TAG:

SUBMITTAL

5 Ton Convertible Heat Pump Packaged Units PRODUCT SPECIFICATIONS 4WCZ6060B4000A

PRODUCTS	SPECIFICATIONS
MODEL	4WCZ6060B4000A
RATED Volts/PH/Hz	460/3/60
Performance Cooling	100/0/00
BTUH (High)	57000
Indoor Airflow (CFM)	1780
Power Input (KW)	4.97
BTUH (Low) `	44500
Indoor Airflów (CFM)	1250
Power Input (KW)	2.79
EER - HÏ / LÒW / SEER	11.5 / 15.9 / 15.0
Sound Power Rating [dB(A)]@	
Performance Heating ①	
(High Temp.)BTUH / COP	(High) 53500 / 3.5
Power Input (KW)	4.45
(Low Temp.) BTUH / COP	(High) 34000 / 2.46
Power Input (KW)	3.99
(High Temp.)BTUH / COP	(Low) 37000 / 3.43
Power Input (KW)	3.19
(Low Temp.) BTUH / COP	(Low) 19000 / 1.81
Power Input (KW)	3.02
HSPF (BTU / Watt-Hr.) ©	8.3
POWER CONN.—V/Ph/Hz	. 5 5, 5, 5 5
Min. Brch. Cir. Ampacity ³ Fuse Size — Max. / Recmd	17
COMPRESSOR	(1 / = 0 / = 0
Volts/Ph/Hz	2-STAGE SCROLL
R.L. Amps — L.R. Amps	460/3/60 7.2 / 52
OUTDOOR COIL — TYPE	SPINE-FIN
Rows/F.P.I.	2/24
Face Area (sq.ft.)	23.57
Tube Size (in.)	3/8
Refrigerant Control	EXPANSION VALVE
INDOOR COIL — TYPE	PLATE FIN
Rows/F.P.I.	4 / 15
Face Area (sq.ft.)	5.0
Tube Size (in.)	3/8
Refrigerant Control	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT
OUTDOOR FAN — TYPE	PROPELLER
Dia. (in.)	28.2
Drive/No. Speeds	DIRECT / 1
CFM @ 0.0 in. w.g.⊕	4700
Motor — HP/R.P.M.	1/4 / 830
Volts/Ph/Hz	208-230/1/60
F.L. Amps/L.R. Amps INDOOR FAN — TYPE	1.4 / 3.4
	CENTRIFUGAL
Dia x Width (in.) Drive/No. Speeds	11 X 10
	DIRECT / VARIABLE
CFM @ 0.0 in. w.g.⑤ Motor — HP/R.P.M.	SEE FAN PERFORMANCE TABLE 1 / VARIABLE
Volts/Ph/Hz	208-230/1/60
F.L. Amps/L.R. Amps	6.9 / 6.9
FILTER / FURNISHED	NO
Type Recommended	THROWAWAY
Recmd. Face Area (sq. ft.)	
REFRIGERANT / Charge (
DIMENSIONS	HXWXL
Crated (in.)	52.0 / 47.0 / 62.0
WEIGHT / Shipping / Net ((lbs.) 623 / 495

- Certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 210/240.
- ② Sound Power values are not adjusted for AHRI 270-95 tonal corrections.
- ③ Calculated in accordance with currently prevailing Nat'l Electrical Code.
- Standard Air Dry Coil Outdoor.
- Standard Air Wet Coil Indoor.
- ® Rated in accordance with D.O.E. test procedure.
- ⑦ Filters must be installed in return air system. Square footages listed are based on 300 f.p.m. face velocity. If permanent filters are used size per manufacturer's recommendations with clean resistance of 0.05" W.C.

