
ADK304S	1/2 ODF	7.2	8.8	9.5	9.5	9.4	6.4	12.3	1985	2100	1940	1956	1800	1635	1635	1350	1030	2170	2050	2025	1800	1750	2060	
ADK305	5/8 SAE	11.3	13.8	15.0	15.0	14.7	10.0	19.4																
ADK305S	4/8 ODF	11.9	14.5	15.7	15.7	15.4	10.5	20.3																
ADK306S	3/4 ODF	13.0	15.8	17.1	17.1	16.8	11.5	22.1																
ADK307S	7/8 ODF	14.3	17.4	18.9	18.9	18.5	12.6	24.4																
ADK309S	1 1/8 ODF	20.4	24.9	27.0	27.0	26.5	18.0	34.8																
ADK413	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	6.6																
ADK414	1/2 SAE	8.0	9.8	10.6	10.6	10.4	7.1	13.7																
ADK414S	1/2 ODF	8.8	10.7	11.6	11.6	11.4	7.8	15.0																
ADK415	5/8 SAE	12.8	15.6	16.9	16.9	16.6	11.3	21.8																
ADK415S	5/8 ODF	13.5	16.5	17.9	17.9	17.5	12.0	23.1																
ADK417S	7/8 ODF	16.6	20.3	22.0	22.0	21.7	14.7	28.4																
ADK419S	1 1/8 ODF	20.7	25.2	27.3	27.3	26.8	18.3	35.2																
ADK757S	7/8 ODF	28.0	34.2	37.1	37.1	36.3	24.8	47.9																
ADK759S	1 1/8 ODF	30.6	37.3	40.4	40.4	39.6	27.0	52.1																

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507,
R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12

³ 20 drops of water = 1 gram = 1 cc
⁴ For 2 PSI ΔP, Multiply values by 1.4

⁵ Since there is currently no ARI standard for R-744, values are based on 1 ton of refrigeration at 20°F liquid refrigerant temperature and -20°F saturated vapor temperature.

ADK Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502		R-744	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	20°F	-20°F
03	2.4	2.2	2.2	2.0	2.2	2.0	2.1	1.9	2.0	1.7	1.9	1.7	2.7	2.3	1.8	2.0
05	5.9	6.0	5.5	5.5	5.4	5.4	5.2	5.0	4.8	4.5	4.7	4.5	6.0	5.3	4.9	5.4
08	8.0	7.4	7.4	6.7	7.3	6.6	7.0	6.2	6.5	5.5	6.4	5.5	7.7	6.8	5.9	6.5
16	14.5	12.5	13.4	11.4	13.2	11.2	12.6	10.4	11.7	9.4	11.6	9.3	9.5	8.4	10.1	11.2
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	17.4	14.9	17.4	14.7	26.7	23.4	16.0	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	37.2	32.4	21.4	23.8
75	52.8	48.3	48.6	43.9	48.0	43.1	45.8	40.2	42.8	36.0	42.1	35.6	67.2	59.0	38.7	42.9

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

BFK Liquid Line Bi-Directional Filter Drier



R-410A

The BFK is a solid core, bi-directional, liquid line filter drier for heat pump applications for use with CFC, HCFC, and HFC refrigerants.

Features:

- Available 5 to 30 cu. in. size
- Internal check valves allow flow and filtration in either direction, eliminates need for external check valves
- High moisture and acid removal capacity
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE oils

Specifications

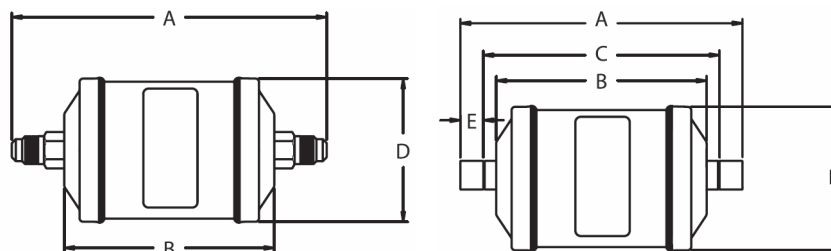
- Desiccant Blend: optimized for high water capacity and acid capacity
- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Nomenclature example: BFK 16S5

BFK	16	5	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Part Number	Connection Size & Type	Dimensions (In)					Average Weight (lbs)
		A	B	C	D	E	
BFK052	1/4 SAE	4.84	3.03		2.64		0.99
BFK052S	1/4 ODF	4.16	3.03	3.47	2.64	0.35	0.99
BFK053	3/8 SAE	5.15	3.03		2.64		0.99
BFK053S	3/8 ODF	4.49	3.03	3.25	2.64	0.62	0.99
BFK083	3/8 ODF	5.96	3.84		2.64		0.99
BFK083S	3/8 ODF	5.31	3.84	4.50	2.64	0.40	0.99
BFK084	3/8 ODF	6.184	3.84		2.64		0.99
BFK084S	1/2 ODF	5.40	3.84	4.40	2.64	0.50	0.99
BFK085	5/8 SAE	6.64	3.84		2.64		0.99
BFK085S	5/8 ODF	5.62	3.84	4.37	2.64	0.63	0.99
BFK163	3/8 SAE	6.824	4.70		3.14		2.08
BFK163S	3/8 SAE	6.17	4.70	5.37	3.14	0.40	2.08
BFK164	1/2 SAE	7.04	4.70		3.14		2.08
BFK164S	1/2 ODF	6.26	4.70	5.26	3.14	0.50	2.08
BFK165	5/8 SAE	7.50	4.70		3.14		2.08
BFK165S	5/8 ODF	6.48	4.70	5.23	3.14	0.63	2.08
BFK167S	7/8 ODF	7.06	4.70	5.56	3.14	0.75	2.08
BFK303S	3/8 ODF	9.01	7.55	7.77	3.14	0.62	0.35
BFK304	1/2 SAE	9.89	7.55		3.14		0.35
BFK304S	1/2 ODF	9.05	7.55	7.79	3.14	0.63	0.35
BFK305	5/8 SAE	10.35	7.55		3.14		0.35
BFK305S	5/8 ODF	9.32	7.55	7.81	3.14	0.63	0.35
BFK306S	3/4 ODF	9.74	7.55	7.83	3.14	0.96	0.35
BFK307S	7/8 ODF	9.91	7.55	7.79	3.14	1.06	0.35
BFK309S	1-1/8 ODF	10.27	7.55	7.98	3.14	1.14	0.35

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

BFK Liquid Line Bi-Directional Filter Drier Capacity Tables

Description	Connection	Flow Capacity Tons @ 1 psi ΔP ^{1,4} (For kW, multiply tons by 3.5)				Water Capacity ² Drops Of Water ³							
						R-22		R-407C		R-410A		R-744	
		R-22	R-410A	R-407C	R-744	75°F	125°F	75°F	125°F	75°F	125°F	-10°F	25°F
BFK-05 2	1/4 SAE	1.6	1.6	1.6	2.1	73	66	58	42	39	35	81	89
BFK-05 2S	1/4 ODF	2.2	2.2	2.2	2.8								
BFK-05 3	3/8 SAE	3.5	3.5	3.4	4.5								
BFK-05 3S	3/8 ODF	4.0	4.0	3.9	5.2								
BFK-08 3	3/8 SAE	4.5	4.5	4.4	5.8	159	144	106	79	85	75	136	150
BFK-08 3S	3/8 ODF	5.1	5.1	5.0	6.6								
BFK-08 4	1/2 SAE	6.4	6.4	6.3	8.3								
BFK-08 4S	1/2 ODF	6.7	6.7	6.6	8.6								
BFK-08 5	5/8 SAE	7.2	7.2	7.0	9.3								
BFK-08 5S	5/8 ODF	8.1	8.1	7.9	10.4								
BFK-16 3	3/8 SAE	4.6	4.6	4.5	5.9	323	294	237	179	178	160	221	260
BFK-16 3S	3/8 ODF	5.2	5.2	5.1	6.7								
BFK-16 4	1/2 SAE	7.7	7.7	7.6	9.9								
BFK-16 4S	1/2 ODF	8.1	8.1	7.9	10.4								
BFK-16 5	5/8 SAE	8.3	8.3	8.1	10.7								
BFK-16 5S	5/8 ODF	8.7	8.7	8.5	11.2								
BFK-30 3S	3/8 ODF	5.8	5.8	5.7	7.5	585	532	452	345	415	293	453	533
BFK-30 4	1/2 SAE	7.6	7.6	7.5	9.8								
BFK-30 4S	1/2 ODF	9.7	9.7	9.5	12.5								
BFK-30 5	5/8 SAE	10.3	10.3	10.1	13.3								
BFK-30 5S	5/8 ODF	14.2	14.2	13.9	18.3								
BFK-30 6S	3/4 ODF	16.0	16.0	15.7	20.6								
BFK-30 7S	7/8 ODF	16.7	16.7	16.4	21.5								
BFK-30 9S	1 1/8 ODF	18.0	18.0	17.5	23.2								

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature

5°F saturated vapor temperature

3.1 lbs./min./ton for R-134a

2.9 lbs./min./ton for R-22 and R-407C

4.0 lbs./min./ton for R-404A/507 and R-12

2.7 lbs./min./ton for R-410A

⁵ Since there is currently no ARI standard for R-744, values are based on 1 ton of refrigeration at 20°F liquid refrigerant temperature and -20°F saturated vapor temperature.

² Water Capacities are based on:

Equilibrium Point Dryness (EPD) of:

50 parts per million for R-134a, R404-

A/507, R-410A and R-407C

60 parts per million for R-22

15 parts per million for R-12

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP, Multiply values by 1.4

BFK Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-22		R-407C		R-410A		R-744	
	75°F	125°F	75°F	125°F	75°F	125°F	20°F	-20°F
05	4.6	4.2	4.4	3.9	4.1	3.5	3.7	4.1
08	7.7	6.9	7.3	6.4	6.9	5.8	6.2	6.9
16	14.2	12.7	13.5	11.8	12.6	10.6	11.4	12.7
30	21.0	18.7	20.0	17.4	19.6	16.5	16.8	18.7

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

BOK-HH Liquid Line Burnout Filter Drier



The BOK-HH is a liquid line filter drier for burnout clean-up and wax removal. The BOK-HH incorporates an activated carbon blended solid core for the effective clean-up of systems following a severe burnout.

Features

- Designed for maximum effectiveness in the clean-up of systems following a severe burnout
- Corrosion resistant epoxy powder paint finish
- Activated carbon blend for soluble contaminant and wax removal
- Solid copper connections
- R-410A compatible

Specifications

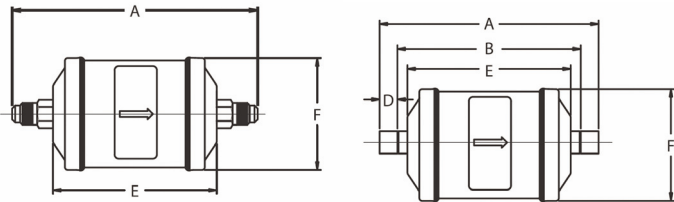
- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Nomenclature example: BOK 305S-HH

BOK	30	5	S	HH
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)	Activated carbon Blend

Part Number	Connection Size & Type	Dimensions (In)				F1	Weight (lbs)
		A	B	D	E		
BOK082	1/4 SAE	5.63	-	-	3.94	2.94	1.00
BOK082S	1/4 ODF	5.00	4.31	0.38	3.81	2.63	1.00
BOK083	3/8 SAE	5.94	-	-	3.94	2.94	1.00
BOK162	1/4 SAE	6.44	-	-	3.94	2.94	1.00
BOK163	3/8 SAE	6.75	-	-	3.94	2.94	1.00
BOK163S	3/8 ODF	6.13	5.25	0.94	4.63	2.88	2.00
BOK164	1/2 SAE	6.94	-	-	4.63	2.88	2.00
BOK164S	1/2 ODF	6.19	5.16	0.50	4.63	2.88	2.00
BOK165	5/8 SAE	7.44	-	-	4.63	2.88	2.00
BOK165S	5/8 ODF	6.38	5.13	0.63	7.50	3.06	3.75
BOK303	3/8 SAE	9.63	-	-	7.50	3.06	3.75
BOK304	1/2 SAE	9.88	-	-	7.50	3.06	3.75
BOK304S	1/2 ODF	9.13	8.13	0.50	7.50	3.06	3.75
BOK305	5/8 SAE	10.31	-	-	7.50	3.06	3.75
BOK305S	5/8 ODF	9.31	8.06	0.63	7.50	3.06	3.75
BOK414	1/2 SAE	10.00	-	-	7.63	3.69	4.75
BOK415	5/8 SAE	9.25	8.25	0.50	7.63	3.69	4.75
BOK417S	7/8 ODF	10.44	-	-	7.63	3.69	4.75
BOK415S	5/8 ODF	9.25	8.25	0.50	7.63	3.69	4.75

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

BOK-HH Capacity Tables

BOK-HH Liquid Line Burnout Filter Drier

Description	Connections	Flow Capacity Tons @ 1 psi ΔP ^{1,4} (For kW, multiply tons by 3.5)							Water Capacity ² Drops of Water ³															
		R-12	R-134a	R-22	R-410A	R-407C	R-404A/ R-507	R-744	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502		R-744	
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	10°F	250°F			
BOK082-HH	1/4 SAE	1.2	1.5	1.6	1.6	1.6	1.1	2.1	180	118	88	71	78	59	74	45	66	38	93	71	109	79	51	63
BOK082SH	1/4 ODF	-	3.1	3.4	3.4	3.3	2.2	4.4	-	-														
BOK083-HH	3/8 SAE	3.2	3.9	4.2	4.2	4.1	2.8	5.4	180	118														
BOK083SH	3/8 ODF	-	4.2	4.6	4.6	4.5	3.0	5.9	-	-														
BOK162-HH	1/4 SAE	1.2	1.5	1.6	1.6	1.6	1.1	2.1	209	143	171	141	153	117	91	56	77	41	182	141	135	100	93	113
BOK163-HH	3/8 SAE	3.6	4.3	4.7	4.7	4.6	3.1	6.1																
BOK163S-HH	3/8 ODF	4.8	5.8	6.3	6.3	6.2	4.2	8.1																
BOK164-HH	1/2 SAE	7.0	8.6	9.3	9.3	9.1	6.2	12.0																
BOK164S-HH	1/2 ODF	8.4	10.2	11.1	11.1	10.9	7.4	14.3																
BOK165-HH	5/8 SAE	10.5	12.8	13.9	13.9	13.6	9.3	17.9																
BOK165S-HH	5/8 ODF	10.5	12.8	13.9	13.9	13.6	9.3	17.9																
BOK303-HH	3/8 SAE	3.6	4.3	4.7	4.7	4.6	3.1	6.1																
BOK304-HH	1/2 SAE	8.1	9.9	10.7	10.7	10.5	7.2	13.8																
BOK304S-HH	1/2 ODF	8.9	10.8	11.7	11.7	11.5	7.8	15.1																
BOK305-HH	5/8 SAE	11.1	13.5	14.6	14.6	14.3	9.8	18.8	552	367	300	245	267	204	234	146	160	94	318	247	342	249	167	203
BOK305S-HH	5/8 ODF	12.0	14.6	15.8	15.8	15.5	10.6	20.4																
BOK414-HH	1/2 SAE	8.4	10.2	11.1	11.1	10.9	7.4	14.3																
BOK415-HH	5/8 SAE	13.4	16.3	17.7	17.7	17.4	11.8	22.8																
BOK415S-HH	5/8 ODF	13.4	16.3	17.7	17.7	21.1	14.4	22.8	623	410	427	344	379	282	256	155	220	125	454	342	380	274	249	305
BOK417S-HH	7/8 ODF	16.3	19.8	21.5	21.5	21.1	14.4	27.7																

¹ All ratings in accordance with ARI Standard 710-04.

86°F liquid refrigerant temperature

5°F saturated vapor temperature

3.1 lbs./min./ton for R-134a

2.9 lbs./min./ton for R-22 and R-407C

4.0 lbs./min./ton for R-404A/507 and R-12

2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404A/507, R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP , Multiply values by 1.4

⁵ Since there is currently no ARI standard for R-744, values are based on 1 ton of refrigeration at 20°F liquid refrigerant temperature and -20°F saturated vapor temperature.

BOK-HH Liquid Refrigerant Holding Capacity - Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/R-507		R-502		R-744	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	20°F	-20°F
03	2.9	2.6	2.6	2.3	2.6	2.3	2.5	2.1	2.3	1.9	2.3	1.9	2.7	2.3	2.1	2.3
05	6.5	5.9	6.0	5.4	5.9	5.3	5.6	4.9	5.3	4.4	5.2	4.4	6.0	5.3	4.8	5.3
08	8.3	7.6	7.6	6.9	7.5	6.8	7.2	6.3	6.7	5.7	6.6	5.6	7.7	6.8	6.1	6.7
16	10.2	9.4	9.4	8.6	9.3	8.4	8.9	7.8	8.3	7.0	8.2	6.9	9.5	8.4	7.5	8.3
30	28.7	26.3	26.4	23.9	26.1	23.5	24.9	21.9	23.3	19.6	22.9	19.4	26.7	23.4	21.1	23.4
41	40.0	36.4	36.9	33.1	36.4	32.5	34.7	30.3	32.5	27.2	31.9	26.8	37.2	32.4	29.2	32.4
75	72.4	66.3	66.7	60.3	65.8	59.2	62.8	55.2	58.7	49.5	57.7	48.9	67.2	59.0	53.1	58.9

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ALF Liquid Filter

AC&R Components



The ALF is a liquid line refrigerant filter for recovery, recycle and reclaim usage. The ALF is also used for protecting solenoid and expansion valve parts from debris.

- Features:**
- Filtering media that maximizes removal of finer particles
 - Corrosion resistant epoxy powder paint finish

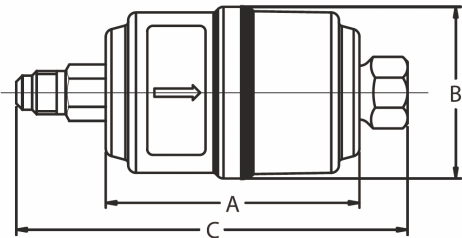
- Specifications**
- Filtration: 40 microns
 - Maximum working pressure: 680 psig
 - UL/CUL file number: SA 3124

Nomenclature example: ALF 033S

ALF	03	3	S
Series	Unit Size	Connection Size Inlet (in 1/8")	Connection Style S = ODF Omit for SAE

Part Number	Connection Size Inlet/Outlet	Dimensions (In)		
		A	B	C
ALF032S	1/4 ODF	-	-	3.88
ALF032MF	1/4 SAE Male In, 1/4 SAE Female Out	-	-	4.00
ALF033S	3/8 ODF	-	-	4.00
ALF034S	1/2 ODF	-	-	4.13
ALF052	1/4 SAE	3.00	2.63	4.88

¹ Does not include weld bead
Standard Product Offering



Recovery, Recycle and Reclaim Refrigerant Flow Capacity (lbs./min. liquid)		
R-134A	R-22/R-410A	R-404A/R-507
7.6	8.0	8.0

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

SPUN Copper CU Series Liquid Line Filter Drier



The CU series is a high capacity spun copper solid core Filter Drier ideal for superior corrosion resistance in ocean going vessels and coastal applications.

Features:

- All copper construction for extreme corrosion resistance
- 100% molecular sieve solid core drier
- For use with CFC, HCFC and HFC refrigerants

Nomenclature example: CU 163S

CU	16	3	S
Series	Unit Size	Connection Size (in 1/8")	ODF

Ordering Information and Capacity Tables

Part Number	Connection	Maximum working pressure	Filtration	UL/CUL file number
CU032S	1/4 ODF	500 psig	40 microns	SA 7175
CU033S	3/8 ODF	500 psig	40 microns	SA 7175
CU083S	3/8 ODF	500 psig	40 microns	SA 7175
CU163S	3/8 ODF	500 psig	40 microns	SA 7175

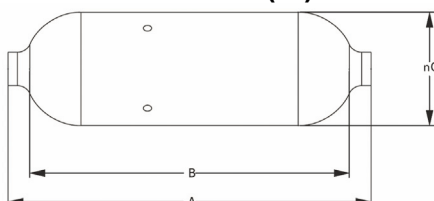
Part No.	Flow Capacity Tons @ 1 psi ΔP ¹ , 4 (For kW, multiply tons by 3.5)					Water Capacity ² Drops of Water ³											
						R-12		R-134a		R-22		R-407C		R-404A/R		R-502	
						75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
CU032S	1.4	1.7	1.8	1.8	1.2	96	87	93	87	87	81	72	57	96	93	90	81
CU033S	2.1	2.6	2.8	2.7	1.9												
CU083S	2.9	3.5	3.8	3.7	2.5	212	191	205	191	191	177	156	122	212	205	198	177
CU163S	3.3	4.0	4.3	4.2	2.9	287	257	277	257	257	237	207	158	287	277	267	237

¹ All ratings in accordance with ARI Standard 710-04. 86° F liquid refrigerant temperature
5° F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507,
R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12

³ 20 drops of water = 1 gram = 1 cc
⁴ For 2 PSI ΔP, Multiply values by 1.4

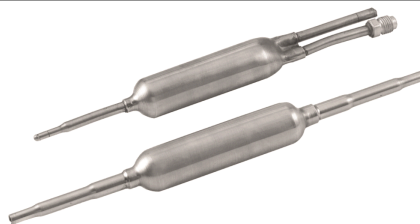
Dimensional Data (in)



Description	Overall Length (A)	Lay-In Dimension (B)	Diameter
CU 03	3.94	3.25	1.63
CU 05	5.19	4.50	1.63
CU 08	6.06	5.38	2.00
CU 16	6.63	6.00	2.00

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTOR

SPUN Copper CU Series Liquid Line Filter Drier



Recommended for use in original equipment or replacement residential, air-conditioning or refrigeration equipment.

Features:

- All copper construction for extreme corrosion resistance
- 100% molecular sieve solid core drier
- For use with CFC, HCFC and HFC refrigerants

Ordering Information and Capacity Tables

Part Number	Parker Equivalent	Connections		Maximum working Pressure	Filtration
		Inlet	Outlet		
CU-80	MMS-80	1/4 ODF	1/4 ODF	500 psig	SA 7175
CU-619	620-SP	1/4 ODF	Cap	500 psig	SA 7175
CU-620	620	5/16 ODF	Cap	500 psig	SA 7175
CU-621	621	5/16 ODF	Cap	500 psig	SA 7175
CU-200	MMS-200	5/16 ODF, 3/8 ODF	5/16 ODF, 3/8 ODF	500 psig	SA 7175
CU-319	319	5/16 ODF	Cap	500 psig	SA 7175

Part No.	Flow Capacity Tons @ 1 psi ΔP ₁ , 4 (For kW, multiply tons by 3.5)			Water Capacity ² Drops of Water ³					
				R-134a		R-22		R-404A/R-507	
	R-12/R-134a	R-22/R-410A	R-404A/R-507	75°F	125°F	75°F	125°F	75°F	125°F
CU-80	0.33	0.5	0.33	25	23	25	22	23	23
CU-619	0.5	0.5	1.5	25	23	25	22	23	23
CU-620	1.0	2.0	1.0	50	46	50	44	46	46
CU-621	0.5	0.5	1.5	50	46	50	44	46	46
CU-200	0.75	1.0	0.75	50	46	50	44	46	46
CU-319	1.0	2.0	1.0	75	66	75	66	69	69

1 All ratings in accordance with ARI Standard 710-04.86° F liquid refrigerant temperature 50F saturated vapor temperature

3.1 lbs./min./ton for R-134a

2.9 lbs./min./ton for R-22 and R-407C

4.0 lbs./min./ton for R-404A/507 and R-12

2.7 lbs./min./ton for R-410A

2 Water Capacities are based on:

Equilibrium Point Dryness (EPD) of:

50 parts per million for R-134a, R404-A/507,

R-410A and R-407C

60 parts per million for R-22

15 parts per million for R-12

3 20 drops of water = 1 gram = 1 cc

4 For 2 PSI ΔP, Multiply values by

1.4

Description	Length	Diameter
CU-80	7-3/8	3/4
CU-619	8-7/8	3/4
CU-620	9-1/2	1
CU-621	9	1
CU-200	10-1/2	1
CU-319	9-3/4	1-3/16

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

STAS Steel Liquid & Suction Line Filter Drier

Ordering Information



The STAS is a replaceable core filter drier for CFC, HCFC, and HFC refrigerants for use in large commercial air conditioning and refrigeration systems.

Features

- Slotted cover/unique internal hardware for hassle-free installation
- Full flow fittings for low pressure drop
- Corrosion resistant epoxy powder paint finish
- Sturdy steel shells for long life
- Solid copper connections
- 100 mesh outlet screen

Specifications

- Filtration (with core): 40 microns
- Maximum working pressure: SV version = 500 psig T version = 680 psig
- UL/CUL file number: SA7175

Nomenclature example: STAS 489T

STAS	48	9	T
Steel Take-Apart Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	System Service T = Liquid Line Service SV = Suction Line Service

Part Number	Connection Size	Number Of 48 in3	Desiccant Volume (Cu. In.)	Dimensions (in)			
				A	B	C	D
STAS485T	5/8 ODF	1	48	9.94	6.00	3.78	0.63
STAS487T	7/8 ODF	1	48	9.69	6.25	3.75	0.78
STAS489T	1-1/8 ODF	1	48	9.75	6.31	3.84	0.94
STAS4811T	1-3/8 ODF	1	48	9.84	6.44	3.97	0.94
STAS4813SV*	1-5/8 ODF	1	48	9.88	6.02	4.03	1.13
STAS4817SV*	2-1/8 ODF	1	48	10.06	6.56	4.56	1.34
STAS4821SV*	2-5/8 ODF	1	48	10.44	7.03	4.75	1.04
STAS4813T	1-5/8 ODF	1	48	9.88	6.50	4.03	1.13
STAS4811SV	1-3/8 ODF	1	48	9.84	6.44	3.97	0.94
STAS967T	7/8 ODF	2	96	15.19	11.72	3.75	0.78
STAS969T	1-1/8 ODF	2	96	15.22	11.78	3.84	0.94
STAS9611T	1-3/8 ODF	2	96	15.31	11.91	3.97	1.03
STAS9613T	1-5/8 ODF	2	96	15.38	11.97	4.03	1.13
STAS9617T	2-1/8 ODF	2	96	15.56	12.03	4.56	1.34

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

STAS Steel Liquid & Suction Line Filter Drier

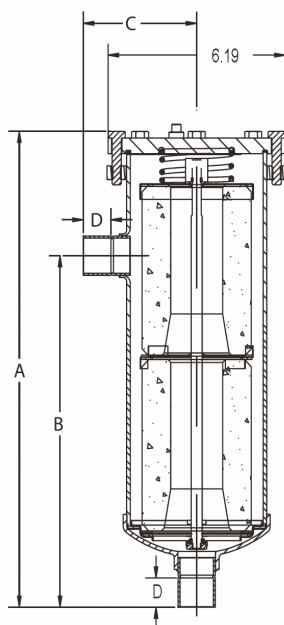
Ordering Information

Part Number	Connection Size	Number Of 48 in3	Desiccant Volume (Cu. In.)	Dimensions (in)			
				A	B	C	D
STAS9617SV*	2-1/8 ODF	2	96	15.56	12.03	4.56	1.34
STAS9621SV*	2-5/8 ODF	2	96	15.94	12.50	4.75	1.50
STAS9625SV*	3-1/8 ODF	2	96	16.54	12.63	5.44	1.66
STAS1449T	1-1/8 ODF	3	144	21.25	17.38	3.84	0.94
STAS14411T	1-3/8 ODF	3	144	21.34	17.53	3.97	1.03
STAS14413T	1-5/8 ODF	3	144	21.38	17.59	4.03	1.13
STAS14417T	2-1/8 ODF	3	144	21.56	17.63	4.56	1.34
STAS19211T	1-3/8 ODF	4	192	26.91	23.00	3.97	1.03
STAS19213T	1-5/8 ODF	4	192	26.94	23.17	4.03	1.13
STAS19217T	2-1/8 ODF	4	192	27.13	23.13	4.56	1.34
STAS-1927/5T	7/8 x 5/8	4	192	26.50	6.00	3.69	0.78/0.63

**SV" style include stainless steel bolts and access valve.

Note: "T" style can be used for suction by removing pipe plug and installing X-11562-2.
Standard Product Offering

STAS Models are shipped without filter or filter drier cores. See filter or filter drier cores for availability.



Description	Connections	Liquid Flow Capacity Tons @ 1 psi ΔP ^{1, 2, 3}						
		R-12	R-134a	R-22	R-407C	R-404A/507	R-502	R-410A
STAS-485T	5/8 ODF	16	21	22	21	15	14	22
STAS-487T	7/8 ODF	29	38	41	39	27	25	41
STAS-489T	1 1/8 ODF	42	53	58	56	38	36	58
STAS-4811T	1 3/8 ODF	48	75	81	78	53	41	81
STAS-4813T	1 5/8 ODF	67	81	89	85	58	58	89
STAS-967T	7/8 ODF	33	42	45	43	30	27	45
STAS-969T	1 1/8 ODF	49	65	71	68	47	42	71
STAS-9611T	1 3/8 ODF	62	80	87	83	57	54	87
STAS-9613T	1 5/8 ODF	67	92	100	95	65	58	100
STAS-1449T	1 1/8 ODF	48	66	72	69	47	41	72
STAS-14411T	1 3/8 ODF	69	92	100	96	65	60	100
STAS-14413T	1 5/8 ODF	77	93	101	97	66	66	101
STAS-14417T	2 1/8 ODF	88	110	120	115	78	76	120
STAS-19211T	1 3/8 ODF	75	94	102	98	67	64	102
STAS-19213T	1 5/8 ODF	81	103	113	108	74	69	113
STAS-19217T	2 1/8 ODF	91	113	123	117	80	78	123

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature

- 5°F saturated vapor temperature
- 3.1 lbs./min./ton for R-134a
- 2.9 lbs./min./ton for R-22 and R-407C
- 4.0 lbs./min./ton for R-404A/507 and R-12

² For 2 PSI ΔP, Multiply values by 1.4

STAS Replacement Parts

Flange Cover Assembly

Part Number	Description
X12176-3	All STAS Driers - Include Flange Cover, Compression Spring, Pipe Plug, and Grade 5 Bolts

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

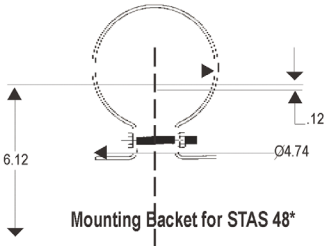
STAS Replacement Parts

Shell Strainer Assembly

Part Number	Description
X27458-1	STAS-48
X27458-2	STAS-96
X27458-3	STAS-144
X27458-4	STAS-192

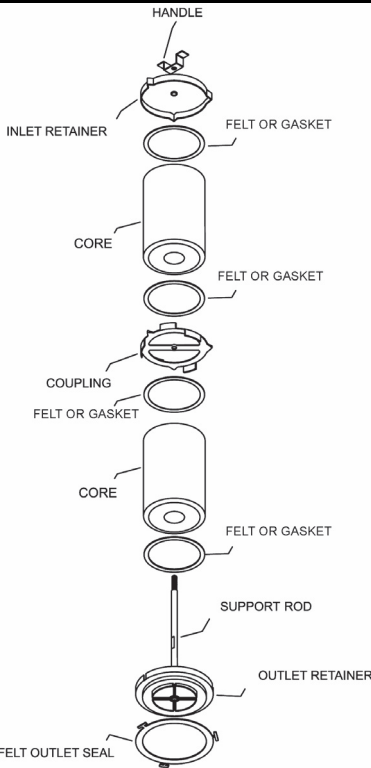
Miscellaneous Parts

Part Number	Description
X25787-7	Cover Bolts (Stainless Steel - suctionline service)
X11562-2	Access Valve (V Option)
X11983-1	Gasket Set (Includes cover gasket)
26446-1	Handle
26477-1	Inlet Retainer
26439-1	Spring
X28747-1	Mounting Bracket



*More than one mounting bracket may be required for shell sizes 96 and above

STAS Exploded View



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

BTAS Brass Take-Apart Suction Line Filter Drier



The BTAS is a replaceable core filter drier for suction line services ideal for commercial refrigeration applications.

- Features**
- Full flow fittings for low pressure drop
 - Corrosion resistant brass body with stainless steel bolts
 - Special cartridge design exclusive to brass shell

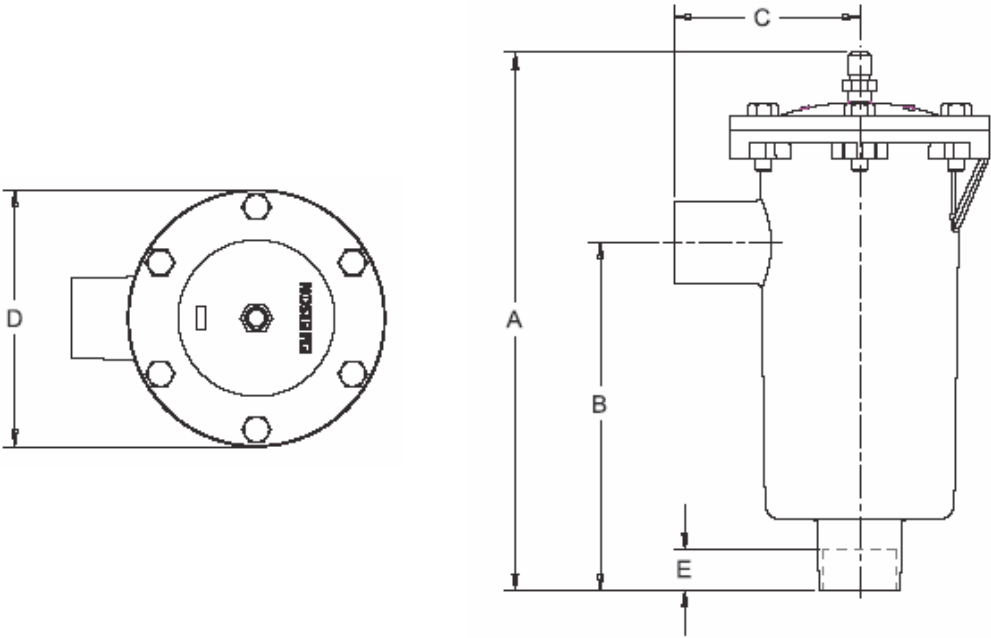
- Specifications**
- Filtration: 40 microns
 - Maximum working pressure: 400 psig
 - UL/CUL file number: SA 3124

Nomenclature example: BTAS 311SV

BTAS	3	11	SV
Brass Take-Apart Series	Unit Size	Connection Size (in 1/8")	Suction Line Service

Part Number	Connection Size	Nominal Shell Size (in)	Dimensions (in)					Weight (lbs)
			A	B	C	D	E	
BTAS27SV	7/8 ODF	2	9.75	6.57	2.19	3.75	0.75	6.75
BTAS39SV	1-1/8 ODF	3	10.31	6.81	3.31	4.63	0.91	10.25
BTAS311SV	1-3/8 ODF	3	11.06	6.94	3.44	4.63	0.97	10.50
BTAS313SV	1-5/8 ODF	3	11.25	7.13	3.63	4.63	1.09	11.00
BTAS317SV	2-1/8 ODF	3	11.50	7.38	3.88	4.63	1.34	11.20
BTAS411SV	1-3/8 ODF	4	11.41	7.81	4.13	5.75	0.78	16.20
BTAS413SV	1-5/8 ODF	4	12.03	7.81	4.13	5.75	1.09	16.75
BTAS417SV	2-1/8 ODF	4	12.28	8.06	4.13	5.75	1.34	17.20
BTAS421SV	2-5/8 ODF	4	12.41	8.19	4.94	5.75	1.47	18.00
BTAS517SV	2-1/8 ODF	5	13.44	8.41	4.19	7.09	1.34	28.75
BTAS521SV	2-5/8 ODF	5	13.56	8.47	4.94	7.09	1.47	29.00
BTAS525SV	3-1/8 ODF	5	13.25	8.16	4.63	7.09	1.66	29.25

Dimensional Data



BTAS models are shipped without filter cartridge or Filter Drier cartridge.

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

BTAS Brass Take-Apart Suction Line Filter Drier

Type A-F Replaceable Filter Cartridges

Filter Core Part Number	For Shell No.	Core O.D.	Core Length	Filter Area (Sq. In.)	Weight (lbs)
A2F	BTAS-2	1-29/32	6-3/8	66	0.33
A3F	BTAS-3	2-3/4	6-7/8	115	0.50
A4F	BTAS-4	3-3/4	7-1/2	189	0.88
A5F	BTAS-5	4-5/16	8-1/2	270	1.00

Type A-F-D Replaceable Filter Drier Cartridges

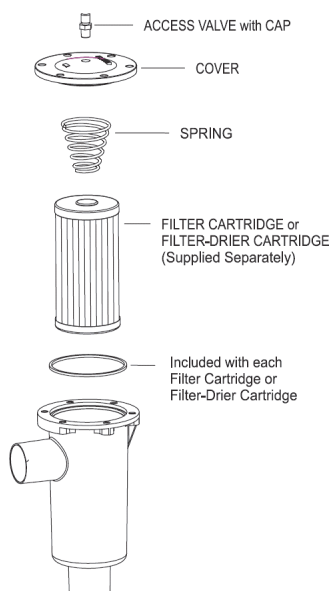
Filter Drier Cartridge Part Number	For Shell No.	Cartridge O.D.	Cartridge Length	Desiccant Volume (Cu. In.)	Weight (lbs)
A2FD	BTAS-2	1-29/32	6-3/8	4.2	0.50
A3FD	BTAS-3	2-3/4	6-7/8	13.3	0.88
A4FD	BTAS-4	3-3/4	7-1/2	26.0	1.20
A5FD	BTAS-5	4-5/16	8-1/2	36.5	1.20

BTAS Replacement Parts*

Part Number	Misc. Parts	Description
X11562-2	Access Valve	X11562-2
ALC-065970	BTAS 2 Repair Kit*	KD-30519-2
ALC-065971	BTAS 3 Repair Kit*	KD-30519-3
ALC-065972	BTAS 4 Repair Kit*	KD-30519-4
ALC-065973	BTAS 5 Repair Kit*	KD-30519-5
ALC-066430	BTAS 2 Seal Ring Kit	KD-40015-1
ALC-066431	BTAS 3 Seal Ring Kit	KD-40015-2
ALC-066432	BTAS 4 Seal Ring Kit	KD-40015-3
ALC-066433	BTAS 5 Seal Ring Kit	KD-40015-4

* Repair kits contain cover bolts, cover, spring and seal ring.

Exploded View



BTAS models are shipped without filter cartridge or Filter Drier cartridge.

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ASD Premium Suction Line Filter Drier



The ASD is a premium suction line filter drier for use with CFC, HCFC and HFC refrigerants. The ASD is optimized for high moisture, acid, and solid contaminant removal.

Features

- Outstanding filtration for ultimate compressor protection
- Dual access valves for easy pressure readings
- Solid copper connections
- Corrosion resistant epoxy powder paint finish

Specifications

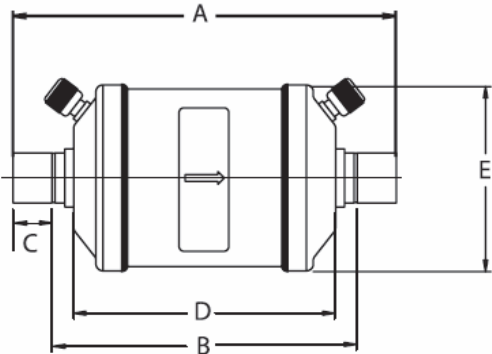
- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

Nomenclature example: ASD 35S5VV

ASD	35	S	5	VV
Series	Unit Size (in cu. in.)	Connections S = ODF F = SAE	Connection Size (in 1/8")	Dual Access Valves

Part Number	Connection Size	Dimensions (in)					Weight (lbs)
		A	B	C	D	E	
ASD28F3VV	3/8 SAE	5.59	--	0.044	4.13	3.69	2.00
ASD28S3VV	3/8 ODF	5.59	4.72	0.44	4.13	3.69	2.00
ASD28S4VV	1/2 ODF	5.69	4.69	0.50	4.13	3.69	2.00
ASD35F5VV	5/8 SAE	7.56	--	--	4.75	3.69	2.50
ASD35S5VV	5/8 ODF	6.22	5.28	0.63	4.75	3.69	2.50
ASD45S6VV	3/4 ODF	7.75	6.50	0.63	5.56	3.69	3.00
ASD45S7VV	7/8 ODF	7.94	6.44	0.75	5.56	3.69	3.00
ASD50S9VV	1-1/8 ODF	8.84	7.03	0.91	6.13	3.69	3.50
ASD75S11VV	1-3/8 ODF	12.25	10.31	0.97	8.25	3.69	5.00
ASD75S13VV	1-5/8 ODF	12.16	9.91	1.13	8.25	3.69	5.00

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

SFD Suction Line Filter Drier



The SFD is a standard suction line filter drier for use after a burnout or when major work has been performed. It is for use with CFC, HCFC and HFC refrigerants.