Dimensional Data and Weights

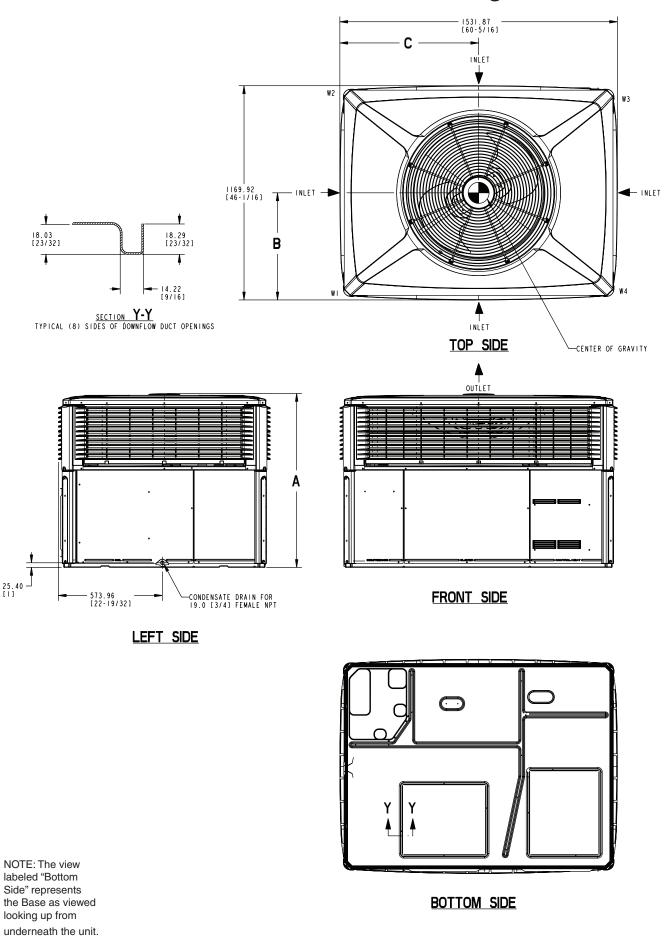
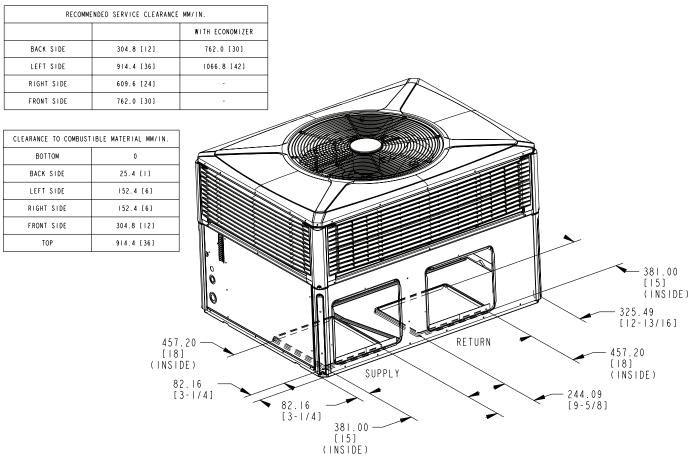


Figure 1. WCZ6048 through WCZ6060 (1 of 3)

Dimensional Data and Weights



BOTTOM DUCT OPENINGS

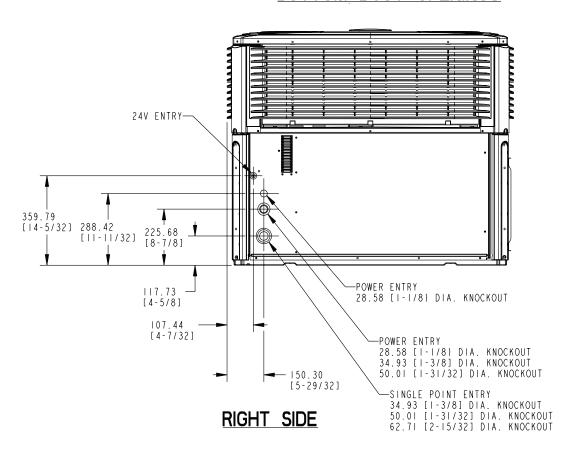
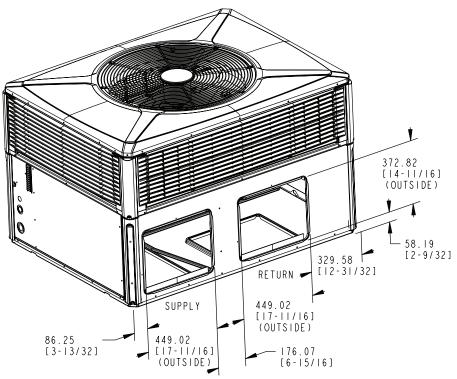
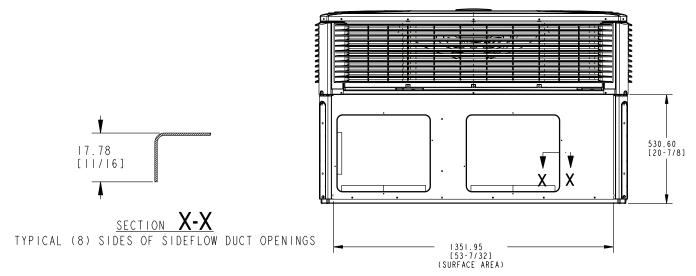