Features

- Solid copper connections
- Dual access valves for easy pressure readings
- Corrosion resistant epoxy powder paint finish
- R-410A compatible

Specifications

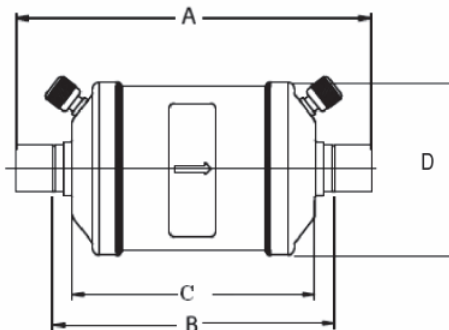
- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

Nomenclature example: SFD 13S5-VV

SFD	13	S	5	VV
Series	Unit Size (in cu. in.)	Connections S = ODF F = SAE	Connection Size (in 1/8")	Dual Access Valves

Part Number	Connection Size	Dimensions (in)				Weight (lbs)
		A	B	C	D	
SFD08S4VV	1/2 ODF	4.94	3.94	3.38	3.14	2
SFD08S5VV	5/8 ODF	5.16	3.91	3.38	3.14	2
SFD08S6VV	3/4 ODF	5.56	4.31	3.38	3.14	2
SFD13F3VV	3/8 SAE	5.5	N/A	3.38	3.64	2
SFD13S3VV	3/8 ODF	4.84	3.97	3.38	3.64	2
SFD13F4VV	1/2 ODF	4.94	3.94	3.38	3.64	2
SFD13S4VV	1/2 SAE	5.75	N/A	3.38	3.64	2
SFD13F5VV	5/8 SAE	6.13	N/A	3.38	3.64	2
SFD13S5VV	5/8 ODF	5.16	3.91	3.38	3.64	2
SFD13S6VV	3/4 ODF	5.25	4	3.38	3.64	2
SFD13S7VV	7/8 ODF	5.75	4.25	3.38	3.64	2
SFD27S6VV	3/4 ODF	7	5.75	5.13	3.64	3
SFD27S7VV	7/8 ODF	7.5	6	5.13	3.64	3
SFD27S9VV	1-1/8 ODF	7.63	5.81	5.13	3.64	3
SFD54S11VV	1-3/8 ODF	12.25	10.31	8.25	3.64	4.5
SFD54S13VV	1-5/8 ODF	12.16	9.91	8.25	3.64	4.5

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

CSFD Compact Suction Line Filter Drier



The CSFD has a compact solid desiccant core perfect for short lay-in applications. The CSFD is used for moisture, acid and solid contaminant removal. It is for use with CFC, HCFC and HFC refrigerants.

Features

- Dual access valves for easy pressure readings
- High acid removal capacity
- Solid copper fittings for easiest brazing
- Corrosion resistant epoxy powder paint finish

Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

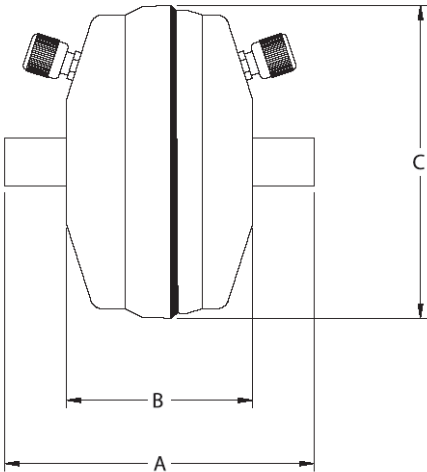
Nomenclature example: CSFD 14S4-VV

CSFD	14	S	4	VV
Series	Unit Size	Connections S = ODF	Connection Size (in 1/8")	Dual Access Valves

Part Number	Connection Size	Dimensions (in)		
		A	B	C
CSFD14S4VV	1/2 ODF	4.25	2.75	4.63
CSFD14S5VV	5/8 ODF	4.50	2.75	4.63
CSFD14S6VV	3/4 ODF	4.38	2.75	4.63
CSFD14S7VV	7/8 ODF	4.56	2.75	4.63
CSFD14S9VV*	1-1/8 ODF	4.88	2.75	4.63

* 400 psig Maximum Working Pressure

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ASK-HH Suction Line Filter Drier



The ASK utilizes a solid core with an activated carbon blend to maximize acid, moisture and wax removal. It is for use with CFC, HCFC and HFC refrigerants.

Features

- Dual access valves for easy pressure readings
- Corrosion resistant epoxy powder paint finish
- Activated carbon blend for soluble contaminant and wax
- Solid copper connections

Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

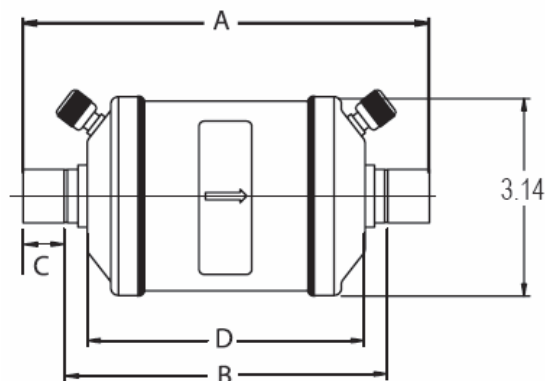
Nomenclature example: ASK 165S-VV-HH

ASK	16	5	S	VV	HH
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	Connection S = ODF	Dual Access Valves	Charcoal Blend

Part Number	Connection Size	Dimensions (in)				Weight (lbs)
		A	B	C	D	
ASK165SVV	5/8 ODF	6.38	5.13	0.63	4.63	2.00
ASK166SVV	3/4 ODF	6.75	5.50	0.38	4.63	2.00
ASK167SVV	7/8 ODF	6.94	5.26	0.75	4.63	2.00
ASK306SVV	3/4 ODF	9.69	8.56	0.63	7.50	3.75
ASK307SVV	7/8 ODF	9.88	8.38	0.75	7.50	3.75
ASK309SVV	1-1/8 ODF	10.19	8.38	0.94	7.50	3.75

Dimension does not include weld bead

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ASF Suction Line Filter



The ASF is a specifically designed filter to protect the compressor from dirt and all solid contaminants.

Features

- Dual access valves for easy pressure readings
- Solid copper connections
- Corrosion resistant epoxy powder paint finish

Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

R-410A

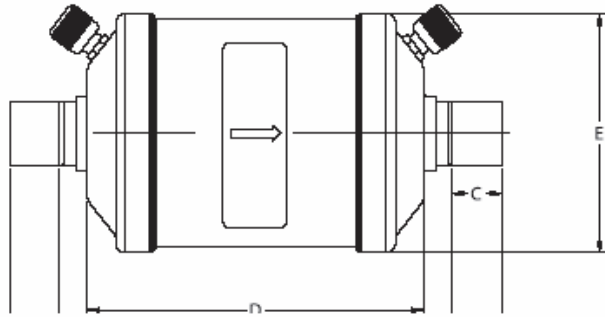
Nomenclature example: ASF 35S5-VV

ASF	35	S	5	VV
Series	Unit Size (in cu. in.)	Connections S = ODF F = SAE	Connection Size (in 1/8")	Dual Access Valves

Part Number	Connection Size	Dimensions (in)					Weight (lbs)
		A	B	C	D	E*	
ASF11S4	1/2 ODF	4.38	3.38	0.50	2.88	2.63	1.50
ASF11S5	5/8 ODF	4.63	3.38	0.63	2.88	2.63	1.50
ASF28S7	7/8 ODF	6.50	5.00	0.75	4.13	3.06	2.00
ASF28S7VV	1-1/8 ODF	7.41	5.61	0.91	4.13	3.06	2.00
ASF28S3VV	3/8 ODF	5.59	4.72	0.44	4.13	3.69	2.00
ASF28S4VV	1/2 ODF	5.69	4.69	0.50	4.13	3.69	2.00
ASF35F5VV	5/8 SAE	7.56	-	-	4.75	3.69	2.50
ASF35S5VV	5/8 ODF	6.53	5.28	0.63	4.75	3.69	2.50
ASF45F3VV	3/8 SAE	7.69	-	-	5.56	3.69	3.00
ASF45S6VV	3/4 ODF	7.75	6.50	0.63	5.56	3.69	3.00
ASF45S7VV	7/8 ODF	7.94	6.44	0.75	5.56	3.69	3.00
ASF50S9VV	1-1/8 ODF	8.84	7.03	0.91	6.13	5.00	3.50
ASF64S17V	2-1/8 ODF	11.75	9.06	1.31	7.63	5.00	3.50
ASF64S21V	2-5/8 ODF	13.00	10.00	1.50	7.88	5.00	3.50
ASF75S11VV	1-3/8 ODF	12.25	10.31	0.97	8.25	5.00	5.00
ASF75S13VV	1-5/8 ODF	12.16	9.91	1.13	8.25	5.00	5.00

* Dimension does not include weld bead

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

ADP Pulsation Dampener/Muffler



The APD series is designed to reduce noise and vibration on the compressor discharge lines.

Features

- Compact size
- Full flow fittings
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Rugged steel shells for vibration resistance
- Shock resistant steel shell construction

R-410A

Specifications

- Maximum working pressure: 680 psig
- Operating Range: -40°F to +250°F
- UL/CUL file number: SA 5760

Nomenclature example: APD 053 SB

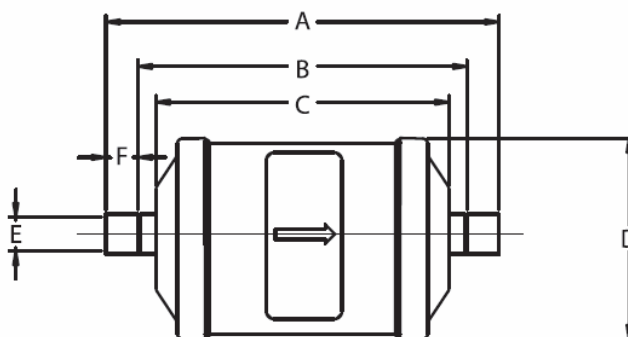
APD	05	3	S	B
Pulsation Dampener	Cubic Inches	Fitting Size in 1/8"	ODF Fittings	With Baffles (omit for standard)

Flow Capacity

Fitting Size	Tons
1/4	1-5
3/8	5-10
1/2	10-20
5/8	15-25
7/8	25-35
1 1/8	35+

Part Number	Dimensions (in)						Description
	A	B	C	D	E	F	
ALC-061862	6.00	5.00	4.47	3.02	0.50	0.50	APD 1R
ALC-049651	4.56	3.56	3.00	2.63	0.50	0.50	APD 054 S-B
ALC-059144	6.25	5.38	4.75	2.63	0.38	0.38	APD 163 S
ALC-060119	6.56	5.31	4.75	2.63	0.63	0.63	APD 165 S-B
ALC-056989	10.25	8.44	7.50	3.13	1.13	0.88	APD 309 S

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

HMI Hermetic Moisture Indicators



The HMI is designed to provide an accurate method of determining the moisture content of a system's refrigerant. The HMI has a unique high accuracy moisture indicator for CFC, HCFC, and HFC refrigerants.

Features

- Highest sensitivity moisture indicator available
- Hermetic, leak-free construction
- Single indicator for all common refrigerants
- Accurate color calibration at low ppm levels and higher temperatures
- Wide angle viewing/high visibility window for ease of monitoring
- All brass corrosion resistant body for fewer leaks
- Solid copper connections

Specifications

- Maximum working pressure: 680 psig
- UL/CUL file number: SA 9566

Nomenclature example: HMI 1TT4

HMI	1	TT	4
Hermetic Moisture Indicator	Series	Connection Style TT = Sweat x Sweat	Connection Size (in 1/8")

Part Number	Series	Connection Size
HMI-1MM2	Male Flare x Male Flare	1/4
HMI-1MM3	Male Flare x Male Flare	3/8
HMI-1MM4	Male Flare x Male Flare	1/2
HMI-1MM5	Male Flare x Male Flare	5/8
HMI-1MM6	Male Flare x Male Flare	3/4
HMI-1TT2	Sweat x Sweat (ODF)	1/4
HMI-1TT3	Sweat x Sweat (ODF)	3/8
HMI-1TT4	Sweat x Sweat (ODF)	1/2
HMI-1TT5	Sweat x Sweat (ODF)	5/8
HMI-1TT6	Sweat x Sweat (ODF)	3/4
HMI-1TT7	Sweat x Sweat (ODF)	7/8
HMI-1TT9	Sweat x Sweat (ODF)	1-1/8
HMI-1FM2	Female Flare x Male Flare	1/4
HMI-1FM3	Female Flare x Male Flare	3/8
HMI-1FM4	Female Flare x Male Flare	1/2
HMI-1TT2MF	Sweat x Sweat (ODM x ODF)	1/4
HMI-1TT3MF	Sweat x Sweat (ODM x ODF)	3/8
HMI-1TT4MF	Sweat x Sweat (ODM x ODF)	1/2
HMI-1TT5MF	Sweat x Sweat (ODM x ODF)	5/8

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

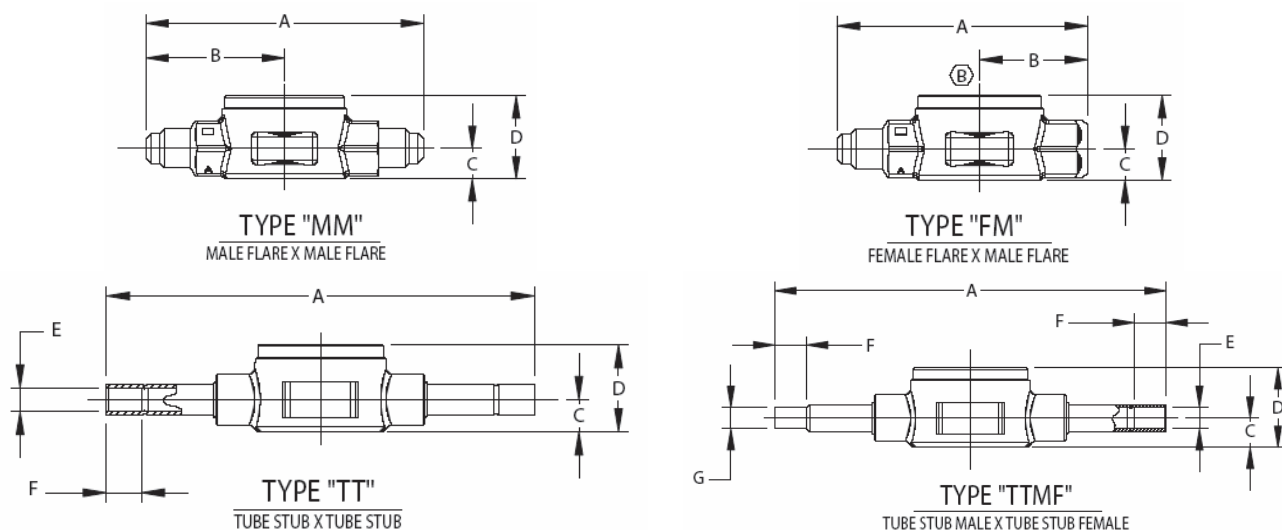
HMI Hermetic Moisture Indicators

Moisture Content Color Code (ppm H₂O)

Indication Liquid Temperature	Dry (Dark Blue)			Caution (Purple)			Wet (Salmon)		
	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F
R-12	1.4	2.5	4	5	9	15	25	43	70
R-134A	20	35	60	35	55	85	130	160	190
R-22	25	35	50	40	65	90	145	205	290
R-407C	26	40	64	42	68	109	150	230	370
R-410A	30	55	75	50	85	120	165	290	420
R-404A/507	15	25	45	33	50	80	120	150	180

Indication Liquid Temperature	Dry (Dark Blue)				Caution (Purple)				Wet (Salmon)			
	-40°F	-4°F	32°F	68°F	-40°F	-4°F	32°F	68°F	-40°F	-4°F	32°F	68°F
R-744	3	6	11	20	5	10	19	34	16	32	63	116

Dimensional Data



Dimensional Data (in)

Type Number	Connection Size	A	B	C	D	E	F Min	G
HMI - 1MM2	1/4 SAE	3.13	1.56	0.34	0.94			
HMI - 1MM3	3/8 SAE	3.38	1.69	0.34	0.94			
HMI - 1MM4	1/2 SAE	3.62	1.81	0.47	1.19			
HMI - 1MM5	5/8 SAE	3.88	1.94	0.47	1.19			
HMI - 1MM6	3/4 SAE	5.00	2.50	0.59	1.53			
HMI - 1FM2	1/4 SAE FM	2.75	1.19	0.34	0.94			
HMI - 1FM3	3/8 SAE FM	3.00	1.31	0.47	1.19			
HMI - 1FM4	1/2 SAE FM	3.22	1.41	0.47	1.19			
HMI - 1TT2	1/4 ODF	5.56		0.34	0.94	0.25	0.38	
HMI - 1TT3	3/8 ODF	5.61		0.34	0.94	0.38	0.40	
HMI - 1TT4	1/2 ODF	5.87		0.47	1.19	0.50	0.50	
HMI - 1TT5	5/8 ODF	5.87		0.61	1.19	0.63	0.63	
HMI - 1TT6	3/4 ODF	6.56		0.61	1.50	0.75	0.63	
HMI - 1TT7	7/8 ODF	6.31		0.61	1.50	0.88	0.75	
HMI - 1TT9	1 1/8 ODF	6.59		0.67	1.37	1.13	0.90	
HMI - 1TT2MF	1/4 ODM x 1/4 ODF	5.56		0.34	0.94	0.25	0.38	0.25
HMI - 1TT3MF	3/8 ODM x 3/8 ODF	5.61		0.34	0.94	0.38	0.38	0.38
HMI - 1TT4MF	1/2 ODM x 1/2 ODF	5.87		0.47	1.19	0.50	0.50	0.50
HMI - 1 TT5MF	5/8 ODM x 5/8 ODF	5.87		0.61	1.19	0.63	0.50	0.62

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

AMI Moisture Indicators



The AMI is designed to provide an accurate method of determining the moisture content of a system’s refrigerant. The AMI has a unique high accuracy moisture indicator for CFC, HCFC and HFC refrigerants. For the AMI-2 Series, see the bottom of the following page.

Features

- Highest sensitivity moisture indicator available
- Take-Apart design for easy repair
- Single indicator for all common refrigerants
- Accurate color calibration at low ppm levels and higher temperatures
- Wide angle viewing/high visibility window for ease of monitoring
- Solid copper connections

Specifications

- Maximum working pressure: 650 psig
- UL/CUL file number: SA 9566

R-410A

Nomenclature example: AMI 1SS4

AMI	1	SS	4
Moisture Indicator Series	Design Series 1 = standard connection 2 = bushing style	Connection Style TT = Sweat x Sweat	Connection Size (in 1/8")

Part Number	Extended Ends	Series	Connection Size
AMI1MM3		Male Flare x Male Flare	3/8
AMI1MM4		Male Flare x Male Flare	1/2
AMI1MM5		Male Flare x Male Flare	5/8
AMI1SS2		Sweat x Sweat (OD Female)	1/4
AMI1SS3		Sweat x Sweat (OD Female)	3/8
AMI1SS4		Sweat x Sweat (OD Female)	1/2
AMI1SS5		Sweat x Sweat (OD Female)	5/8
AMI1SS7		Sweat x Sweat (OD Female)	7/8
AMI1SS9		Sweat x Sweat (OD Female)	1-1/8
AMI1TT2	*	Sweat x Sweat (OD Female)	1/4
AMI1TT3	*	Sweat x Sweat (OD Female)	3/8
AMI1TT4	*	Sweat x Sweat (OD Female)	1/2
AMI1TT5	*	Sweat x Sweat (OD Female)	5/8
AMI1TT7	*	Sweat x Sweat (OD Female)	7/8
AMI1TT9	*	Sweat x Sweat (OD Female)	1-1/8
AMI1FM2		Female Flare x Male Flare	1/4
AMI1FM3		Female Flare x Male Flare	3/8
AMI1FM4		Female Flare x Male Flare	1/2

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

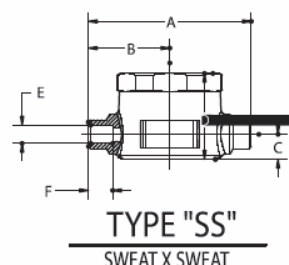
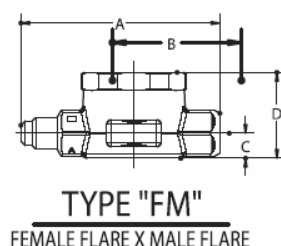
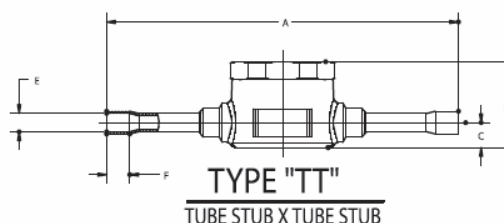
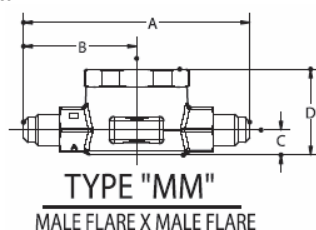
AMI Moisture Indicators

Moisture Content Color Code (ppm H₂O)

Indication Liquid Temperature	Dry (Dark Blue)			Caution (Purple)			Wet (Salmon)		
	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F
R-12	1.4	2.5	4	5	9	15	25	43	70
R-134A	20	35	60	35	55	85	130	160	190
R-22	25	35	50	40	65	90	145	205	290
R-407C	26	40	64	42	68	109	150	230	370
R-410A	30	55	75	50	85	120	165	290	420
R-404A/507	15	25	45	33	50	80	120	150	180

Indication Liquid Temperature	Dry (Dark Blue)				Caution (Purple)				Wet (Salmon)			
	-40°F	-4°F	32°F	68°F	-40°F	-4°F	32°F	68°F	-40°F	-4°F	32°F	68°F
R-744	3	6	11	20	5	10	19	34	16	32	63	116

AMI-1 Dimensional Data



AMI-1 Dimensional Data (in)

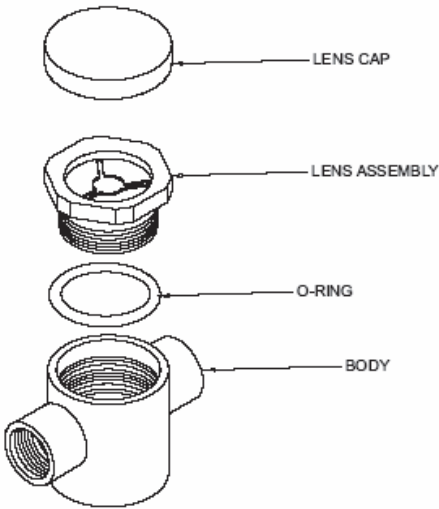
Description	Connection Size	A	B	C	D	E	F Min.
AMI-1MM2	1/4 SAE	3.13	1.56	0.34	1.19		
AMI-1MM3	3/8 SAE	3.38	1.69				
AMI-1MM4	1/2 SAE	3.63	1.81	0.47	1.44		
AMI-1MM5	5/8 SAE	3.88	1.94				
AMI-1FM2	1/4 SAE	2.75	1.19	0.34	1.19		
AMI-1FM3	3/8 SAE	3.00	1.31				
AMI-1FM4	1/2 SAE	3.22	1.41	0.47	1.44		
AMI-1SS2	1/4 ODF	2.25	1.13	0.34	1.19	0.25	0.32
AMI-1SS3	3/8 ODF					0.38	0.32
AMI-1SS4	1/2 ODF	2.63	1.31	0.47	1.44	0.50	0.38
AMI-1SS5	5/8 ODF					0.63	0.50
AMI-1SS7	7/8 ODF	3.13	1.56	0.61	1.75	0.88	0.76
AMI-1SS9	1 1/8 ODF	3.38	1.69	0.67	1.92	1.13	0.90
AMI-1TT2	1/4 ODF	4.89		0.34	1.19	0.25	0.32
AMI-1TT3	3/8 ODF					0.38	0.32
AMI-1TT4	1/2 ODF	4.92		0.47	1.44	0.50	0.38
AMI-1TT5	5/8 ODF	4.91				0.63	0.50
AMI-1TT7	7/8 ODF	6.36		0.61	1.75	0.88	0.76
AMI-1TT9	1 1/8 ODF	6.59		0.67	1.92	1.125	0.90
AMI-1TT11	1 3/8 ODF	6.94		1.00	2.39	1.38	1.3

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

AMI Moisture Indicators

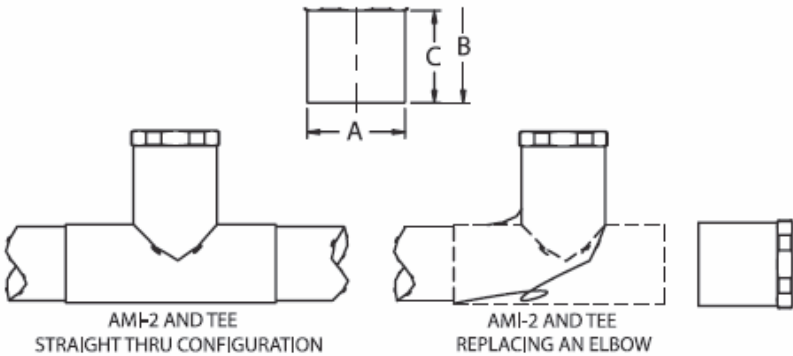
Replacement Parts For AMI

Part Number	Part
12740-1	Lenscap
ALC-PS1525-2	"O" Ring
X12978-1	Lens Assembly Kit (Consists of lens assembly, lens cap and "O" ring)



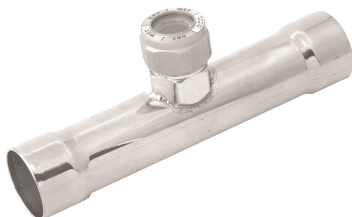
AMI-2 Series

Part Number	Connection Size	Dimensions (in)		
		A Dia.	B	C
AMI-257	7/8 ODM	0.88	1.34	1.00
AMI-259	1-1/8 ODM	1.13	1.25	1.00
AMI2S11	1-3/8 ODM	1.38	1.56	1.94
AMI2S13	1-5/8 ODM	1.63	1.69	1.44
AMI2S17	2-1/8 ODM	2.13	1.94	1.69



EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

A-IHL Moisture Indicators



The A-IHL saddle design moisture indicator is used for large diameter tubing in CFC, HCFC, and HFC refrigerants.

Features

- Saddle design
- Solid copper connections
- Replaceable moisture indicator
- Eliminates the need for bypass installation – positive reaction to system moisture levels

Specifications

- Maximum working pressure: 680 psig
- UL/CUL file number: SA 9566

Nomenclature example: A-IHL 9S

A-IHL	9	S
Series	Connection Size (in 1/8")	S = ODF

Part Number	Model	Connection Size	Overall Length
ALC-060853	A-IHL-9S	1-1/8 ODF	6.31
ALC-061030	A-IHL-11S	1-3/8 ODF	7.12
ALC-061031	A-IHL-13S	1-5/8 ODF	7.87
ALC-061032	A-IHL-17S	2-1/8 ODF	8.68

EMERSON CLIMATE TECHNOLOGIES - SYSTEM PROTECTORS

A-AS Suction Accumulators



The A-AS protects the compressor from liquid slugging and is used with CFC, HCFC, and HFC refrigerants. It is available for systems through 28 tons nominal capacity.

Features

- Designed to operate in a range of +40°F to -40°F evaporator temperature
- Fusible plug on larger diameter units
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Inlet deflector directs refrigerant flow to prevent internal splashing and aid in the collection of refrigerant oil

Specifications

- Maximum working pressure: 300 psig
- Fusible plug temperature: 430°F
- UL/CUL file number: SA 10225

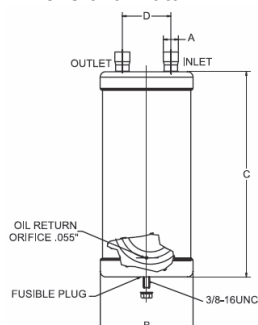
Nomenclature example: A-AS 3 125

A	AS	3	12	5
Series	Accumulator Suction	Diameter (in)	Height (in)	Fitting Size in 1/8"

Part Number	A Fitting Size (nominal)	B Diameter	C Height	D Fitting Separation	Weight (lbs)	Tons R-22 (+40°F)	Holding Capacity (lbs)		Description
							40°F Liquid R-22/R-134a	40°F Liquid R-404A/R-507	
ALC-060819	1/2	3.00	8.00	1.63	2.00	2.00	1.50	1.50	A-AS 3 84*
ALC-060963	5/8	3.00	10.00	1.63	2.40	3.00	2.00	2.00	A-AS 3 105*
ALC-060812	5/8	3.00	12.00	1.63	2.90	3.00	3.00	2.50	A-AS 3 125*
ALC-060813	3/4	3.00	12.00	1.63	2.90	4.00	3.00	2.50	A-AS 3 126*
ALC-060964	5/8	3.00	15.00	1.63	3.30	3.00	3.50	3.00	A-AS 3 145*
ALC-060965	3/4	3.00	14.00	1.63	3.30	4.00	3.50	2.75	A-AS 3 146*
ALC-060967	1/2	4.00	6.00	2.50	2.80	2.00	2.50	2.00	A-AS 4 64
ALC-060821	5/8	4.00	6.00	2.50	2.80	3.00	2.50	2.00	A-AS 4 65
ALC-060966	5/8	4.00	10.00	2.50	4.60	3.00	4.00	3.50	A-AS 4105
ALC-060820	3/4	4.00	10.00	2.50	4.60	4.00	4.00	3.50	A-AS 4 106
ALC-060824	3/4	5.00	9.00	2.75	5.10	4.00	6.00	5.50	A-AS 5 96
ALC-060818	7/8	5.00	9.00	2.75	5.10	7.30	6.00	5.50	A-AS 5 97
ALC-060822	3/4	5.00	12.00	2.75	6.60	4.00	8.00	7.50	A-AS 5 126
ALC-060823	7/8	5.00	12.00	2.75	6.60	7.30	8.00	7.50	A-AS 5 127
ALC-060814	7/8	5.00	13.00	2.75	7.10	7.30	8.50	8.00	A-AS 5 137
ALC-060815	1-1/8	5.00	13.00	2.75	7.10	11.80	8.50	8.00	A-AS 5 139
ALC-060817	1-1/8	5.00	17.00	2.75	8.40	11.80	12.00	10.00	A-AS 5 179
ALC-060816	1-3/8	5.00	17.00	2.75	8.40	18.80	12.00	10.00	A-AS 5 1711
ALC-060825	7/8	6.00	11.00	2.94	10.00	7.30	10.00	9.00	A-AS 6 117
ALC-060826	7/8	6.00	13.00	2.94	11.70	7.30	12.84	11.49	A-AS 6 137
ALC-060968	1-1/8	6.00	13.00	2.94	11.70	11.80	12.84	11.49	A-AS 6 139
ALC-060827	1-3/8	6.00	14.00	2.94	12.10	18.80	14.05	12.57	A-AS 6 1411
ALC-060969	1-5/8	6.00	17.00	2.94	15.40	28.50	17.32	15.49	A-AS 6 1713
ALC-060828	1-5/8	6.00	20.00	2.94	18.10	28.50	20.62	18.44	A-AS 6 2013
ALC-060970	1-5/8	6.00	25.00	2.94	22.60	28.50	25.81	23.08	A-AS 6 2513

*Not supplied with a fusible plug

Dimensional Data



EMERSON CLIMATE TECHNOLOGIES - ADKS LIQUID & SUCTION LINE FILTER DRIER

Ordering Information



The ADKS is a replaceable core filter drier for use with CFC, HCFC, and HFC refrigerants in very large commercial air conditioning and refrigerant systems.

Features:

- Full flow fittings for low pressure drop
- Corrosion resistant epoxy powder paint finish
- Sturdy steel shells for long life durability

Specifications

- Filtration (with core): 40 microns
- Maximum working pressure: 500 psig*
- UL/CUL file number: SA 3124
- Bolt Torque: 35 ft-lbs

*Note: Not suitable for R-410A applications above 500 psig.

Nomenclature example: ADKS 30013T

ADKS	300	13	T
System Protector Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	T = Tap Access Connection

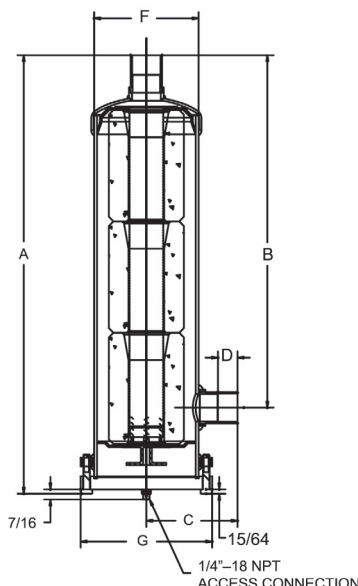
Part Number	Connection Size		Dimensions (in)						Weight (lbs)
			A	B	C	D	F*	G	
ADKS30013T	1-5/8 ODF	3	25.27	20.32	5.24	1.13	6.00	7.56	39.00
ADKS30017T	2-1/8 ODF	3	25.41	20.45	5.43	1.66	6.00	7.56	39.00
ADKS40017T	2-1/8 ODF	4	31.91	26.95	5.43	1.66	6.00	7.56	46.00
ADKS40021T	2-5/8 ODF	4	32.81	27.86	6.19	1.47	6.00	7.56	46.00

Does not include weld bead

"H" Dimension is the clearance required to change the internal hardware assembly

= 1/4" FPT access connection

Dimensional Data



ADKS Models are shipped without filter cores or filter drier cores. See filter or filter drier cores for availability.

Capacity Tables (in Tons)
Liquid Line for Replaceable Block Type ADKS Filter Driers

Description	Connection	Flow Capacity In Tons @ 1 psi ΔP 1, 2					
		R-12	R-134a	R-22/R-410A	R-407C	R-404/507	R-502
ADKS 30013T	1-5/8 ODF	83	102	110	108	73	49
ADKS 30017T	2-1/8 ODF	121	148	160	157	107	59
ADKS 40017T	2-1/8 ODF	128	157	170	167	114	63
ADKS 40021T	5/8 ODF	136	166	180	177	120	71

¹ All ratings in accordance with ARI Standard 710-04. 86oF liquid refrigerant temperature
5°F saturated vapor temperature

3.1 lbs./min./ton for R-134a

2.9 lbs./min./ton for R-22 and R-407C

4.0 lbs./min./ton for R-404A/507 and R-12

² For 2 PSI ΔP. Multiply values by 1.4

EMERSON CLIMATE TECHNOLOGIES - ADKS LIQUID & SUCTION LINE FILTER DRIER

Replacement Parts

Flange Cover

Part Number	Description
X12176-2	ADKS-300, ADKS-400

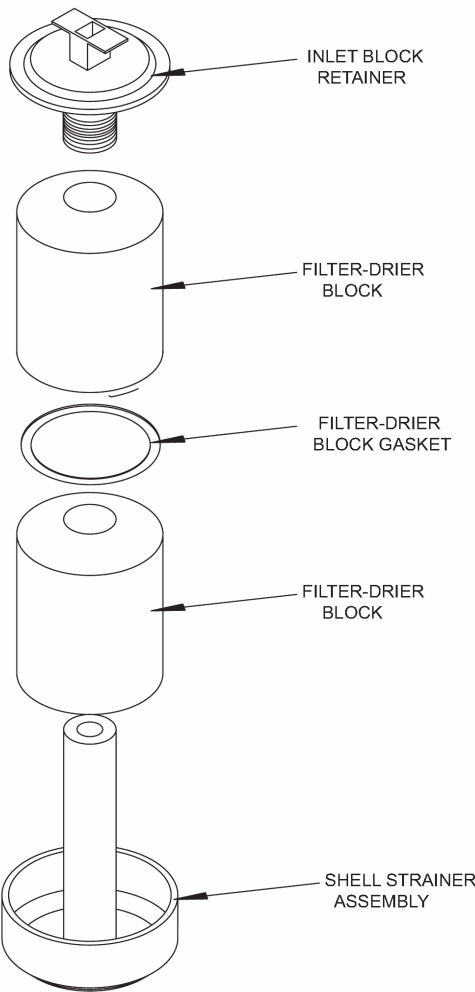
Shell Strainer Assembly

Part Number	Description
X10574-5	ADKS-300
X10574-6	ADKS-400

Miscellaneous Parts

Part Number	Description
X11983-2	Gasket Set (Includes cover gasket)

ADKS Exploded View



EMERSON CLIMATE TECHNOLOGIES - FILTER DRIER CORES & FILTERS



Universal replacement cores and filter cores for use in our ADKS and STAS shells and similar competitive Take-Apart type filter drier shells. May not be used for BTAS.

Features

- Water capacities to suit specific system conditions
- Exceptional acid capacities for normal system protection, or to effectively clean-up following a compressor burnout
- Activated carbon blend for soluble contaminant and wax removal (W-HH Series)

Specifications

- Interchangeable with competitive products

Nomenclature example: H 48

H	48
Series	Cubic Inch

Ordering Information and Capacity Tables

Part Number	Recommended Refrigerant Type	Function
D48	CFC, HCFC	High Acid Removal
H48	CFC, HCFC	High Acid and Water Removal
W48	CFC, HCFC, HFC	Burnout Cleanup
UK-48	CFC, HCFC, HFC	Universal Replacement
H100	CFC, HCFC	High Acid and Water Removal
HX48	CFC, HCFC, HFC	Highest Water Removal
UK-100	CFC, HCFC, HFC	Universal Replacement
W100HH	CFC, HCFC, HFC	Burnout Cleanup
F48	CFC, HCFC, HFC	Filter (Suction Only)
F48R	CFC, HCFC, HFC	Filter (Suction Only) Reverse Flow
F100	CFC, HCFC, HFC	Filter (Suction Only))
RH48	CFC, HCFC	Removal
RW48	CFC, HCFC	Cleanup

NOTE: Filter Drier cores are suitable for use with R-11 AND R-123 but filters are NOT.

NOTES: Filter drier cores are suitable for use with R-12 AND R-134a but filters are NOT.														
Part Number	Water Capacity1 Drops of Water2													
	R-12		R-134a		R-22		R-407C		R-404A/R-		R-410A		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
D48	810	453	415	340	363	254	225	95	457	343	210	86	388	225
H48	1020	688	676	538	597	436	445	285	721	535	380	226	643	475
W48	772	488	387	294	335	226	290	165	417	289	249	130	444	306
UK-48	1579	1319	1272	1168	1181	1072	1033	786	1319	1241	976	707	1332	1150
H100	1958	1225	1112	834	962	673	726	418	1199	839	672	364	1109	758
HX48	1742	1581	1710	1600	1600	1491	1459	1161	1765	1710	1280	930	1932	1744
UK-100	3204	2740	2769	2550	2574	2345	2182	1682	2868	2710	-	-	2787	2437
W100HH	1668	1054	1077	812	938	621	629	363	1162	792	573	307	960	663
F48	N/A													
F48R														
F100														
RH48	1020	688	1096	920	1037	790	750	530	1090	940	650	420	643	475
RW48	772	488	583	493	532	380	380	230	600	482	350	197	444	306

¹ Water Capacities are based on:

Equilibrium Point Dryness (EPD) of:

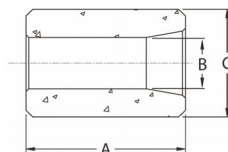
50 parts per million for R-134a, R404-A/R-410A and R-407C

60 parts per million for R-22

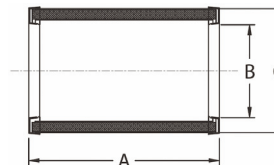
15 parts per million for R-12

² 20 drops of water = 1 gram = 1 cc

³ D-42, H-42 and W-42 include one neoprene composite lid gasket and one core gasket. All other cores include a universal neoprene composite gasket kit which includes 2 sizes of replacement lid gaskets, and gaskets for the top and bottom of the core or filter.



Filter Drier Block Size	Dimensions			Weight (lbs)
	A	B	C	
42	6.00	1.58	3.12	1.00
48	5.50	1.77	3.72	1.50



Catalog Number	Dimensions			Weight (lbs)
	A	B	C	
F	5.50	2.81	3.88	0.75
F	6.50	3.75	4.81	1.50

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

High Efficiency Centrifugal Oil Separator


R-410A

The High Efficiency Centrifugal Oil Separator is used in ultra-low temperature systems with long refrigerant lines or inherent oil return problems. It is also used on multiple compressor racks for supermarkets and air conditioning systems for use with CFCs, HCFCs, HFCs, and their lubricants. Suitable for use with R-410A.