Figure 2. WCZ6048 through WCZ6060 (2 of 3)

Dimensional Data and Weights



BACK DUCT OPENINGS



BACK SIDE

MODEL	HEIGHT MM/IN.		APPROX. CORNER	WEIGHT - KG/LBS		SHIPPING	TOTAL UNIT	CENTER OF GR	AVITY MM/IN.
MODEL	A	w i	W2	W3	W 4	WEIGHT KG/LBS	KG/LBS	В	С
4TCY4042/048A	949.33 [37-3/8]	76.2 [168]	47.6 [105]	35.8 [79]	57.6 [127]	275.6 (607)	217.3 [479]	426.7 [16.8]	635.0 [25.0]
4TCY4048B	949.33 [37-3/8]	78.0 [172]	49.4 [109]	37.6 [83]	59.4 [3]	282.5 [623]	224.4 [495]	426.7 [16.8]	635.0 [25.0]
4TCY4060	1050.93 [41-3/8]	78.9 [174]	46.7 [103]	34.9 [77]	59.1 [130]	277.8 (612)	219.5 [484]	414.0 [16.3]	635.0 [25.0]
4WCY4042/048A	949.33 [37-3/8]	68.9 [152]	40.8 [90]	30.8 [68]	52.2 [115]	275.6 (607)	217.5 [479]	414.0 [16.3]	635.0 [25.0]
4WCY4048B	949.33 [37-3/8]	78.0 [172]	49.4 [109]	37.6 [83]	59.4 [3]	282.5 [623]	224.4 [495]	414.0 [16.3]	635.0 [25.0]
4WC Y 4060	1050.93 [41-3/8]	80.3 [177]	47.6 [105]	35.8 [79]	60.8 [134]	282.8 (623)	224.5 [495]	414.0 [16.3]	635.0 [25.0]
4WC Z 6 0 48	1050.93 [41-3/8]	68.9 [152]	40.8 [90]	30.8 [68]	52.2 [115]	275.6 (607)	217.5 [479]	414.0 [16.3]	635.0 [25.0]
4WC Z 6 0 6 0	1050.93 [41-3/8]	80.3 [177]	47.6 [105]	35.8 [79]	60.8 [134]	282.8 (623)	224.5 [495]	414.0 [16.3]	635.0 [25.0]

Figure 3. WCZ6048 through WCZ6060 (3 of 3)

Indoor Blower Performance

Indoor Fan Performance 4WCZ6060B

Horizontal		External Static Pressure (in. wg)										
		0.0	0.1	02	0.3	0.4	0.5	0.ნ	0.7	0.8	0.9	1.0
350 CFM/Ton Setting	Low		1163	1238	1259	1256	1246	1240	1237	1230		
COO OF WINTOIT Settling	High	-	1662	1768	1799	1794	1780	1771	1767	1757	-	-
400 CFM/Ton Setting	ЮW		1443	1427	1422	1422	1423	1422	1416	1410		
	High	-	2062	2036	2031	2032	2034	2032	2025	2015	-	-