Features

- Internal oil collection screen
- Hermetic welded or accessible bolted flange construction
- Corrosion resistant epoxy powder paint
- High efficiency (99%) centrifugal separation
- R-410A pressure rated

Specifications

- Maximum working pressure: 450 psi - flanged models*
600 psi - welded models*
- UL/CUL file number: SA8547

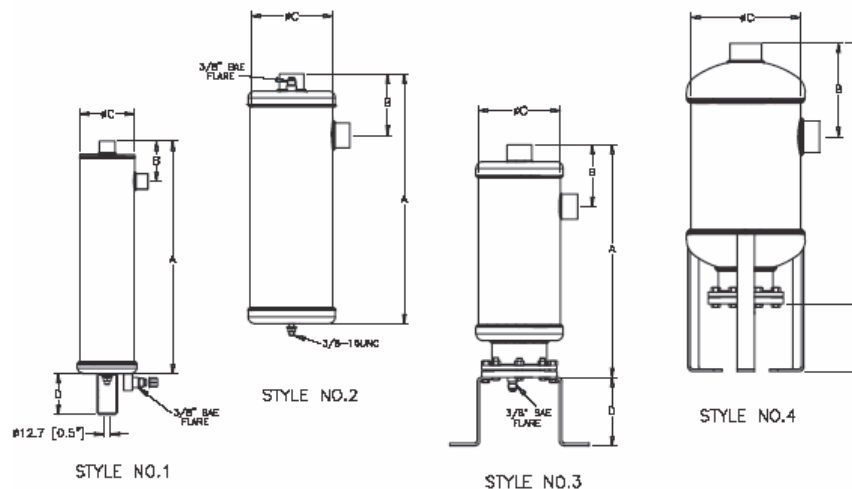
Nomenclature example: A-FC 8241717H

A	F	C	8	24	17	17	H
Series	F = Flanged W = Welded	Centrifugal	Diameter (in)	Length (in)	Inlet Connection in 1/8"	Outlet Connection in 1/8"	5" Legs Standard H = 10" Legs

Part Number	Solder Connection Size	Dimensions (in)				Description
		A	B	C	D	
ALC-065895	7/8	17.01	2.95	4.00	2.95	A-WC 41777
ALC-065896	1 1/8	19.02	3.07	4.00	2.95	A-WC 41999
ALC-066094	1 3/8	18.26	4.05	6.0	-	A-WC 6181111
ALC-066095	1 5/8	18.26	4.63	6.0	-	A-WC 6181313
ALC-066096	2 1/8	18.38	4.76	6.0	-	A-WC 6181717
ALC-065930	1 3/8	17.00	3.94	6.0	5.00	A-FC 6221111
ALC-065931	1 3/8	17.00	3.94	6.0	10.00	A-FC 6221111H
ALC-065362	1 5/8	17.00	4.53	6.0	5.00	A-FC 6221313
ALC-065932	1 5/8	17.00	4.53	6.0	10.00	A-FC 6221313H
ALC-065933	2 1/8	17.13	4.65	6.0	5.00	A-FC 6221717
ALC-065934	2 1/8	17.13	4.65	6.0	10.00	A-FC 6221717H
ALC-065276	2 1/8	19.06	6.83	8.0	5.00	A-FC 8241717
ALC-065935	2 1/8	19.06	6.83	8.0	10.00	A-FC 8241717H
ALC-065936	2 5/8	22.10	6.11	10.00	5.00	A-FC 10272121
ALC-065937	2 5/8	22.10	6.11	10.00	10.00	A-FC 10272121H
ALC-065938	3 1/8	25.10	7.05	12.00	10.00	A-FC 12302525H

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

High Efficiency Centrifugal Oil Separator



Capacity Table

Description	Solder Connection Size (ODF)	Syle Number	Shell O.D.	Maximum Capacity of Refrigeration at Evaporator Temperature																Oil Pre-Charge Amount (oz.)	Replaceable Float PCN		
				R-134a				R-22/407C				R-404A/507				R-410A							
				-40F		+40F		-40F		+40F		-40F		+40F		-40F		+40F					
				Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW				
A-WC 41777	7/8"	1	4"	4.5	16	5.6	19	7.1	25	8	28	6.3	22	8.3	29	11	38	12	43	14	N/A		
A-WC 41999	1 1/8"	2	6"	5.3	19	6.5	23	8.3	29	9.4	33	7.4	26	9.7	34	13	45	14	50	25			
A-WC 6181111	1 3/8"			8.5	30	10	37	13	46	15	53	12	41	16	54	20	71	23	80				
A-WC 6181313	1 5/8"			12	42	15	51	19	65	21	74	16	58	22	76	28	100	32	112				
A-WC 6181717	2 1/8"			14	48	17	58	21	74	24	84	19	66	25	87	32	114	37	129				
A-FC 6221111	1 3/8"	3	6"	12	42	15	51	19	65	21	74	16	58	22	76	Not Available						25	065847
A-FC 6221313	1 5/8"			14	48	17	58	21	74	24	84	19	66	25	87								
A-FC 6221313H	2 1/8"			14	50	17	61	22	77	25	88	20	69	26	91								
A-FC 6221717H				4	8"	23	80	28	97	35	124	40	140	31	110								
A-FC 8241717	10"	45	159			56	195	71	248	80	280	63	220	83	290								
A-FC 8241717H		2 5/8"	12"			72	253	88	309	112	393	127	445	100	349	131	460						
A-FC 10272121						3 1/8"	12"	72	253	88	309	112	393	127	445	100	349	131	460				
A-FC 10272121H		3 1/8"	12"	72	253			88	309	112	393	127	445	100	349	131	460						
A-FC 12302525H	3 1/8"			12"	72	253	88	309	112	393	127	445	100	349	131	460							

Replacement Parts

Part Number	Contains	Description
ALC-065847	Flange w/integral float ass'y and flange gasket	Float Assembly Kit*
ALC-065849	Flange gasket	Gasket Kit

*Repairs AC & R series S1900 Standard and 5200 Helical Oil Separators

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

A-W & A-F Oil Separators



The A-W and A-F are used for multiple compressor racks in supermarkets and air conditioning systems for use with HCFCs, HFCs and their lubricants.

Features

- Hermetic welded or accessible bolted flange construction
- Solid copper connections
- Corrosion resistant epoxy powder paint

Specifications

- Maximum working pressure: 450 psi
- UL/CUL file number: SA10468

Nomenclature example: AW 5582 4

A	W	5582	4
Series	W = Welded F = Flanged	Model Number	Connection Size (in 1/8")

Flanged

Part Number	Description
ALC-060877	A-F 58824
ALC-060878	A-F 58855
ALC-060879	A-F 58877
ALC-060759	A-F 58889
ALC-060760	A-F 589011
ALC-060761	A-F 589213
ALC-060875	A-F 579213
ALC-060876	A-F 579417

Ordering Information* and Capacity Table

Part Number	R-12				R-22/R-407C				R-502				R-134a				R-404A/R-507			
	-40 F/C		40F (4C)		-40F/C		40F (4C)		-40F/C		40F (4C)		-40F/C		40F (4C)		-40F/C		40F (4C)	
	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW
ALC-060877	1	3.5	1.5	5.3	1.5	5.3	2	7.1	1.5	5.3	2	7.08	1	3.5	1.8	6.2	1.5	5.3	2	7.0
ALC-060878	3	10.6	4	14.2	4.5	15.9	5.5	19.5	4.8	16.8	5.8	20.4	3.3	11.5	4.5	15.9	4	14.2	5.5	19.0
ALC-060879	4.5	15.9	5.5	19.5	7	24.8	8	28.3	7.5	26.6	8.5	30.1	4.8	16.8	6.5	23	6.5	23	8.5	30.0
ALC-060759	6	21.2	7.5	26.6	9	31.9	11	37.2	9.5	33.6	11.5	40.7	6.5	23	8.5	30.1	8.5	30.1	11	38.0
ALC-060760	7.5	26.6	10	35.4	11.5	40.7	14	47.8	12	42.5	14.5	51.3	8	28.3	11.5	40.7	10.5	37.2	14	49.0
ALC-060761	9	31.9	11.5	40.7	14	49.6	18	62	16	56.6	17.5	62	9.5	33.6	13.3	46.9	14	49.6	17	60.0
ALC-060875	11	38.9	14	49.6	16	56.6	18	63.7	20	70.8	24	85	11.8	41.6	16	56.6	17.5	62	23	81
ALC-060876	17	60.2	22	77.9	25	88.5	30	106	30	106	35	124	18	63.7	25.6	89.4	26	92	34	121

*See replacement parts page. Repair kits for style 2 only.

Sealed

Part Number	Description
ALC-060933	A-W 55824
ALC-060934	A-W 55855
ALC-060931	A-W 55877
ALC-060974	A-W 55889
ALC-060930	A-W 559011
ALC-060975	A-W 559213
ALC-060978	A-W 569011
ALC-060979	A-W 569213
ALC-060980	A-W 569417

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

A-W & A-F Oil Separators

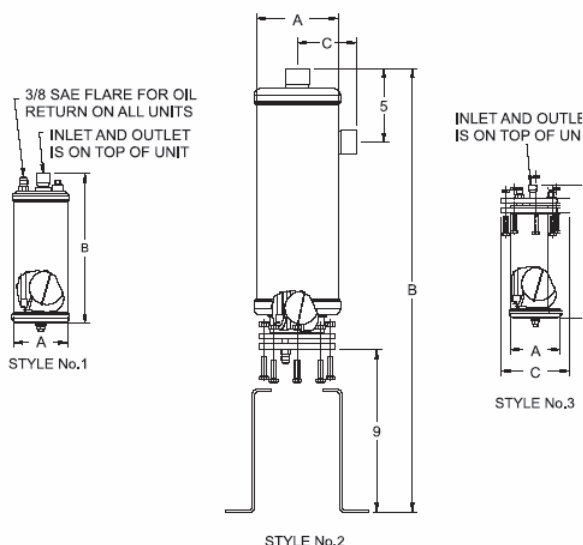
Sealed

Ordering Information* and Capacity Table

Part Number	R-12				R-22/R-407C				R-502				R-134a				R-404A/R-507			
	-40 F/C		40F (4C)		-40F/C		40F (4C)		-40F/C		40F (4C)		-40F/C		40F (4C)		-40F/C		40F (4C)	
	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW
ALC-060933	1	3.5	1.5	5.3	1.5	5.3	2	7.1	1.5	5.3	2	7.08	1	3.5	1.8	6.2	1.5	5.3	2	7.0
ALC-060934	3	10.6	4	14.2	4.5	15.9	5.5	19.5	4.8	16.8	5.8	20.4	3.3	11.5	4.5	15.9	4	14.2	5.5	19.0
ALC-060931	4.5	15.9	5.5	19.5	7	24.8	8	28.3	7.5	26.6	8.5	30.1	4.8	16.8	6.5	23	6.5	23	8.5	30.0
ALC-060974	6	21.2	7.5	26.6	9	31.9	11	37.2	9.5	33.6	11.5	40.7	6.5	23	8.5	30.1	8.5	30.1	11	38.0
ALC-060930	7.5	26.6	10	35.4	11.5	40.7	14	47.8	12	42.5	14.5	51.3	8	28.3	11.5	40.7	10.5	37.2	14	49.0
ALC-060975	9	31.9	11.5	40.7	14	49.6	18	62	16	56.6	17.5	62	9.5	33.6	13.3	46.9	14	49.6	17	60.0
ALC-060978	9	31.7	12	42.3	13	45.8	14	49.8	15	52.8	20	70.4	9.5	33.4	13.7	48.2	11	38.7	19	66.9
ALC-060979	11	38.9	14	49.6	16	56.6	18	63.7	20	70.8	24	85	11.8	41.6	16	56.6	17.5	62	23	81
ALC-060980	17	60.2	22	77.9	25	88.5	30	106	30	106	35	124	18	63.7	25.6	89.4	26	92.	34	121

*See replacement parts page. Repair kits for style 2 only.

Dimensional Data



Seal Units: A-W

Description	Style No.	Connection Size	Dimensions (in)		Replaceable Float PCN	Oil Pre-charge Amount (oz)
			A	B		
A-W 55824	1	1/2 ODF	4.0	10.75	N/A	17
A-W 55855		5/8 ODF		13.2		
A-W 55877		7/8 ODF		15.0		
A-W 55889		1-1/8 ODF		16.25		
A-W 559011		1-3/8 ODF		19.5		
A-W 559213		1-5/8 ODF		19.88		
A-W 569011		1-3/8 ODF	6.0	15.75	N/A	20
A-W 569213		1-5/8 ODF		19.0		
A-W 569417		2-1/8 ODF		19.5		

Flanged Units: A-F

Description	Style No.	Connection Size	Dimensions (in)			Replaceable Float PCN	Oil Pre-charge Amount (oz)
			A	B	C		
A-F 58824	3	1/2 ODF	4.0	10.5	5.5	N/A	17
A-F 58855		5/8 ODF		15.0			
A-F 58877		7/8 ODF		18.0			
A-F 58889		1 1/8 ODF		21.25			
A-F 589011		1 3/8 ODF		21.37			
A-F 589213		1 5/8 ODF		21.75			
A-F 579213	2	1 5/8 ODF	6.0	20.12	4.37	065847	20
A-F 579417		2 1/8 ODF		20.31	4.63		

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

AOR Oil Reservoirs



The AOR oil reservoir is a holding vessel for stand-by oil necessary for the operation of commercial refrigeration systems. It is a direct replacement of popular competitive models.

Features

- Two sight glasses with floating ball indicators - 2 gallon model
- Three sight glasses with floating ball indicators - 4 gallon model
- 3/8" flare rotolock valves on top and bottom
- Corrosion resistant epoxy powder paint finish
- Standard mounting stud 3/8 x 16 TPI

Specifications

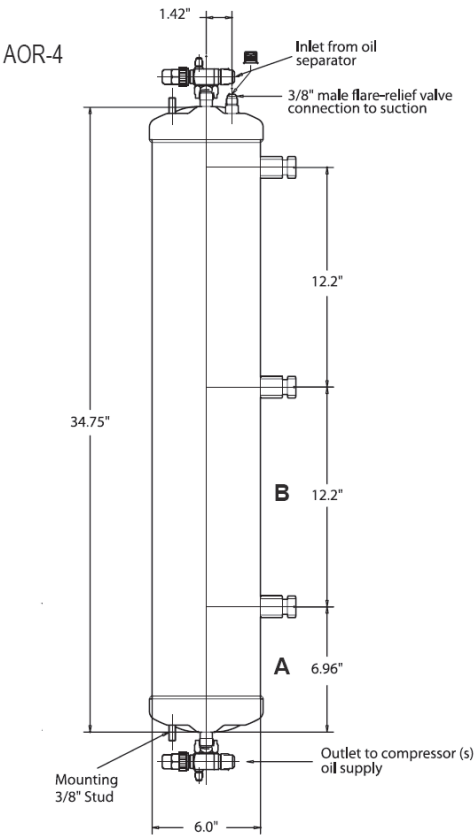
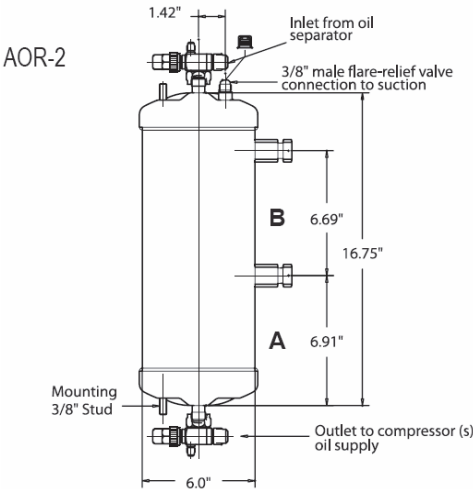
- Maximum working pressure: 450 psi
- UL/CUL file number: SA8547

Nomenclature example: AOR-3

AOR	3
Series	Gallons

Part Number	Total Volume Gallons	A Level Volume (gals)	B Level Volume (gals)	Length (In)	Number Of Sight Glasses	Description
ALC-064950	2	3/4	1-2/3	20"	2	AOR-2
ALC-065981	3	2/3	2-2/3	31"	3	AOR-3
ALC-064951	4	1-1/2	3-3/4	38"	3	AOR-4

Dimensional Data



Replacement Parts for AOR Oil Reservoirs

Part Number	Contains	Description
ALC-066002	Mounting brackets, self-tapping bolts and mounting stud nuts	Mounting Kit

Standard Product Offering

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

AOF High Efficiency Oil Filter

Highly Recommended for Scroll Compressors



The AOF is designed to protect the compressor from dirt and all solid contaminants including metallic magnetic particles. It is ideal for use with compressors that require a 4 micron or higher filtration rating.

Features

- Corrosion resistant epoxy powder paint finish
- 3/8" SAE connections for easy installation in oil lines
- 100% efficient to 4 micron particles; 99% efficient to 3 micron particles
- Compatible with all oils
- High debris capacity with low pressure drop

Specifications

- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

R-410A

Ordering Information

Part Number	Lay-in	Diameter	Description
ALC-064952	9.63	3.06	AOF 303

Standard Product Offering

AOF High Efficiency Take-Apart Oil Filter



The AOF is designed to protect the compressor from dirt and all solid contaminants including metallic magnetic particles. It is ideal for burnout/clean-up situations.

Features

- Compatible with all oils
- Solid copper connections
- Quick change filter cartridge
- Corrosion resistant epoxy powder paint finish
- 100% efficient to 4 micron particles; 99% efficient to 3 micron particles
- 3/8 ODF connections
- Quick removal cover design simplifies filter replacement
- High debris capacity with low pressure drop

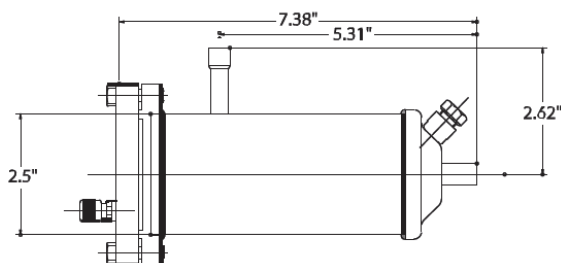
Specifications

- Maximum working pressure: 450 psig
- UL/CUL file number: SA 7175

Ordering Information

Part Number	Description
ALC-062784	AOF 023S*
ALC-064799	F023 Cartridge

*Cartridge not included
Standard Product Offering



AOF 023S
Take-Apart OIL
FILTER



F023
REPLACEABLE
FILTER CARTRIDGE

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

AOFD 553 Filter Drier



The AOFD is designed specifically for refrigerant systems that use POE oil. POE oil is hygroscopic in nature, which means that it attracts and absorbs water. Moisture in a closed system can produce acid and will harm the compressor. The AOFD protects compressors by removing moisture and trapping contaminants.

Features

- Designed to clean and dry POE Oil
- 3/8" male flare connections for easy replacement
- 3 micron filtration for optimum oil cleaning
- Large filter surface area to provide maximum filtration
- Contains desiccant for moisture removal
- Designed to operate at a very low pressure drop
- Dual access valves for pressure drop monitoring

Specifications

- UL/CUL file number: SA3124
- Maximum Working Pressure: 680 psig

R-410A

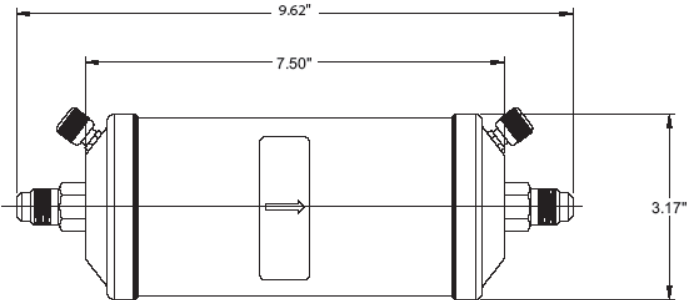
AOFD Water Capacity Table

Refrigerant Type	Drops @ 125°F
R-22	497
R-134A	518
R-404A	518
R-407C / R-410A	435
R-744	563

Ordering Information

Part Number	Description
ALC-062829	AOFD 553 Oil Filter Drier

Dimensional Data



Standard Product Offering

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

OMB Oil Level Protective Control



The OMB is a compressor crankcase oil level protective control ideal for use with Copeland Scroll® models ZF, ZB, ZR and ZS. It is also recommended for Copeland® brand products, Carlyle, Bitzer, and other semi-hermetic compressors.

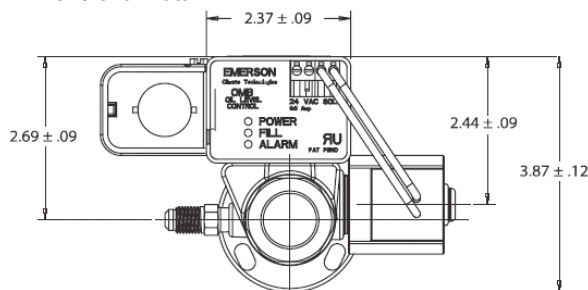
Features

- Precision oil level measurement for maximum protection
- Easy monitoring with alarm and status lights
- Foam resistant design prevents nuisance trips unlike optical sensor designs
- Contaminant proof operation ensures accurate control
- Only approved oil level control for Copeland Scroll® Compressors
- 5-time lockout feature protects compressor from repeated low oil level condition
- Self-contained unit with oil level sensor and integral solenoid to manage oil level supply
- Reverse Hall-effect sensor for precise measurement of oil level and protection from sensor magnetic debris contamination
- SPDT output contact for compressor shut-down and alarming
- Easy installation by sightglass replacement
- Adapters suitable for various types of scroll compressors (not required for reciprocating compressors)
- UL Recognized (File Number # MP604)
- Fluorescent floating ball
- Integral sight glass

Specifications

- Maximum working pressure: 640 psi
- Solenoid MOPD: 350 psi
- Supply voltage: 24 V AC, 50/60 Hz
- Solenoid coil: ASC 2L 24 V AC, 50/60 Hz
- Current consumption: 0.6A
- Time delay for low level signalling: 5-10 seconds
- Time delay for after setpoint recovery: 5-10 seconds
- Alarm delay time: 120 seconds
- Alarm switch: SPDT
- Alarm contact rating: 10A @ 125;
5A @ 220 V AC
50/60 Hz
- Refrigerant compatibility: HFC, HCFC, CFC
- Oil temperature: 180°F Max.
- Storage and transport temperature: 140°F Max.
- Operating ambient temperature: 120°F Max.
- Oil supply fitting: 1/4" Male SAE
- UL/CUL file number: SA8547
- Transformer VA requirements* 25"

Dimensional Data



Unit must be mounted horizontally for correct operation.

*NOTE: Field supplied transformer should always be of the same primary voltage as the electrical supply system.

Nomenclature example: OMB-JB1 ASC2 24 50/60

OMB	JB1	ASC2 24 50/60
Oil Management Control	JB1 - Junction Box MO1 - Series Relief Connector	Solenoid Coil Model Number, Voltage, Frequency (included)

Ordering Information

Oil Management Control

Part Number	Description
ALC-065365	OMB-JB1 ASC 2 24/50-60 - STD
ALC-065366	OMB-MO1 ASC 2 24/50-60 - STD

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

OMB Oil Level Protective Control

OMB Adapters

(to attach OMB to Copeland Scroll® compressor for new installation only)

Part Number	Description
ALC-065668	OMB-ACA ADAPTER (3/4" x 14 NPTF) Copeland® Glacier, ZF, ZS, ZB
ALC-065667	OMB-ACB ADAPTER (1 1/8" x 12 UNF) Copeland® A/C ZR
ALC-066077	OMB-ACD ADAPTER (1 1/4" x 12 UNF) Copeland® A/C Summit Series
ALC-066078	OMB-ACE ADAPTER (1 3/4" x 12 UNF) Copeland® Specter Series
ALC-063521	OMB-AVA for Copeland® 6D Semi-Hermetic
ALC-065982	OMB-ASA Carlyle Compressors DA, DR, 5F, 5H, 06D and 06E

OMB Service Parts

Part Number	Description
ALC-048638	Inlet Flare Screen
ALC-020877	Sight Glass O-Ring
ALC-064812	Mounting O-Rings (3 pieces)
KS30112	KS-30112 Solenoid Repair Kit

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

W-OLC Mechanical Oil Level Regulator



The W-OLC controls the oil level in the compressor crankcase with a float operated valve and keeps the oil level at the compressor manufacturer's recommended level. It is a direct replacement of popular competitive models.

Features

- Corrosion resistant epoxy powder paint finish
- Universal mounting pattern for standard semi-hermetic compressors

Specifications

- Maximum working pressure: 450 psi
- UL/CUL file number: SA8547
- Max. OPD: 90 psi

Nomenclature example: W-OLC-2

W-OLC	2
Series	Sight Glass*

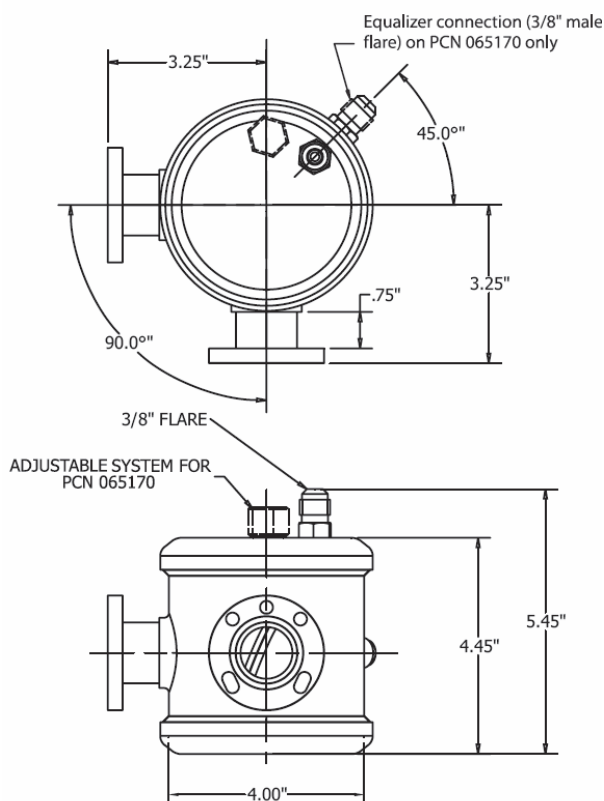
* 2 = 1/2, 4 = 1/4, 2 -4 = adjustable

Ordering Information

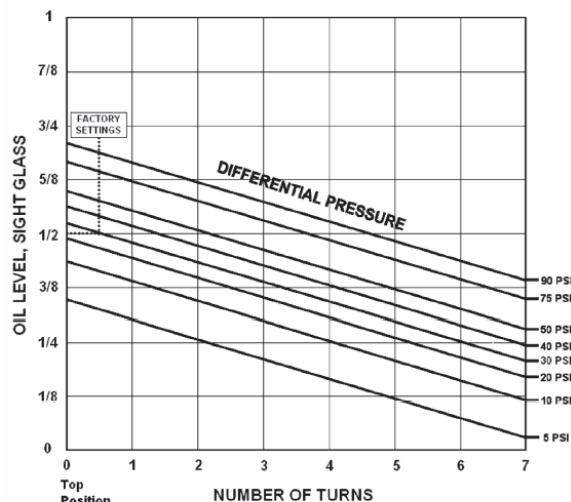
Part Number	Sight Glass Level	Description
ALC-064953	1/2 sight glass	W-OLC-2
ALC-064954	1/4 sight glass	W-OLC-4
ALC-065170	1/4 to 1/2 level (adjustable)	W-OLC-2-4

Standard Product Offering

Dimensional Data



OLC-2-4 OIL LEVEL



Note: Data obtained using POE lubricant at 88°F with a 1 inch diameter sight glass.

The Oil Level factory setting is in the middle of the Sight Glass at 30 PSI for the Oil Level Control. Located on the top of the control is the seal cap. Remove this to adjust the oil level. To adjust the stem, turn it clockwise and counterclockwise, respectively, to lower and raise the stem. One can determine the adjustment needed from the OLC-2-4 Oil Level Chart. One eighth of an inch increments are used to illustrate the oil level at a selection of differential pressure conditions.

Unlike our Competitors Controls no damage will occur when attempting to adjust beyond 7 turns. Our Design has a hard Stop to prevent damage.

In the case of an unexpected system defrost or load increase, large amounts of oil will return through the suction line. Consequently, the oil control will not be able to keep the oil level from rising beyond the control point.

EMERSON CLIMATE TECHNOLOGIES - OIL CONTROLS

Universal Acid Test Kit



The Universal Acid Alert Test Kit provides a reliable indication as to the acid level of the refrigeration oil.

Features

- Quick and easy test kit
- Universal acid test kit for use with all refrigeration lubricants
- By changing the percentage of oil sample taken, the acid number of the oil can be accurately determined
- Phase separation of the chemicals eliminates interference from discolored oil

Ordering Information

Part Number	Description
AA-UNIVERSAL KIT	Universal Acid Test Kit

Standard Product Offering

SPORLAN - THERMOSTATIC EXPANSION VALVES

General Information

- **Selective Thermostat Charges** — Designed to provide optimum performance for all applications— air conditioning and heat pump, medium and low temperature refrigeration.
- **Thermostatic Element Design** — Long lasting and field proven stainless steel diaphragm and welded element construction.
- **Diaphragm Design** — Large flat diaphragm permits precise valve control.
- **Replaceable Thermostatic Elements** — Field replaceable elements on all standard valves.
- **Balanced Port Design** — Provides perfect pin and port alignment, and prevents changes in pressure drop across the valve from influencing Valve operation. Provides excellent control on applications with widely varying operating conditions.
- **Pin Carrier Design (Conventional Valves)** — Provides precise pin and port alignment, and tighter seating.
- **Accessible Internal Parts** — Durable, leak proof body joint construction allows the valve to be disassembled, and the internal parts cleaned and inspected.
- **Materials of Construction** — Pin and port material offer maximum protection against corrosion and erosion.
- **Silver Soldered Connections** — For leak proof, high strength connection-to-body joints.
- **Adjustable Superheat Design** — All standard valves are externally adjustable.

VALVE NOMENCLATURE/ORDERING INSTRUCTIONS

Combine the letters and numbers in the following manner to obtain the complete valve designation. Also include all connection Sizes and the capillary tube length.

CONVENTIONAL VALVES:

S	V		E	-	8	-	GA	5/8" ODF Solder	X	7/8" ODF Solder	X	1/4" ODF Solder	X	5'
Body Type: FB,F, EF,G, EG, RI,RC, S, EBS*, O*, V**, W**	Sporlan Code - REFRIGERANT - Element Label Color Code		E" specifies external equalizer. Omission of letter "E" indicates valve with internal equalizer. e.g. EGV-1-C					Inlet Connection Size and Style		Outlet Connection Size and Style		External Equalizer Connection Size and Style		Capillary Tubing Length (Inches or Feet)
	F - R-12 Yellow E - R-13 - Blue V - R-22 -Green G - R-23 - Blue M - R-124 - Blue J- R134a -Blue X - R-401A Pink L - R-402ASand S- R-404A Orange Z = R-410A Rose	V - R-407A – Green N - R-407 Lt. Brown S - R-408A -Purple F - R-409A -Yellow R - R-502 - Purple W - R-503 - Blue P - R-507 - Teal W - R-508B - Blue A - R-717 – White												

BALANCE PORTED VALVES:

CAPILLARY TUBING VALVES														
EBF	V	E	-	AA		-	C	3/8” Extended ODF Solder	X	1/2” Extended ODF Solder	X	1/4” Extended ODF Solder	X	30”
				Port Size	Nominal Capacity in Tons									
Body Type: BF,SB F, EBF	22 (V) 407C (N) 407A (V)	“E” specifies external equalizer. Omission of letter “E” indicates valve with internal equalizer.		AAA	1/8 thru 1/3	Thermostatic Charge	Inlet Connection		Outlet Connection		External Equalizer Connection		Capillary Tubing Length (Inches)	
				AA	1/2 thru 2/3									
				A	3/4 thru 1-1/2									
				B	1-3/4 thru 3									
				C	1/4 thru 5-1/2									
	134a (J) 12 (F) 401A (X) 409A (F)			AAA	1/8 thru 1/5									
				AA	1/4 thru 1/3									
				A	1/2 thru 1									
				B	1/4 thru 1-3/4									
				C	2 thru 3									
	404A (S) 502 (R) 408A (S)			AAA	1/8 thru 1/5									
				AA	1/4 thru 1/3									
				A	1/2 thru 1									
				B	1-1/4 thru 2									
				C	2-1/4 thru 3									
	507 (P) 402A (L)			AAA	1/8 thru 1/5									
				AA	1/4 thru 1/3									
				A	1/2 thru 1									
				B	1-1/4 thru 2									
				C	2-1/4 thru 3									

*EBS and O valves are balance ported valves, but follow conventional valve nomenclature.

**V and W valves have dual port semi-balance design.

RECOMMENDED THERMOSTATIC CHARGES*

RECOMMENDED THERMOSTATIC CHARGES*

APPLICATION	REFRIGERANT										ACTUAL THERMOSTATIC CHARGES
	12, 409A	22, 422D, 407A	410A	134a	401A	402A	404A, 408A	407C	502	507	
Air Conditioning	FCP60	—	—	JCP60	XCP60	—	—	—	—	—	JCP60
	—	VCP100	—	—	—	—	—	NCP100	—	—	VCP100
	—	—	ZCP180	—	—	—	—	—	—	—	ZCP180
	—	VGA	—	—	—	—	—	NGA	—	—	VGA
	—	—	—	—	—	—	SCP115	—	RCP115	—	SCP115
	—	—	ZGA	—	—	—	—	—	—	—	ZGA
Commercial Refrigeration 50°F to -10°F	FC	—	—	JC	XC	—	—	—	—	—	JC
	—	VC	—	—	—	—	—	NC	—	—	VC
	—	—	—	—	—	—	SC	—	RC	—	SC
	—	—	—	—	—	LC	—	—	—	PC	PC
Low Temperature Refrigeration 0°F to -40°F	FZ	—	—	—	—	—	—	—	—	—	JZ
	FZP	—	—	—	—	—	—	—	—	—	JZP
	—	VZ	—	—	—	—	—	—	—	—	VZ
	—	VZP40	—	—	—	—	—	—	—	—	VZP40
	—	—	—	—	—	LZ	SZ	—	RZ	PZ	SZ
	—	—	—	—	—	LZP	SZP	—	RZP	PZP	SZP
Extreme Low Temperature Refrigeration -40°F to -100°F	—	VX	—	—	—	—	—	—	—	—	VX
	—	—	—	—	—	LX	SX	—	RX	PX	SX

*APPLICATION FACTORS:

1. The Type ZP charges have essentially the same characteristics as the Type Z charge with one exception: they produce a pressure limit Maximum Operating Pressure (MOP) . ZP charges are not intended as replacements for Z charges . Each should be selected for its own unique purpose .
2. All air conditioning and heat pump charges are intended for use with externally equalized valves .
3. Type L liquid charges are also available for most commonly used refrigerants in most element sizes .
4. **The Type X charges are not to be used with “EBS” and “O” valves.**
5. If in doubt as to which charge to use, review the section on thermostatic charges in Bulletin 10-9 or contact Sporlan Division of Parker, Washington, Missouri with complete system data .
6. **For dual temperature applications, use the “C” charge.**
7. **The “C” charge may be used on applications down to -30°F on R-22, R-404A and R-507.**

TXV CAPACITY RATINGS

FOR REFRIGERANTS: 22, 134a, 401A, 402A, 404A, 407C, 408A, 409A, 410A, 422D, 507

TXV capacity ratings for R-22, R-134a, R-401A, R-402A, R-404A, R-407C, R-408A, R-409A, R-410A, R-422D, and R-507 are based on vapor free 100°F liquid refrigerant entering the expansion valve, a maximum opening superheat of 7°F, and a standard factory air test superheat setting. A discussion of the relationship between valve capacities and superheat settings can be found in Bulletin 10-9.

The ratings for evaporator temperatures 40°F, 20°F, -10°F, -40°F in the capacity tables are in accordance with ANSI/ARI Standard Number 750. TXVs are tested in accordance with ANSI/ASHRAE 17.

TXV models featuring the mechanical pressure limit style thermostatic elements, i.e., the Types G(PL) and C(PL) TXVs, are now obsolete. Consult Bulletin 210-10-17 for additional information on this subject and replacement valves.

For TXV capacity ratings at operating conditions not shown in the following tables, contact Sporlan Division of Parker.

VALVE TYPE	NOMINAL CAPACITY RANGE (TONS)				CONNECTION TYPES	VALVE DESCRIPTION AND APPLICATION
	R-22	R-134A	R-404A & R507	R-410A		
RC 	1 thru 6	–	–	2 thru 15	ODF Solder	Small brass body, externally adjustable valve available for R-22 and R-410A air conditioning and heat pump applications. This valve features a balanced port construction and contains an internal check valve to eliminate the need for an external bypass check valve on heat pump applications. Suitable for replacing OEM type TEVs with or without internal check valve on these applications. Inlet strainer is not included.
S 	2 thru 10	2 thru 6	2 thru 7	–	ODF Solder	Brass bar body, externally adjustable valve. Inlet has a permanent 12 mesh strainer. General purpose valve for air conditioning and refrigeration applications.
EBS 	8 thru 20	5 thru 12	6 thru 13	–	Extended ODF Solder	Same physical size as the Type S valve except it features extended ODF connections. This valve features a balanced port construction which, depending on its capacity, makes it suitable for bi-directional operation.
O 	15 thru 70	9 thru 40	9 thru 45	20 thru 60	ODF Solder	Brass bar body, externally adjustable valve. Inlet has a permanent 12 mesh strainer. This valve features a balanced port construction, and it is suitable for both air conditioning and refrigeration applications. Optional bi-directional feature available, please contact Sporlan Division of Parker for details.
M 	21 thru 42	15 thru 25	15 thru 30	–	ODF Solder or FPT Flange	Cast bronze body, externally adjustable valve with flange connections. Inlet has a 12mesh strainer. This valve type provides valve capacities greater than the Type H and it is suitable for air conditioning and refrigeration applications. Flanges for the Type M valve are interchangeable with the Type V valve.
V 	52 thru 100	35 thru 55	38 thru 70	–	ODF Solder or FPT Flange	Cast bronze body, externally adjustable valve with flange connections. Inlet has a 12 mesh strainer. This valve type features a dual port semi-balanced design. This valve type provides valve capacities greater than the Type M and is suitable for air conditioning and refrigeration applications. Flanges for the Type V are interchangeable with the Type M.
W 	135 & 180	80 & 110	–	–	ODF Solder Flange	Cast bronze body, externally adjustable valve with flange connections. Inlet has a 12 mesh strainer. This valve type features a dual port semi-balanced design and it is primarily for large capacity chillers. This valve type provides the largest valve capacities available for flange connection TEVs.

TYPE S

Knife Edge Joint, Standard Tubing Length 5'					Standard Connections	
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ODF)	Outlet (in. ODF)
S	22 (V)	SVE-2	83	VGA or VCP100	1/2	5/8
		SVE-3				
		SVE-4				
		SVE-5				
		SVE-8			5/8	7/8
		SVE-10				


TYPE EBS

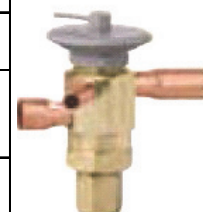
Balanced Port Construction, Knife Edge Joint, Standard Tubing length 5'					Standard Connections	
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ODF)	Outlet (in. ODF)
EBS	22 (V)	EBSVE-8	83	VGA or VCP100	5/8	7/8
		EBSVE-11				


TYPE O

Balanced Port Construction, Knife Edge Joint, Standard Tubing Length 5'					Standard Connections	
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ODF)	Outlet (in. ODF)
O	22 (V)	OVE-15	83	VGA or VCP100	7/8	1 1/8
		OVE-20				
		OVE-30				
		OVE-40	33		1 1/8	1 3/8
		OVE-55				
		OVE-70				
	410A (Z)	OZE-20	85	ZGA	7/8	1 1/8
		OZE-25				
		OZE-35				
		OZE-50	85-3		1 1/8	1 3/8
OZE-60						


TYPE RC

Internal Check Valve, Knife Edge Joint, Standard Tubing Length 30"					Standard Connections	
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ODF)	Outlet (in. ODF)
RC	22 (V)	RCVE-2	43	VGA	3/8	1/2
		RCVE-3				
		RCVE-4			1/2	5/8
		RCVE-5				
		RCVE-6				
	410A (Z)	RCZE-2	45	ZGA	3/8	1/2
		RCZE-3				
		RCZE-4			1/2	5/8
		RCZE-5				
		RCZE-6				


TYPE ER

Knife Edge Joint, Standard Tubing Length 30" (45), 5' (45-5)					Standard Connections	
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ODF)	Outlet (in. ODF)
ER	410A (Z)	ERZE-8	45	ZGA	5/8	7/8
		ERZE-12.5	45-5		7/8	1 1/8
		ERZE-15			5/8	



TYPE W

Gasket Joint, Standard Tubing Length 5', Flange Ring Size 1-3/4" OD x 1-1/2" ID						
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ext. ODF)	Outlet (in. ext. ODF)
W	22 (V)	WVE-135	63	VGA or VCP100	1 5/8	2 1/8
		WVE-180	7	VGA		


TYPE V

Gasket Joint, Standard Tubing Length 5', Flange Ring Size 1-3/4" OD x 1-1/2" ID						
VALVE TYPE	REFRIGERANT (Sporlan Code)	TYPE & CAPACITY (External Equalizer Only)	Element Size	Available Thermostatic Charges	Inlet (in. ext. ODF)	Outlet (in. ext. ODF)
V	22 (V)	VVE-52	63	VGA or VCP100	1 3/8	1 3/8
		VVE-70				
		VVE-100				


Thermostatic Expansion Valve Capacity Factors

REFRIGERANT	LIQUID TEMPERATURE ENTERING TEV °F														
	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
	CORRECTION FACTOR, CF LIQUID TEMPERATURE														
22	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	0.94	0.88	0.82	0.76

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an evaporator temperature of 0°F.

EVAPORATOR TEMPERATURE °F	PRESSURE DROP ACROSS TEV (psi)											
	30	50	75	100	125	150	175	200	225	250	275	300
	CORRECTION FACTOR, CF PRESSURE DROP											
40°	0.55	0.71	0.87	1.00	1.12	1.22	1.32	1.41	1.50	1.58	1.66	1.73

TEV Capacity = TEV Rating x CF Liquid Temperature x CF Pressure Drop — Example: Actual capacity of a Type RC R-22 valve at 40°F evaporator temperature, 75 psi pressure drop across the TEV, and 80°F liquid temperature entering the TEV = 2.3 (from chart) x 1.12 (CF liquid temperature) x 0.87 (CF pressure drop) = 2.24 tons.