Down Flow			External Static Pressure (in. wg)										
		00	0.1	02	0.3	0.4	0.5	0.6	0.7	0.6	0.9	1.0	
350 GFM/Ton Setting	Low	-	1259	1219	1208	1207	1205	1199	1166	1165	-	-	
COOCHW/10113etting	High	ı	1799	1742	1726	1725	1723	1712	1696	1692	-	-	
400 GFM/Ton Setting	Low	-	14 10	1393	1386	1364	1363	1360	1366	1344	-	-	
400 Of Mirrori Setting	High	ı	2015	1990	1980	1977	1976	1971	1955	1920	-	-	

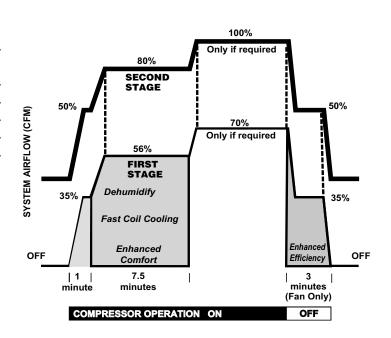
4WCZ6060B AIRFLOW WITH AUXILIARY HEAT (CFM)

SWITCH	SETTINGS	SELECTION	NOMINALAIRFLOW
7-OFF	8-OFF	LOW	1400 CFM
7-ON	8-OFF	нівн	1600 CFM
7-OFF	8-ON	нівн	1600 CFM
7-ON	8-ON	нівн	1600 CFM

COOLING FAN DELAY OPTIONS

			NOMINAL
SWITCH S	SETTINGS	DELAY	AIRFLOW
5-OFF	6-OFF	NONE	100%
5-ON	6-OFF	45 SEC	100%
5-OFF	6-ON	90 SEC	50%
5-ON	6-ON	**	50-100%

^{**} This ENHANCED MODE selection provides a ramping up and ramping down of the indoor blower speed to provide improved comfort, quietness, and potential energy savings. The Graph below shows the ramping process



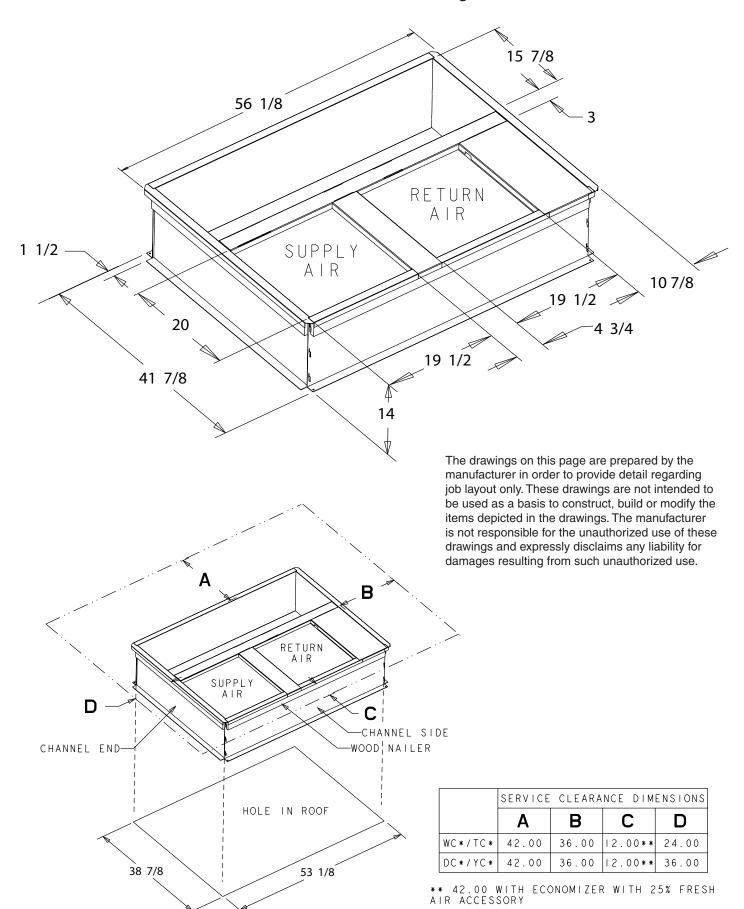
Supplementary Electric Heaters BAYHTRV405, 408, 410, 415, 420, 425E