REFRIGERANT	LIQUID TEMPERATURE ENTERING TEV °F										
	40	50	60	70	80	90	100	110	120	130	140
	CORRECTION FACTOR, CF LIQUID TEMPERATURE										
410A	1.39	1.31	1.23	1.17	1.12	1.06	1.00	0.94	0.88	0.82	0.76

EVAPORATOR TEMPERATURE °F	PRESSURE DROP ACROSS TEV (psi)						
	80	120	160	200	240	280	320
	CORRECTION FACTOR, CF PRESSURE DROP						
40°	0.71	0.87	1.00	1.12	1.22	1.32	1.41

SPORLAN - THERMOSTATIC EXPANSION VALVES

Replacement Elements - TXV

TEV Replacement Elements

Part Number	Refrigerant	Tubing Length
KT-33-VGA	22	5'
KT-43-VGA	22	30"
KT-45-ZGA	410A	30"
KT-63-VGA	22	5'
KT-83-VGA	22	5'
KT-85-ZGA	410A	5'
KT-33-VCP100	22	5'
KT-43-VCP100	22	30"
KT-45-5-ZGA	410A	5'
KT-63-VCP100	22	5'
KT-83-VCP100	22	5'
KT-85-3-ZGA	410A	5'

TXV - Valve Type ER/RC

Part Number	Mfg No	Type & Capacity	Actual Capacity @ 40°F Evaporator Temperature	Refrigerant	Description
RCVE-2-GA3/8X1/2ODF	151265	RCVE-2	2.3	R-22	RCVE-2-GA 3X4 ODF 30"
151265-A	151265	RCVE-2	2.3	R-22	RCVE-2-GA 3X4 ODF 30"
151245-A	151245	RCVE-3	3.2	R-22	RCVE-3-GA 3X4 ODF 30"
151252-A	151252	RCVE-4	4.2	R-22	RCVE-4-GA 4X4 ODF 30"
151256-A	151256	RCVE-4	4.2	R-22	RCVE-4-GA 4X5 ODF 30"
151258-A	151258	RCVE-5	5.0	R-22	RCVE-5-GA 4X4 ODF 30"
151272-A	151272	RCVE-5	5.0	R-22	RCVE-5-GA 4X5 ODF 30"
RCVE-6-GA1/2X1/2ODF	151286	RCVE-6	6.0	R-22	RCVE-6-GA 4X4 ODF 30"
151269-A	151269	RCVE-6	6.0	R-22	RCVE-6-GA 4X5 ODF 30"
151633-A	151633	RCZE-1	1.2	R-410A	RCZE-1-GA 3X4 ODF 30"
151365-A	151365	RCZE-2	2.7	R-410A	RCZE-2-GA 3X4 ODF 30"
151366-A	151366	RCZE-3	3.8	R-410A	RCZE-3-GA 3X4 ODF 30"
151368-A	151368	RCZE-4	5.0	R-410A	RCZE-4-GA 4X4 ODF 30"
151369-A	151369	RCZE-5	5.9	R-410A	RCZE-5-GA 4X5 ODF 30"
151370-A	151370	RCZE-6	7.1	R-410A	RCZE-6-GA 4X5 ODF 30"
168784-A	168784	ERZE-1-1/2	2.1	R-410A	ERZE-1-1/2-GA 3X4 ODF 5'
168786-A	168786	ERZE-2	2.7	R-410A	ERZE-2-GA 3X4 ODF 5'
168788-A	168788	ERZE-3	3.8	R-410A	ERZE-3-GA 3X4 ODF 5'
168718-A	168718	ERZE-4	5.0	R-410A	ERZE-4-GA 3X4 ODF 5'
168792-A	168792	ERZE-5	5.9	R-410A	ERZE-5-GA 3X4 ODF 5'
168794-A	168794	ERZE-6	7.1	R-410A	ERZE-6-GA 4X5 ODF 5'
168719-A	168719	ERZE-8	9.5	R-410A	ERZE-8-GA 5X7 ODF 5'
168801-A	168801	ERZE-12-1/2	12.3	R-410A	ERZE-12-1/2-GA 5X7 ODF 5'
168807-A	168807	ERZE-15	14.3	R-410A	ERZE-15-GA 5X9 ODF 5'

SPORLAN - THERMOSTATIC EXPANSION VALVES

TXV - Valve Type O

Part Number	Mfg No	Type & Capacity	Actual Capacity @ 40°F Evaporator Temperature	Refrigerant	Description
124296-A	124296	OVE-15	15.0	R-22	OVE-15-CP100 7X9 ODF 5'
124226-A	124226	OVE-15	15.0	R-22	OVE-15-GA 7X9 ODF 5'
124303-A	124303	OVE-20	22.2	R-22	OVE-20-CP100 7X9 ODF 5'
124233-A	124233	OVE-20	22.2	R-22	OVE-20-GA 7X11 ODF 5'
124310-A	124310	OVE-30	30.5	R-22	OVE-30-CP100 9X11 ODF 5'
124240-A	124240	OVE-30	30.5	R-22	OVE-30-GA 9X11 ODF 5'
124317-A	124317	OVE-40	40.3	R-22	OVE-40-CP100 9X11 ODF 5'
124247-A	124247	OVE-40	40.3	R-22	OVE-40-GA 9X11 ODF 5'
OVE55CP10011/8X13/8O	124331	OVE-55	55.0	R-22	OVE-55-CP100 9X11 ODF 5'
124261-A	124261	OVE-55	55.0	R-22	OVE-55-GA 9X11 ODF 5'
124345-A	124345	OVE-70	73.0	R-22	OVE-70-CP100 9X11 ODF 5'
OVE70GA1-1/8X1-3/8OD	124275	OVE-70	73.0	R-22	OVE-70-GA 9X11 ODF 5'
125396-A	125396	OZE-20	19.7	R-410A	OZE-20-GA 7X9 ODF 5'
125385-A	125385	OZE-25	23.7	R-410A	OZE-25-GA 7X9 ODF 5'
OZE-35-GA	125399	OZE-35	32.6	R-410A	OZE-35-GA 9X11 ODF 5'
125426-A	125426	OZE-50	49.3	R-410A	OZE-50-GA 9X11 ODF 5'
125467-A	125467	OZE-60	59.2	R-410A	OZE-60-GA 9X11 ODF 5'

TXV - Valve Type S

Part Number	Mfg No	Type & Capacity	Actual Capacity @ 40°F Evaporator Temperature	Refrigerant	Description
129572-A	129572	SVE-2	2.0	R-22	SVE-2-CP100 4X5 ODF 5'
SVE-2-GA1/2/5/8ODF	129054	SVE-2	2.0	R-22	SVE-2-GA 4X5 ODF 5'
129642-A	129642	SVE-3	3.2	R-22	SVE-3-CP100 4X5 ODF 5'
129118-A	129118	SVE-3	3.2	R-22	SVE-3-GA 4X5 ODF 5'
129719-A	129719	SVE-4	4.5	R-22	SVE-4-CP100 4X7 ODF 5'
129201-A	129201	SVE-4	4.5	R-22	SVE-4-GA 4X7 ODF 5'
129789-A	129789	SVE-5	5.2	R-22	SVE-5-CP100 4X7 ODF 5'
129271-A	129271	SVE-5	5.2	R-22	SVE-5-GA 4X7 ODF 5'
129852-A	129852	SVE-8	8.0	R-22	SVE-8-CP100 5X7 ODF 5'
129334-A	129334	SVE-8	8.0	R-22	SVE-8-GA 5X7 ODF 5'
129901-A	129901	SVE-10	10.0	R-22	SVE-10-CP100 5X7 ODF 5'
129383-A	129383	SVE-10	10.0	R-22	SVE-10-GA 5X7 ODF 5'
SVE15CP1007/8X11/8OD	129409	SVE-15	15.0	R-22	SVE-15-CP100 7X9 ODF 5'
129407-A	129407	SVE-15	15.0	R-22	SVE-15-GA 7X9 ODF 5'

TXV - Valve Type EBS

Part Number	Mfg No	Type & Capacity	Actual Capacity @ 40°F Evaporator Temperature	Refrigerant	Description
163557-A	163557	EBS-8	8.5	R-22	EBSVE-8-CP100 5X7 ODF 5'
163556-A	163556	EBS-8	8.5	R-22	EBSVE-8-GA 5X7 ODF 5'
163525-A	163525	EBS-11	11.5	R-22	EBSVE-11-CP100 5X7 ODF 5'
163773-A	163773	EBS-11	11.5	R-22	EBSVE-11-GA 5X7 ODF 5'

TXV - Valve Type V

Part Number	Mfg No	Type & Capacity	Actual Capacity @ 40°F Evaporator Temperature	Refrigerant	Description
146722-A	146722	VVE-52	52.0	R-22	VVE-52-CP100 11X11 ODF 5'
146624-A	146624	VVE-52	52.0	R-22	VVE-52-GA 11X11 ODF 5'
146750-A	146750	VVE-70	73.0	R-22	VVE-70-CP100 11X11 ODF 5'
146652-A	146652	VVE-70	73.0	R-22	VVE-70-GA 11X11 ODF 5'
146778-A	146778	VVE-100	100.0	R-22	VVE-100-CP100 11X11 ODF 5'
146680-A	146680	VVE-100	100.0	R-22	VVE-100-GA 11X11 ODF 5'

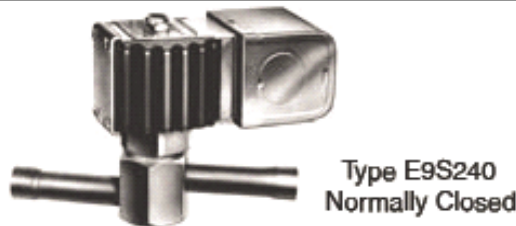
SPORLAN - THERMOSTATIC EXPANSION VALVES

TXV - Valve Type W

Part Number	Type & Capacity	Actual Capacity @ 40°F Evaporator Temperature	Refrigerant	Mfg No	Description
147462-A	WVE-135	143.0	R-22	147462	WVE-135-GA 13X17 ODF 10'
147476-A	WVE-135	180.0	R-22	147476	WVE-135-CP100 13X17 ODF 10'

SPORLAN - SOLENOID VALVES & COILS

General Information



REFRIGERANTS 22, 134a, 402A, 404A, 407C, 502, 507

SPECIFICATIONS

6 Proven Benefits of Sporlan Solenoid Valves:

- Molded coil for most sizes.
- Class "F" temperature rating – Coil types MKC-1, OMKC-1, MKC-2, and OMKC-2.
- Extremely rugged, simple design – few parts.
- "E" Series may be brazed without disassembly.
- Tight closing through use of synthetic seating material.
- Can be used on Refrigerants 22, 134a, 401A, 402A, 404A, 407C, 502 & 507 because of high MOPD ratings.

Sporlan Solenoid Valves are made in two general types, normally closed and normally open. The normally closed types may be further sub-divided into direct acting and pilot operated types.

The Sporlan "E" series solenoid valves feature extended solder type connections as standard. One important benefit to the user is that all valves in the "E" series can be installed without disassembly using either low or no silver content brazing alloy. The "E" series is interchangeable with the "B" series; solder type valves, providing the overall length can be accommodated.

All valves in the "E" series have the same capacities as the "B" series with the exception of the E42.

Its capacity is approximately 15% greater than the MA42.

All Sporlan solenoid valves are designed for liquid, suction and discharge gas applications.

Most Sporlan Solenoid Valves are listed by Underwriters' Laboratories, Inc. –Guide No. Y10Z – File No.MH4576 and Canadian Standards Association –Guide 440-A-O, Class 3221, File 19953 and CE provisions of the LVD 73/23/EEC.

LIQUID CAPACITY SELECTION TABLE

PART NO "E" SERIES VALVE	TONS OF REFRIGERATION**																			
	R-22					R-134a					R-401A					R-402A				
	PRESSURE DROP – psi*																			
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
E3	0.9	1.3	1.6	1.9	2.1	0.8	1.2	1.5	1.8	2.0	0.9	1.3	1.6	1.9	2.1	0.6	0.9	1.1	1.2	1.4
E5	1.6	2.3	2.8	3.3	3.6	1.5	2.1	2.6	3.0	3.4	1.6	2.3	2.8	3.3	3.7	1.1	1.5	1.9	2.1	2.4
E6	2.9	4.0	4.9	5.7	6.4	2.7	3.8	4.6	5.3	5.9	2.9	4.1	4.9	5.7	6.4	1.9	2.7	3.3	3.8	4.2
E9	4.7	6.6	8.1	9.3	10.4	4.4	6.2	7.5	8.7	9.7	4.7	6.6	8.1	9.3	10.4	3.1	4.4	5.3	6.2	6.9
E10	6.4	9.1	11.1	12.8	14.3	6.0	8.5	10.4	12.0	13.4	6.4	9.1	11.1	12.8	14.4	4.2	6.0	7.3	8.5	9.4
E14	9.1	12.9	15.8	18.2	20.3	8.5	12.0	14.7	17.0	18.9	9.1	12.9	15.8	18.2	20.4	6.0	8.5	10.4	12.0	13.4
E19	13.9	19.8	24.2	28.0	31.4	13.0	18.4	22.6	26.1	29.2	14.0	19.8	24.3	28.1	31.4	9.2	13.0	16.0	18.5	20.7
E25	23.8	33.8	41.4	47.8	53.5	22.2	31.5	38.6	44.6	49.9	23.9	33.8	41.4	47.9	53.6	15.7	22.2	27.3	31.5	35.3
E34	33.2	47.0	57.6	66.5	74.4	31.0	43.8	53.7	62.0	69.4	33.3	47.1	57.7	66.6	74.5	21.9	31.0	38.0	43.9	49.0
—	60.9	82.3	98.2	111	123	56.7	76.7	91.5	104	114	61.0	82.5	98.0	112	123	40.4	54.6	65.1	73.8	81.4
E42	73.5	104	127	147	164	68.6	96.9	119	137	153	73.6	104	127	147	165	48.5	68.5	83.9	96.9	108
—	109	147	175	199	219	101	137	163	185	204	109	147	176	199	220	72.1	97.5	116	132	145

PART NO “E” SERIES VALVE	TONS OF REFRIGERATION**																			
	404A					407C					502					507				
	PRESSURE DROP – psi*																			
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
E3	0.6	0.9	1.1	1.2	1.4	0.8	1.2	1.5	1.7	1.9	0.6	0.8	1.0	1.2	1.4	0.6	0.8	1.0	1.2	1.4
E5	1.1	1.5	1.9	2.1	2.4	1.5	2.1	2.6	3.0	3.4	1.0	1.5	1.8	2.1	2.4	1.0	1.5	1.8	2.1	2.4
E6	1.9	2.7	3.3	3.8	4.2	2.6	3.7	4.5	5.2	5.8	1.9	2.6	3.2	3.7	4.1	1.9	2.6	3.2	3.7	4.1
E9	3.1	4.4	5.4	6.2	6.9	4.3	6.1	7.4	8.6	9.6	3.0	4.3	5.2	6.0	6.8	3.0	4.3	5.2	6.0	6.7
E10	4.2	6.0	7.3	8.5	9.5	5.9	8.3	10.2	11.8	13.2	4.2	5.9	7.2	8.3	9.3	4.2	5.9	7.2	8.3	9.3
E14	6.0	8.5	10.4	12.0	13.4	8.4	11.8	14.5	16.7	18.7	5.9	8.4	10.2	11.8	13.2	5.9	8.3	10.2	11.8	13.2
E19	9.2	13.1	16.0	18.5	20.7	12.8	18.2	22.3	25.8	28.8	9.0	12.8	15.7	18.2	20.3	9.0	12.8	15.7	18.1	20.3
E25	15.7	22.3	27.4	31.6	35.4	21.9	31.0	38.0	44.0	49.2	15.5	21.9	26.8	31.0	34.7	15.4	21.8	26.8	30.9	34.6
E34	22.0	31.1	38.1	44.0	49.2	30.5	43.2	53.0	61.2	68.4	21.5	30.5	37.4	43.2	48.3	21.5	30.4	37.3	43.1	48.2
—	40.8	55.2	65.8	74.6	82.2	56.4	76.3	91.1	103	114	39.5	53.4	63.7	72.2	79.5	39.8	53.8	64.2	72.8	80.2
E42	48.6	68.8	84.2	97.2	109	67.6	95.6	117	135	151	47.7	67.4	82.5	95.3	107	47.6	67.3	82.4	95.1	106
—	72.8	98.5	118	133	147	101	136	163	184	203	70.4	95.3	114	129	142	71.0	96.1	115	130	143

*Do not use below 1 psi pressure drop, except Types E3 and A3 valves.

**Capacities are based on 40° F evaporator and 100° F liquid. Valve types whether Normally Closed or Normally Open have the same capacities, i.e., B10 or OB10, E10 or OE10.

Solenoid valves for brine applications – consult Sporlan Valve Company, Washington, MO.

SPORLAN - SOLENOID VALVES & COILS



Refrigerants 22, 134a, 402A, 404A, 407C, 502, 507
E Series Extended End Connections
 MOPD AC = 300 psi

Extended End Connections

Without Manual Lift Stem	With Manual Lift Stem	Use With Coil Kit
E3	ME3	MKC-1
E5	ME5	MKC-1
E6	ME6	MKC-1
E9	ME9	MKC-2
E10	ME10	MKC-2
E14	ME14	MKC-2
E19	ME19	MKC-2
E25	ME25	MKC-2
E35	ME35	MKC-1
E42	ME42	MKC-2

When ordering any Coil Assembly,
 Specify Coil Size, Voltage and Cycles. Ex: MKC-1
 24/50-60

Without Manual Lift Stem

Part Number	Connections (In)	Port Size (In)	Watts
E3S120	1/4 ODF Solder	0.101	10
E3S130	3/8 ODF Solder	0.101	10
E5S120	1/4 ODF Solder	0.150	10
E5S130	3/8 ODF Solder	0.150	10
E6S130	3/8 ODF Solder	3/16	10
E6S140	1/2 ODF Solder	3/16	10
E9S240	1/2 ODF Solder	9/32	15
E10S240	1/2 ODF Solder	5/16	15
E10S250	5/8 ODF Solder	5/16	15
E14S250	5/8 ODF Solder	7/16	15
E19S250	5/8 ODF Solder	19/32	15
E19S270	7/8 ODF Solder	19/32	15
E25S270	7/8 ODF Solder	25/32	15
E25S290	1-1/8 ODF Solder	25/32	15
E34S290	1-1/8 ODF Solder	1	15
E34S2110	1-3/8 ODF Solder	1	15
E42S2130	1-5/8 ODF Solder	1 5/16	15
E42S2170	2-1/8 ODF Solder	1 5/16	15

SPORLAN - SOLENOID VALVES & COILS

With Manual Lift Stem

Part Number	Connections (In)	Port Size (In)	Watts
ME6S130	3/8 ODF Solder	3/16	10
ME6S140	1/2 ODF Solder	3/16	10
ME9S240	1/2 ODF Solder	9/32	15
ME10S240	1/2 ODF Solder	5/16	15
ME10S250	5/8 ODF Solder	5/16	15
ME14S250	5/8 ODF Solder	7/16	15
ME19S250	5/8 ODF Solder	19/32	15
ME19S270	7/8 ODF Solder	19/32	15
ME25S270	7/8 ODF Solder	25/32	15
ME25S290	1-1/8 ODF Solder	25/32	15
ME34S290	1-1/8 ODF Solder	1	15
ME34S2110	1-3/8 ODF Solder	1	15
ME42S2130	1-5/8 ODF Solder	1 5/16	15
ME42S2170	2-1/8 ODF Solder	1 5/16	15

Refrigerants R-410A				
E Series Extended End Connections				
Part Number	Coil Kit	Connections (in)	Port Size (in)	Watts
With Manual Lift Stem				
ME6S130-HP	MKC-1	3/8 ODF Solder	3/16	10
ME9S240-HP	MKC-2	1/2 ODF Solder	9/32	15
ME14S250-HP	MKC-2	5/8 ODF Solder	7/16	15
ME19S270-HP	MKC-2	7/8 ODF Solder	19/32	15
ME25S290-HP	MKC-2	1-1/8 ODF Solder	25/32	15
ME35S190-HP	MKC-2	1-1/8 ODF Solder	1	15
ME35S1110-HP	MKC-2	1-3/8 ODF Solder	1	15

R-410A Valves with 4 different port sizes and ODF solder Connections are available from Sporlan. The smallest port Valve uses a MKC-1 coil while the rest use MKC-2 coil.

Solenoid Parts Kits

Part Number	Description
KS-B6/E6	Solenoid Parts Kits
KS-B9/E9	Solenoid Parts Kits
KS-B10/E10	Solenoid Parts Kits
KS-B14/E14	Solenoid Parts Kits
KS-B19/E19	Solenoid Parts Kits
KS-B25/E25	Solenoid Parts Kits
KS-B34/E34	Solenoid Parts Kits
KS-B42/E42	Solenoid Parts Kits

SOLENOID COILS

Part Number	Mfg Part No	Coil Type	Voltage
MKC-1DUALJAU	MKC-1 DUAL JAU	MKC-1	24 JAQ
MKC-1120/50-60JAM	MKC-1 120/50-60 JAM	MKC-1	120 JAM
MKC-1208-240/5060JAN	MKC-1 208-240/50-60 JAN	MKC-1	208-240 JAN
MKC-124/50-60JAQ	MKC-1 24/50-60 JAQ	MKC-1	DUAL JAU
MKC-2DUALJAU	MKC-2 DUAL JAU	MKC-2	24 JAQ
MKC-2120/50-60JAM	MKC-2 120/50-60 JAM	MKC-2	120 JAM
MKC-2208-240/50-60JAN	MKC-2 208-240/50-60 JAN	MKC-2	208-240 JAN
MKC-224/50-60JAQ	MKC-2 24/50-60 JAQ	MKC-2	DUAL JAU

Sporlan solenoid valves are available in many different Voltage and cycle ratings. Standard coils are listed above.

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Sealed Filter-Driers



CATCH-ALL SEALED TYPE The universal acceptance of the Catch-All Filter Drier is due to its unique molded porous core, consisting of a blend of highly effective desiccants. The quality features built into it assure years of service on any refrigeration system.

MOISTURE - The Catch-All Filter Drier removes moisture from the refrigerant by adsorbing and retaining it deep within the desiccant granules.

FOREIGN MATTER - The Catch-All Filter Drier will filter out scale, solder particles, carbon, sludge, dirt, or any other foreign matter with negligible pressure drop. Fine particles that would go through an ordinary strainer are removed down to a minimum size in one pass filtration. The large filtering area of the Catch-All Filter Drier core permits it to collect a large amount of dirt without plug up.

OIL SLUDGE AND VARNISH - Even the best refrigeration oils break down to produce varnish, sludge, and organic acids. Only the Catch-All Filter Drier is capable of removing these products of oil decomposition.

ACID - The Catch-All Filter Drier is unexcelled in acid removal ability. The hydrochloric, hydrofluoric, and various organic acids are adsorbed and held by the desiccant in a manner similar to the adsorption of moisture. Tests have demonstrated that the Catch-All Filter Drier will remove over 10 times as much acid as the desiccant used in most driers. This ability, along with its excellent ability to clean up the oil, is responsible for the excellent field performance in cleaning up severely contaminated systems.

SPECIAL APPLICATIONS - A special "HH" core Catch-All Filter Drier is available to remove wax which frequently causes difficulty on low temperature Refrigerant 22 and 502 systems. For cap tube systems, use the C-032-CAP or CW-032-CAP Catch-All which has fittings suitable for attaching to any size capillary tube. **Remember...It's not how much moisture you remove from a refrigeration system that counts, it's how little moisture is left.**

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Sealed Filter-Driers - Liquid Line Type SAE Flare

Part Number	Connection Size (In.)	Volume Of Desiccant (Cu In.)	Overall Length (In.)	Solder Socket Depth (In.)	Diameter of Body (In.)
C-032	1/4	3	4.19	0.38	1.75
C-033	3/8	3	4.69	0.44	1.75
C-052	1/4	5	4.75	0.38	2.44
C-053	3/8	5	5.19	0.44	2.44
C-082	1/4	8	5.62	0.38	2.62
C-083	3/8	8	6.06	0.44	2.62
C-084	1/2	8	6.31	0.50	2.62
C-162	1/4	16	6.25	0.38	3
C-163	3/8	16	6.75	0.44	3
C-164	1/2	16	6.94	0.50	3
C-165	5/8	16	7.25	0.62	3
C-303	3/8	30	9.69	0.44	3
C-304	1/2	30	9.88	0.50	3
C-305	5/8	30	10.19	0.62	3
C-413	3/8	41	9.56		3.5
C-414	1/2	41	9.94	0.50	3.5
C-415	5/8	41	10.25	0.62	3.5

Sealed Filter-Driers - Liquid Line Type ODF Solder

Part Number	Connection Size (In.)	Volume Of Desiccant (Cu In.)	Overall Length (In.)	Solder Socket Depth (In.)	Diameter of Body (In.)
C-032-S	1/4	3	3.81	0.38	1.75
C-033-S	3/8	3	3.88	0.44	1.75
C-052-S	1/4	5	4.19	0.38	2.44
C-0525-S	5/16	5	4.38	0.44	2.44
C-053-S	3/8	5	4.31	0.44	2.44
C-082-S	1/4	8	5.12	0.38	2.62
C-0825-S	5/16	8	5.31	0.44	2.62
C-083-S	3/8	8	5.25	0.44	2.62
C-084-S	1/2	8	5.44	0.50	2.62
C-162-S	1/4	16	5.75	0.38	3
C-1625-S	5/16	16	5.94	0.44	3
C-163-S	3/8	16	5.88	0.44	3
C-164-S	1/2	16	6.00	0.50	3
C-165-S	5/8	16	6.31	0.62	3
C-167-S	7/8	16	6.93	0.75	3
C-303-S	3/8	30	8.88	0.44	3
C-304-S	1/2	30	9.00	0.50	3
C-305-S	5/8	30	9.25	0.62	3
C-306-S	3/4	30	9.65	0.62	3
C-307-S	7/8	30	9.80	0.75	3
C-309-S	1 1/8	30	9.75	0.96	3
C-414S	1/2	41	9.05	0.50	3.5
C-415S	5/8	41	9.35	0.62	3.5
C-417S	7/8	41	9.81	0.75	3.5
C-419S	1 1/8	41	9.75	0.90	3.5
C-607-S	7/8	60	16.00	0.75	3
C-609-S	1 1/8	60	16.00	0.90	3

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Sealed Filter-Driers - Suction Line Type ODF Solder

Part Number	Connection Size (In.)	Volume Of Desiccant (Cu In.)	Overall Length (In.)	Solder Socket Depth (In.)	Diameter of Body (In.)
C-084-S-T-HH	1/2	8	5.44	0.50	2.62
C-164-S-T-HH	1/2	16	6.00	0.50	3
C-165-S-T-HH	5/8	16	6.31	0.62	3
C-166-S-T-HH	3/4	16	6.75	0.62	3
C-167-S-T-HH	7/8	16	6.93	0.75	3
C-305-S-T-HH	5/8	30	9.25	0.62	3
C-306-S-T-HH	3/4	30	9.65	0.62	3
C-307-S-T-HH	7/8	30	9.80	0.75	3
C-309-S-T-HH	1 1/8	30	9.75	0.96	3
C-417-S-T-HH	7/8	41	9.81	0.75	3.5
C-419-S-T-HH	1 1/8	41	9.75	0.90	3.5
C-437-S-T-HH	7/8	43	10.34	0.75	4.75
C-439-S-T-HH	1 1/8	43	10.62	0.94	4.75
C-4311-S-T-HH	1 3/8	43	10.94	1.00	4.75
C-4313-S-T-HH	1 5/8	43	10.94	1.06	4.75
C-607-S-T-HH	7/8	60	16.00	0.75	3
C-609-S-T-HH	1 1/8	60	16.00	0.90	3

Sealed Filter-Driers - Compact Style - Liquid Line Type ODF Solder

Part Number	Connection Size (In.)	Volume Of Desiccant (Cu In.)	Overall Length (In.)	Solder Socket Depth (In.)	Diameter of Body (In.)
C-144-S-TT-HH	1/2	14	4.14	0.50	4.44
C-145-S-TT-HH	5/8	14	4.38	0.66	4.44
C-146-S-TT-HH	3/4	14	4.83	0.66	4.44
C-147-S-TT-HH	7/8	14	4.97	0.75	4.44
C-149-S-TT-HH	1 1/8	14	4.93	0.96	4.44

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Sealed Filter-Driers - Liquid Line Ratings And Selection Recommendations

TYPE	SURFACE FILTERING AREA	RATINGS AT ARI STANDARD CONDITIONS														SELECTION RECOMMENDATIONS (Tons)					
		Water Capacity-Drops										Refrigerant Flow Capacity** (Tons at 1 psi ΔP)				Refrigeration			Air Conditioning		
		Refrigerant 22 60 PPM		Refrigerant 134a 50PPM		Refrigerant 404A/507 50 PPM		Refrigerant 407C 50 PPM		Refrigerant 410A 50 PPM						Commercial & Low Temperature Equipment			Field Replacement or Field Built Up Systems		
		75°F	125° F	75° F	125° F	75° F	125°F	75° F	125°F	75° F	125°F	22	134a	404A 507	407C	410A	12 & 134a	22	404A, 502 & 507	12 & 134a	22, 407C & 410A
C-032	9	61	50	67	48	71	58	52	17	27	20	1.5	1.3	1.0	1.3	1.4	1/4	1/4	1/4	1/2	1/2
C-032-CAP																					
C-032-S																					
C-032-F												3.5	3.2	2.3	3.2	3.4	1/4	1/4	1/4	1/2	1/2
C-032-FM																					
C-033																					
C-033-S	3.8	3.5	2.6	3.5	3.7	1/3	1/3	1/3	3/4 thru 1	3/4 thru 2											
C-052																					
C-052-S																					
C-052-F																					
C-052-FM																					
C-0525-S																					
C-053	15	146	119	158	114	169	138	123	40	63	48	2.1	1.9	1.4	1.9	2.0	1/3	1/3	1/3	3/4 thru 1	3/4 thru 2
C-053-S																					
C-052																					
C-052-S												3.4	3.1	2.3	3.1	3.3	1/2 thru 1-1/2	1/2 thru -1/2	1/2 thru 1	3/4 thru 2	1 thru 2
C-052-F																					
C-0525-S																					
C-082	21	240	196	261	188	279	227	202	65	104	78	2.1	1.9	1.4	1.9	2.0	1/2 thru 1-1/2	1/2 thru -1/2	1/2 thru 1	3/4 thru 2	1 thru 2
C-082-S																					
C-0825-S																					
C-083												3.7	3.3	2.4	3.3	3.5	1/2 thru 1-1/2	1/2 thru -1/2	1/2 thru 1	3/4 thru 2	1 thru 2
C-083-S																					
C-084																					
C-084-S	4.5	4.2	3.0	4.2	4.4	1 thru 2	-1/2 thru 3	3/4 thru 2	1 thru 5	1-1/2 thru 5											
C-162																					
C-162-S																					
C-1625-S																					
C-163																					
C-163-S																					
C-164	33	346	297	396	285	424	345	307	100	158	119	5.2	4.7	3.4	4.7	5.0	1 thru 2	-1/2 thru 3	3/4 thru 2	1 thru 5	1-1/2 thru 5
C-164-S																					
C-165																					
C-165-S												10.1	9.3	6.8	9.3	9.8	3 thru 5	3 thru 5	2 thru 5	3 thru ½	4 thru 10
C-303																					
C-303-S																					
C-304	53	696	567	756	545	809	658	586	189	302	227	11.0	9.3	6.8	9.3	9.8	3 thru 5	3 thru 5	2 thru 5	3 thru ½	4 thru 10
C-304-S																					
C-305																					
C-305-S												14.9	13.6	9.9	13.7	14.5	5 thru 10	5 thru 12	5 thru 10	5 Thru 12	7-1/2 thru 15
C-307-S																					
C-414																					
C-414-S	67	936	713	1017	733	1088	885	788	254	407	305	11.5	10.5	7.6	10.5	11.1	5 thru 10	5 thru 12	5 thru 10	5 Thru 12	7-1/2 thru 15
C-415																					
C-415-S																					
C-417-S												15.8	14.5	10.6	14.6	15.4	15	15	10	15	20
C-419-S																					
C-607-S																					
C-609-S	22.1	20.3	14.8	20.4	21.5	15	15	10	15	20											
C-607-S																					
C-609-S																					
C-609-S	24.3	22.3	16.3	22.4	23.7	15	15	10	15	20											
C-607-S																					
C-609-S																					
C-609-S	29.1	26.6	19.5	26.8	28.4	15	15	10	15	20											
C-607-S																					
C-609-S																					
C-609-S	33.2	30.4	22.3	30.7	32.4	15	15	10	15	20											
C-607-S																					
C-609-S																					

*The filtration area is equal to the core surface area plus the large internal surface available for depth filtration.

†20 drops = 1 gram = 1cc.

**Based on 86 F liquid line temperature and a refrigerant flow of 3.1 pounds per minute per ton of Refrigerant 134a; 2.9 pounds per minute per ton of Refrigerant 22; 3.9 pounds per minute per ton for Refrigerant 404A; 2.9 pounds per minute per ton for Refrigerant 407C; 2.8 pounds per minute per ton for Refrigerant 410A and 4.1 pounds per minute per ton for Refrigerant 507. Ratings in accordance to ARI Standard 710.

NOTES:

1. R-12 water capacity values are approximately 15 percent greater than R-134a. R-502 water capacities are similar to R-404A and R-507.
2. The variation in flow ratings of filter-driers having the same size core and shell is caused by the difference in connection sizes used.

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Suction Line Filter Drier Recommendation - For Cleanup After Burnout and New System

Sealed Type

TYPE NUMBER			CONNECTIONS (in.) ODF Solder	Number of Cores	CORE PART NO	LENGTH (in.)	SOLDER SOCKET DEPTH (in.)	WIDTH (in.)	SYSTEM CAPACITY IN HORSEPOWER			
									Refrigerant 22 & 407C		Refrigerant 12, 134a, 404A, 502 & 507	
									Permanent Installation with Cores	Temporary Installation Cores for Cleanup; Filter Elements after Cleanup	Permanent Installation with Cores	Temporary Installation Cores for Cleanup; Filter Elements after Cleanup
SEALED TYPE	C-084-S-T-HH	1/2	Sealed Type Filter Driers	Sealed Type Filter Driers	5.44	0.50	2.62	1	Select these types on basis of permanent installation	1/2	Select these types on basis of permanent installation	
	C-164-S-T-HH	1/2			6.00	0.50	3.00	2		1		
	C-165-S-T-HH	5/8			6.31	0.62						
	C-166-S-T-HH	3/4			6.75	0.62						
	C-167-S-T-HH	7/8			6.93	0.75	3.00	3		2		
	C-305-S-T-HH	5/8			9.25	0.62						
	C-306-S-T-HH	3/4			9.65	0.62						
	C-307-S-T-HH	7/8			9.80	0.75	3.00	5		3		
	C-309-S-T-HH	1-1/8			9.75	0.96						
	C-417-S-T-HH	7/8			9.81	0.75						3.50
	C-419-S-T-HH	1-1/8			9.75	0.96						
	C-437-S-T-HH	7/8			10.34	0.75	4.75	10		5		
	C-439-S-T-HH	1-1/8			10.74	0.96						
	C-4311-S-T-HH	1-3/8			10.94	1.00						3.00
	C-4313-S-T-HH	1-5/8			10.94	1.06						
	C-607-S-T-HH	7/8			16.00	0.75						
	C-609-S-T-HH	1-1/8			16.00	0.96						
SEALED TYPE COMPACT STYLE	C-144-S-TT-HH	1/2			4.14	0.50	4.44	2	1			
	C-145-S-TT-HH	5/8			4.38	0.62		3	2			
	C-146-S-TT-HH	3/4			4.83	0.69						
	C-147-S-TT-HH	7/8			4.97	0.75		5	3			
	C-149-S-TT-HH	1-1/8			4.93	0.96						
REPLACEABLE CORE TYPE*	C-30013-G	1-5/8	3	RC-10098- HH or RC-10098				25	50	15	25	
	C-30017-G	2-1/8										
	C-40017-G	2-1/8	4					30	60	20	30	
	C-40021-G	2-5/8										
	C-40025-G	3-1/8										
	C-40029-G	3-5/8										
	C-40033-G	4-1/8										

Catch-All Suction Line Filter Drier Selection Instructions

Selection of the proper Catch-All Suction Line Filter Drier will depend upon the intended usage. Either the "Permanent Installation with Cores" or "Temporary Installation Cores for Cleanup; Filter Elements after Cleanup" column may be used. When the **best possible system protection** is desired, the "Permanent with Cores" column should be used for selection. These recommendations are made on the basis of a low pressure drop, and as a result the cores can be left in the shell for maximum drying and acid removal when the system returns to normal operation delivering its full rated capacity.

An alternate **selection that is satisfactory and less expensive** is to install cores temporarily for cleanup, and then remove these cores and install filter elements after cleanup. Because of the larger system capacity, the pressure drop through the temporarily installed cores will be somewhat larger than normal, but still within the limits. After cleanup, the use of filter elements will assure a minimum pressure drop when the system is in normal operation. The low pressure drop through the filter elements assures maximum energy savings during normal operation. Cleanup of the system can be accomplished with either the standard core (RC-10098) or the charcoal core (RC-10098-HH).

Significance Of The Part Number

The letters and numerals in the Catch-All part number each have a significance. The "**C**" indicates Catch-All, and "**CW**" indicates the High Water Capacity Catch-All. The **FIRST TWO OR THREE DIGITS** indicate cubic inches of desiccant. The **LAST ONE OR TWO DIGITS** indicate fitting size in eighths. For sealed models, a "**-S**" following the last digit indicates solder fittings, and **NO LETTER** indicates a flare fitting. Replaceable core models (C-420 and larger) only have solder connections and the "-S" is omitted. Examples: C-083 is 8 cu. in. and 3/8 in. flare, C-309-S is 30 cu. in. and 1-1/8 in. solder, C-19213 is 192 cu. in. and 1-5/8 in. solder. Other suffix letters indicate special qualities. For example:

"**T**" indicates a pressure tap consisting of a Schrader type access valve on the inlet end of the Catch-All.

"**HH**" indicates a charcoal style core for wax removal and cleanup after a hermetic motor burnout.

SPORLAN - CONTAMINANT CONTROL PRODUCTS

HH Style Filter-Driers for Wax Removal

Small amounts of wax are often a problem on **low temperature systems**. Even well engineered systems frequently contain minute quantities of wax which are sufficient to clog expansion valve screens or cause sticking of the valve. Sporlan has developed a special blend of desiccants including activated charcoal which removes small amounts of wax in the liquid line before this wax can cause trouble at the expansion valve. These Catch-All Filter Driers have been very successful in correcting trouble jobs in the field.

By installing HH Style Catch-All Filter Driers in the liquid line of all low temperature systems these wax problems can be entirely prevented. In addition to their wax removal ability, these filter driers will remove all of the other harmful contaminants that the standard filter driers remove.

The following **Catch-All Filter Driers** are available with the HH core to meet the needs of low temperature systems. **For dimensions, refer to the specifications for standard filter driers or consult Bulletin 40-10.**

Part Number	Connections (In.)
C-052-HH	1/4 SAE Flare
C-082-HH	1/4 SAE Flare
C-083-HH	3/8 SAE Flare
C-162-HH	1/4 SAE Flare
C-163-HH	3/8 SAE Flare
C-163-S-HH	3/8 ODF Solder
C-164-HH	1/2 SAE Flare
C-164-S-HH	1/2 ODF Solder
C-165-HH	5/8 SAE Flare
C-165-S-HH	5/8 ODF Solder
C-303-HH	3/8 SAE Flare
C-304-HH	1/2 SAE Flare
C-304-S-HH	1/2 ODF Solder
C-305-HH	5/8 SAE Flare
C-305-S-HH	5/8 ODF Solder
C-414-HH	1/2 SAE Flare
C-415-HH	5/8 SAE Flare
C-417-S-HH	7/8 ODF Solder
RC-4864-HH	Replaceable Core
RC-10098-HH	Replaceable Core

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Replaceable Core Shells



The rugged construction of the Replaceable Core Catch-All has proven itself in the field for many years. The design features include:

1. The famous **molded porous core** for maximum contaminant removal. The core cannot swell, powder, or pack assuring ease of installation and removal;
2. The **bolt and nut attachment** of the end provides simple and trouble free installation;
3. The **internal** construction gives a one piece assembly and assures proper core alignment;
4. A **complete line** of fitting sizes all with copper fittings;
5. **No plastic parts** are used all internal parts are plated steel;
6. A **corrosion resistant powder paint** protects the exterior of the shell.

Catch All

c  US
LISTED

Part Number	ODF Connections (In.)	Number of Cores	Core Part No.	Volume of Desiccant (cu in)	Mounting Brackets	Overall Length (In.)
C-485	5/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.15
C-487	7/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.30
C-967	7/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	14.84
C-969	1 1/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.04
C-9613-T	1 5/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.14
C-1449	1 1/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.58
C-14411	1 3/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.68
C-19211	1 3/8	4	RCW-48, RC-4864, or RC-4864-HH	192	A-685	26.22
C-19213	1 5/8	4	RCW-48, RC-4864, or RC-4864-HH	192	A-685	26.22
C-30013	1 5/8	3	RCW-100, RC-10098, or RC-10098-HH	300	A-175-2	26.22
C-40017	2 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	28.06
C-485-G	5/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.15
C-487-G	7/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.30
C-489-G	1 1/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.50
C-4811-G	1 3/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.60
C-4813-G	1 5/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.60
C-967-G	7/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	14.84
C-969-G	1 1/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.04
C-9611-G	1 3/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.14
C-9613-G	1 5/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.14
C-1449-G	1 1/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.58
C-14411-G	1 3/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.68
C-14413-G	1 5/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.68
C-19211-G	1 3/8	4	RCW-48, RC-4864, or RC-4864-HH	192	A-685	26.22
C-19213-G	1 5/8	4	RCW-48, RC-4864, or RC-4864-HH	192	A-685	26.22
C-30013-G	1 5/8	3	RCW-100, RC-10098, or RC-10098-HH	300	A-175-2	26.22
C-30017-G	2 1/8	3	RCW-100, RC-10098, or RC-10098-HH	300	A-175-2	28.06
C-40017-G	2 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	28.06
C-40021-G	2 5/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	34.57
C-40025-G	3 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	34.44
C-40029-G	3 5/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	34.81
C-40033-G	4 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	35.12
C-485-T	5/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.15
C-487-T	7/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.30
C-489-T	1 1/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.50
C-4811-T	1 3/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.60
C-4813-T	1 5/8	1	RCW-48, RC-4864, or RC-4864-HH	48	A-685	9.60
C-967-T	7/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	14.84
C-969-T	1 1/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.04
C-9611-T	1 3/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.14
C-9613-T	1 5/8	2	RCW-48, RC-4864, or RC-4864-HH	96	A-685	15.14

SPORLAN - CONTAMINANT CONTROL PRODUCTS

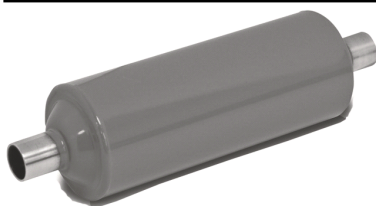
Replaceable Core Shells

Part Number	ODF Connections (In.)	Number of Cores	Core Part No.	Volume of Desiccant (cu in)	Mounting Brackets	Overall Length (In.)
C-1449-T	1 1/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.58
C-14411-T	1 3/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.68
C-14413-T	1 5/8	3	RCW-48, RC-4864, or RC-4864-HH	144	A-685	20.68
C-19211-T	1 3/8	4	RCW-48, RC-4864, or RC-4864-HH	192	A-685	26.22
C-19213-T	1 5/8	4	RCW-48, RC-4864, or RC-4864-HH	192	A-685	26.22
C-30013-T	1 5/8	3	RCW-100, RC-10098, or RC-10098-HH	300	A-175-2	26.22
C-30017-T	2 1/8	3	RCW-100, RC-10098, or RC-10098-HH	300	A-175-2	28.06
C-40017-T	2 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	28.06
C-40021-T	2 5/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	34.57
C-40025-T	3 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	34.44
C-40029-T	3 5/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	34.81
C-40033-T	4 1/8	4	RCW-100, RC-10098, or RC-10098-HH	400	A-175-2	35.12

OPTIONAL SECONDARY FILTER – ORDER SEPARATELY		
Filter Part No.	Description	Quantity Required
FS-480 FS-960 FS-1440 FS-19200	Filter for C-480 Series Shell	1

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Reversible Heat Pump Filter-Driers



DESIGN BENEFITS

- A short overall length for easy installation.
- Drier operates in either flow direction with low pressure drop.
- Proven metal check valves used in construction — no synthetic materials.
- The Sporlan dependable molded core used for maximum filtration ability. When the flow direction reverses, dirt already collected remains in the filter-drier.
- A carefully engineered blend of desiccants for maximum water capacity and acid removal ability. The HPC-160-HH Series also has the HH style core with activated charcoal which offers maximum ability to remove oleoresin and other reactive chemical constituents in the oil.
- Same rugged construction as used in the Catch-All.



SPECIFICATIONS -FOR NEW INSTALLATIONS AND HFC SYSTEM USE

Part Number	Connection Size Inches	Selection Recommendations Tons	Dimensions				Water Capacity Refrigerant				Liquid Capacity Ounces (Wt.) @100°F	
			Overall Length Inches	Diameter Inches	Refrigerant R-22	Refrigerant R-410A	R-22 Drops at 60 ppm 75°F	R-22 Drops at 60 ppm 125°F	R-410A Drops at 80 ppm* 75°F	R-410A Drops at 80 ppm* 125°F	R-22	R-410A
HPC-103	3/8 Flare	1 thru 5	6.75	3.00	3.4	3.3	215	176	171	105	12.2	10.6
HPC-103-S	3/8 Solder	1 thru 5	5.88	3.00	3.4	3.3	215	176	171	105	12.2	10.6
HPC-104	1/2 Flare	1 thru 5	6.94	3.00	4.5	4.4	215	176	171	105	12.2	10.6
HPC-104-S	1/2 Solder	1 thru 5	6.00	3.00	4.5	4.4	215	176	171	105	12.2	10.6

For Clean-Up After Burnout

Part Number	Connection Inches	Selection Recommendations Tons	Dimensions			Water Capacity Refrigerant Drops at 60 ppm		Liquid Capacity Ounces (Wt.) R-22 @ 100°F
			Overall Length Inches	Diameter Inches		75°F	125°F	
HPC-163-HH	3/8 Flare	1 thru 5	7.78	3.00	3.7	93	81	14.5
HPC-163-S-HH	3/8 Solder	1 thru 5	6.92	3.00	3.7	93	81	14.5
HPC-164-HH	1/2 Flare	1 thru 5	7.95	3.00	4.0	93	81	14.5
HPC-164-S-HH	1/2 Solder	1 thru 5	7.07	3.00	4.0	93	81	14.5
HPC-165-HH	5/8 Flare	1 thru 5	8.28	3.00	4.9	93	81	14.5
HPC-165-S-HH	5/8 Solder	1 thru 5	7.35	3.00	4.9	93	81	14.5

UL and ULc Listed - Guide-SMGT-File No. SA-1756A & B. Core volume is 10 cubic inches for HPC-100 Series and 14 cubic inches for the HPC-160-HH Series. Core surface filtering area is 18 sq. in. for the HPC-100 Series and 26 sq. in. for the HPC-160-HH Series.

HPC-100 Series are rated for 650 psig; HPC-160-HH have a 500 psig rating.

*As of this printing, ARI has not established an EPD for R-410A.

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Sealed Type Suction Filters



Offers the following benefits:

- Protects the compressor from dirt
- A relief device opens if the filter plugs
- Suitable for use with all brazing alloys
- Full flow design for low pressure drop
- Maximum corrosion resistance
- Complete line of sizes

Sporlan offers an exclusive concept in Suction Filter design a filter with an optional relief feature. When flow is in **one direction**, the bypass relief feature is active. If the pressure drop across the element becomes excessive, the bypass relief will open slightly to maintain sufficient gas flow and assure proper cooling of the hermetic motor.

When the Suction Filter is installed with flow in the **opposite direction**, the bypass relief feature is inactive and will never open, regardless of the increase in pressure drop.

Compressor manufacturers have found that system contaminants such as metal chips, foreign particles, oxides, etc. can cause motor burnouts. This material is carried through the suction line and becomes imbedded in the motor windings. The natural flexing of these windings during start up causes these particles to scrape the motor insulation resulting in motor burnout.

The solution to this major problem is adequate filtration just ahead of the compressor. The filter will remove solid contaminants in the piping following installation. The filtering media used in the Sporlan Suction Filter has sufficient area and depth to provide excellent filtration, and still keeps the pressure drop to a minimum.

The "-T" in the type number indicates that these models are equipped with an **access valve** to permit pressure drop readings. Checking pressure drop with the access valve can only be performed when the suction filter is installed with the bypass feature inactive.

Types With the Optional Relief Feature

Without Access Valve

Part Number	Connection Inches	FilterArea Square Inches	Dimensions Inches			Shipping Weight Lbs.
			Overall Length	Socket Depth	Shell Diameter	
SF-283-F	3/8 SAE	28	8.78	-	3.00	2-1/4

With Access Valve

Part Number	Connection Inches	FilterArea Square Inches	Dimensions Inches			Shipping Weight Lbs.
			Overall Length	Socket Depth	Shell Diameter	
SF-285-T	5/8 ODF	28	8.34	0.62	3.00	2-1/4
SF-286-T	3/4 ODF	28	8.79	0.69	3.00	2-1/4
SF-287-T	7/8 ODF	28	8.93	0.75	3.00	2-1/4
SF-289-T	1-1/8 ODF	28	9.51	0.91	3.00	2-1/4
SF-489-T	1-1/8 ODF	48	12.42	0.91	3.00	3
SF-4811-T	1-3/8 ODF	48	13.10	0.97	3.00	3
SF-4813-T	1-5/8 ODF	48	13.44	1.09	3.00	3

Types Without the Optional Relief Feature

Without Access Valve

Part Number	Connection Inches	FilterArea Square Inches	Dimensions Inches			Shipping Weight Lbs.
			Overall Length	Socket Depth	Shell Diameter	
SF-114	1/2 ODF	11	4.36	0.50	2.00	3/4
SF-114F	1/2 SAE	11	5.25	-	2.00	3/4
SF-115	5/8 ODF	11	4.60	0.62	2.00	3/4
SF-115F	5/8 SAE	11	5.56	-	2.00	3/4

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Sealed Type Suction Filters

Types Without the Optional Relief Feature

With Access Valve

Part Number	Connection Inches	Filter Area Square Inches	Dimensions Inches			Shipping Weight Lbs.
			Overall Length	Socket Depth	Shell Diameter	
SF-6417-T	2-1/8 ODF	388	10.94	1.24	4.75	7-1/2
SF-6421-T	2-5/8 ODF	388	10.94	1.38	4.75	7-1/2

UL and ULc Listed - Guide - SMTG-File No. SA-1756A & B. M.R.P. for SF-11, SF-28 and SF-48 models is 400 psig. M.R.P. for SF-64 models is 500 psig.

SELECTION RECOMMENDATIONS																						NOMINAL SYSTEM HORSEPOWER	
Part Number		Connections Inches	* FLOW CAPACITY IN TONS EVAPOPATOR TEMPERATURE																				
Without Access Valve	With Access Valve		40° F				20° F				0° F				-20° F				-40° F				
			PRESSURE DROP																				
			2		3		1-1/2		2		1		1-1/2		1/2		1		1/2				
			REFRIGERANT																		REFRIGERANT		
12	134a	22	407C	12	134a	22	404A	12	134a	22	404A	12	22	404A	22	404A	22	404A	22, 407C	12, 134a, 404, 502, 507			
SF-114	-	1/2 ODF	1.3	1.5	2.4	2.4	0.9	1.0	1.5	1.5	0.6	0.6	1.1	1.0	0.3	0.7	0.6	0.3	0.3	1	1/2		
SF-114F	-	1/2 SAE	1.2	1.3	2.1	2.1	0.8	0.9	1.4	1.3	0.5	0.5	0.9	0.9	0.3	0.6	0.5	0.3	0.3	1	1/2		
SF-115	-	5/8 ODF	2.3	2.6	4.1	4.1	1.6	1.7	2.7	2.6	1.0	1.1	1.8	1.7	0.5	1.2	1.1	0.6	0.6	2	1		
SF-115F	-	5/8 SAE	2.1	2.3	3.7	3.7	1.4	1.5	2.4	2.3	0.9	0.9	1.6	1.5	0.5	1.0	0.9	0.5	0.5	2	1		
SF-283F	-	3/8 SAE	1.1	1.2	2.1	2.0	0.7	0.8	1.3	1.2	0.4	0.5	0.9	0.8	0.3	0.4	0.5	0.3	0.3	1	1/2		
-	SF-285-T	5/8 ODF	3.5	4.0	6.4	6.2	2.5	2.7	4.0	3.9	1.6	1.7	2.9	2.7	0.9	1.8	1.7	1.0	0.9	4	1-1/2		
-	SF-286-T	3/4 ODF	4.3	5.1	8.6	8.1	3.1	3.4	5.0	5.1	2.0	2.1	3.6	3.4	1.1	2.2	2.1	1.2	1.1	5	1-1/2		
-	SF-287-T	7/8 ODF	6.3	7.0	11.1	11.3	4.4	4.6	7.2	7.0	2.7	2.8	5.1	4.6	1.4	3.1	2.9	1.5	1.5	7-1/2	3		
-	SF-289-T	1-1/8 ODF	8.2	9.2	14.8	14.6	5.7	6.0	9.4	9.2	3.5	3.7	6.6	6.1	1.8	4.0	3.8	2.1	2.0	7-1/2	5		
-	SF-489-T	1-1/8 ODF	8.7	9.9	16.0	15.7	6.1	6.5	10.0	9.8	3.7	3.9	7.0	6.5	1.9	4.3	4.1	2.2	2.1	10	5		
-	SF-4811-T	1-3/8 ODF	9.9	11.2	18.4	18.0	6.8	7.3	11.4	11.2	4.2	4.4	7.9	7.4	2.2	4.8	4.6	2.5	2.4	12	5		
-	SF-4813-T	1-5/8 ODF	11.7	13.3	21.6	21.3	8.1	8.7	13.5	13.3	4.9	5.2	9.4	8.7	2.6	5.6	5.4	2.9	2.8	15	7		
-	SF-6417-T	2-1/8 ODF	46.7	50.9	91.1	88.9	28.7	31.0	56.9	52.6	15.8	16.4	35.4	31.8	7.2	20.3	17.8	9.3	7.9	55	20		
-	SF-6421-T	2-5/8 ODF	50.5	62.9	119.0	109.0	36.8	38.6	70.2	54.6	20.2	20.6	44.0	39.4	9.1	25.6	22.3	11.8	10.0	60	30		

* Refrigerant 502 flow capacity is 80% of the values shown for Refrigerant 22, when expressed in TONS. When expressed in horsepower, the proper refrigerant selection is the same as for R-12.

Use R-404A flow ratings for R-507. Use R-502 horsepower recommendations for R-402A & B and R-408A. Use R-12 horsepower recommendations for R-401A & B and R-409A. Ratings are in accordance with ARI Standard 730.

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Replaceable Suction Filter Shells



The Replaceable Suction Filter shell, used with RPE-48-BD pleated filter element, is designed to be installed in the suction line of new systems to remove resident contaminants.

DESIGN BENEFITS:

- Low pressure drop
- Can be used with desiccant cores for clean-up after burnout
- Various fitting sizes up to 3-1/8" line size
- Access valve supplied for pressure drop measurement or charging

HOW IT'S USED – Sporlan Replaceable Suction Filters are installed in the suction line of air conditioning systems to remove contaminants that may be in the system at start-up. The Replaceable Suction Filter has large fittings permitting the use of a small shell on a system with a large line size, resulting in considerable economy. The angle construction is suitable for flow in either direction, which results in easy installation even on compact racks. The Replaceable Suction Filters should be used with cores for cleaning up a system after a hermetic motor burnout. Select the RC-4864, RC-4864-HH or RCW-48 replaceable cores. After clean-up, install RPE-48-D elements in the shells.

SELECTION – The table below gives information for choosing the proper model for a given system. The filter elements are supplied in hermetically sealed metal cans.

SELECTION RECOMMENDATIONS WITH FILTER ELEMENTS

Part Number	Connection Inches ODF Solder	Nominal System Horsepower Refrigerant			No. Of Filter Elements	No. Of Cores	Overall Length Inches
		12 & 134a	22 & 407C	404A, 502 & 507			
RSF-487-T	7/8	7	10	10	One RPE-48-BD	One RC-4864 or RC-4864-HH	9.30
RSF-489-T	1-1/8	8	15	12	One RPE-48-BD	One RC-4864 or RC-4864-HH	9.37
RSF-4811-T	1-3/8	10	20	15	One RPE-48-BD	One RC-4864 or RC-4864-HH	9.60
RSF-4813-T	1-5/8	12	25	20	One RPE-48-BD	One RC-4864 or RC-4864-HH	9.60
RSF-4817-T	2-1/8	20	35	25	One RPE-48-BD	One RC-4864 or RC-4864-HH	9.37
RSF-4821-T	2-5/8	25	50	35	One RPE-48-BD	One RC-4864 or RC-4864-HH	9.75
RSF-9617-T	2-1/8	20	40	30	Two RPE-48-BD	Two RC-4864 or RC-4864-HH	14.96
RSF-9621-T	2-5/8	30	50	40	Two RPE-48-BD	Two RC-4864 or RC-4864-HH	15.43
RSF-9625-T	3-1/8	40	80	55	Two RPE-48-BD	Two RC-4864 or RC-4864-HH	15.12

Safety screen Part No. 6171-S is required when cores are used in the RSF shell.

Remove the screen when RPE-48-BD elements are used.

UL and ULc Listed - Guide - SMGT - File No. SA-1756A & B.

Maximum rated pressure is 500 psig.

Acid Test Kit



Tests Mineral, Alkylbenzene, and POE Lubricants

- Thoroughly Field Proven
- Takes the Guesswork Out of Service Work

Part Number	Description
TA-1	One Time Acid Test Kit

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Moisture & Liquid Indicators



See-All Moisture and Liquid Indicators offers these 8 outstanding benefits

1. **ONE INDICATOR for all REFRIGERANTS:** provides a true moisture indication for Refrigerant 134a, 22, 404A, 407C, 407F, 410A or 507.
2. **RELIABLE and ACCURATELY CALIBRATED COLOR CHANGE POINTS:** in parts per million of moisture for each refrigerant.
3. **LARGE FULL VIEW SIGHTGLASS:** extra large crystal clear sightglass for viewing the refrigerant. Bubbles indicate a shortage of refrigerant or a restriction in the liquid line.
4. **DISASSEMBLY FOR INSTALLATION IS UNNECESSARY:** with extended fittings on small size solder models. See•Alls are easy to braze.
5. **REVERSIBLE:** indicator colors differ so widely between the wet and dry condition, there is no possibility of confusion. Colors reverse as often as moisture concentration in the system changes.
6. **INDICATOR PROTECTED from DISCOLORATION and DIRT:** by a filter pad and screen. This prevents washing of the indicator by the refrigerant and protects it from system contamination and turbulence.
7. **COLOR CHANGES ARE EASILY DISTINGUISHED and REPLACEABLE INDICATOR ELEMENT:** the color indicator paper can be changed on fused glass models manufactured since 1984 without removing the See•All from the line.
8. **PLASTIC CAP:** is supplied with See•All to keep the glass free from dust, dirt and grease.

Male Flare



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-12	1/4	2.87
SA-13	3/8	3.37
SA-14	1/2	3.82
SA-15	5/8	4.12

Female X Male Flare



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-12FM	1/4	2.56
SA-13FM	3/8	2.97
SA-14FM	1/2	3.44

Male Flare X Swivel Nut



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-13U	3/8	3.16
SA-14U	1/2	3.74
SA-15U	5/8	3.95

Swivel Nut X Swivel Nut



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-13UU	3/8	2.99
SA-14UU	1/2	3.66
SA-15UU	5/8	3.79

Female Flare X Swivel Nut



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-13FU	3/8	2.83
SA-14FU	1/2	3.36

SPORLAN - CONTAMINANT CONTROL PRODUCTS

Moisture & Liquid Indicators

Swivel Nut X ODF Solder



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-13SU	3/8	3.83
SA-14SU	1/2	4.27
SA-15SU	5/8	4.33

ODF Solder



Part Number	Connection Sizes (in.)	Overall Length (in.)
SA-12S	1/4	4.63
SA-13S	3/8	4.63
SA-14S	1/2	4.88
SA-15S	5/8	4.88
SA-17S	7/8	6.31
SA-19S	1 1/8	6.31
SA-211	1 3/8	8.00
SA-213	1 5/8	8.00
SA-217	2 1/8	8.00

Most solder connections can be used as male fittings as well as female fittings. The 1/4" ODF is 3/8" ODM, the 3/8" ODF is 1/2" ODM, the 1/2" ODF is 5/8" ODM and the 5/8" ODF is 3/4" ODM. Models with female flare and/or swivel nut connections are supplied with a copper gasket in the fitting.

Overall width is: 1.31" for 1/4" and 3/8" sizes, 1.58" for 1/2" and 5/8" sizes, and 1.38" for 7/8" and 1-1/8" sizes. Shipping weight is: 7 oz. for 1/4" and 3/8" sizes, 10 oz. for 1/2" and 5/8" sizes, 15 oz. for 7/8" and 1-1/8" sizes and 1.5 lbs. for the SA-200 series. UL and ULC Listed - Guide - SEYW - File No. SA-3182. Maximum Rated Pressure is 650 psig.

MOISTURE CONTENT – PPM								
SEE • ALL SHOWS	Refrigerant 22		Refrigerant 134a		Refrigerant 404A & 507		Refrigerant 407C & 407F	Refrigerant 410A
	LIQUID LINE TEMPERATURE							
	75°F	100°F	75°F	100°F	75°F	100°F	75°F	75°F
Green - DRY	↓30	↓45	↓50	↓80	↓15	↓30	↓120	↓75
Chartreuse - CAUTION	30-90	45-130	50-200	80-225	15-90	30-140	120-280	75-150
Yellow - WET	↑90	↑130	↑200	↑225	↑90	↑140	↑280	↑150

NOTE: Change or add Catch-All Filter-Drier when paper turns from green to chartreuse.

SPORLAN - REPLACEABLE CORES AND PLEATED FILTER ELEMENTS



Cores for replaceable core type filter-driers are molded with the same desiccants that are used in the popular sealed filter-driers. Cores are individually packed in metal cans, fully activated and hermetically sealed against moisture and dirt. Filter elements are dried and packed in individual sealed metal cans. This method of packaging prevents the element from picking up moisture from the atmosphere. Each can contains a "triple gasket" consisting of a new end plate gasket, an end plate gasket for certain competitive filterdriers, and a core gasket where desired. See the specifications on Page * for the number of cores required for each type drier.

RC-4864 - Activated Core Order as separate item – Fits types C-480 thru C-19200 Series Shells. This is the standard core suitable for most installations in the liquid or suction line.

RCW-48 - High Water Capacity Core - Order as separate item - Fits types C-480 thru C-19200 Series shell. Designed specially for use with POE lubricants. This core should be used on systems that have a ruptured water cooled condenser, or that have been exposed to the atmosphere, or for some reason have a high amount of moisture in the system.

RC-4864-HH – Activated Charcoal Core - Order as separate item - Fits types C-480 thru C-19200 Series Shells. This core should be used for wax removal, and for clean-up of systems that have had a hermetic motor burnout.

RPE-48-BD - Filter Element - Order as separate item – Fits types C-480 thru C-19200 Series Shells and Replaceable Suction Filter(RSF) Shells. This element should be used in RSF shells installed in the suction line to obtain the lowest possible pressure drop. In cleaning up a system after a hermetic motor burnout, cores should be used first. After clean-up, the filter element should be installed.

RC-10098 - Activated Core - Order as a separate item - Fits types C-30,000 and C-40,000 Series Shells. This is the standard core suitable for liquid and suction line applications.

RCW-100 - High Water Capacity Core - Order as separate item - Fits types C-30,000 and C-40,000 Series Shells. Designed specially for use with POE lubricants. This core should be used on systems that have a ruptured water cooled condenser, or that have been exposed to the atmosphere, or for some reason have a high amount of moisture in the system.

RC-10098-HH – Activated Charcoal Core - Order as separate item - Fits types C-30,000 and C-40,000 Series Shells. This core should be used for wax removal, and for clean-up of systems that have had a hermetic motor burnout.

RPE-100 - Filter Element - Order as separate item – Fits types C-30,000 and C-40,000 Series Shells. This filter element should be used in the suction line to obtain the lowest possible pressure drop after cores were used for system clean-up.

Part Number	Description
RC-10098	Activated Core, Fits types C-30,000 and C-40,000 Series Shells
RC-10098-HH	Activated Charcoal Core, Fits types C-30,000 and C-40,000 Series Shells
RC-4864	Activated Core, Fits types C-480 thru C-19200 Series Shells
RC-4864-HH	Activated Charcoal Core, Fits types C-480 thru C-19200 Series Shells
RCW-100	High Water Capacity Core, Fits types C-30,000 and C-40,000 Series Shells
RCW-48	High Water Capacity Core, Fits types C-480 thru C-19200 Series shell
RPE-100	Filter Element, Fits types C-30,000 and C-40,000 Series Shells
RPE-48-BD	Filter Element, Fits types C-480 thru C-19200 Series Shells

SPORLAN - PRESSURE REGULATING VALVES

Discharge Bypass Valves



ADRHE-6



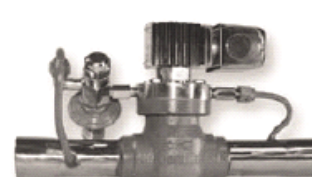
ADRI



DRHE-6



SHGB-8



SHGB-15

The Sporlan line of discharge bypass valves are designed to provide an economical method of compressor capacity control in place of cylinder Unloader or to handle unloading requirements below the last step of cylinder unloading. These modulating control valves automatically bypass the required amount of discharge gas to the low side to maintain the desired minimum evaporator pressure. The valves are applicable on any refrigeration or air conditioning system that operates during periods of low load, which can result in coil icing or short cycling. These valves respond to downstream pressure changes and open when the evaporator pressure falls below the valve setting. At normal loads and evaporator conditions, the valve remains closed and the system operates in a conventional manner.

The DR line of valves consists of three basic types of valves: the adjustable models, the adjustable remote bulb models, and the non-adjustable models.

The SHGB valves are adjustable and pilot operated with a solenoid stop feature that eliminates the need for a hot gas solenoid valve. They were developed for use on larger capacity systems.

APPLICATION — The discharge bypass valve is normally applied in a branch line off the discharge line. To allow system pump down control, a solenoid valve or hand valve must be installed upstream of the discharge DR type bypass valves. The bypassed hot gas can enter the low side at several locations; however, two of the possible locations are preferred because of superior operating performance: into the side connection of a Sporlan side connection distributor or directly into the suction line. By using the side connection distributor method, the system TEV will act as a desuperheating valve to keep the compressor suction temperature below the recommended maximum temperature published by the compressor manufacturer. When the hot gas is bypassed directly into the suction line, an auxiliary desuperheating TEV may be required.

SELECTION and CAPACITY RATINGS —The capacities given in the table below are valve hot gas capacities and not the capacities of the system on which the valve is to be applied. To select a valve, first determine the compressor capacity at the minimum allowable evaporating temperature.

Then the discharge bypass valve must supply the difference between this compressor capacity and the minimum evaporator load at which the system is to be operated. The valve pressure setting will be that pressure at which the bypass valve must start to open.

Connections - (Standard Connections in BOLD type).

ADRS(E)-2 – 3/8 in., 1/2 in., 5/8 in. ODF Solder or
3/8 in., 1/2 in., 5/8 in. SAE Flare

ADRP(E)-3 – 1/2 in., 5/8 in. ODF Solder or
1/2 in., 5/8 in. SAE Flare

ADRHE-6 & DRHE-6 – 5/8 in., 7/8 in., 1-1/8 in. ODF

Part Number	MFG NO.	Discharge Bypass Valve Type
ADRHE-60/305ODF	903553-A	Direct Acting
ADRHE-60/307ODF	903560-A	Direct Acting
ADRHE-60/309ODF	903567-A	Direct Acting
ADRHE-60/805ODF	903574-A	Direct Acting
ADRHE-60/807ODF	903581-A	Direct Acting
ADRHE-60/809ODF	903588-A	Direct Acting
ADRP-30/304ODF	903441-A	Direct Acting
ADRP-30/305ODF	903448-A	Direct Acting
ADRP-30/804ODF	903497-A	Direct Acting
ADRP-30/805ODF	903504-A	Direct Acting
ADRPE-30/304ODF	903469-A	Direct Acting
ADRPE-30/305ODF	903476-A	Direct Acting
ADRPE-30/804ODF	903525-A	Direct Acting

SPORLAN - PRESSURE REGULATING VALVES

Discharge Bypass Valves

AC&R Components

Part Number	MFG NO.	Discharge Bypass Valve Type
ADRPE-30/805ODF	903532-A	Direct Acting
ADRS-20/30ODF	903280-A	Direct Acting
ADRS-20/305ODF	903287-A	Direct Acting
ADRS-20/804ODF	903364-A	Direct Acting
ADRS-20/805ODF	903371-A	Direct Acting
ADRSE-20/304ODF	903322-A	Direct Acting
ADRSE-20/305ODF	903329-A	Direct Acting
ADRSE-20/803ODF	903399-A	Direct Acting
ADRSE-20/804ODF	903406-A	Direct Acting
ADRSE-20/805ODF	903413-A	Direct Acting
DRHE-6-55/70AR7X7	903805-A	Adjustable "Remote Bulb"
DRHE-6-55/70AR9X9	903812-A	Adjustable "Remote Bulb"
SHGB-15-0/7511ODF	904076-A	Pilot Operated
SHGB-15-0/759ODF	904075-A	Pilot Operated
SHGB-8-0/1009ODF	904016-A	Pilot Operated
SHGB-8-0/107ODF	904015-A	Pilot Operated
SHGBE-15-0/7511 ODF	904078-A	Pilot Operated
SHGBE-15-0/759ODF	904077-A	Pilot Operated
SHGBE-8-0/1007ODF	904010-A	Pilot Operated
SHGBE-8-0/1009ODF	904009-A	Pilot Operated

Capacities based on 6°F evaporator temperature change from closed to rated opening (does not apply to pilot operated models), discharge temperature 30°F above isentropic compression, 100°F condensing temperature, 0°F subcooling, 25°F superheat at the compressor and includes both the hot gas bypassed and liquid refrigerant for desuperheating, regardless of whether the liquid is fed through the system thermostatic expansion valve or auxiliary desuperheating thermostatic expansion valve.

REFRIGERANT	MINIMUM ALLOWABLE EVAPORATOR TEMPERATURE	VALVE TYPE & ADJUSTMENT RANGE (psig)															
		ADRI-1-1/4 ADRIE-1-1/4			ADRS-2 ADRSE-2		ADRP-3 ADRP-3		ADRHE-6		DRHE-6 (Adjustable "Remote Bulb" Model)*				SHGB-8 SHGBE-8	SHGB-15 SHGBE-15	
		0/55	0/75	0/100	0/30	0/80	0/30	0/80	0/30	0/80	25/35	32/44	55/70	65/80	0/100	0/75	
22	40	—	0.58	0.53	—	3.51	—	5.99	—	9.16	—	—	1	9.8	—	15.7	
	26	0.44	0.64	0.54	—	3.57	—	6.26	—	9.90	—	—	1	6.9	—	15.9	
	0	0.63	0.60	0.49	3.90	3.66	7.38	6.61	13.9	10.9	—	—	—	—	16.2	66	
	−20	0.59	0.50	0.44	3.75	3.65	7.45	6.64	14.1	11.0	—	—	—	—	16.2	69	
134a	40	0.40	0.43	0.34	—	2.67	—	4.94	—	9.34	9.64	—	—	—	10.9	41	
	26	0.41	0.39	0.32	2.60	2.44	4.95	4.42	9.36	7.26	8.31	—	—	—	10.9	43	
	0	0.38	0.31	0.28	2.46	—	4.89	—	9.41	—	—	—	—	—	11.0	46	
401A	40	0.45	0.48	0.39	—	2.76	—	4.95	—	7.99	—	11.0	—	—	12.3	52	
	26	0.47	0.45	0.37	2.97	2.79	5.66	5.04	10.7	8.26	—	9.49	—	—	1	4	
	0	0.44	0.36	0.32	2.83	2.74	5.62	5.01	10.8	8.32	—	—	—	—	12.5	56	
402A	40	—	—	0.54	—	—	—	—	—	—	—	—	—	—	17.3	—	
	26	—	0.65	0.60	—	3.91	—	6.66	—	10.3	—	—	—	—	17.7	63	
	0	0.66	0.72	0.57	—	4.00	—	7.16	—	11.7	—	—	—	—	17.9	63	
	−20	0.69	0.63	0.52	4.22	4.04	8.11	7.33	15.3	12.2	—	—	—	—	18.0	64	
404A	40	—	—	0.55	—	—	—	—	—	—	—	—	—	—	17.5	—	
	26	—	0.67	0.60	—	3.91	—	6.70	—	10.4	—	—	—	21.4	17.7	64	
	0	0.67	0.71	0.56	—	4.00	—	7.16	—	11.7	—	—	—	—	17.9	65	
	−20	0.68	0.61	0.51	4.17	4.02	8.08	7.28	15.3	12.1	—	—	—	—	17.9	65	
407C	40	—	0.78	0.65	—	4.25	—	7.50	—	12.1	—	—	—	22.9	—	18.6	74
	26	0.61	0.78	0.63	—	4.25	—	7.50	—	12.1	—	19.3	—	—	18.7	75	
	0	0.74	0.68	0.56	4.51	4.31	8.63	7.81	16.3	13.0	—	—	—	—	18.9	76	
	−20	0.68	0.56	0.50	4.33	4.23	8.64	7.71	16.5	12.9	—	—	—	—	19.1	77	
502	40	—	—	0.46	—	3.14	—	5.28	—	7.85	—	—	—	19.2	14.3	—	
	26	—	0.56	0.49	—	3.19	—	5.51	—	8.55	—	—	—	16.6	14.5	55	
	0	0.55	0.57	0.46	3.58	3.28	6.64	5.90	12.5	9.62	—	—	—	—	14.7	59	
	−20	0.55	0.59	0.41	3.43	3.30	6.68	6.00	12.6	9.91	—	—	—	—	14.8	61	
507	40	—	—	0.53	—	—	—	—	—	—	—	—	—	—	17.4	—	
	26	—	0.65	0.59	—	3.87	—	6.60	—	10.2	—	—	—	—	17.7	64	
	0	—	0.71	0.57	—	3.96	—	7.09	—	11.5	—	—	—	—	17.8	64	
	−20	0.69	0.62	0.52	4.17	4.00	8.02	7.25	15.2	12.0	—	—	—	—	17.9	65	

PARKER - STEEL SUCTION LINE ACCUMULATORS

U Tube Style Accumulators



"U" Tube Style Accumulators

The Parker "U" tube accumulator design is a result of extensive laboratory testing plus detailed investigation of the various accumulators currently available. It takes into account all of the requirements essential for heat pump applications, including safe holding volume (relative to the system's total charge), protected flow control for positive refrigerant and oil return, and minimum pressure drop across the accumulator. Parker offers standard accumulator models designed for application on heat pump and refrigeration systems from ¼ through 12 tons. Liquid refrigerant holding requirements of suction accumulator may vary by application. Because of the diversity in heat pump systems, accumulator capacity selection should be determined by actual testing. Consult Parker for assistance if required.

Key Features & Benefits

- Solid copper connections.
- "U" tube design for maximum flow of refrigerant and minimum oil entrapment.
- Inlet flow deflector guides refrigerant toward wall for smooth tangential flow and gradual expansion.
- "U" tube entrance is positioned behind the inlet flow deflector to prevent unwanted liquid refrigerant from entering and damaging compressor.
- Metering orifice matched to system capacity assures optimum liquid refrigerant and oil flow back to compressor.
- Protective screen and orifice assembly on "U" tube protects against foreign particles and contaminants affecting metering function.
- Fittings and "U" tube are matched to accumulator holding capacity and total system charge for minimum pressure drop and maximum refrigerant flow.
- U.L. listed for 355 psig design pressure. File No. SA5172.
- Powder paint exterior coating surpasses 500 hour ASTM salt spray tests.
- Integral 430° F Fuse Plugs (U.L. File No. SA5441).

Also available:

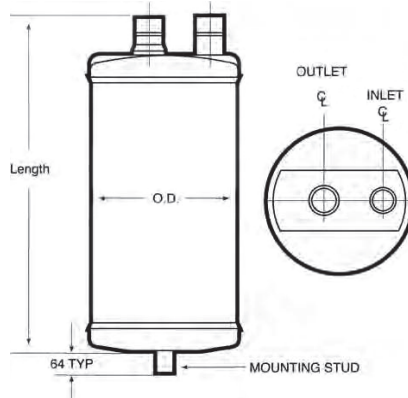
Heat Exchanger Accumulator

- Can be made in all models of Parker's standard accumulators.
- Copper heat exchange coil for superior heat exchange.
- Liquid line connections available in 3/8" I.D.

Part Number	MODEL NO.	SOLDER FITTING SIZE (In)	DIMENSIONS (In)		CAPACITY (oz)
			Length	O.D.	
089036-01	PA3060-10-4	1/2	10.35	3	35
089115-01	PA3060-10-5	5/8	10.35	3	35
089116-01	PA3060-15-5	5/8	15.05	3	55
089117-01	PA3060-15-6	3/4	15.05	3	54
089122-01	PA4065-9-5C	5/8	9.62	4	60
089123-01	PA4065-9-6C	3/4	9-5/8	4	58
089118-01	PA5083-9-6C	3/4	9.62	5	89
089102-01	PA5083-9-7C	7/8	9.63	5	86
089119-01	PA5083-12-7C	7/8	12.88	5	125
089103-01	PA5083-11-7C	7/8	11.33	5	108
089104-01	PA5083-11-6C	3/4	11.33	5	111
089120-01	PA5083-15-7C	7/8	15.34	5	156
089121-01	PA5083-17-7C	7/8	17.25	5	179
089283-00	PA6125-15-9C	1-1/8	15.00	6	211
089285-00	PA6125-15-11C	1-3/8	15.25	6	214
089284-00	PA6125-18-9C	1-1/8	18.00	6	264
089323-00	PA6125-18-11C	1-3/8	18.00	6	267
089286-00	PA6125-20-11C	1-3/8	20.25	6	302

PARKER - STEEL SUCTION LINE ACCUMULATORS

U Tube Style Accumulators



PART NO.	EVAP TEMP (°F)	RECOMMENDED CAPACITY IN TONS OF REFRIGERATION													
		22 & 404A		134a		401A		402A		407C		410A		502 & 507A	
		Tons @ 1psi	Min. Tons	Tons @ 1psi	Min. Tons	Tons @ 1psi	Min. Tons	Tons @ 1psi	Min. Tons	Tons @ 1psi	Min. Tons	Tons @ 1psi	Min. Tons	Tons @ 1psi	Min. Tons
089036-01	40	2.00	0.35	1.67	0.30	1.42	0.25	1.97	1.01	1.97	0.46	1.93	1.44	1.48	0.27
089115-01	0	1.54	0.25	0.98	0.16	1.06	0.18	1.53	0.41	1.53	0.18	1.50	0.65	1.10	0.2
	-20	1.33	0.21	0.69	0.11	0.90	0.15	1.32	0.25	1.32	0.11	1.30	0.42	0.93	0.16
089116-01	40	2.10	0.35	1.75	0.30	1.49	0.25	2.07	1.01	2.07	0.46	2.02	1.44	1.55	0.27
	0	1.62	0.25	1.03	0.16	1.11	0.18	1.61	0.41	1.60	0.18	1.57	0.65	1.16	0.2
	-20	1.40	0.21	0.73	0.11	0.95	0.15	1.39	0.25	1.39	0.11	1.36	0.42	0.98	0.16
089117-01	40	2.30	0.35	1.92	0.30	1.63	0.25	2.27	1.01	2.27	0.46	2.22	1.44	1.70	0.27
	0	1.77	0.25	1.12	0.16	1.22	0.18	1.76	0.41	1.75	0.18	1.72	0.65	1.27	0.2
	-20	1.53	0.21	0.80	0.11	1.04	0.15	1.52	0.25	1.52	0.11	1.49	0.42	1.07	0.16
089122-01	40	2.96	0.35	2.47	0.30	2.10	0.25	2.92	1.01	2.92	0.46	2.85	1.44	2.19	0.27
	0	2.28	0.25	1.44	0.16	1.57	0.18	2.27	0.41	2.26	0.18	2.21	0.65	1.63	0.2
	-20	1.98	0.21	1.03	0.11	1.34	0.15	1.97	0.25	1.96	0.11	1.93	0.42	1.39	0.16
089123-01	40	3.00	0.35	2.53	0.30	2.10	0.25	2.96	1.01	2.96	0.46	2.89	1.44	2.20	0.28
	0	2.30	0.25	1.48	0.16	1.60	0.18	2.29	0.41	2.28	0.18	2.23	0.65	1.70	0.2
	-20	2.00	0.21	1.05	0.11	1.40	0.15	1.99	0.25	1.98	0.11	1.95	0.42	1.40	0.16
089118-01	40	3.82	0.57	3.19	0.49	2.71	0.41	3.76	1.51	3.77	0.69	3.68	2.16	2.82	0.46
	0	2.95	0.41	1.86	0.27	2.03	0.30	2.94	0.61	2.92	0.27	2.86	0.98	2.10	0.33
	-20	2.55	0.35	1.32	0.18	1.73	0.24	2.53	0.37	2.53	0.16	2.48	0.63	1.79	0.27
089102-01	40	3.90	0.57	3.21	0.49	2.70	0.41	3.84	1.51	3.85	0.69	3.76	2.16	2.80	0.46
	0	3.00	0.41	1.88	0.27	2.00	0.30	2.98	0.61	2.97	0.27	2.91	0.98	2.10	0.33
	-20	2.60	0.35	1.33	0.18	1.70	0.24	2.58	0.37	2.58	0.16	2.53	0.63	1.80	0.27
089119-01	40	5.41	0.88	4.51	0.75	3.83	0.64	5.33	2.12	5.34	0.96	5.21	3.03	4.00	0.7
	0	4.17	0.64	2.64	0.42	2.87	0.45	4.15	0.86	4.13	0.38	4.05	1.37	2.98	0.51
	-20	3.61	0.54	1.87	0.28	2.45	0.37	3.59	0.52	3.58	0.22	3.52	0.88	2.53	0.41
089103-01	40	4.38	0.57	3.21	0.43	3.10	0.41	4.32	1.51	4.32	0.69	4.22	2.16	3.23	0.46
	0	3.37	0.41	1.88	0.24	2.32	0.30	3.35	0.61	3.34	0.27	3.27	0.98	2.41	0.33
	-20	2.92	0.35	1.33	0.16	1.98	0.24	2.90	0.57	2.89	0.16	2.84	0.63	2.04	0.27
089104-01	40	3.85	0.57	3.21	0.49	2.72	0.41	3.79	1.51	3.80	0.69	3.71	2.16	2.84	0.46
	0	2.97	0.41	1.88	0.27	2.04	0.30	2.96	0.61	2.94	0.27	2.88	0.98	2.12	0.33
	-20	2.56	0.35	1.33	0.18	1.74	0.24	2.54	0.57	2.54	0.16	2.49	0.63	1.80	0.27
089120-01	40	6.20	0.88	5.17	0.75	4.39	0.64	6.11	2.12	6.12	0.96	5.97	3.03	4.58	0.7
	0	4.78	0.64	3.03	0.42	3.29	0.45	4.76	0.86	4.73	0.38	4.64	1.37	3.41	0.51
	-20	4.13	0.54	2.15	0.28	2.80	0.37	4.10	0.52	4.09	0.22	4.02	0.88	2.90	0.41
089121-01	40	6.20	0.88	5.17	0.75	4.39	0.64	6.11	2.12	6.12	0.96	5.97	3.03	4.58	0.7
	0	4.78	0.64	3.03	0.42	3.27	0.45	4.76	0.86	4.73	0.38	4.64	1.37	3.41	0.51
	-20	4.13	0.54	2.15	0.28	2.80	0.37	4.10	0.52	4.09	0.22	4.02	0.88	2.90	0.41
089283-00	40	9.00	3.00	8.83	1.97	6.10	1.90	8.87	3.45	8.88	1.57	8.67	4.93	7.30	3
	0	5.60	2.00	5.62	0.82	3.70	1.20	5.57	1.40	5.55	0.62	5.44	2.23	4.50	2
	-20	4.30	0.80	4.31	0.50	2.80	0.05	4.27	0.85	4.26	0.36	4.19	1.43	3.40	0.8
089285-00	40	12.00	3.00	12.05	1.97	6.20	1.90	11.82	3.45	11.85	1.57	11.56	4.93	9.80	3
	0	7.50	2.00	7.52	0.82	5.00	1.20	7.46	1.40	7.43	0.62	7.28	2.23	6.00	2
	-20	5.80	0.80	5.82	0.50	3.60	0.05	5.76	0.85	5.75	0.36	5.65	1.43	4.60	0.8
089284-00	40	8.80	3.00	8.84	1.97	6.00	1.90	8.67	3.45	8.69	1.57	8.48	4.93	7.20	3
	0	5.50	2.00	5.52	0.82	3.70	1.20	5.47	1.4	5.45	0.62	5.34	2.23	4.40	2
	-20	4.30	0.80	4.31	0.50	2.80	0.05	4.27	0.85	4.26	0.36	4.19	1.43	3.40	0.8
089323-00	40	11.00	3.00	11.05	1.97	7.50	1.90	10.84	3.45	10.86	1.57	10.59	4.93	9.10	3
	0	7.00	2.00	7.02	0.82	4.60	1.20	6.96	1.4	6.93	0.62	6.80	2.23	5.50	2
	-20	5.40	0.80	5.42	0.50	3.50	0.05	5.37	0.85	5.35	0.36	5.26	1.43	4.20	0.8
089286-00	40	11.00	3.00	11.05	1.97	7.50	1.90	10.84	3.45	10.86	1.57	10.59	4.93	9.10	3
	0	7.00	2.00	7.02	0.82	4.60	1.20	6.96	1.4	6.93	0.62	6.80	2.23	5.50	2
	-20	5.40	0.80	5.42	0.50	3.50	0.05	5.37	0.85	5.35	0.36	5.26	1.43	4.20	0.8

*Holding capacity of R-22 at 40° F. Divide by .7 to obtain recommended maximum system charge on fixed orifice systems. Consult Parker for availability.