	ELECTRIC	RATED			HEATER	CAPACITY	NO. OF	KW/ST	AGE			CANADA ONLY
UNIT MODEL	HEATER MODEL	VOLTAGE	PHASE	AMPS	KW	втин	STAGES	1	2	MCA	HACR CKT BKR SIZE (4)	MAX. CKT BKR SIZE (5)
^WCZ6036-060‡4	BAYHTRV405E	480	3	6	5.0	17100	1	5.0		8	15	15
^WCZ6036-060‡4	BAYHTRV408E	480	3	10	8.0	27300	1	8.0		13	15	15
^WCZ6036-060‡4	BAYHTRV410E	480	3	12	10.0	34100	1	10.0		15	15	15
^WCZ6036-060‡4	BAYHTRV415E	480	3	18	15.0	51200	2	10.0	5.0	23	25	25
^WCZ6048-060‡4	BAYHTRV420E	480		24	20.0	68300	2	10.0	10.0	30	30	30
^WCZ6048-060‡4	BAYHTRV425E	480	3	30	25.0	85300	2	15.0	10.0	38	40	40

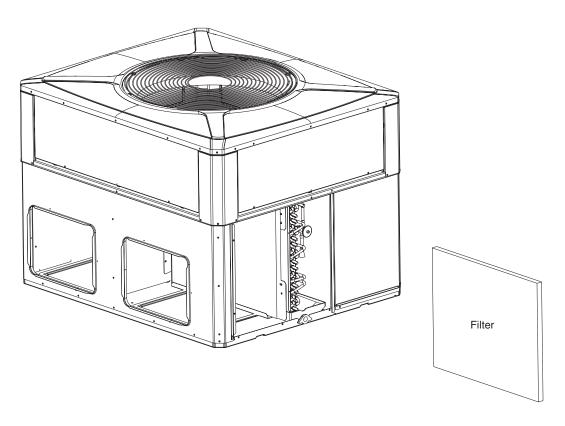
Single Power Entry Kit BAYSPEK61E

SINGLE POWER ENTRY KIT	HEATER MODEL	UNIT MODEL	MIN CKT. AMP.	MAX OVER CUR- RENT PROTECT DEVICE
	BAYHTRV405E	4WCZ6060B4	27	30
	BAYHTRV408E	4WCZ6060B4	31	35
BAYSPEK061E	BAYHTRV410E	4WCZ6060B4	34	40
	BAYHTRV415E	4WCZ6060B4	42	45
	BAYHTRV420E	4WCZ6060B4	49	50

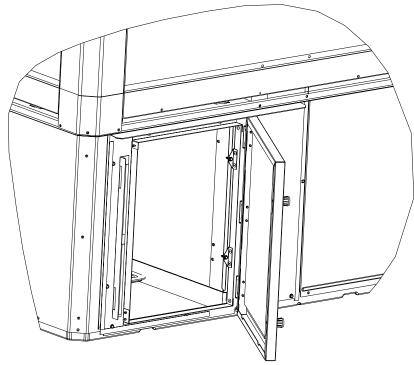
BAYCURB051A Full Perimeter Roof Mounting Curb for 4WCZ6048-060



BAYFLTR101, 201B, 1" – 2" Filter Rack (Mounts in Filter/Coil Section)

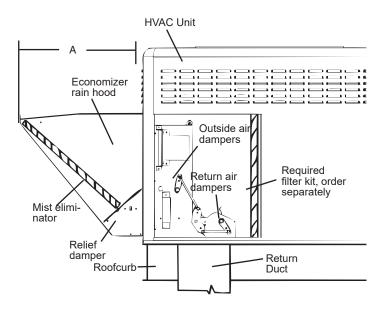


BAYACCDOR1A & BAYACCDOR2A Hinged Filter Access Door Replaces Filter/Coil Access Panel



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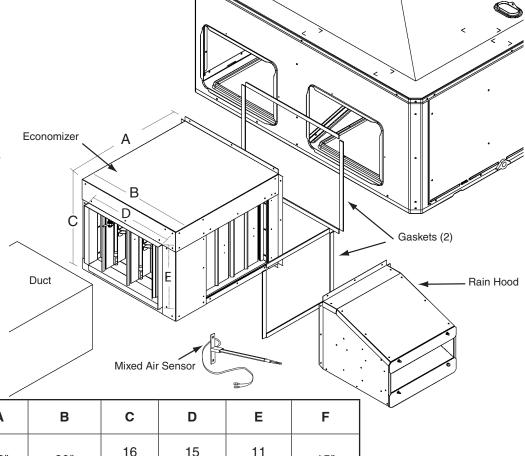
BAYECON103,104A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)



Economizer	Models	A
BAYECON103A	4WCZ6036A 4DCZ6036A 4YCZ6036A	20 1/8"
BAYECON104A	4WCZ6048-060A 4DCZ6048-060A 4YCZ6048-060A	24 3/8"

BAYCON203,204A Horizontal Economizer and Rain Hood

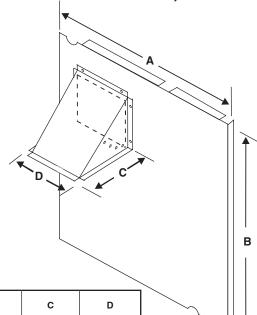
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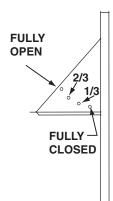


Economizer	A	В	С	D	E	F
BAYECON203AA	22"	20"	16 7/8"	15 11/16"	11 11/16"	15"
BAYECON204AA	26"	22 21/32"	19"	17 11/16"	14 11/16"	21-3/8"

BAYOSAH001,002A, 25% Outside Air Damper (Replaces Filter/Coil Access Panel)

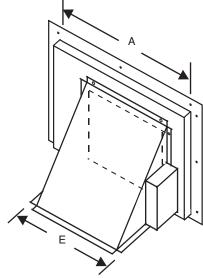
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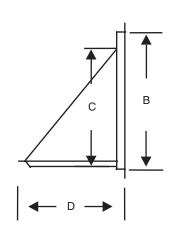




Manual Fresh	Unit Application Models	Α	В	С	D	
Air Model	Onit Application Models	^		· ·		
	4YC,WC3018-036		20 11/16"	12 3/8"	9 3/16"	
BAYOSAH001	4TC*3018-036	00.7/4.01				
	4W/T/Y/DCY4024-036	22 7/16"				
	4W/Y/DCZ6036					
	4YC,WC3042-060				9 3/16"	
DAVOCALIONS	4TC*3042-060	25 3/16"	00 11/10"	12 3/8"		
BAYOSAH002	4W/T/Y/DCY4042-060	25 3/16"	20 11/16"			
	4W/Y/DCZ6048-060					

BAYDMPR101,102A, 25% Motorized Outside Air Damper (Mounts Over Horizontal Return Alr Opening)





	Unit Application Models	Α	В	С	D	E
BAYDMPR101A	4YC,WC3018-036	15 13/16"	11 13/16"	10 1/4"	11 1/2"	12 1/4"
	4TC3018-036					
	4W/T/Y/DCY4024-036					
	4W/Y/DCZ6036					
BAYDMPR102A	4YC,WC3042-060	18 3/16"	15 1/8"	10 1/4"	11 1/2"	12 1/4"
	4TC3042-060					
	4W/T/Y/DCY4042-060					
	4W/Y/DCZ6048-060					

Mechanical Specifications

General

The units shall be horizontal airflow as shipped and convertible to downflow. All units shall be factory assembled, piped, internally wired and fully charged with refrigerant. Units shall be certified to UL Standard 1995. All units shall be factory run tested to check cooling operation, fan and blower rotation and control or TXV sequence. Units shall be designed to operate at ambient temperatures between 115°F and 55°F in cooling as manufactured. Cooling performance shall be rated in accordance with A.H.R.I. standards.