PARKER - REGULATORS FLO-CON (S)PORT, (S)PORT II

Evaporator Pressure Regulators

Features and Benefits

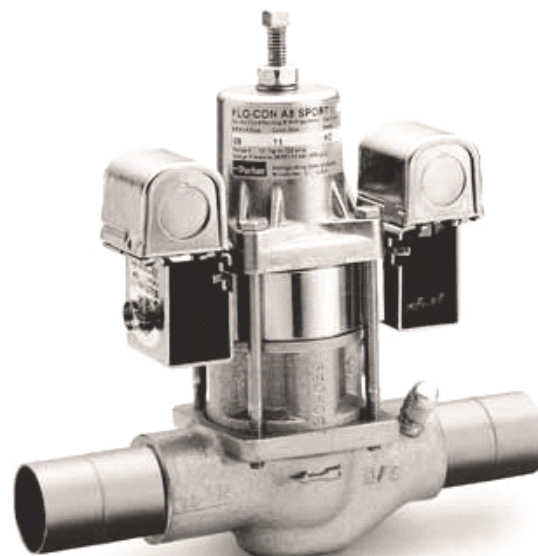
- Highest capacity commercial regulator in the industry
- Solder in place without disassembly
- Interchangeable capacity cartridges
- Low pressure drop
- Manual opening stem
- Variations include electric shut-off along with bypass and shut-off feature
- (S)PORT-II with corrosion resistant aluminum bronze construction
- All stainless steel bolts, stem, locking nut, piston and plug
- Dual voltage 208/240/60 Hz coil

Specifications

- Design pressure (M.R.P.): 450 psig (31.0 bar)
- Minimum fluid temperature: -40°F (-40°C)
- Operating range: 10" Hg to 120 psig (250 mm Hg to 8.3 bar)
- UL listed (except 50 Hz versions), file SA5473
- CSA certified, file LR20991-14

Standard Voltages

- 120V/60Hz, 110V/50Hz
- 208V/240V/60Hz, 220V/50Hz
- 240V/50Hz
- 240V/60Hz, 220V/50Hz (DIN)
- 240V/50Hz (DIN)



AC&R Components

Nomenclature (Example)

S	P	OR	T	II	B	7	11
Electric Shut-Off	Parker	Open on Rise of Inlet Pressure	Inlet Pressure "Tap" or Fitting	Aluminum Bronze Version	Bypass Feature	Port Size in Eighths of an Inch	Connection Size in Eighths of an Inch

(S)PORT Port/Connection Size Combinations

Type	Port Size			Connection Sizes Available
	Connection	Inches	mm	
(S)PORT or (S)PORT-II	03	3/8	9	07, 09, 11, 13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5/8"/42mm, 2-1/8"/54mm)
	05	5/8	15	07, 09, 11, 13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5/8"/42mm, 2-1/8"/54mm)
	07	7/8	22	07, 09, 11, 13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5/8"/42mm, 2-1/8"/54mm)
	09	1-1/8	28	07, 09, 11, 13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5/8"/42mm, 2-1/8"/54mm)
(S)PORT	11	1-3/8	35	09, 11, 13, 17 (1-1/8"/28mm, 1-3/8"/35mm, 1-5/8"/42mm, 2-1/8"/54mm)
	13	1-5/8	42	13, 17, 21 (1-5/8"/42mm, 2-1/8"/54mm, 2-5/8"/66mm)
	17	2-1/8	54	17, 21 (2-1/8"/54mm, 2-5/8"/66mm)
	21	2-5/8	66	21 (2-5/8"/66mm)

Note: (S)PORT-II regulators have same port/connection combinations as standard (S)PORT regulators but are not available in the 13, 17, or 21 port size versions.

PARKER - REGULATORS FLO-CON (S)PORT, (S)PORT II

Evaporator Pressure Regulators

Selection Procedure

This brochure has been developed for easy sizing and selection of the (S)PORT valve. Valve operation and parts information is available in the (S)PORT product Bulletin 26-01. Selecting the proper port size EPR valve is relatively easy when using the capacity tables. Certain basic information must be known and some specific steps should be followed to ensure accurate port size selection. The following guidelines have been provided to help make the selection process simple.

Specific operating conditions need to be known:

1. What is the refrigerant being used?
2. What is the medium flowing through the valve? (Suction vapor, hot gas, sub-cooled liquid, etc.).
3. How much is flowing through the valve? (Tons, btu/hr, MBH).
4. What is the valve inlet pressure or temperature?
5. What is the valve outlet pressure or temperature?
6. What is the liquid temperature to the evaporator?

Once the preceding information is known, a selection from the capacity table can be made.

(S)PORT Selection Table R-404A Low Temperature

Effective Port Size (in.) (Port size designation in model #)		3/8 (3)	5/8 (5)	7/8 (7)	1-1/8 (9)	1-3/8 (11)	1-5/8 (13)	2-1/8 (17)
Compr. Rack Suction Temp (°F)	Case Evap Temp (°F)	Valve Capacities — MBH						
-10	+20	27.00	59.40	91.80	145.8	203.4	324.0	486.0
	+15	23.07	50.76	78.45	124.6	173.8	276.9	415.3
	+10	19.33	42.52	65.71	104.4	145.6	231.9	347.9
	+5	15.67	34.48	53.29	84.6	118.1	188.1	282.1
	0	11.99	26.38	40.77	64.8	90.3	143.9	215.9
	-10	2.60	5.72	8.83	14.0	19.6	31.2	46.8
-20	+20	25.69	56.52	87.35	138.7	193.5	308.3	462.4
	+10	21.88	48.13	74.39	118.1	164.8	262.5	393.8
	0	15.56	34.24	52.92	84.0	117.2	186.8	280.1
	-10	9.59	21.09	32.60	51.8	72.2	115.0	172.6
	-15	6.33	13.92	21.51	34.2	47.7	75.9	113.9
	-20	2.24	4.94	7.63	12.1	16.9	26.9	40.4
-25	+10	20.57	45.24	69.92	111.1	154.9	246.8	370.2
	0	16.70	36.73	56.77	90.2	125.8	200.4	300.5
	-10	11.23	24.70	38.17	60.6	84.6	134.7	202.1
	-15	8.54	18.79	29.03	46.1	64.3	102.5	153.7
	-20	5.63	12.38	19.13	30.4	42.4	67.5	101.3
	-25	2.08	4.58	7.08	11.2	15.7	25.0	37.5
-30	+10	20.57	45.24	69.92	111.1	154.9	246.8	370.2
	0	16.31	35.87	55.44	88.1	122.8	195.7	293.5
	-10	12.40	27.29	42.17	67.0	93.4	148.8	223.2
	-20	7.58	16.67	25.76	40.9	57.1	90.9	136.4
	-25	4.99	10.97	16.95	26.9	37.6	59.8	89.7
	-30	1.93	4.24	6.55	10.4	14.5	23.1	34.7
-40	0	16.30	35.87	55.44	88.1	122.8	195.7	293.5
	-10	12.79	28.13	43.47	69.0	96.3	153.4	230.1
	-20	9.75	21.46	33.17	52.7	73.5	117.1	175.6
	-25	7.83	17.23	26.62	42.3	59.0	94.0	140.9
	-30	5.92	13.02	20.12	32.0	44.6	71.0	106.5
	-35	3.88	8.53	13.18	20.9	29.2	46.5	69.8
	-40	1.64	3.60	5.57	8.8	12.3	19.6	29.5

NOTE: Capacities are based on 100° F liquid, saturated evaporator and 10° F superheat at valve inlet (per ARI 770-84). For each 10° F liquid is below 100° F, INCREASE capacity values by 6%.

PARKER - REGULATORS FLO-CON (S)PORT, (S)PORT II

Evaporator Pressure Regulators (Ductile Iron Body) - With Electric Shutoff

Part Number	Model Number	Type	Port Size (In)	Connection (In)	Range
107494	SPORT 03 - 05	SPORT	3/8	5/8	A
107496	SPORT 05 - 05	SPORT	5/8	5/8	A
103622	SPORT 03 - 07	SPORT	3/8	7/8	A
103623	SPORT 05 - 07	SPORT	5/8	7/8	A
103624	SPORT 07 - 07	SPORT	7/8	7/8	A
103625	SPORT 09 - 07	SPORT	1-1/8	7/8	A
103599	SPORT 03 - 09	SPORT	3/8	1-1/8	A
103550	SPORT 05 - 09	SPORT	5/8	1-1/8	A
103552	SPORT 07 - 09	SPORT	7/8	1-1/8	A
103555	SPORT 09 - 09	SPORT	1-1/8	1-1/8	A
103559	SPORT 11 - 09	SPORT	1-3/8	1-1/8	A
103600	SPORT 03 - 11	SPORT	3/8	1-3/8	A
103551	SPORT 05 - 11	SPORT	5/8	1-3/8	A
103553	SPORT 07 - 11	SPORT	7/8	1-3/8	A
103556	SPORT 09 - 11	SPORT	1-1/8	1-3/8	A
103560	SPORT 11 - 11	SPORT	1-3/8	1-3/8	A
103601	SPORT 03 - 13	SPORT	3/8	1-5/8	A
103603	SPORT 05 - 13	SPORT	5/8	1-5/8	A
103554	SPORT 07 - 13	SPORT	7/8	1-5/8	A
103557	SPORT 09 - 13	SPORT	1-1/8	1-5/8	A
103561	SPORT 11 - 13	SPORT	1-3/8	1-5/8	A
103841	SPORT 13 - 13	SPORT	1-5/8	1-5/8	A
103844	SPORT 17 - 13	SPORT	2-1/8	1-5/8	A
103847	SPORT 21 - 13	SPORT	2-5/8	1-5/8	A
103602	SPORT 03 - 17	SPORT	3/8	2-1/8	A
103604	SPORT 05 - 17	SPORT	5/8	2-1/8	A
103605	SPORT 07 - 17	SPORT	7/8	2-1/8	A
103558	SPORT 09 - 17	SPORT	1-1/8	2-1/8	A
103562	SPORT 11 - 17	SPORT	1-3/8	2-1/8	A
103842	SPORT 13 - 17	SPORT	1-5/8	2-1/8	A
103845	SPORT 17 - 17	SPORT	2-1/8	2-1/8	A
103848	SPORT 21 - 17	SPORT	2-5/8	2-1/8	A
103843	SPORT 13 - 21	SPORT	1-5/8	2-5/8	A
103846	SPORT 17 - 21	SPORT	2-1/8	2-5/8	A
103849	SPORT 21 - 21	SPORT	2-5/8	2-5/8	A

Standard Range — 10 in. Hg to 120 psig.

To order: Specify type, port size, connection size and voltage.

PARKER - REGULATORS FLO-CON (S)PORT, (S)PORT II

Evaporator Pressure Regulators (Ductile Iron Body) - Less Coils - With Electric Shutoff And Wide Open Feature

Part Number	Model Number	Type	Port Size (In)	Connection (In)	Range
107499	SPORT B 03 - 06	SPORT B	3/8	5/8	A
107501	SPORT B 05 - 05	SPORT B	5/8	5/8	A
103630	SPORT B 03 - 07	SPORT B	3/8	7/8	A
103631	SPORT B 05 - 07	SPORT B	5/8	7/8	A
103632	SPORT B 07 - 07	SPORT B	7/8	7/8	A
103633	SPORT B 09 - 07	SPORT B	1-1/8	7/8	A
103613	SPORT B 03 - 09	SPORT B	3/8	1-1/8	A
103576	SPORT B 05 - 09	SPORT B	5/8	1-1/8	A
103578	SPORT B 07 - 09	SPORT B	7/8	1-1/8	A
103581	SPORT B 09 - 09	SPORT B	1-1/8	1-1/8	A
103585	SPORT B 11 - 09	SPORT B	1-3/8	1-1/8	A
103614	SPORT B 03 - 11	SPORT B	3/8	1-3/8	A
103577	SPORT B 05 - 11	SPORT B	5/8	1-3/8	A
103579	SPORT B 07 - 11	SPORT B	7/8	1-3/8	A
103582	SPORT B 09 - 11	SPORT B	1-1/8	1-3/8	A
103586	SPORT B 11 - 11	SPORT B	1-3/8	1-3/8	A
103615	SPORT B 03 - 13	SPORT B	3/8	1-5/8	A
103617	SPORT B 05 - 13	SPORT B	5/8	1-5/8	A
103580	SPORT B 07 - 13	SPORT B	7/8	1-5/8	A
103583	SPORT B 09 - 13	SPORT B	1-1/8	1-5/8	A
103587	SPORT B 11 - 13	SPORT B	1-3/8	1-5/8	A
103850	SPORT B 13 - 13	SPORT B	1-5/8	1-5/8	A
103853	SPORT B 17 - 13	SPORT B	2-1/8	1-5/8	A
103856	SPORT B 21 - 13	SPORT B	2-5/8	2-1/8	A
103616	SPORT B 03 - 17	SPORT B	3/8	2-1/8	A
103618	SPORT B 05 - 17	SPORT B	5/8	2-1/8	A
103619	SPORT B 07 - 17	SPORT B	7/8	2-1/8	A
103584	SPORT B 09 - 17	SPORT B	1-1/8	2-1/8	A
103851	SPORT B 13 - 17	SPORT B	1-5/8	2-1/8	A
103854	SPORT B 17 - 17	SPORT B	2-1/8	2-1/8	A
103857	SPORT B 21 - 17	SPORT B	2 5/8	2-1/8	A
103852	SPORT B 13 - 21	SPORT B	1-5/8	2-5/8	A
103855	SPORT B 17 - 21	SPORT B	2-1/8	2-5/8	A
103858	SPORT B 21 - 21	SPORT B	2-5/8	2-5/8	A

Standard Range — 10 in. Hg to 120 psig.

To order: Specify type, port size, connection size and voltage.

PARKER - REGULATORS FLO-CON (S)PORT, (S)PORT II

Evaporator Pressure Regulators (Aluminum Bronze Body) – With Electric Shutoff And Wide Open Feature

Part Number	Model Number	Type	Port Size (In)	Connection (In)	Range
104548	SPORT II 03 - 07	SPORT II	3/8	7/8	A
104553	SPORT II 05 - 07	SPORT II	5/8	7/8	A
104558	SPORT II 07 - 07	SPORT II	7/8	7/8	A
104563	SPORT II 09 - 07	SPORT II	1-1/8	7/8	A
104549	SPORT II 03 - 09	SPORT II	3/8	1-1/8	A
104554	SPORT II 05 - 09	SPORT II	5/8	1-1/8	A
104559	SPORT II 07 - 09	SPORT II	7/8	1-1/8	A
104564	SPORT II 09 - 09	SPORT II	1-1/8	1-1/8	A
104568	SPORT II 11 - 09	SPORT II	1-3/8	1-1/8	A
104550	SPORT II 03 - 11	SPORT II	3/8	1-3/8	A
104555	SPORT II 05 - 11	SPORT II	5/8	1-3/8	A
104560	SPORT II 07 - 11	SPORT II	7/8	1-3/8	A
104565	SPORT II 09 - 11	SPORT II	1-1/8	1-3/8	A
104569	SPORT II 11 - 11	SPORT II	1-3/8	1-3/8	A
104551	SPORT II 03 - 13	SPORT II	3/8	1-5/8	A
104556	SPORT II 05 - 13	SPORT II	5/8	1-5/8	A
104561	SPORT II 07 - 13	SPORT II	7/8	1-5/8	A
104566	SPORT II 09 - 13	SPORT II	1-1/8	1-5/8	A
104570	SPORT II 11 - 13	SPORT II	1-3/8	1-5/8	A
104552	SPORT II 03 - 17	SPORT II	3/8	2-1/8	A
104557	SPORT II 05 - 17	SPORT II	5/8	2-1/8	A
104562	SPORT II 07 - 17	SPORT II	7/8	2-1/8	A
104567	SPORT II 09 - 17	SPORT II	1-1/8	2-1/8	A
104571	SPORT II 11 - 17	SPORT II	1-3/8	2-1/8	A

Standard Range — 10 in. Hg to 120 psig.

To order: Specify type, port size, connection size and voltage.

PARKER - REGULATORS FLO-CON (S)PORT, (S)PORT II

Evaporator Pressure Regulators (Ductile Iron Body) - Less Coils - With Electric Shutoff And Wide Open Feature

Part Number	Model Number	Type	Port Size (In)	Connection (In)	Range
104596	SPORT II B 03 - 07	SPORT II B	3/8	7/8	A
104601	SPORT II B 05 - 07	SPORT II B	5/8	7/8	A
104606	SPORT II B 07 - 07	SPORT II B	7/8	7/8	A
104611	SPORT II B 09 - 07	SPORT II B	1-1/8	7/8	A
104597	SPORT II B 03 - 09	SPORT II B	3/8	1-1/8	A
104602	SPORT II B 05 - 09	SPORT II B	5/8	1-1/8	A
104607	SPORT II B 07 - 09	SPORT II B	7/8	1-1/8	A
104612	SPORT II B 09 - 09	SPORT II B	1-1/8	1-1/8	A
104616	SPORT II B 11 - 09	SPORT II B	1-3/8	1-1/8	A
104598	SPORT II B 03 - 11	SPORT II B	3/8	1-3/8	A
104603	SPORT II B 05 - 11	SPORT II B	5/8	1-3/8	A
104608	SPORT II B 07 - 11	SPORT II B	7/8	1-3/8	A
104613	SPORT II B 09 - 11	SPORT II B	1-1/8	1-3/8	A
104617	SPORT II B 11 - 11	SPORT II B	1-3/8	1-3/8	A
104599	SPORT II B 03 - 13	SPORT II B	3/8	1-5/8	A
104604	SPORT II B 05 - 13	SPORT II B	5/8	1-5/8	A
104609	SPORT II B 07 - 13	SPORT II B	7/8	1-5/8	A
104614	SPORT II B 09 - 13	SPORT II B	1-1/8	1-5/8	A
104618	SPORT II B 11 - 13	SPORT II B	1-3/8	1-5/8	A
104600	SPORT II B 03 - 17	SPORT II B	3/8	2-1/8	A
104605	SPORT II B 05 - 17	SPORT II B	5/8	2-1/8	A
104610	SPORT II B 07 - 17	SPORT II B	7/8	2-1/8	A
104615	SPORT II B 09 - 17	SPORT II B	1-1/8	2-1/8	A
104619	SPORT II B 11 - 17	SPORT II B	1-3/8	2-1/8	A

Standard Range — 10 in. Hg to 120 psig.

To order: Specify type, port size, connection size and voltage.

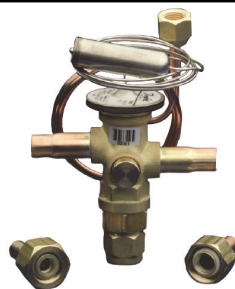
Evaporator Pressure Regulators

Solenoid Valve Coils

Part Number	Valve Series	Voltage	Description
202940	(S)PORT, (S)PORT II, SC	120V	Coil & Housing Kit
202941	(S)PORT, (S)PORT II, SC	240V	Coil & Housing Kit
202942	(S)PORT, (S)PORT II, SC	208V	Coil & Housing Kit
202943	(S)PORT, (S)PORT II, SC	480V	Coil & Housing Kit
202944	(S)PORT, (S)PORT II, SC	24V	Coil & Housing Kit
206004	A8, A9	120V	Coil & Housing Kit
206005	A8, A9	208/240V	Coil & Housing Kit
206006	A8, A9	480V	Coil & Housing Kit

DANFOSS THERMOSTATIC EXPANSION VALVES TYPE T2 & TE2

Universal TR 6 Kit For Air Conditioning



Upgrade for energy savings

- Patented, internal check valve
- For Air Conditioning and heat pump systems
- A complete kit – easily retrofit existing systems
- 3 connection options in every kit:
 - 3/8" x 3/8" ODF
 - Chatleff
 - Aeroquip
- Adjustable superheat
- Anti-hunt sensing bulb
- Stainless Steel power head, laser welded
- Stainless Steel cap tube resists vibration
- -22 and R-410A versions

Kit includes:

- Valve body with 3/8" x 3/8" ODF connections
- Built-in check valve for heat pumps
- Instructions

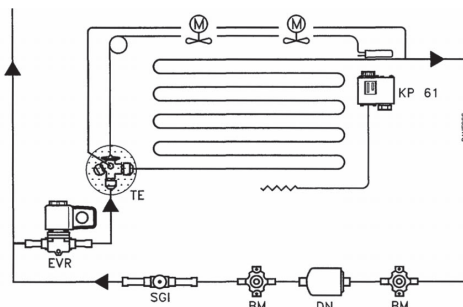
- Adjustable Superheat
- Equilization line: 24" with flarenut:
- capillary tube: 31.5"
- Connections: 3/8" x 3/8" ODF, Aeroquip and chatleff adapters supplied
- Patented double contact bulb
- Fast and easy to install
- Good temperature transfer from pipe to bulb
- Valves for special temperature ranges can be supplied.
- 5 ft. long capillary tube

- Chatleff and Aeroquip adapters
- 35" foam insulating tape
- PATENTED easy secure copper bulb strap

Features:

Large temperature range Equally applicable to freezing, refrigeration, and air conditioning applications. Interchangeable orifice assembly

- Easier stocking
- Easy capacity matching
- Better service
- Can be supplied with MOP (Max. Operating Pressure)
- Protects the compressor motor against excessive evaporating pressure during normal operation



Part Number	Connections Included In Kit		
	3/8 x 3/8 Odf	Chatleff	Aeroquip
067L5955	X	X	X
067L5956	X	X	X
067L5957	X	X	X
067L5856	X	X	X
067L5857	X	X	X
067L5858	X	X	X
067L5859	X	X	X

Part Number	Refrigerant	System Capacity (TR)
067L5955	R410a	3
067L5956	R410a	4
067L5957	R410a	5
067L5856	R-22	1, 1.5, 2
067L5857	R-22	2.5, 3
067L5858	R-22	3.5, 4
067L5859	R-22	5, 6

DANFOSS THERMOSTATIC EXPANSION VALVES TYPE T2 & TE2

Components with Flare x Flare Connections

Range N –40 to +50°F Without MOP

Components with Flare x Flare Connections Thermostatic element and valve body with bulb strap (without orifice and filter)

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (ft)	Connection Inlet x Outlet (In. x In.)
068Z3206	R-22	TX 2	Int.	5	3/8 x 1/2
068Z3209	R-22	TEX 2	Ext.	5	3/8 x 1/2
068Z3346	R-134a	TN 2	Int.	5	3/8 x 1/2
068Z3348	R-134a	TEN 2	Ext.	5	3/8 x 1/2
068Z3400	R-404A/ R-507	TS 2	Int.	5	3/8 x 1/2
068Z3403	R-404A/ R-507	TES 2	Ext.	5	3/8 x 1/2

Range N –40 to +50°F With MOP

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (ft)	Connection Inlet x Outlet (In. x In.)
068Z3208	R-22	TX 2	Int.	5	3/8 x 1/2
068Z3211	R-22	TEX 2	Ext.	5	3/8 x 1/2
068Z3347	R-134a	TN 2	Int.	5	3/8 x 1/2
068Z3349	R-134a	TEN 2	Ext.	5	3/8 x 1/2
068Z3402	R-404A/ R-507	TS 2	Int.	5	3/8 x 1/2
068Z3405	R-404A/ R-507	TES 2	Ext.	5	3/8 x 1/2

Range NM –40 to +25° F With MOP

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (ft)	Connection Inlet x Outlet (In. x In.)
068Z3224	R-22	TX 2	Int.	5	3/8 x 1/2
068Z3225	R-22	TEX 2	Ext.	5	3/8 x 1/2
068Z3393	R-134a	TN 2	Int.	5	3/8 x 1/2
068Z3392	R-134a	TEN 2	Ext.	5	3/8 x 1/2
068Z3406	R-404A/ R-507	TS 2	Int.	5	3/8 x 1/2
068Z3407	R-404A/ R-507	TES 2	Ext.	5	3/8 x 1/2

Range NL –40 to +5° F With MOP

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (ft)	Connection Inlet x Outlet (In. x In.)
068Z3226	R-22	TX 2	Int.	5	3/8 x 1/2
068Z3227	R-22	TEX 2	Ext.	5	3/8 x 1/2
068Z3369	R-134a	TN 2	Int.	5	3/8 x 1/2
068Z3370	R-134a	TEN 2	Ext.	5	3/8 x 1/2
068Z3408	R-404A/ R-507	TS 2	Int.	5	3/8 x 1/2
068Z3409	R-404A/ R-507	TES 2	Ext.	5	3/8 x 1/2

Range B –75 to –15° F Without MOP

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (ft)	Connection Inlet x Outlet (In. x In.)
068Z3207	R-22	TX 2	Int.	5	3/8 x 1/2
068Z3210	R-22	TEX 2	Ext.	5	3/8 x 1/2
068Z3401	R-404A/ R-507	TS 2	Int.	5	3/8 x 1/2
068Z3404	R-404A/ R-507	TES 2	Ext.	5	3/8 x 1/2

DANFOSS THERMOSTATIC EXPANSION VALVES TYPE T2 & TE2

Components with Flare x Flare Connections

Range B –75 to –15° F With MOP

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (ft)	Connection Inlet x Outlet (In. x In.)
068Z3228	R-22	TX 2	Int.	5	3/8 x 1/2
068Z3229	R-22	TEX 2	Ext.	5	3/8 x 1/2
068Z3410	R-404A/ R-507	TS 2	Int.	5	3/8 x 1/2
068Z3411	R-404A/ R-507	TES 2	Ext.	5	3/8 x 1/2

DANFOSS THERMOSTATIC EXPANSION VALVES

Type T2 & TE2 Orifice Assembly with Filter

Rated capacity in nominal tons (TR)

Part Number	Orifice Size	Range N: -40 to +50° F				Range B: -75 to -15° F	
		R-22	R-407C	R-134A	R-404A/R-507	R-22	R-404A/R-507
068-2002	0X	0.15	0.16	0.11	0.11	0.15	0.11
068-2003	0	0.3	0.3	0.25	0.21	0.2	0.21
068-2010	1	0.7	0.8	0.5	0.45	0.3	0.45
068-2015	2	1	1.1	0.8	0.6	0.6	0.6
068-2006	3	1.5	1.6	1.3	1.2	0.8	1
068-2007	4	2.3	2.5	1.9	1.7	1.2	1.4
068-2008	5	3	3.2	2.5	2.2	1.5	1.7
068-2009	6	4.5	4.9	3	2.6	2	1.9

Rated capacity is based on:

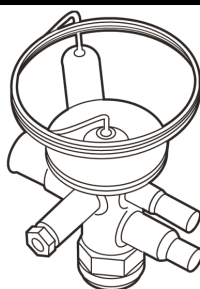
Evaporating temperature $t_e = +40^\circ \text{F}$ for range N and $t_e = -20^\circ \text{F}$ for range B

Condensing temperature $t_c = +90^\circ \text{F}$

Refrigerant liquid temperature ahead of valve $t_l = +80^\circ \text{F}$

Type TUA/TUAE

TUA-TUAE Range 1/6 to 4 1/2 TR (R-22)



Features

- Type TUA/TUAE is available with interchangeable orifice assembly and removable strainer in a straightway design.
- The valves are offered in rated capacities up to 4.5 TR (R-22) and can be used in a wide range of applications.
- The TUA/TUAE is made of stainless steel and therefore is especially well-suited to refrigeration systems where aggressive environments exist.
- The TUA/TUAE has been developed and designed especially for soldering into hermetic refrigeration systems.
- Removable Strainer- Suitable for use with new POE oils
- Maximum working pressure MWP=500 PSIG MWPR410A=615PSIG
- Bi-Flow operation, with flow in opposite direction, the rated capacity is reduced by up to 15%.
- TUAE Models (Except Orifice 9) can be used for Bi-Flow operation.

Ordering

Thermostatic element and valve body with bulb strap (without orifice and filter)

R-22, R-134a, R-404A, R-507

Range N .40-50 F without MOP

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (In)	Connections ODF x ODF (In)
068U2234	R-22	TUA	Int.	59	1/4 x 1/2
068U2235	R-22	TUA	Int.	59	3/8 x 1/2
068U2236	R-22	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2237	R-22	TUAE	Ext. 1/4 in.	69	3/8 x 1/2
068U2204	R-134a	TUA	Int.	59	1/4 x 1/2
068U2205	R-134a	TUA	Int.	59	3/8 x 1/2
068U2206	R-134a	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2284	R-404A/ R-507	TUA	Int.	59	1/4 x 1/2
068U2285	R-404A/ R-507	TUA	Int.	59	3/8 x 1/2
068U2286	R-404A/ R-507	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2287	R-404A/ R-507	TUAE	Ext. 1/4 in.	59	3/8 x 1/2

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TUA/TUAE

TUA-TUAE Range 1/6 to 4 1/2 TR (R-22)

Range N -40-50F MOP 60 F

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (In)	Connections ODF x ODF (In)
068U2242	R-22	TUA	Int.	59	1/4 x 1/2
068U2243	R-22	TUA	Int.	59	3/8 x 1/2
068U2244	R-22	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2245	R-22	TUAE	Ext. 1/4 in.	69	3/8 x 1/2
068U2212	R-134a	TUA	Int.	59	1/4 x 1/2
068U2213	R-134a	TUA	Int.	59	3/8 x 1/2
068U2214	R-134a	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2292	R-404A/ R-507	TUA	Int.	59	1/4 x 1/2
068U2293	R-404A/ R-507	TUA	Int.	59	3/8 x 1/2
068U2294	R-404A/ R-507	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2295	R-404A/ R-507	TUAE	Ext. 1/4 in.	59	3/8 x 1/2

Range B -60 - 15F MOP .4 F

Part Number	Refrigerant	Valve Type	Pressure Equalization	Capillary Tube (In)	Connections ODF x ODF (In)
068U2316	R-404A/ R-507	TUA	Int.	59	1/4 x 1/2
068U2317	R-404A/ R-507	TUA	Int.	59	3/8 x 1/2
068U2318	R-404A/ R-507	TUAE	Ext. 1/4 in.	59	1/4 x 1/2
068U2319	R-404A/ R-507	TUAE	Ext. 1/4 in.	59	3/8 x 1/2

Orifice Assembly with Filter and Gasket

Part Number	Orifice No.	Range N: -40 To 50°F				Range B: -60 To -15°F		
		R-22	R-134a	R-404A	R-507	R-22	R-404A	R-507
068U1030	0	0.17	0.13	0.13	0.13	0.15	0.10	0.11
068U1031	1	0.25	0.19	0.19	0.19	0.19	0.14	0.15
068U1032	2	0.36	0.28	0.28	0.27	0.24	0.18	0.20
068U1033	3	0.50	0.39	0.39	0.38	0.34	0.25	0.28
068U1034	4	0.75	0.59	0.60	0.57	0.50	0.37	0.41
068U1035	5	1.00	0.78	0.79	0.76	0.66	0.50	0.55
068U1036	6	1.5	1.2	1.2	1.1	1.0	0.75	0.82
068U1037	7	2.0	1.6	1.6	1.5	1.3	1.0	1.1
068U1038	8	3.0	2.3	2.4	2.3	2.0	1.5	1.7
068U1039	9	4.5	3.5	3.5	3.4	2.9	2.2	2.4

1. According to ARI 750-94.

Rated capacities for range N are based on: Liquid temperature ahead of expansion valve $t_l = 100^\circ \text{F}$

Evaporating temperature $t_e = 40^\circ \text{F}$

Pressure drop across valve $\Delta p = 60 \text{ psi}$ for R-134a

Pressure drop across valve $\Delta p = 100 \text{ psi}$ for R-22, R-404A and R-507.

Rated capacities for range B are based on: Liquid temperature ahead of expansion valve $t_l = 100^\circ \text{F}$

Evaporating temperature $t_e = -40^\circ \text{F}$

Pressure drop across valve $\Delta p = 100 \text{ psi}$ for R-134a

Pressure drop across valve $\Delta p = 150 \text{ psi}$ for R-22, R-404A, R-507C and R-507.

Spare Parts

Filter (24 pcs): 068U1706 (100 Mesh) (24 pcs): 068U0016 (50 Mesh) Gasket (24 pcs): 068U0015

NOTE: To secure tightness, the orifice gasket must be changed each time the orifice is disassembled.

Metric conversions

1 psi = 0.07 bar

5/9 ($t_1^\circ \text{F} - 32$) = $t_2^\circ \text{C}$

1 ton = 3.5 kW

1 in. = 25.4 mm

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TUB,TUBE



INTRODUCTION

Type TUB Range 1/4 to 4 1/2 (R-22)

The TU series of thermostatic expansion valves is specifically developed for soldering into hermetic refrigeration systems. TU valves are offered in rated capacities up to 4.5 TR (R-22) and can be used in a wide range of applications. The TU is made of stainless steel and therefore is well-suited to refrigeration systems for aggressive environments and for the food industry.

TUB, TUBE

Internal (TUB) or external (TUBE) equalization

Fixed orifice and strainer

Adjustable superheat

Angleway body (optional)

TUC, TUCE

• Internal (TUC) or external (TUCE) equalization

• Fixed orifice and strainer

• Fixed superheat

• Angleway body

Thermostatic charge options

In addition to the standard range, TU is also available with the following range options:

Range N: -40 to +50°F MOP +60°F

Range NM: -40 to +25°F MOP +32°F

Range B 1) -75 to -15°F

Range B 1) -75 to -15° MOP -4°F

1) TU valves for range B are not supplied for R-134a.

ORDERING

Angleway Valve Body with 2.6 ft. cap. tube and bulb strap 1) Range N: -40 to +50°F (without MOP)

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TUB,TUBE

R-22, Range N –40 to +50°F

Part Number	Valve Type	Connection Solder ODF inlet x outlet (In)	Press equal.	Orifice no. 2	Rated capacity TR 3)
068U2057	TUB	1/4 x 1/2	Int.	1	0.25
068U2058	TUB	1/4 x 1/2	Int.	2	0.36
068U2059	TUB	1/4 x 1/2	Int.	3	0.50
068U2060	TUB	1/4 x 1/2	Int.	4	0.75
068U2061	TUB	1/4 x 1/2	Int.	5	1.00
068U2062	TUB	1/4 x 1/2	Int.	6	1.50
068U2157	TUB	3/8 x 1/2	Int.	1	0.25
068U2179	TUB	3/8 x 1/2	Int.	2	0.36
068U2180	TUB	3/8 x 1/2	Int.	3	0.50
068U2183	TUB	3/8 x 1/2	Int.	4	0.75
068U2181	TUB	3/8 x 1/2	Int.	5	1.00
068U2182	TUB	3/8 x 1/2	Int.	6	1.50
068U2063	TUB	3/8 x 1/2	Int.	7	2.00
068U2064	TUB	3/8 x 1/2	Int.	8	3.00
068U2070	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	4	0.75
068U2071	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	5	1.00
068U2072	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	6	1.50
068U2159	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	1	0.25
068U2160	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	2	0.36
068U2161	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	3	0.50
068U2162	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	4	0.75
068U2163	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	5	1.00
068U2164	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	6	1.50
068U2073	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	7	2.00
068U2074	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	8	3.00
068U2075	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	9	4.50

R-134a, Range N –40 to +50°F

Part Number	Valve Type	Connection Solder ODF inlet x outlet (In)	Press equal.	Orifice no. 2	Rated capacity
068U2027	TUB	1/4 x 1/2	Int.	1	0.19
068U2028	TUB	1/4 x 1/2	Int.	2	0.28
068U2029	TUB	1/4 x 1/2	Int.	3	0.39
068U2030	TUB	1/4 x 1/2	Int.	4	0.59
068U2031	TUB	1/4 x 1/2	Int.	5	0.78
068U2032	TUB	1/4 x 1/2	Int.	6	1.20
068U2020	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	3	0.39
068U2021	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	4	0.59
068U2022	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	5	0.79
068U2023	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	6	1.20
068U2024	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	7	1.60
068U2025	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	8	2.30
068U2026	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	9	3.50

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TUB,TUBE

R-404A/R-507, Range N –40 to +50°F

Part Number	Valve Type	Connection Solder ODF inlet x outlet (In)	Press equal.	Orifice no. 2	Rated capacity
068U2094	TUB	1/4 x 1/2	Int.	1	0.19
068U2095	TUB	1/4 x 1/2	Int.	2	0.28
068U2096	TUB	1/4 x 1/2	Int.	3	0.39
068U2097	TUB	1/4 x 1/2	Int.	4	0.60
068U2098	TUB	1/4 x 1/2	Int.	5	0.79
068U2099	TUB	1/4 x 1/2	Int.	6	1.20
068U2103	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	1	0.19
068U2104	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	2	0.28
068U2105	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	3	0.39
068U2106	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	4	0.60
068U2107	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	5	0.79
068U2108	TUBE	1/4 x 1/2	Ext. 1/4 in. Solder ODF	6	1.20
068U2109	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	7	1.60
068U2110	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	8	2.40
068U2111	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	9	3.50

R-410A, Range N –40 to +50°F

Part Number	Valve Type	Connection Solder ODF inlet x outlet (In)	Press equal.	Orifice no. 2	Rated capacity
068U1958	TUB	1/4 x 1/2	Int.	1	0.40
068U1959	TUB	1/4 x 1/2	Int.	2	0.60
068U1960	TUB	1/4 x 1/2	Int.	3	0.80
068U1961	TUB	1/4 x 1/2	Int.	4	1.30
068U1962	TUB	1/4 x 1/2	Int.	5	1.70
068U1963	TUB	1/4 x 1/2	Int.	6	2.50
068U1973	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	7	3.40
068U1974	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	8	5.00
068U1975	TUBE	3/8 x 1/2	Ext. 1/4 in. Solder ODF	9	7.50

1) The TUB series is also available with 5 ft. cap. tube. Please contact Danfoss for further information.

2) All TUB and TUBE valves with orifice #9 cannot be used for bi-flow operation.

3) According to ARI 750-01

Rated capacities for range N are based on:

Liquid temperature ahead of expansion valve $t_1 = 100^\circ\text{F}$

Evaporating temperature $t_e = 40^\circ\text{F}$

Pressure drop across valve $\Delta p = 60$ psi for R-134a

Pressure drop across valve $\Delta p = 100$ psi for R-22, R-404A, & R-507

Pressure drop across valve $\Delta p = 160$ psi for R-410A

Metric conversions

1 psi = 0.07 bar

5/9 ($t_1^\circ\text{F} - 32$) = $t_2^\circ\text{C}$

1 ton = 3.5 kW

1 in. = 25.4 mm

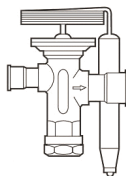
DANFOSS THERMOSTATIC EXPANSION VALVES

Type TUA(E), TUB(E), TUC(E), T(E)2, TDE, TDEB, TE, TXI 2, AKV

Valve	Applications	Features	Models	Nominal Capacity Ranges in TR for Range N -40 to 50°F					Body Type	Pressure Equalization	Connections		
				R-12	R-22	R-410A	R-134A	R-404A/507			SAE X SAE	SAE X ODF	ODF X ODF
TUA(E)	Supermarket Cases Walk-In-Coolers Residential A/C Ice-Machines Heat Pump Transport Refrigeration Food Dispensers	Interchangeable orifice, Bi flow, Stainless Steel body/cap tube/bulb, Adjustable Superheat			0.17-4.50		0.13-3.50	0.13-3.50	Straightway	Internal/ External			1/4 X 3/8 1/4 X 1/2 3/8 X 3/8 3/8 X 1/2 1/2 X 5/8
TUB(E)	Supermarket Cases Walk-In-Coolers Residential A/C Commercial HVAC Ice-Machines Heat Pump Transport Refrigeration Food Dispensers	Bi flow, Stainless Steel body/cap tube/bulb, Adjustable Superheat			0.17-4.50		0.19-3.50	0.19-3.50	Angleway/ Straightway	Internal/ External			1/4 X 3/8 1/4 X 1/2 3/8 X 3/8 3/8 X 1/2
TUC(E)	Supermarket Cases Walk-In-Coolers Residential A/C Commercial HVAC Ice-Machines Heat Pump Transport Refrigeration Food Dispensers	Bi flow, Stainless Steel body/cap tube/bulb, Non-Adjustable Superheat			0.17-4.50		0.19-3.50	0.19-3.50	Angleway/ Straightway	Internal/ External			1/4 X 3/8 1/4 X 1/2 3/8 X 3/8 3/8 X 1/2
T(E)2	Supermarket Cases Walk-In-Coolers Residential A/C Ice Machines Heat Pump Transport Refrigeration Food Dispensers	Interchangeable orifice, available with or w/o Maximum Operating Pressure (MOP), Adjustable Superheat		0.20-3.00	0.15-4.50		0.11-3.00	0.11-2.60	Angleway	Internal/ External	3/8 X 1/2	3/8 X 1/2	1/4 X 1/2 3/8 X 1/2
TDE	Commercial HVAC Heat Pump Transport Refrigeration	High capacity capability, Bi flow, available with or w/o Maximum Operating Pressure (MOP), adjustable superheat			3.0-7.5				Straightway	External			3/8 X 5/8 1/2 X 5/8 1/2 X 7/8 5/8 X 7/8
TDEB	Commercial HVAC Heat Pump Transport Refrigeration	Balanced Port, High capacity capability, Bi flow, available with or w/o MOP, Adjustable Superheat			7.5-40.0				Straightway	External			5/8 X 7/8 5/8 X 1-1/8 7/8 X 1-1/8 7/8 X 1-3/8 1-1/8 X 1-3/8
TE	Commercial HVAC Heat Pump Transport Refrigeration	Take a part valve, High capacity capability	TE 5 TE 12 TE 20 TE 55	3.0-12.0 20.0 50.0-85.0 2.0-8.0	4.5-18.0 30.0 33.0- 55.0 3.0-12.0		3.7-11.2 4.7-15.0 18.0 41.0-62.0	3.7-10.3 4.2-13.4 16.5 37.0-56.0	Angleway/ Straightway Straightway Straightway Straightway	External External External External External	1/2 X 5/8		1/2 X 5/8 1/2 X 7/8 5/8 X 7/8
AKV	Supermarket Cases Walk-In-Coolers Ice-Machines	Electronic expansion valves	AKV 10 AKV 15		0.3-5.7 7.2-29.0		0.2-4.4 6.0-24.0	0.2-4.8 5.6-22.2	Angleway Straightway Straightway	Internal Internal Internal			7/8 X 1-1/8
TR6	Residential A/C	Optimized for split system A/C & Heat Pump			1-6	3-5				Sensor & Transducer			3/8 X 1/2 1/2 X 5/8

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TRE10, TRE20, TRE40, AND TRE80



INTRODUCTION

TRE thermostatic expansion valves have been designed and developed for soldering into air-conditioning and refrigeration systems. Their hermetic tight design meets environmental demands for today and the future. They can be used in systems ranging in capacity from 8 to 70 TR (R 22). The TRE design incorporates a forged brass body with the entire power element, including the capillary tube and bulb, fabricated from stainless steel. The straight through bimetal solder connections are formed from deep drawn stainless steel and copper.