Unit Casing

All components shall be mounted in a weather-resistant steel cabinet with an enamel finish. Access panels shall be provided for unit controls and indoor coil and fans. Indoor air section compartment shall be completely insulated with fireproof, permanent, odorless glass fiber material. Knockouts shall be provided for utility and control connections. Drain connections shall be provided to accommodate indoor water runoff.

Compressor

The compressor shall be hermetically sealed, high efficiency Climatuff® two-stage compressors. Internal overcurrent and over temperature protection, internal pressure relief shall be standard.

Refrigeration System

All units shall have TXV in cooling and TXV in heating. Service pressure tap ports, and a refrigerant line filter dryer shall be standard.

Indoor Coil

Coils shall be internally finned or smooth bore 3/8" copper tubes mechanically bonded to configured aluminum plate fin as standard. Evaporator coil leak and pressure tested to 200 psig; condenser coil tested to 450 psig.

Condenser Coil —

The Spine Fin™ condenser coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This coil is 3/8 inch O.D. seamless aluminum tubing glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch. The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Indoor Air Fan — Direct-drive, forwardcurved, centrifugal wheel in a Composite Vortica® Blower housing. Motor shall have thermal overload protection. Permanently lubricated motor bearings. Motor/blower assembly isolated from unit with rubber mounts.

Condenser Fan — Direct-drive, draw thru propeller type. Weather-proofed permanent split capacitor fan motor shall have built-in thermal overload and permanently lubricated motor bearings.

System Controls

System controls include condenser fan, evaporator fan and compressor contactors.

Accessories

Roof Curb — The roof curb shall be designed to mate with the unit and provide support and complete weathertight installation when properly installed. Adhesive back polyurethane sealing strips shall be provided to ensure an airtight seal between supply and return openings of the curb and unit. The roof curb design allows field fabricated ductwork to be connected directly to the curb. Curb ships knocked down for field assembly, and includes factory-installed wood nailer strips.

Electric Heaters — Each heater assembly shall include power supply fusing if over 48 amps, automatic resetting limit switches and heat limiters for thermal protection. Heaters shall be provided with polarized plugs for quick connection to unit low voltage wiring. Electric heat modules shall be UL listed.

Single Source Power Entry — This accessory when used with electric heat accessory shall allow single source power connection to unit and heater combination. Single source power entry kits shall have specific matching heater(s). Kit shall include high voltage terminal blocks, fuse blocks and fuses, cut-to-length interconnecting wiring, and junction box (if required) to provide power sources with fuse protection as required for both the unit and accessory heater. Kit components shall install within the unit cabinet in the heater access section. Single source branch power circuit shall be protected and wired in accordance with local codes.

Fully Modulating Economizer — This accessory shall be field installed and be composed of the following items: 0-100% fresh air damper, damper drive motor, fixed dry bulb enthalpy control, and low voltage wiring plug for electrical connections. Solid state enthalpy or differential enthalpy control is optional. Economizer operations shall be controlled by the preset position of the enthalpy control. A barometic relief damper shall be standard with the economizer and provide a pressure operated damper that shall be gravity closing and prohibit entrance of outside air on equipment "off" cycle. Economizer requires BAYRLAY004A relay kit to interface the economizer to the heat pump.

Manual Outside Air Dampers — Rain hood and screen shall be field installed. Suitable for up to 25% outside air.

Start Kit — Extra compressor starting capacity for single phase equipment.

Control Options

Standard Indoor Thermostats — Two stage heating/cooling or one stage heating/cooling thermostats shall be available in either manual or automatic changeover.

Programmable Electronic Night Setback Thermostat — Programmable electronic thermostat shall provide heating setback and cooling setup with 7-day, programming capability. 1H/1C or 2H/2C models available.

About Trane and American Standard Heating and Air Conditioning

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