The valve incorporates a 2-way balanced port orifice making it ideal for biflow operation. External superheat adjustment is a standard feature on all TRE valves. For non-adjustable OEM versions, a setting assembly is available for field retrofit.

Contact Danfoss for further information.

FEATURES

Bimetal connections

- waterless soldering
- quicker installation times
- higher productivity

Developed for R 410A

- R 22, R 134a, R 410A, R 507 and other fluorinated refrigerants Laser-welded power element
- longer diaphragm life

high pressure tolerance and working pressure

Stainless steel power element, capillary tube and bulb

- high corrosion resistance
- high strength and vibration resistance
- fast installation: self-aligning bulb
- secures with one strap
- good thermal contact and transmission

Valve options

Capillary tube length

Two-way balanced port/bi-flow function

- superheat unaffected by condensing pressure independent of flow direction
- one valve for heat pump service Stainless steel double contact bulb
- straightforward and fast installation
- good thermal contact and heat transfer Adjustable/non- adjustable version
- Setting spindle assembly can be retrofitted to non-adjustable version

Connections

In addition to the standard program, TRE valves are also available with the following options:

Refrigerants - Range - MOP:

Contact Danfoss for information regarding different refrigerants and evaporator ranges.

Internal bleed: 15%

TYPE	CAPILLARY TUBE
TRE10	LENGTH
TRE20	3 or 5 ft
TRE40	3 5 or 10 ft
TRE80	5 or 10 ft

TYPE	INLET ODF SOLDER	OUTLET ODF SOLDER
TRE10	1/2 -5/8 -7/8 in.	1/2 -5/8 -7/8 -1-1/8 in.
TRE20	5/8 -7/8 -1-1/8 in.	5/8 -7/8 -1-1/8 -1-3/8 in.
TRE40	7/8 -1-1/8 in.	7/8 -1-1/8 -1-3/8 in.
TRE80	1-1/8 -1-3/8 in.	1-1/8 -1-3/8 -1-5/8 in.

Equalizing connection 1/4" or 6 mm ODF on all types.

Sizes in bold type are standard sizes.

ORDERING Valve and bulb strap are supplied in mutipack.

The numbers supplied are as follows:

Overview of product range

Capacity TR	Refrigerant		Range	MOP
	Type	Code		
8 -70	R 22	X	K	60°F
8-70	R 22	X	N	
8 -85	R 410A	L	K	60°F
8 -85	R 410A	L	N	
5 -56	R 134a	N	K	60°F
5 -56	R 134a	N	N	

Type	Multipack
TRE 10	12 pcs
TRE 20	8 pcs
TRE 40	6 pcs
TRE 80	4 pcs

K: -15 up to +50

N: -40 up to +50

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TRE10, TRE20, TRE40, AND TRE80 - Ordering R22, R410A

K -15°/+50°F MOP 60F-25°/+10°C MOP 15°C

Part Number	Refrigerant	Type Rated Capacity Qnom 1) TR	Rated Capacity Qnom 1) TR	Connection ODF Solder Inlet (In)	Connection ODF Solder Outlet (In)
067L1021	R22	TRE10-8X	8	5/8	7/8
067L1024	R22	TRE10-10X	10	5/8	7/8
067L1075	R22	TRE20-10X	10	5/8	7/8
067L1079	R22	TRE20-12.5X	12.5	5/8	7/8
067L1084	R22	TRE20-15X	15	7/8	1 1/8
067L1087	R22	TRE20-20X	20	7/8	1 1/8
067L1088	R22	TRE20-20X	20	7/8	1 3/8
067L3005	R22	TRE40-25X	25	7/8	1 3/8
067L3006	R22	TRE40-25X	25	1 1/8	1 3/8
067L3009	R22	TRE40-30X	30	1 1/8	1 3/8
067L3012	R22	TRE40-40X	40	1 1/8	1 3/8
067L3063	R22	TRE80-55X	55	1 1/8	1 3/8
067L1028	R410A	TRE10-8L	8	5/8	5/8
067L1029	R410A	TRE10-8L	8	5/8	7/8
067L1030	R410A	TRE10-10L	10	5/8	5/8
067L1031	R410A	TRE10-10L	10	5/8	7/8
067L1034	R410A	TRE10-12.5L	12.5	5/8	5/8
067L1035	R410A	TRE10-12.5L	12.5	5/8	7/8
067L1038	R410A	TRE10-15L	15	7/8	7/8
067L1039	R410A	TRE10-15L	15	7/8	1 1/8
067L1091	R410A	TRE20-15L	15	7/8	7/8
067L1092	R410A	TRE20-15L	15	7/8	1 1/8
067L1093	R410A	TRE20-20L	20	7/8	7/8
067L1094	R410A	TRE20-20L	20	7/8	1 1/8
067L1097	R410A	TRE20-25L	25	7/8	1 1/8
067L3015	R410A	TRE40-25L	25	7/8	1 1/8
067L3016	R410A	TRE40-25L	25	1 1/8	1 3/8
067L3019	R410A	TRE40-30L	30	1 1/8	1 3/8
067L3024	R410A	TRE40-40L	40	1 1/8	1 3/8
067L3070	R410A	TRE80-55L	55	1 1/8	1 3/8
067L3073	R410A	TRE80-80L	80	1 1/8	1 3/8
067L3074	R410A	TRE80-80L	80	1 1/8	1 3/8
067L3075	R410A	TRE80-80L	80	1 3/8	1 3/8
067L3078	R410A	TRE80-100L	100	1 1/8	1 5/8
067L3079	R410A	TRE80-100L	100	1 3/8	1 5/8

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TRE10, TRE20, TRE40, AND TRE80 - Ordering R22, R410A

N -40°/+50°F-40°/+10°C

AC&R Components

Part Number	Refrigerant	Type Rated Capacity Qnom 1) TR	Rated Capacity Qnom 1) TR	Connection ODF Solder Inlet (In)	Connection ODF Solder Outlet (In)
067L1121	R22	TRE10-8X	8	5/8	7/8
067L1124	R22	TRE10-10X	10	5/8	7/8
067L1175	R22	TRE20-10X	10	5/8	7/8
067L1179	R22	TRE20-12.5X	12.5	5/8	7/8
067L1184	R22	TRE20-15X	15	7/8	1 1/8
067L1187	R22	TRE20-20X	20	7/8	1 1/8
067L1188	R22	TRE20-20X	20	7/8	1 3/8
067L3105	R22	TRE40-25X	25	7/8	1 3/8
067L3106	R22	TRE40-25X	25	1 1/8	1 3/8
067L3109	R22	TRE40-30X	30	1 1/8	1 3/8
067L3112	R22	TRE40-40X	40	1 1/8	1 3/8
067L1128	R410A	TRE10-8L	8	5/8	5/8
067L1129	R410A	TRE10-8L	8	5/8	7/8
067L1130	R410A	TRE10-10L	10	5/8	5/8
067L1131	R410A	TRE10-10L	10	5/8	7/8
067L1134	R410A	TRE10-12.5L	12.5	5/8	5/8
067L1135	R410A	TRE10-12.5L	12.5	5/8	7/8
067L1138	R410A	TRE10-15L	15	7/8	7/8
067L1139	R410A	TRE10-15L	15	7/8	1 1/8
067L1191	R410A	TRE20-15L	15	7/8	7/8
067L1192	R410A	TRE20-15L	15	7/8	1 1/8
067L1193	R410A	TRE20-20L	20	7/8	7/8
067L1194	R410A	TRE20-20L	20	7/8	1 1/8
067L1197	R410A	TRE20-25L	25	7/8	1 1/8
067L1199	R410A	TRE20-25L	25	1 1/8	1 1/8
067L3115	R410A	TRE40-25L	25	7/8	1 1/8
067L3116	R410A	TRE40-25L	25	1 1/8	1 3/8
067L3119	R410A	TRE40-30L	30	1 1/8	1 3/8
067L3124	R410A	TRE40-40L	40	1 1/8	1 3/8
067L3127	R410A	TRE40-55L	55	1 1/8	1 1/8
067L3170	R410A	TRE80-55L	55	1 1/8	1 3/8
067L3173	R410A	TRE80-80L	80	1 1/8	1 3/8
067L3174	R410A	TRE80-80L	80	1 1/8	1 5/8
067L3175	R410A	TRE80-80L	80	1 3/8	1 3/8
067L3178	R410A	TRE80-100L	100	1 1/8	1 5/8
067L3179	R410A	TRE80-100L	100	1 3/8	1 5/8

Pressure equalization = 1/4" ODF

1) The rated capacity is based on ARI Standard 750-97

For connections, refrigerants, capillary tube lengths, etc. outside the standard program, see Valve options.

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TRE10, TRE20, TRE40, AND TRE80 - Ordering R407C, R134a

K –15°/+50°F MOP 60°F –25°/+10°C MOP 15°C

Part Number	Refrigerant	Type Rated Capacity Qnom 1) TR	Rated Capacity Qnom 1) TR	Connection ODF Solder Inlet (In)	Connection ODF Solder Outlet (In)
067L1003	R134a	TRE10-5N	5	5/8	7/8
067L1006	R134a	TRE10-7N	7	5/8	7/8
067L1041	R134a	TRE20-7N	7	5/8	7/8
067L1045	R134a	TRE20-9N	9	5/8	7/8
067L1050	R134a	TRE20-11N	11	7/8	1 1/8
067L1053	R134a	TRE20-14N	14	7/8	1 1/8
067L1054	R134a	TRE20-14N	14	7/8	1 3/8
067L3043	R134a	TRE40-14N	14	7/8	1 1/8
067L3051	R134a	TRE40-20N	20	1 1/8	1 3/8
067L3054	R134a	TRE40-25N	25	1 1/8	1 3/8

N – 40°/+50°F –40°/+10°C

Part Number	Refrigerant	Type Rated Capacity Qnom 1) TR	Rated Capacity Qnom 1) TR	Connection ODF Solder Inlet (In)	Connection ODF Solder Outlet (In)
067L1103	R134a	TRE10-5N	5	5/8	7/8
067L1106	R134a	TRE10-7N	7	5/8	7/8
067L1141	R134a	TRE20-7N	7	5/8	7/8
067L1145	R134a	TRE20-9N	9	5/8	7/8
067L1150	R134a	TRE20-11N	11	7/8	1 1/8
067L1153	R134a	TRE20-14N	14	7/8	1 1/8
067L1154	R134a	TRE20-14N	14	7/8	1 3/8
067L3143	R134a	TRE40-14N	14	7/8	1 1/8
067L3147	R134a	TRE40-16N	16	7/8	1 3/8
067L3148	R134a	TRE40-16N	16	1 1/8	1 3/8
067L3151	R134a	TRE40-20N	20	1 1/8	1 3/8
067L3154	R134a	TRE40-25N	25	1 1/8	1 3/8

Pressure equalization = 1/4" ODF

1) According to ARI 750 Rated capacities for Range N are based on: Liquid temperature ahead of expansion valve t_l = 100°F

Evaporating temperature t_e = 40°F

Pressure drop across valve Δp = 60 psi for R134a

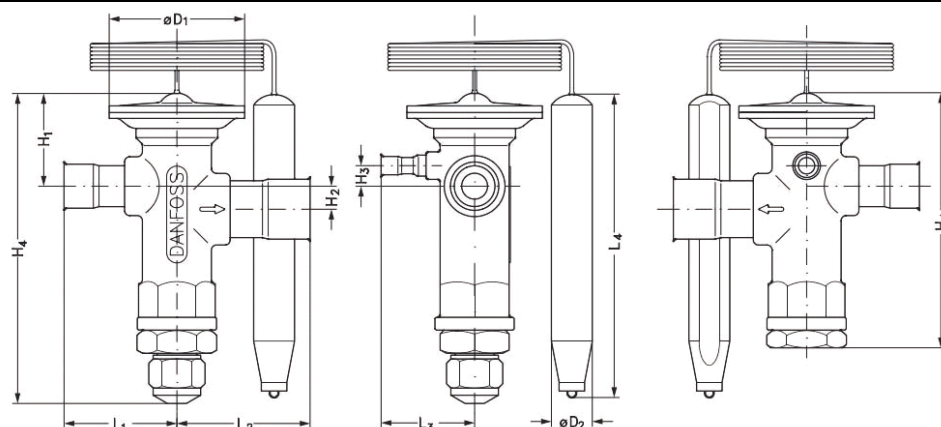
Pressure drop across valve Δp = 100 psi for R22, R404A, and R507

Pressure drop across valve Δp = 160 psi for R410A.

For connections, refrigerants, capillary tube lengths, etc. outside the standard program, see Valve options.

DANFOSS THERMOSTATIC EXPANSION VALVES

Type TRE10, TRE20, TRE40, AND TRE80 - Dimensions

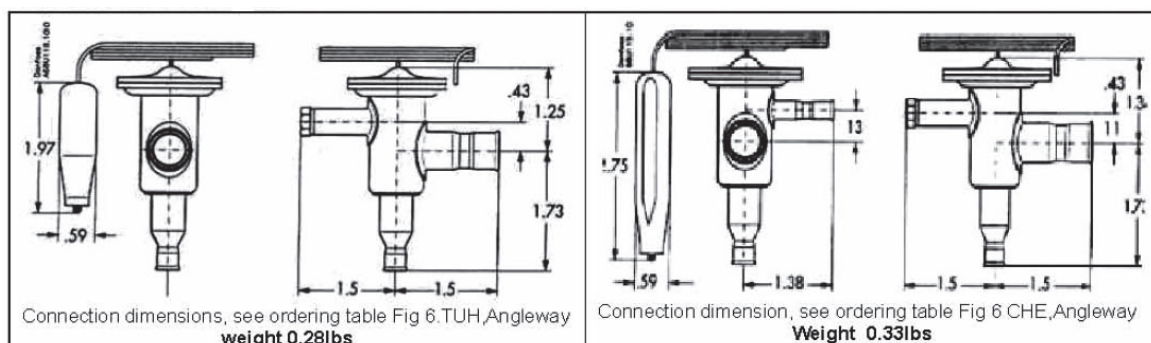


Type	Connection, ODF Solder	Capillary Tube Length	H1	H2	H3	H4	L1	L2	L3	L4	øD1	øD2	Weight
	Inlet x Outlet in.	(ft)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	lbs
TRE10	1/2 x 1/2	4.92	1.26	0.30	0.20	4.09	1.59	1.59	1.36	2.76	1.77	0.59	0.86
	1/2 x 5/8						1.79						
	5/8 x 1/2					1.79	1.59						
	5/8 x 5/8						1.79						
	5/8 x 7/8					3.23(1)	2.03	0.77(1)					
	7/8 x 7/8					2.03							
	7/8 x 1-1/8					2.31							
TRE20	5/8 x 5/8	4.92	1.46	0.35	0.31	4.80	1.89	1.89	1.50	4.69	2.09	0.65	1.32
	5/8 x 7/8						2.13						
	7/8 x 7/8					2.13							
	7/8 x 1-1/8					2.40							
	7/8 x -3/8						2.80	1.23(1)					
	1-1/8 x 7/8					3.94(1)	2.13						
	1-1/8 x 1-1/8						2.40						
	1-1/8 x 1-3/8						2.80						
TRE40	7/8 x 7/8	11.76	1.65	0.51	0.43	5.71	2.26	2.26	1.61	4.37	2.36	0.80	1.74
	7/8 x 1-1/8						2.54						
	7/8 x 1-3/8						2.93						
	1-1/8 x 1-1/8					5.04	2.54	2.05(1)					
	1-1/8 x 1-3/8						2.93						
	1-1/8 x 1-5/8						3.25						
TRE80	1-1/8 x 1-1/8	11.76	1.85	0.67	0.51	6.50	2.64	2.64	1.73	5.83	2.83	0.80	2.95
	1-1/8 x 1-3/8						3.03	2.87(1)					
	1-1/8 x 1-5/8						3.35						
	1-3/8 x 1-3/8					5.83	3.03						
	1-3/8 x 1-5/8						3.35						

1) Fixed Setting

Thermostatic expansion valves, Type TRE 10, TRE20, TRE40 and TRE80

Dimension and weight



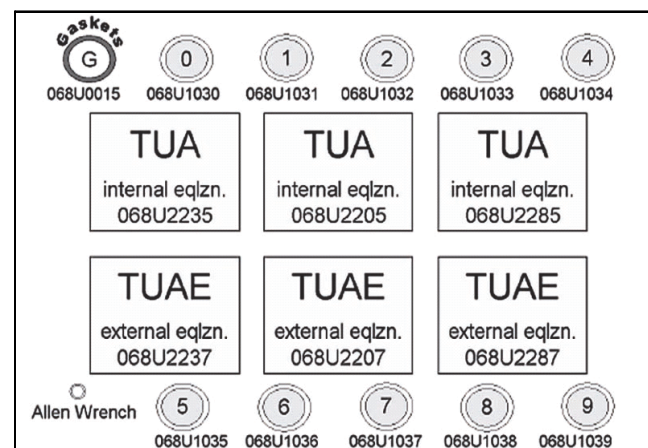
DANFOSS MINIMIZER EXPANSION VALVE SERVICE KITS

T2 and TUA

Selection Chart for Thermostatic Expansion Valves

Choose valve by refrigerant and style, then read down to the required capacity in tons and select orifice.

Flare Style Valves (Internally Equalized)		TF2 068Z3202	TY2 068Z3212	TX2 068Z3206	TN2 068Z3346	TS2 068Z3400
Flare Style Valves (Externally Equalized)		TEF2 068Z3204	TEY2 068Z3215	TEX2 068Z3209	TEN2 068Z3348	TES2 068Z3403
Sweat Style Valves (Internally Equalized)		TF2 068Z3280	TY2 068Z3282	TX2 068Z3281	TN2 068Z3383	TS2 068Z3414
Sweat Style Valves (Externally Equalized)		TEF2 068Z3283	TEY2 068Z3285	TEX2 068Z3284	TEN2 068Z3385	TES2 068Z3415
Orifice No.	Part No. (flare)	Part No. (sweat)	Nominal Capacity*			
0X	068-2002	068-2089			1/5	1/10
00	068-2003	068-2090	1/5	1/5	1/3	1/5
01	068-2010	068-2091	1/3	1/3	7/10	1/3
02	068-2015	068-2092	1/2	1/2	1	3/4
03	068-2006	068-2093	1	1	1 1/2	1 1/4
04	068-2007	068-2094	1 1/2	1 1/2	2 1/3	1 3/4
05	068-2008	068-2095	2	2	3	2 1/4
06	068-2009	068-2096	3	3	4 1/2	3



Solder adapters for Sweat Style valves:

068-2062 for 1/4" OD pipe

068-2060 for 3/8" OD pipe

* Valve capacity is rated at 40°F evaporating temperature,

90°F condensing temperature, and 80°F refrigerant temperature ahead of valve.

Capacity selection charts and a pressure–temperature slide rule are included in each kit.

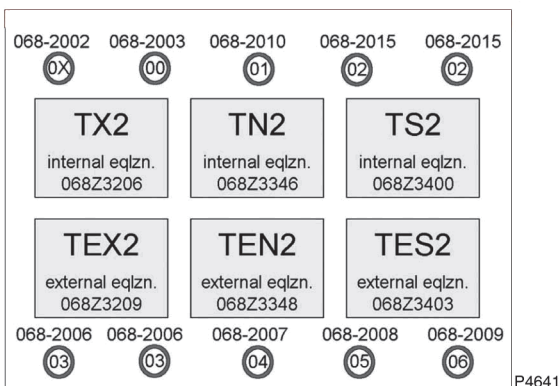
Create your own custom kits by ordering the case and your selection of valves separately.

P4640

Part Number	Service Kit
000MMK-I	T2
000MMK-U	TUA

Each case contains a valve capacity table.

This case does not come with valves and orifices.



P4641

DANFOSS MINIMIZER EXPANSION VALVE SERVICE KITS

Minimizer-Sweat

Select Valve Body and Orifice Size

This Kit contains TU type expansion valves which have Sweat (ODF) connections

		R 22	R 134a	R 404A/R 507
Internally Equalized Valve Bodies		TUA 068U2235	TUA 068U2205	TUA 068U2285
Externally Equalized Valve Bodies		TUAE 068U2237	TUAE 068U2207	TUAE 068U2287
Part No.	Orifice size	Nominal Capacity (Tons) for -40 to +50°F Range		
068U1030	0	1/6	1/8	1/8
068U1031	1	1/4	1/5	1/5
068U1032	2	1/3	1/4	1/4
068U1033	3	1/2	1/3	1/3
068U1034	4	3/4	1/2	1/2
068U1035	5	1	3/4	3/4
068U1036	6	1 1/2	1	1
068U1037	7	2	1 1/2	1 1/2
068U1038	8	3	2	2 1/4
068U1039	9	4 1/2	3	3 1/2

Minimizer-Flare

Select Valve Body and Orifice Size.

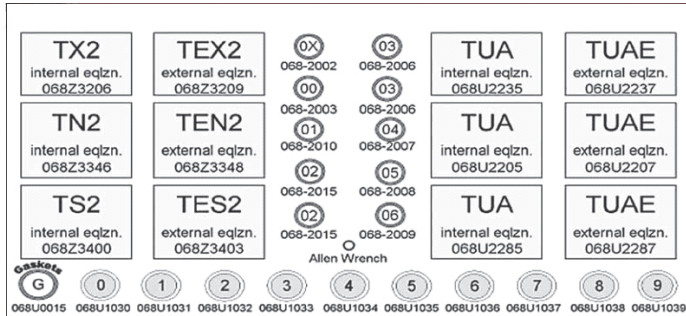
		R 22	R 134a	R 404A/R 507
Internally Equalized		TX2 068Z3206	TN2 068Z3346	TS2 068Z3400
Externally Equalized		TEX2 068Z3209	TEN2 068Z3348	TES2 068Z3403
Part No.	Orifice size	Nominal Capacity (Tons) for -40 to -10°F Range		
068-2002	0X	1/6	1/10	1/10
068-2003	00	1/3	1/4	1/5
068-2010	01	3/4	1/2	1/3
068-2015	02	1	3/4	1/2
068-2006	03	1-1/2	1-1/3	1
068-2007	04	2-1/3	1-3/4	1-1/2
068-2008	05	3	2-1/5	2
068-2009	06	4-1/2	3	3

DANFOSS MAXIMIZER KIT

Ordering INTRODUCTION

Building on the success of the Minimizer Kit -- every TEV you need -- both flare and sweat - in one convenient kit

- 12 valves and 20 orifices = 105 size combinations from 1/10 to 4 1/2 TR
- Cut out unnecessary supply house runs - the right valve is always on the truck
- Sweat valves have bi-metal connections - no wet wrap required
- Factory superheat setting - no adjustment after assembly
- Sizing and selection chart, Durable fitted case, Easy to refill



P4642

Part Number	Product
068Z3206	TX2
068Z3209	TEX2
068Z3346	TN2
068Z3348	TEN2
068Z3400	TS2
068Z3403	TES2
068-2002	T/E Orifice no. 0X
068-2003	T/E Orifice no. 00
068-2010	T/E Orifice no. 01
068-2015	T/E Orifice no. 02
068-2006	T/E Orifice no. 03
068-2007	T/E Orifice no. 04
068-2008	T/E Orifice no. 05
068-2009	T/E Orifice no. 06
068U0015	TU Metal Gasket
WRENCH	Allen Wrench
068U2235	TUA R 22
068U2237	TUAE R 22
068U2205	TUA R 134a
068U2207	TUAE R 134a
068U2285	TUA R 404A/507
068U2287	TUAE R 404A/507
068U1030	TU Orifice no. 0
068U1031	TU Orifice no. 1
068U1032	TU Orifice no. 2
068U1033	TU Orifice no. 3
068U1034	TU Orifice no. 4
068U1035	TU Orifice no. 5
068U1036	TU Orifice no. 6
068U1037	TU Orifice no. 7
068U1038	TU Orifice no. 8
068U1039	TU Orifice no. 9

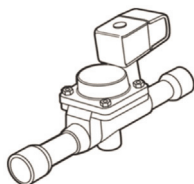
Maximizer-Sweat

	R 22	R 134a	R 404A/R 507
Internally Equalized Valve Bodies	TX2 068Z3206	TN2 068Z3346	TS2 068Z3400
Externally Equalized Valve Bodies	TEX2 068Z3209	TEN2 068Z3348	TES2 068Z3403
Part No.	Orifice size	Nominal Capacity (Tons) for -40 to +50°F Range	
068-2002	0X	1/6	1/10
068-2003	00	1/3	1/5
068-2010	01	3/4	1/3
068-2015	02	1-1/2	1/2
068-2006	03	1-1/2	1
068-2007	04	2-1/3	1-1/2
068-2008	05	3	2
068-2009	06	4-1/2	3

Maximizer-Flare

	R 22	R 134a	R 404A/R 507
Internally Equalized Valve Bodies	TUA 068U2235	TUA 068U2205	TUA 068U2285
Externally Equalized Valve Bodies	TUA 068U2237	TUAE 068U2207	TUAE 068U2287
Part No	Orifice size	Nominal Capacity (Tons) for -40 to +50°F Range	
068U1030	0	1/6	1/8
068U1031	1	1/4	1/5
068U1032	2	1/3	1/4
068U1033	3	1/2	1/3
068U1034	4	3/4	1/2
068U1035	5	1	3/4
068U1036	6	1-1/2	1
068U1037	7	2	1-1/2
068U1038	8	3	2-1/4
068U1039	9	4-1/2	3-1/2

DANFOSS SOLENOID VALVES



INTRODUCTION

EVR is a direct or servo operated solenoid valve for liquid, suction, and hot gas lines using fluorinated refrigerants. EVR valves are supplied as separate components; valve body and coil, if required, can be ordered separately.

FEATURES

- A complete range of solenoid valves for refrigeration, freezing and air conditioning systems.
- Normally closed (NC) and normally open (NO) versions available.
- AC and DC coils are interchangeable on all valve body versions.
- Use with any fluorinated refrigerant.
- Designed for media temperatures up to 220° F.
- Flare connections up to 5/8".
- Solder connections up to 2-1/8".
- Solder versions have extended connections; there is no need to Dismantle the valve when soldering.

APPROVALS

NOTE: These approvals are only recognized when one of the EVR series of solenoid valves found in this leaflet is combined with a GP general purpose coil.

- UL listed, file MH 7648.
- CSA certified, LR 52727.



Ordering Separate Valve Bodies, Normally Closed (NC)

Valve Body Without Coil Type Flare

With Manual Stem Operation In

Part Number	Type	Rated Capacity R22 (Liquid) Tons	Connection In	Port Size In	Cv Value gal/min
032F1185	EVR 6	5.83	3/8	15/64	0.93
032F1187	EVR 10	13.8	1/2	3/8	2.20

Without Manual Stem Operation In

Part Number	Type	Rated Capacity R22 (Liquid) Tons	Connection In	Port Size In	Cv Value gal/min
032F8058	EVR 2	1.17	1/4	3/32	0.19
032F8106	EVR 3	2.03	1/4	1/8	0.32
032F8115	EVR 3	2.03	3/8	1/8	0.32
032F8087	EVR 4	4.15	3/8	5/32	0.66
032F8089	EVR 4	4.15	1/2	5/32	0.66
032F8071	EVR 6	5.83	3/8	15/64	0.93
032F8078	EVR 6	5.83	1/2	15/64	0.93
032F7123	EVR 8	8.01	1/2	9/32	1.30
032F1165	EVR 10	13.8	1/2	3/8	2.20

Valve Body Without Coil Type Solder ODF

With Manual Stem Operation In

Part Number	Type	Rated Capacity R22 (Liquid) Tons	Connection In	Port Size In	Cv Value gal/min
032F7116	EVR 6	5.83	3/8	15/64	0.93
032F1188	EVR 10	13.8	1/2	3/8	2.20
032F1172	EVR 15	18.9	5/8	9/16	3.00
032F1177	EVR 20	36.4	7/8	7/8	5.80
032F2272	EVR 20	36.4	1 1/8	7/8	5.80
032F1190	EVR 25	72.8	1 1/8	1	12.00
032F1194	EVR 25	72.8	1 3/8	1	12.00
042H1179	EVR 32	116.5	1 5/8	7/8	18.00
042H1186	EVR 40	182	1 5/8	1	29.00
042H1188	EVR 40	182	2 1/8	1	29.00
042H1188	EVR 40	182	2 1/8	1	29.00

Without Manual Stem Operation In

Part Number	Type	Rated Capacity R22 (Liquid) Tons	Connection In	Port Size In	Cv Value gal/min
032F7100	EVR 2	1.17	1/4	3/32	0.19
032F7105	EVR 3	2.03	1/4	1/8	0.32
032F1157	EVR 3	2.03	3/8	1/8	0.32
032F7110	EVR 4	4.15	3/8	5/32	0.66
032F7111	EVR 4	4.15	1/2	5/32	0.66
032F7115	EVR 6	5.83	3/8	15/64	0.93
032F1162	EVR 6	5.83	1/2	15/64	0.93
032F7117	EVR 6	5.83	5/8	15/64	0.93
032F7117	EVR 6	5.83	5/8	15/64	0.93
032F7120	EVR 8	8.01	3/8	9/32	1.30
032F7121	EVR 8	8.01	1/2	9/32	1.30
032F7122	EVR 8	8.01	5/8	9/32	1.30
032F7125	EVR 10	13.8	3/8	3/8	2.20
032F1166	EVR 10	13.8	1/2	3/8	2.20
032F1168	EVR 10	13.8	5/8	3/8	2.20
032F1171	EVR 15	18.9	5/8	9/16	3.00
032F7130	EVR 15	18.9	7/8	1/4	3.00
032F1176	EVR 20	36.4	7/8	7/8	5.80
032F1178	EVR 20	36.4	1 1/8	7/8	5.80
032F7145	EVR 22	43.7	1 1/8	9/16	6.90
032F7146	EVR 22	43.7	1 3/8	9/16	6.90
032F1189	EVR 25	72.8	1 1/8	1	12.00
032F1193	EVR 25	72.8	1 3/8	1	12.00
042H1178	EVR 32	116.5	1 5/8	7/8	18.00
042H1185	EVR 40	182	1 5/8	1	29.00
042H1187	EVR 40	182	2 1/8	1	29.00
042H1187	EVR 40	182	2 1/8	1	29.00

Metric conversions 5/9 (t₁°F-32) = t₂°C 1 in. = 25.4 mm
1 psi = 0.07 bars 1 ton = 3.5 kW US gal/min = 8.6 m³/h

Ordering-II Separate Valve Bodies, Normally Open (NO) Solder ODF In

Part Number	Type	Rated Capacity R22 (Liquid) Tons	Connection In	Port Size In	Cv Value gal/min
032F1164	EVR 6	5.8	3/8	1/4	0.93
032F1169	EVR 10	13.8	1/2	3/8	2.20
032F1174	EVR 15	18.9	5/8	9/16	3.00

DANFOSS SOLENOID VALVES

Type EVR 2 TO 40 - General Purpose Click-On Coil, Type GP



INTRODUCTION

General purpose Click-on coil, type GP sealed to protect against moisture, Easy click-on mounting system

Approvals:



Listed EVR MH7648



Conformity with LV D 73/23/EC with amendments EN 60730-2-8

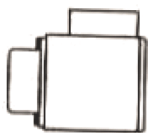
TECHNICAL DATA

Design	In accordance with UL 429
Power supply	Alternating current (a.c) and direct current
Permissible voltage variation	Alternating current (a.c) : +10 to - 15% Direct current (d.c) : +10 to -10
Power consumption	Alternating current (a.c) : Inrush; 49 VA; Holding; 28VA, 14W Direct current (d.c) ; 20
Insulation of coil wire	Class H according to IEC 85
Connection	Junction box or Conduit boss
Enclosure, IEC 529	Junction box NEMA 2 0- IP 12-32 Conduit boss NEMA 4 – IP 54
Ambient temperature	-40 to 140°F (-40 to + 50°C)

Cross reference list - GP Coils	
Old Part No.	New Part No.
018Z7613	018F7683
018Z7612	018F7682
018Z7611	018F7681
018Z7603	018F7689
018Z7623	018F7693
018Z7622	018F7692
018Z7621	018F7691
018Z7625	018F7699

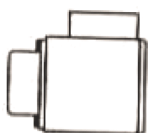
Ordering Alternating Current(a.c)

Junction Box NEMA 2



Part Number	Valve Type	Voltage V	Frequency Hz	Power Consumption
018F7683	EVR	24	50/60	Holding: 14W 20 VA Inrush: 49 V
018F7682	EVM, EVRA/T	110, 120	50/60, 60	Holding: 14W 20 VA Inrush: 49 V
018F7681	EVRS/T, AKV/A	208-240, 230	60, 50	Holding: 14W 20 VA Inrush: 49 V

Conduit Boss NEMA 4



Part Number	Valve Type	Voltage V	Frequency Hz	Power Consumption
018F7693	EVR	24	50/60	Holding: 14W 20 VA Inrush: 49 V
018F7692	EVM, EVRA/T	110, 120	50/60, 60	Holding: 14W 20 VA Inrush: 49 V
018F7691	EVRS/T, AKV/A	208-240, 230	60, 50	Holding: 14W 20 VA Inrush: 49 V

Direct Current (d.c)

Junction Box NEMA 2



Part Number	Voltage V	Power Consumption
018F7689	120	20W

Conduit Boss NEMA 4

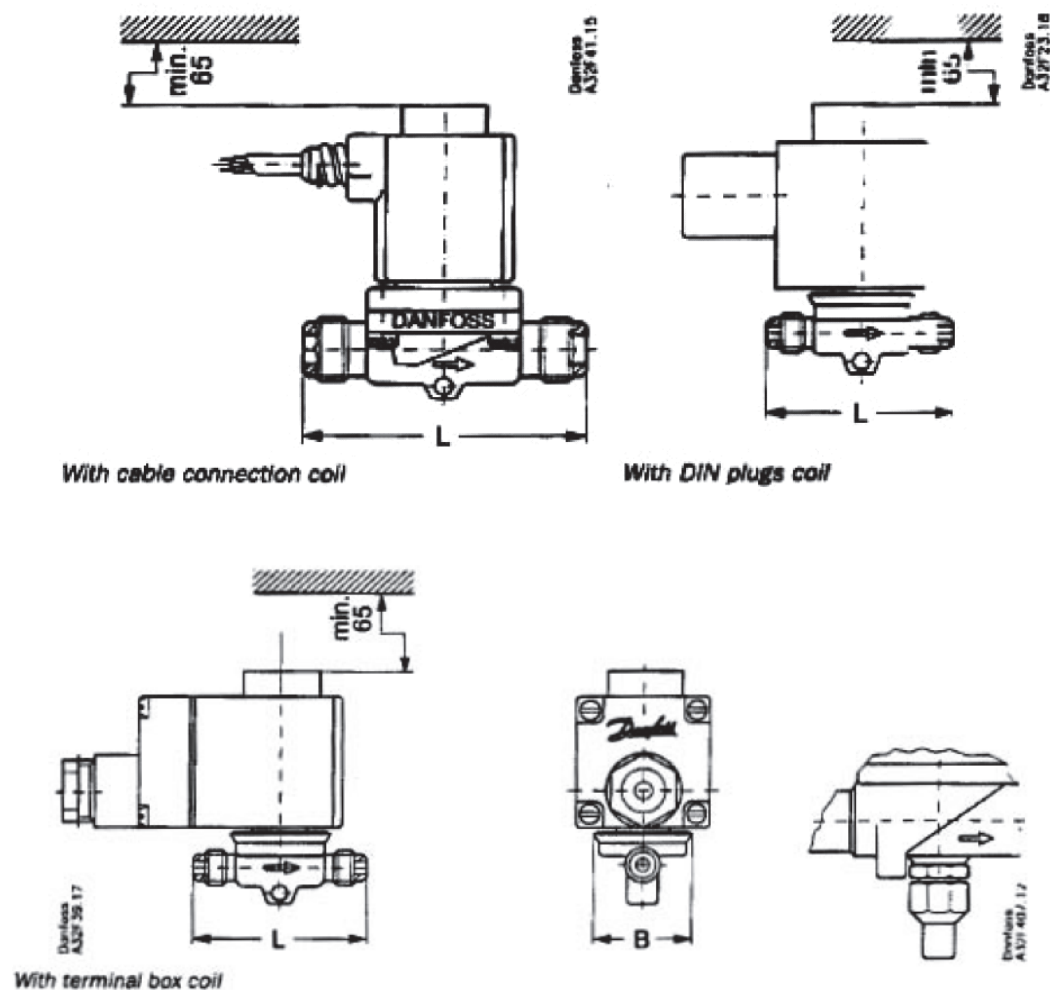


Part Number	Voltage V	Power Consumption
018F7699	120	20W

DANFOSS SOLENOID VALVES

Type EVR 2 TO 40 - EVR (NC) 2 - 15 Flare Connection

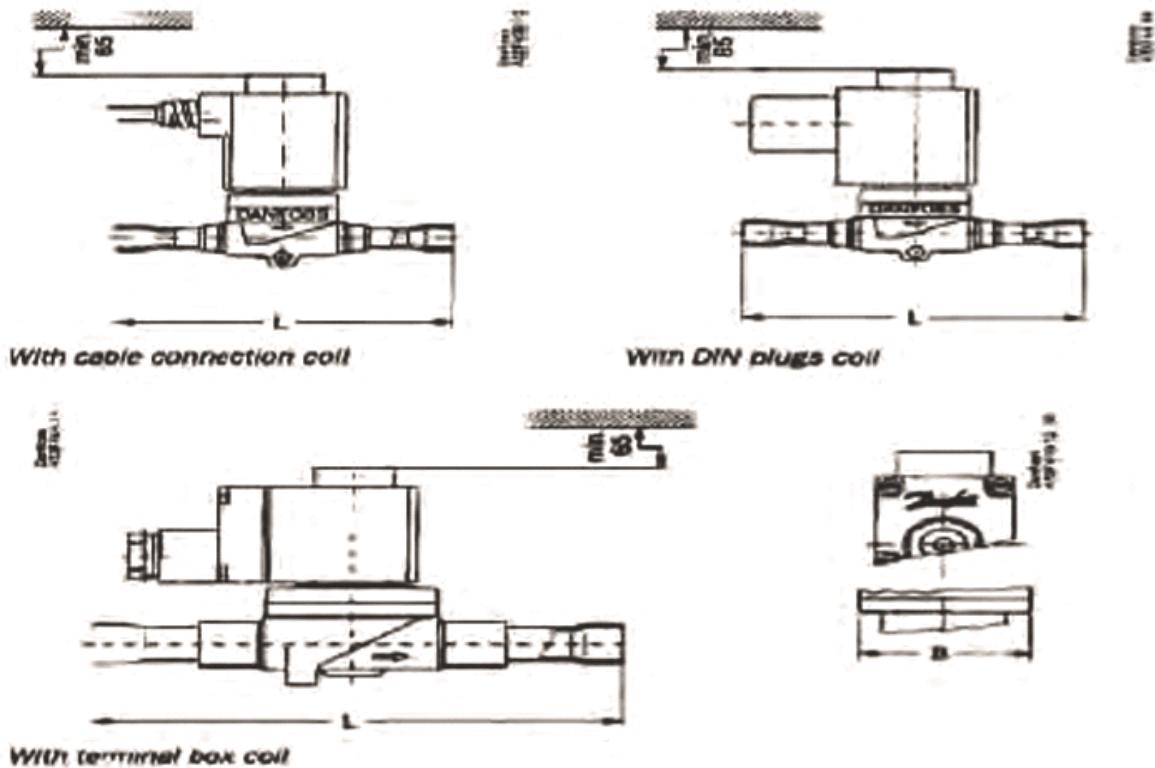
Dimensions and Weights



Type	Connection Flare	L	B	Weight with coil
	in.	in.	in.	lbs.
EVR 2	1/4	2.33	1.30	1.10
EVR 3	1/4	2.33	1.30	1.10
	3/8	2.50	1.30	1.10
EVR 6	3/8	2.75	1.50	1.33
	1/2	3.00	1.50	1.33
EVR 10	1/2	3.31	1.80	1.77
	5/8	3.65	1.80	1.77
EVR 15	5/8	4.10	2.25	2.20

DANFOSS SOLENOID VALVES

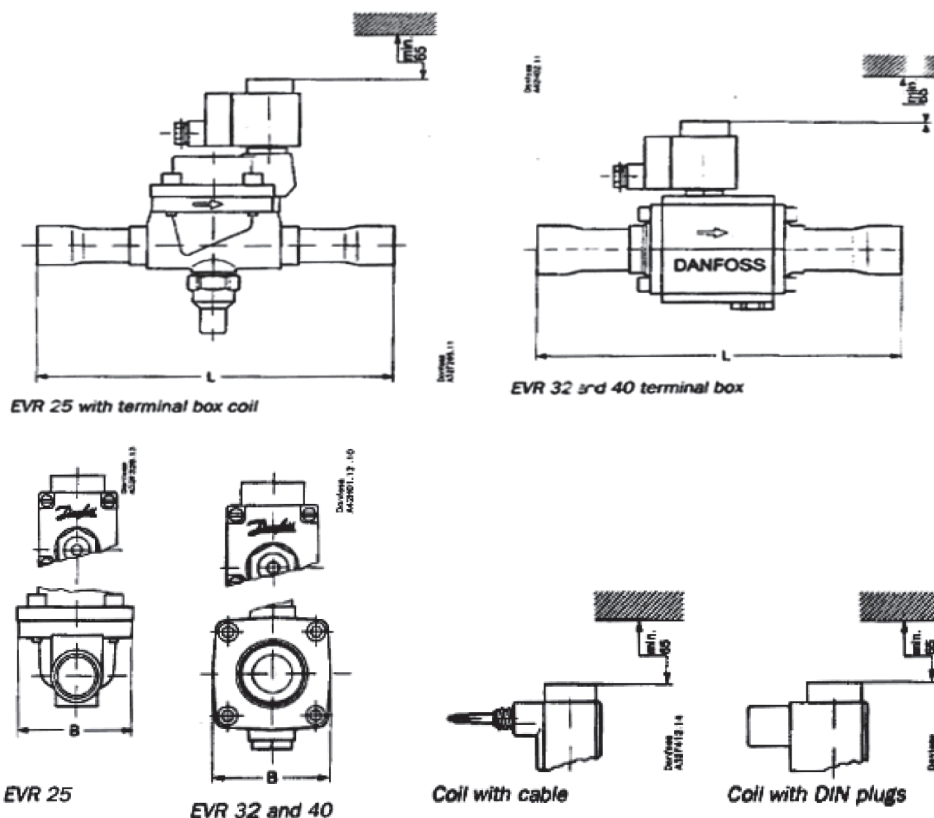
Type EVR 2 TO 40 - EVR (NC) 2 - 22 Flare Connection



Type	Connection Solder	L	B	Weight with coil
	in.	in.	in.	lbs.
EVR 2	1/4	4.00	1.30	1.10
EVR 3	1/4	4.00	1.30	1.30
	3/8	4.50	1.30	1.30
EVR 6	3/8	4.30	1.50	1.30
	1/2	5.00	1.50	1.30
EVR 10	1/2	5.00	1.80	1.60
	5/8	6.30	1.80	1.60
EVR 15	5/8	7.00	2.25	2.20
	7/8	7.00	2.25	2.20
EVR 20	7/8	7.50	2.90	3.30
	1-1/8	8.50	2.90	3.30
EVR 22	1-3/8	11.00	2.90	3.30

DANFOSS SOLENOID VALVES

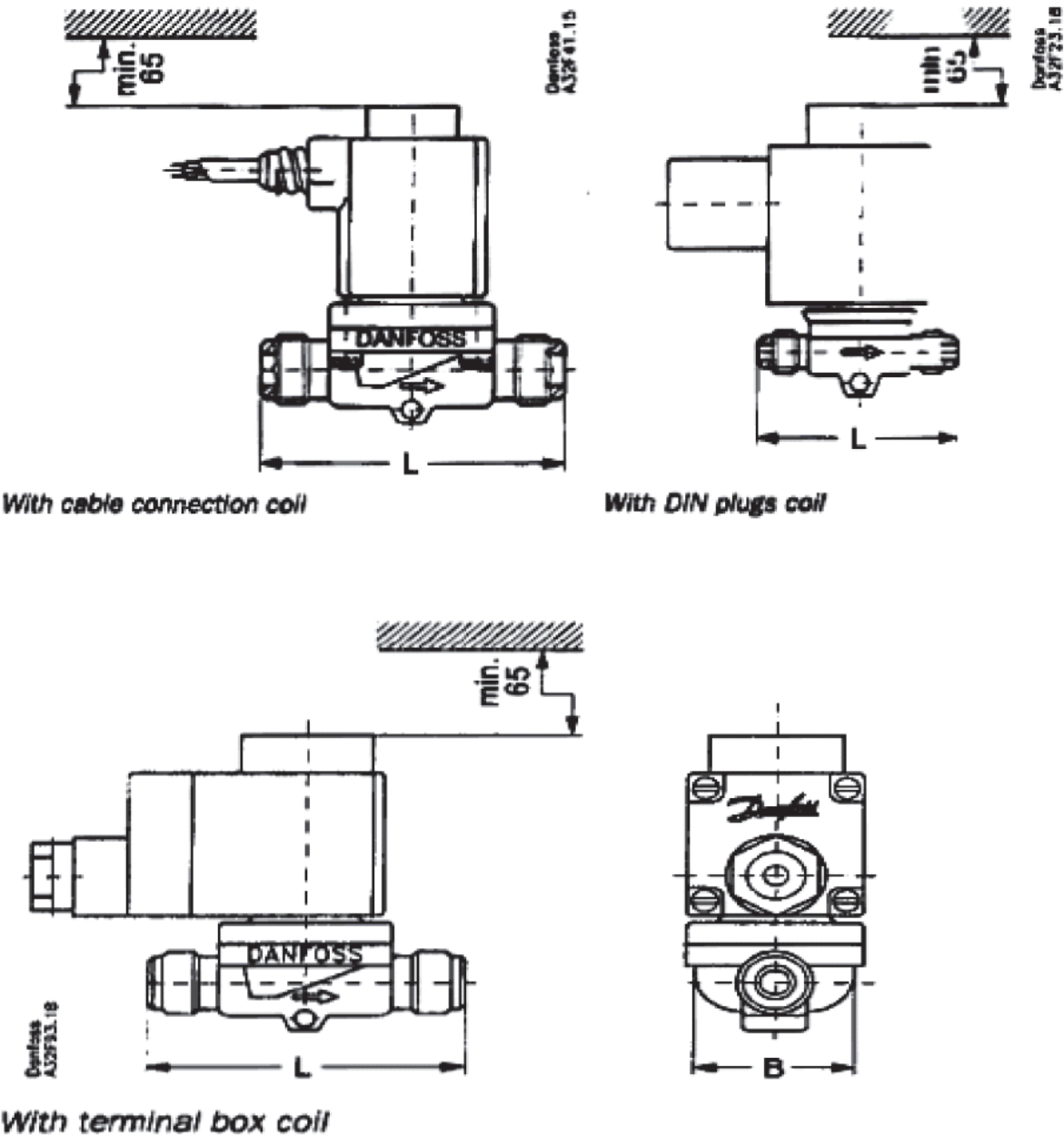
Type EVR 2 TO 40 - EVR (NC) 2 - 40 Solder Connection



Type	Connection Solder	L	B	Weight with coil
	in.	in.	in.	lbs.
EVR 25	1-1/8	10.00	3.75	28.75
	1-3/8	11.00	3.75	29.35
EVR 32	1-3/8	11.00	3.15	32.00
	1-5/8	11.00	3.15	32.25
EVR 40	1-5/8	11.00	3.15	32.25
	2-1/8	11.00	3.15	32.25

DANFOSS SOLENOID VALVES

Type EVR 2 TO 40 - EVR (NC) 6 - 22 Flare Connection



Type	L	B	Weight with coil
	in.	in.	lbs.
EVR 6	2.72	1.50	1.33
EVR 10	3.31	1.80	1.60
EVR 15	4.10	2.25	2.00

Type	L	B	Weight with coil
	in.	in.	lbs.
EVR 6	4.30	1.50	1.33
EVR 10	5.00	1.80	1.60
EVR 15	7.00	2.25	2.00
EVR 20	7.50	2.90	3.30
EVR 22	11.00	2.90	3.30

1) Applies to 7/8 in. connections. For 1-1/8 in. connections, L=8.43 in.

DANFOSS EVAPORATOR PRESSURE REGULATORS

Ordering Information

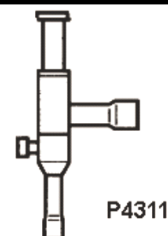
INTRODUCTION

KVP evaporator pressure regulators are mounted in the suction line of refrigeration and air conditioning systems. They are used to maintain a constant pressure corresponding to a constant temperature on the evaporator. They also protect against too low an evaporating pressure by throttling down when pressure falls below the set value. They are also used to differentiate the evaporating pressures in two or more evaporators in systems with one compressor.

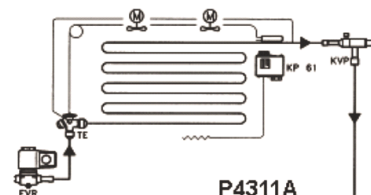
APPROVALS

UL listed, file SA7200.

CSA approved.



P4311



P4311A

Flare Connection

Part Number	Type	Rated Capacity*(Tons)			Size
		R-22	R134a	R404A/R507	
034L0021	KVP 12	1.3	0.9	1.2	1/2
034L0022	KVP 15	1.3	0.9	1.2	5/8

Solder Connection

Part Number	Type	Rated Capacity*(Tons)			in ODF
		R-22	R134a	R404A/R507	
034L0023	KVP 12	1.3	0.9	1.2	1/2
034L0029	KVP 15	1.3	0.9	1.2	5/8
034L0025	KVP 22	1.3	0.9	1.2	7/8
034L0026	KVP 28	2.8	1.9	2.4	1-1/8
034L0032	KVP 35	2.8	1.9	2.4	1-3/8

*Rated capacity is based on:

Evaporating temperature $t_e = 40^\circ \text{F}$

Condensing temperature $t_c = 100^\circ \text{F}$

Pressure drop across regulator $\Delta p = 2 \text{ psi}$

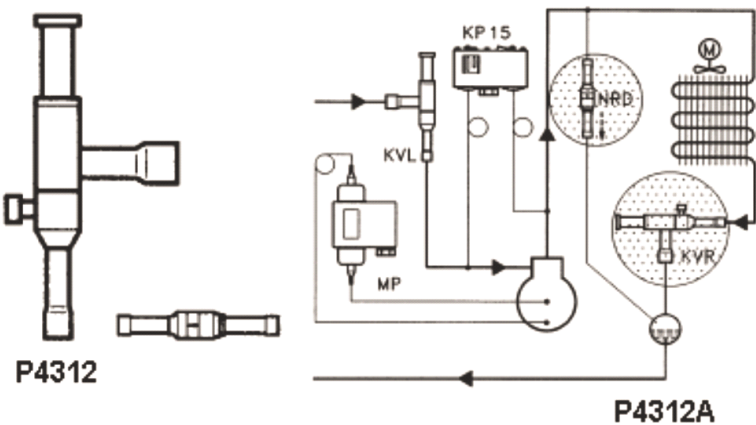
Offset (design evaporating pressure minus minimum allowable evaporator pressure) = 9 psi.

†KVP supplied without flare nuts.

NOTE: The connection dimensions chosen must not be too small, as gas velocities in excess of 130 ft/s at the inlet of the regulator can result in flow noise.

DANFOSS EVAPORATOR PRESSURE REGULATORS

Condenser Pressure Regulators



KVR condenser regulators can be mounted in either the gas or liquid side of the condenser in refrigeration and air conditioning systems. They are used to maintain a constant and sufficiently high condensing pressure with systems using air-cooled condensers. They can also be used with valve types NRD or KVD to assure that adequate pressure is maintained on the receiver.



Flare Connection**

Part Number	Type	Rated Liquid Capacity* (Evaporator Capacity) tons			Rated Hot Gas* (Evaporator Capacity) tons			Size (In.)
		R-22	R134a	R404A/R507	R-22	R134a	R404A/R507	
034L0091	KVR 12	12.7	11.8	8.2	4.13	3.03	3.27	1/2
034L0091	KVR 15	12.7	11.8	8.2	4.13	3.03	3.27	5/8

Solder Connection

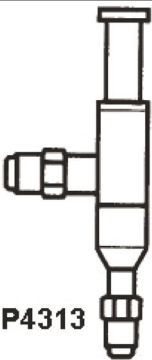
Part Number	Type	Rated Liquid Capacity* (Evaporator Capacity) tons			Rated Hot Gas* (Evaporator Capacity) tons			Size (In.)
		R-22	R134a	R404A/R507	R-22	R134a	R404A/R507	
034L0093	KVR 12	12.7	11.8	8.2	4.13	3.03	3.27	1/2
034L0097	KVR 15	12.7	11.8	8.2	4.13	3.03	3.27	5/8
034L0094	KVR 22	12.7	11.8	8.2	4.13	3.03	3.27	7/8
034L0095	KVR 28	32.6	30.2	20.9	10.93	8.04	8.66	1 1/8
034L0100	KVR 35	32.6	30.2	20.9	10.93	8.04	8.66	1 3/8

* Rated capacity is based on:
 Evaporating temperature $t_e = 40^{\circ}\text{ F}$
 Condensing temperature $t_c = 100^{\circ}\text{ F}$
 Pressure drop across valve $\Delta p = 3\text{ psi}$ for liquid capacity
 $\Delta p = 3\text{ psi}$ for liquid capacity

NOTE: The connection dimensions chosen must not be too small, as gas velocities in excess of 130 ft/s at the inlet of the regulator can result in flow noise.

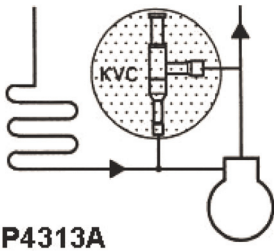
DANFOSS HOT GAS BYPASS CAPACITY REGULATORS

Ordering Information



INTRODUCTION
KVC capacity regulators are used to adapt compressor capacity to actual evaporator load by supplying a replacement capacity in form of hot/cool gas.It is installed in a bypass line between the high and low pressure sides of the refrigeration system and is designed for direct gas injection into the suction line.

Approvals.
UL listed, file SA7200.
CSA approved



Flare Connection**

Part Number	Type	Rated Capacity*(Tons)			Size (In.)
		R-22	R134a	R404A/R507	
034L0141	KVC 12	2.14	1.36	2.02	1/2
034L0142	KVC 15	4.17	2.65	3.93	5/8

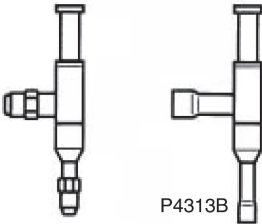
Solder Connection

Part Number	Type	Rated Capacity*(Tons)			Size (In.)
		R-22	R134a	R404A/R507	
034L0143	KVC 12	2.14	1.36	2.02	1/2
034L0147	KVC 15	4.17	2.65	3.93	5/8
034L0144	KVC 22	5.35	3.41	5.04	7/8

*Rated capacity is based on:
Suction gas temperature $t_s = 10^{\circ}\text{ F}$
Liquid temperature $t_l = 100^{\circ}\text{ F}$
Offset $\Delta p = 10\text{ psi}$
**KVC are delivered without flare nuts.

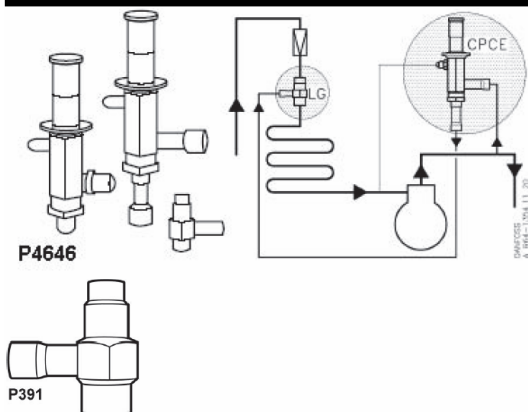
NOTE: The connection dimensions chosen must not be too small, as gas velocities in excess of 130 ft/s at the inlet of the regulator can result in flow noise. If the temperature in the discharge gas line is too high according to the compressor specifications, it is recommended to install a liquid injection valve in a bypass from the liquid line to the suction line.

- For CFC, HCFC, and HFC Refrigerants
- Regulating range: 3 to 85 PSIG. Factory setting -29 psig.



DANFOSS HOT GAS BYPASS CAPACITY REGULATORS

Type CPCE/LG (Liquid-Gas Mixers)



INTRODUCTION

CPCE capacity regulators are used to adapt compressor capacity to actual evaporator load. They are installed in a bypass line between the high and low pressure sides of the refrigeration system and is designed for hot gas injection into the evaporator just after the expansion valve. Liquidgas mixer type LG can be used at the point of injection to assure a proper mixture

Part Number	Type	Connection For		
		Expansion Valve (In) ODM	Hot-Gas (In) ODM	Liquid Distributor (In) ODF
069G4001	LG 12/16	5/8	1/2	5/8
069G4002	LG 12/22	7/8	1/2	7/8
069G4003	LG 16/28	1 1/8	5/8	1 1/8
069G4004	LG 22/35	1 3/8	7/8	1 3/8

Capacity Regulator (Hot Gas Capacity Valve)



Part Number	Type	Connection		Rated Capacity Tons*		
		Flare In	Solder-ODF In	R-22	R134a	R404A/R507
034N0081	CPCE 12	1/2	-	6.2	4.3	6.3
034N0082	CPCE 12		1/2	6.2	4.3	6.3
034N0083	CPCE 15		5/8	9.2	6.3	9.1
034N0084	CPCE 22		7/8	12.2	8.4	12.1

* Rated capacity is based on:

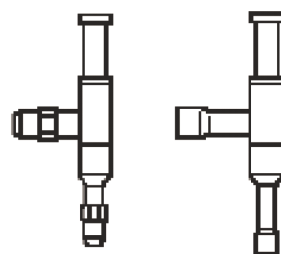
Minimum suction temperature $t_s = 15^\circ \text{F}$

Condensing temperature $t_c = 100^\circ \text{F}$

Superheat of expansion valve $\Delta t_s = 7^\circ \text{F}$

- Provides protection against too low an evaporator temperature.
- For use with CFC, HCFC, and HFC Refrigerants

Type KVL



- For use with CFC, HCFC and HFC Refrigerants
- Refrigerants Range 3 to 85 PSIG (Factory Setting = 25 PSIG)



Part Number	Type	Rated Capacity* TR			Size (In.)
		R-22	R134a	R404A/R507	
034L0041	KVL 12	0.34	0.22	0.28	1/2
034L0042	KVL 15	0.34	0.22	0.28	5/8

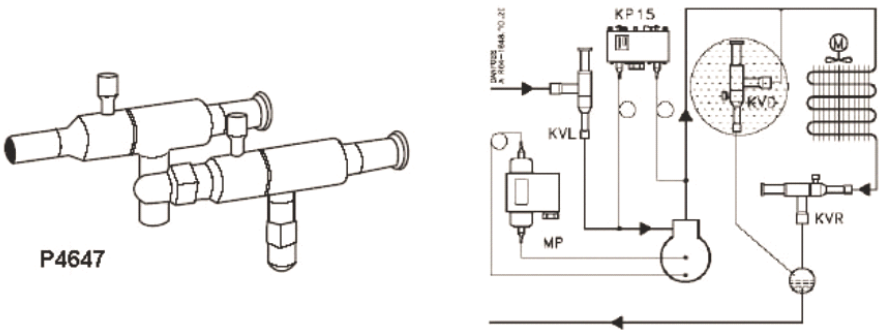
Part Number	Type	Rated Capacity* TR			Size (In.)
		R-22	R134a	R404A/R507	
034L0043	KVL 12	0.34	0.22	0.28	1/2
034L0049	KVL 15	0.34	0.22	0.28	5/8
034L0045	KVL 22	0.34	0.22	0.28	7/8
034L0046	KVL 28	1.60	0.74	0.96	1-1/8
034L0052	KVL 35	1.60	0.74	0.96	1-3/8

 $\Delta P = 2 \text{ psi}$

Totaline.com

DANFOSS RECEIVER PRESSURE REGULATORS

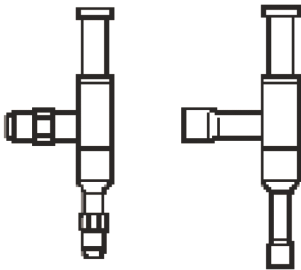
Type KVD



INTRODUCTION

KVD is a modulating pressure regulator. It opens on falling receiver pressure and bypasses hot gas to maintain the receiver pressure at the regulator setting (adjustable). KVD and KVR form a regulating system, used to maintain constant and adequately high condensing and receiver pressure in systems with heat-recovery, and in refrigeration and air conditioning systems with air-cooled condensers.

- For use with CFC, HCFC and HFC Refrigerants.
- Regulating range 45 to 290 PSIG (Factory setting = 145 PSIG.)



Flare Connection

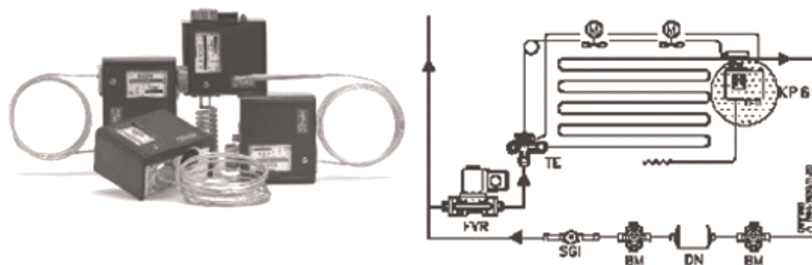
Part Number	Type	Size
034L0171	KVD 12	1/2
034L0172	KVD 15	5/8

Solder Connection

Part Number	Type	Size
034L0173	KVD 12	1/2
034L0177	KVD 15	5/8

DANFOSS REFRIGERATION THERMOSTATS

Type KPU - DT-TKPU



INTRODUCTION

KPU thermostats are temperature-controlled electrical switches, which are applied for regulation and safety monitoring of refrigeration and air conditioning systems. KPU sensors are available with vapor charge or with adsorption charge.

Thermostats with adsorption charge are widely used to give frost protection, while vapor charged sensors are used where small differential is required. All KPU temperature controls have a single pole double throw (SPDT) contact system. The position of the switch depends on the thermostat setting and the bulb temperature.

FEATURES

- Wide temperature regulating range allows use in low, medium, and high temperature refrigeration application and air-conditioning systems
- SPDT switch allows NC or NO function option as well as alarm capability
- Automatic and manual reset versions available

Approvals

UL listed for USA and Canada, file E31024

TECHNICAL DATA

Ambient Temperature

-40 to 122°F, 175°F up to 2 hours.

Cable Entry

7/8" cable entry for 1/2" male pipe thread connection (conduit boss)

Maximum Wire Dimension

10 AWG

Enclosure

NEMA 1

Switch

SPDT - single pole double throw

Regulating ranges in °F

Contact Load

Alternating current

FLA = 24 A @ 120 Vac 24 A @ 240 Vac

LRA = 144 A @ 120 Vac 144 A @ 240 Vac

Direct Current

12 W pilot duty @ 240 Vdc

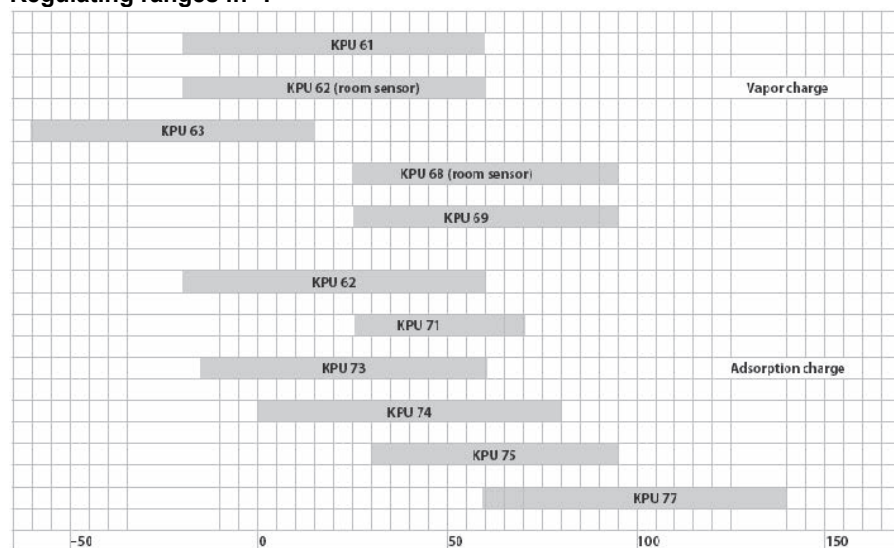
Alternating Current (acc. to EN 60947)

AC1: 16 A, 400 VA AC3: 16 A, 400 VA

AC15: 10 A, 400V

Direct Current

DC 13: 12 W, 220 V control current



DANFOSS REFRIGERATION THERMOSTATS

Type KPU Ordering

Part Number	Charge	Type	Bulb Type	Range [°F]	Differential At		Reset Function	Capillary Tube Length [In]	Max Bulb Temp [°F]
					Lowest Temperature Setting °F	Highest Temperature Setting °F			
060L5201	Vapour (1)	KPU 61	A	-20 to 60	8 to 40	2.5 to 13	auto.	80	250
060L5202	Vapour (1)	KPU 61	A	-20 to 60	8 to 40	2.5 to 13	auto.	200	250
060L5203	Vapour (1)	KPU 61	B	-20 to 60	8 to 40	2.5 to 13	auto.	80	250
060L5204	Vapour (1)	KPU 61	B	-20 to 60	fixed 10	fixed 3.5	man. (3)	80	250
060L5205	Vapour (1)	KPU 61	B	-20 to 60	fixed 10	fixed 3.5	man. (3)	200	250
060L5206	Vapour (1)	KPU 62	C1	-20 to 60	8 to 40	2.5 to 13	auto.	room sensor	250
060L5210	Vapour (1)	KPU 61	B	-20 to 60	8 to 40	2.5 to 13	auto. (4)	80	250
060L5213	Vapour (1)	KPU 63	A	-60 to 15	18 to 125	5 to 15	auto.	80	250
060L5214	Vapour (1)	KPU 63	B	-60 to 15	18 to 125	5 to 15	auto.	80	250
060L5215	Vapour (1)	KPU 68	C1	25 to 95	8 to 45	3 to 13	auto.	room sensor	250
060L5217	Vapour (1)	KPU 69	B	25 to 95	8 to 45	3 to 13	auto.	80	250
060L5207	Adsorption (2)	KPU 62	C2	-20 to 60	9 to 36	3 to 14	auto. (4)	room sensor	175
060L5208	Adsorption (2)	KPU 73	E3	-15 to 60	6 to 18	5 to 50	auto.	80	175
060L5209	Adsorption (2)	KPU 73	E1	-15 to 60	22 to 125	15 to 45	auto.	80	175
060L5211	Adsorption (2)	KPU 73	E3	-15 to 60	fixed 6	fixed 6	man. (3)	80	175
060L5212	Adsorption (2)	KPU 73	D	-15 to 60	6 to 35	5 to 32	auto.	80	175
060L5218	Adsorption (2)	KPU 71	E2	25 to 70	5.5 to 18	4 to 6	auto.	80	175
060L5216	Adsorption (2)	KPU 71	E2	25 to 70	fixed 5	fixed 5	man. (3)	80	175
060L5219	Adsorption (2)	KPU 74	E1	0 to 80	9 to 35	9 to 35	auto.	80	175
060L5220	Adsorption (2)	KPU 74	E1	0 to 80	fixed 10	fixed 10	man. (3)	80	175
060L5221	Adsorption (2)	KPU 75	F	30 to 95	6 to 29	4.5 to 21.5	auto.	80	230
060L5222	Adsorption (2)	KPU 75	E2	30 to 95	6 to 30	4.5 to 22	auto.	80	230
060L5223	Adsorption (2)	KPU 77	E3	60 to 140	6 to 18	6.3 to 18	auto.	80	265

DANFOSS PRESSURE CONTROLS

Type KPU - Pressure Controls For Fluorinated Refrigerant

1/4" Male Flare

Part Number	Pressure	Control Type	Low Pressure (LP)	Low pressure (LP)	High Pressure (HP)		Reset		Contact Type
			Range psig	Differential psi	Range psig	Differential psi	Low Pressure LP	High Pressure HP	
060-5231	Low	KPU 1	6 to 108	10 to 60	-	-	Auto	-	A
060-5236	Low	KPU 1	6 to 108	10 to 60	-	-	Auto	-	B
060-5232	Low	KPU 1	28 to 100	10 fixed	-	-	Man.	-	A
060-5237	Low	KPU 2	6 to 73	6 to 30	-	-	Auto	-	B
060-5239	Low	KPU 2	6 to 73	6 to 30	-	-	Auto	-	A
060-5241	Fan cycling	KPU 5	-	-	100 to 465	25 to 85	-	Auto	B
060-5247	Dual	KPU 15	6 to 108	10 to 60	100 to 465	60 fixed	Auto	Auto	C
060-5249	Dual	KPU 15	6 to 108	10 to 60	100 to 465	60 fixed	Auto	Auto	C

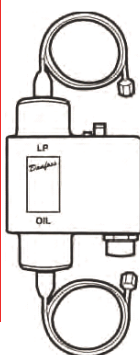
DANFOSS PRESSURE CONTROLS

Type KPU - Pressure Controls For Fluorinated Refrigerant

36" Cap Tube w 1/4" Flare Nut

Part Number	Pressure	Control Type	Low Pressure (LP)	Low pressure (LP)	High Pressure (HP)		Reset		Contact Type
			Range psig	Differential psi	Range psig	Differential psi	Low Pressure LP	High Pressure HP	
060-5233	Low	KPU 1	6 to 108	10 to 60	-		Auto	-	A
060-5234	Low	KPU 1	28 to 100	10 fixed	-		Auto	-	A
060-5235	Low	KPU 2	6 to 73	6 to 30	-		Auto	-	B
060-5240	Low	KPU 2	6 to 73	6 to 30	-		Auto	-	A
060-5242	Fan cycling	KPU 5	--	-	100 to 465	25 to 85	Auto	Auto	B
060-5248	Dual	KPU 15	6 to 108	10 to 60	100 to 465	60 fixed	Auto	Auto	C
060-5250	Dual	KPU 15	6 to 108	10 to 60	100 to 465	60 fixed	Auto	Man.	C

DANFOSS OIL DIFFERENTIAL PRESSURE CONTROLS

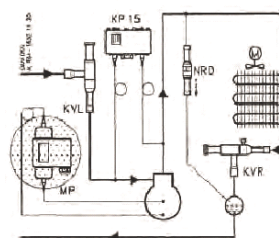


INTRODUCTION

MP54 and MP55 oil differential pressure controls are used as safety switches to protect refrigeration compressors against low lubricating oil pressure. If the oil pressure fails, the control will stop the compressor after a predetermined time period has elapsed. MP54 and 55 are used in refrigerating systems using CFC, HCFC, HFC MP 54 has a fixed differential pressure setting. It also incorporates a thermal time relay with a fixed release time setting. MP55 have adjustable differential pressure and are available with thermal time relay.

APPROVALS

- UL listed, file E31024.
- CSA certified, LRA 6093.



Part Number	Type	Differential Range (psi)	Time Delay (Sec)	Regulation Range LP Side In HG To PSIG	Pressure Connection		
					1/4 in Flare	36 in Capillary Tube	88 in Capillary Tube
060B200866	MP54	Fixed 6.0	45	29 in. to 170	Yes	--	--
060B2050	MP54	Fixed 6.0	45	29 in. to 170	-	Yes	--
060B205866	MP54	Fixed 6.0	60	29 in. to 170	--	--	Yes
060B2059	MP54	Fixed 6.0	60	29 in. to 170	--	Yes	--
060B210966	MP54	Fixed 6.0	120	29 in. to 170	Yes	--	--
060B2001	MP54	Fixed 9.0	60	29 in. to 170	Yes	--	--
060B2051	MP54	Fixed 9.0	60	29 in. to 170	--	Yes	--
060B2002	MP54	Fixed 9.0	90	29 in. to 170	Yes	--	--
060B200366	MP54	Fixed 9.0	120	29 in. to 170	Yes	--	--
060B2053	MP54	Fixed 9.0	120	29 in. to 170	--	Yes	--
060B2150	MP54	Fixed 13	45	29 in. to 170	Yes	--	--
060B205466	MP55	4.3 to 64	45	29 in. to 170	--	Yes	--
060B201266	MP55	4.3 to 64	60	29 in. to 170	Yes	--	--
060B200666	MP55	4.3 to 64	90	29 in. to 170	Yes	--	--
060B2056	MP55	4.3 to 64	90	29 in. to 170	--	Yes	--
060B200766	MP55	4.3 to 64	120	29 in. to 170	Yes	--	--
060B2057	MP55	4.3 to 64	120	29 in. to 170	--	Yes	--

DANFOSS SIGHT GLASSES



Introduction

Sight glasses are used to indicate:

1. The condition of the refrigerant in the plant liquid line.
2. The moisture content in the refrigerant.
3. The flow in the oil return line from the oil separator.

The SGI, SGN, SGR or SGRN can be used for CFC, HCFC and HFC refrigerants.

The SGI and SGN are fitted with an indicator which changes color to show the moisture content in the refrigerant.

The SGR is used to indicate the liquid level in a receiver or the oil level in a compressor crankcase.

The SGRN is a sight glass like SGR, but supplied with a moisture indicator.

The moisture indicators in the sight glasses are dirt repelling.

Approvals

UL listed, file SA 652.

CSA Certified, LR 55874.

Technical Data

Refrigerants: SGI/SGRI: CFC

SGN/SGRN: HFC and HCFC

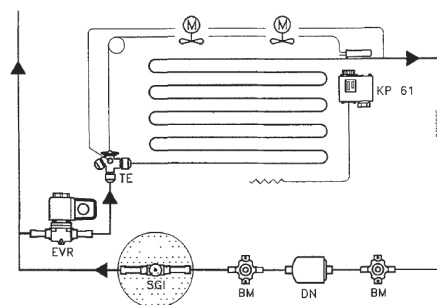
Ambient Temperature: -60° F 175° F

Maximum Working Pressure:

SGI/SGN: 6 12: MWP = 500 psig SGI/SGN: 16s (solder): MWP = 500

psig SGI/SGN: 16 (flare): MWP = 400 psig SGI/SGN 19 22: MWP = 400

psig SGR/SGRI/SGRN: MWP = 500 psig



P990D

Types SGI, SGN, SGR, AND SGRN



Part Number	Type	Version	Connection In	Length (In)	Weight (Lb)
014-0060	SGI 6	Flare ext. x ext.	1/4 x 1/4	2.65	0.25
014-0061	SGI 10	Flare ext. x ext.	3/8 x 3/8	3.25	0.5
014-0009	SGI 12	Flare ext. x ext.	1/2 x 1/2	3.5	0.75
014-0024	SGI 16	Flare ext. x ext.	5/8 x 5/8	4.1	1
014-0063	SGI 6	Flare int. x ext.	1/4 x 1/4	1.8	0.25
014-0064	SGI 10	Flare int. x ext.	3/8 x 3/8	2.25	0.5
014-0065	SGI 12	Flare int. x ext.	1/2 x 1/2	2.33	0.75
014-0066	SGI 6s	ODF x ODF solder	1/4 x 1/4	4	0.25
014-0067	SGI 10s	ODF x ODF solder	3/8 x 3/8	4.7	0.25
014-0068	SGI 12s	ODF x ODF solder	1/2 x 1/2	5.75	0.5
014-0069	SGI 16s	ODF x ODF solder	5/8 x 5/8	5.75	0.5
014-0070	SGI 22s	ODF x ODF solder	7/8 x 7/8	6.82	0.5

DANFOSS SIGHT GLASSES

Types SGI, SGN, SGR AND SGRN



Part Number	Type	Version	Connection In	Length (In)	Weight (Lb)
014-0119	SGI 10s	ODF x ODM solder	3/8 x 3/8	4	0.25
014-0131	SGR 1/2	NPT	1/2 NPT	--	--
014-0132	SGN 6	Flare ext. x ext.	1/4 x 1/4	2.65	0.25
014-0133	SGN 10	Flare ext. x ext.	3/8 x 3/8	3.25	0.5
014-0137	SGN 6	Flare int. x ext.	1/4 x 1/4	2.25	0.5
014-0138	SGN 10	Flare int. x ext.	3/8 x 3/8	2.33	0.75
014-0139	SGN 12	Flare int. x ext.	1/2 x 1/2	2.8	1
014-0142	SGN 6s	ODF x ODF solder	1/4 x 1/4	3	1.33
014-0143	SGN 10s	ODF x ODF solder	3/8 x 3/8	4	0.25
014-0144	SGN 12s	ODF x ODF solder	1/2 x 1/2	4.7	0.25
014-0145	SGN 16s	ODF x ODF solder	5/8 x 5/8	5.75	0.5
014-0147	SGN 22s	ODF x ODF solder	7/8 x 7/8	6.82	0.5
014-0152	SGN 10s	ODF x ODM solder	3/8 x 3/8	4.7	0.25
014-1092 (R410A)	SGH 10s	ODF x ODF solder	3/8 x 3/8	--	--
014-1096 (R410A)	SGH 22s	ODF x ODF solder	7/8 x 7/8	--	--
014-1098 (R410A)	SGH 22s	ODF x ODF solder	1-1/8 x 1-1/8	--	--
014-0154	SGN 16s	ODF x ODM solder	5/8 x 5/8	5.75	0.5
014-1091 (R410A)	SGH 12s	ODF x ODF solder	1/2 x 1/2	--	--

Type SGRN



Part Number	Type	Version	Connection In	Length (In)	Weight (Lb)
014-0006	SGRN	NPT	1/2 NPT	--	--

- 1) Can be screwed directly into the filter drier.
2) ISO 228/1.

Refrigerant	SGI						SGN					
	77°F			110°F			77°F			110°F		
	Green Dry	Intermed. color	Yellow wet	Green Dry	Intermed. color	Yellow wet	Green Dry	Intermed. color	Yellow wet	Green Dry	Intermed. color	Yellow wet
CFC	**SGI recommended											
R12	< 10	10 - 25	> 25	< 35	35 - 65	> 65	< 10	10 - 50	> 50	< 20	20 - 90	> 90
R502	< 70	70 - 140	> 140	< 110	110 - 230	> 230	< 10	10 - 50	> 50	< 20	20 - 90	> 90
HCFC	**SGN recommended											
R22	< 150	150 - 300	> 300	< 250	250 - 500	> 500	< 30	30 - 120	> 120	< 50	50 - 200	> 200
R134a	< 130	130 - 270	> 270	< 210	210 - 430	> 430	< 30	30 - 100	> 100	< 45	45 - 170	> 170
R404A	< 90	90 - 170	> 170	< 125	125 - 250	> 250	< 20	20 - 70	> 70	< 25	25 - 100	> 100
R407C	< 170	170 - 350	> 350	< 280	280 - 560	> 560	< 30	30 - 140	> 140	< 60	60 - 225	> 225
R507	< 80	80 - 160	> 160	< 140	140 - 280	> 280	< 15	15 - 60	> 60	< 30	30 - 110	> 110

This chart indicates the moisture content in parts per million for both types of Danfoss sight glasses for the given refrigerants.

DANFOSS CHECK VALVES

TYPES NRV AND NRVH



Introduction:

NRV check valves can be used in liquid, suction, and hot gas lines in refrigeration and air conditioning systems using fluorinated refrigerants. They allow flow in only one direction and have a built-in damping piston that makes the valve suitable for installation in lines where pulsation can occur. They are available in both angleway and straightway versions.

NRVH check valves can be used in liquid and hot gas lines in refrigeration and air conditioning systems using fluorinated refrigerants. They are supplied with a stronger spring than type NRV ($\Delta P = 4.3$ psi) and are especially suitable for installation in the discharge line of systems with compressors connected in parallel.

Features:

Two Versions available

- Type NRV: Requires a minimum ΔP of 0.6 to 1 psi for 100% flow.
- Type NRVH: Includes a stronger spring that requires a minimum ΔP of 4.3 psi for 100% flow.

Refrigerants: CFC, HCFC and HFC

Temperature of medium: $-60 \rightarrow +285^{\circ}\text{F}$

Maximum working pressure: MWP = 400 psig

Maximum test pressure: $p' = 520$ psig

NRV Straightway, Flare Connection



Part Number	Type	Connection In	Weight (Lb)	Pressure Drop** Across Valve p psi	Cv Value*** gal/min	Overall Length (In)
020-1040	NRV 6	1/4	0.2	1	0.65	2.21
020-1041	NRV 10	3/8	0.4	1	1.65	2.36
020-1042	NRV 12	1/2	0.4	0.7	2.37	2.72
020-1043	NRV 16	5/8	0.7	0.7	4.16	3.15
020-1044	NRV 19	3/4	0.9	0.7	5.78	3.47

NRV / NRVH Straightway, Solder Connection

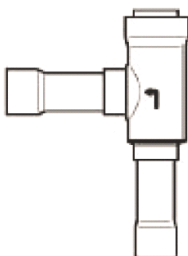


Part Number	Type	Connection In	Weight (Lb)	Pressure Drop** Across Valve p psi	Cv Value*** gal/min	Overall Length (In)
020-1010	NRV 6s	1/4	0.2	1.0	0.65	3.62
020-1057	NRV 6s *	3/8	0.4	1.0	0.65	3.62
020-1069	NRVH 6s *	3/8	0.4	1.0	0.65	3.62
020-1011	NRV 10s	3/8	0.4	1.0	1.65	4.29
020-1046	NRVH 10s	3/8	0.4	4.3	1.65	4.29
020-1058	NRV 10s	1/2	0.4	1.0	1.65	4.29
020-1070	NRVH 10s *	1/2	0.4	4.3	1.65	4.29
020-1012	NRV 12s	1/2	0.4	0.7	2.37	5.16
020-1039	NRVH 12s	1/2	0.4	4.3	2.37	5.16
020-1052	NRV 12s *	5/8	0.4	0.7	2.37	5.16
020-1064	NRVH 12s *	5/8	0.4	4.3	2.37	5.16
020-1018	NRV 16s	5/8	0.7	0.7	4.16	5.43
020-1038	NRVH 16s	5/8	0.7	4.3	4.16	5.43
020-1059	NRV 16s *	3/4	0.7	0.7	4.16	5.43
020-1071	NRVH 16s *	3/4	0.7	4.3	4.16	5.43
020-1019	NRV 19s	3/4	0.9	0.7	5.78	6.50
020-1023	NRVH 19s	3/4	0.9	4.3	5.78	6.50
020-1054	NRV 19s *	7/8	0.9	0.7	5.78	6.50
020-1066	NRVH 19s *	7/8	0.9	4.3	5.78	6.50

DANFOSS CHECK VALVES

TYPES NRV AND NRVH

NRV / NRVH Angleway, Solder Connection



Part Number	Type	Connection In	Weight (Lb)	Cv Value*** gal/min
020-1020	NRV 22s	7/8	1.1	9.83
020-1032	NRVH 22s	7/8	1.1	9.83
020-1060	NRV 22s *	1 1/8	1.1	9.83
020-1072	NRVH 22s *	1 1/8	1.1	9.83
020-1021	NRV 28s	1 1/8	2.4	21.96
020-1029	NRVH 28s	1 1/8	2.4	21.96
020-1056	NRV 28s *	1 3/8	2.4	21.96
020-1068	NRVH 28s *	1 3/8	2.4	21.96
020-1026	NRV 35s	1 3/8	2.4	33.52
020-1034	NRVH 35s	1 3/8	2.4	33.52
020-1061	NRV 35s *	1 5/8	2.4	33.52
020-1073	NRVH 35s *	1 5/8	2.4	33.52

* Oversize connections

** Δp = the minimum pressure at which the valve is completely open.

The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel.

*** Cv value is the water flow in gal/min at a pressure drop across valve of 1 psi, = 10 lb/gal.

Metric Conversions

1 psi = 0.07 bar

1 in. = 25.4 mm

US gal/min = 0.86 m3/h

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