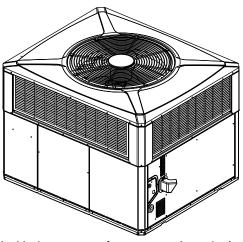


Product Data

Single Packaged Gas/Electric 14 SEER Convertible, 2–5 Ton

4YCY4036 4YCY4048 4YCY4060



Note: "Graphics in this document are for representation only. Actual model may differ in appearance."





SAFETY SECTION

Important — This document contains a wiring diagram, a parts list, and service information. This is customer property and is to remain with this unit. Please return to service information pack upon completion of work.

A WARNING

HAZARDOUS GASES!

Exposure to fuel substances or by-products of incomplete fuel combustion is believed by the state of California to cause cancer, birth defects, or other reproductive harm.

This warning complies with state of California law, Proposition 65.

A WARNING

HAZARDOUS VOLTAGE!

Failure to follow this Warning could result in property damage, severe personal injury, or death.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized.

A WARNING

SAFETY AND ELECTRICAL HAZARD!

Failure to follow this Warning could result in property damage, severe personal injury, or death.

These servicing instructions are for use by qualified personnel only. To reduce the risk of electrical shock, do not perform any servicing other than that contained in these operating instructions unless you are qualified to do so.

A CAUTION

GROUNDING REQUIRED!

Failure to inspect or use proper service tools may result in equipment damage or personal injury.

Reconnect all grounding devices. All parts of this product that are capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

A WARNING

UNIT CONTAINS R-410A REFRIGERANT!

Failure to use proper service tools may result in equipment damage or personal injury. R-410A operating pressure exceeds the limit of R-22. Proper service equipment is required. Service using only R-410A Refrigerant and approved POE compressor oil.

A WARNING

SAFETY HAZARD!

Operating the unit without the access panels properly installed may result in severe personal injury or death.

Do not operate the unit without the evaporator fan access panel or evaporator coil access panel in place.

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A WARNING

WARNING!

This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Important: Wear appropriate gloves, arm sleeve protectors and eye protection when servicing or maintaining this equipment.

Important: Air filters and media wheels or plates shall meet the test requirements in UL 900.



Table of Contents

Single Packaged Convertible Gas/Electric Systems
Optional Equipment Listing
Product Specifications
ndoor Fan Performance
Гуріcal Field Wiring10
Wiring Diagram1
Full Perimeter Roof Mounting Curb1!
Optional Equipment — Filter Rack
Optional Equipment — Economizer18
Optional Equipment — Outside Air Damper1
Determine Unit Clearances
Mechanical Specifications



Single Packaged Convertible Gas/Electric Systems

Trane offers a complete family of packaged gas/electric heating and cooling systems, designed to provide the unbeatable combination of energy efficiency and lower operating costs. In warm weather, the package gas/electric system functions as an all-electric, high efficiency air conditioner. In cold weather, it operates as a natural gas or propane gas furnace, offering the best of both energy worlds.

Because cooling and heating functions are all contained in a single cabinet, a single packaged convertible gas/electric system is easy to install and service.

It can be flush mounted beside your home at ground level or placed on the roof for horizontal or downflow installation. When connected to an optional American Standard thermostat control, and air distribution ducts, you have a highly efficient, total home comfort system.

Single Packaged Convertible Gas/Electric Systems are unmatched in quality and reliability.

All major components on these products, including the compressor, have been designed and manufactured for maximum service. Every compressor is designed and manufactured to exacting specifications. Each design is life tested in extreme environments to ensure reliable and long lasting operation in normal applications. Each compressor has internal motor protection for added reliability.

Single Packaged Convertible Gas/Electric Systems provide better performance.

Our single packaged cooling/heating units offer cooling/heating efficiencies that are unmatched in the industry and provide you with a product far superior in performance than the competition.



Optional Equipment Listing

Hinged Filter Access Door (4YCY4036)(a)	BAYACCDOR1A []
Hinged Filter Access Door (4YCY4048–4060)(a)	BAYACCDOR2A[]
Roof Curb Full Perimeter (4YCY4036)(b)	BAYCURB050A[]
Roof Curb Full Perimeter (47CY4048–4060)(b)	
· · · · · · · · · · · · · · · · · · ·	BAYCURB051A[]
Roof Curb Utility Extension Kit (BAYCURB050A)	BAYUTIL101B[]
Roof Curb Utility Extension Kit (BAYCURB051A)	BAYUTIL102B[]
0–25% Manual Fresh Air Damper (4YCY4036) ^(c)	BAYOSAH001A[]
0–25% Manual Fresh Air Damper (4YCY4048–4060) ^(c)	BAYOSAH002A[]
Motorized Fresh Air Damper (4YCY4036)(c)	BAYDMPR101A[]
Motorized Fresh Air Damper (4YCY4048–4060)(c)	BAYDMPR102A []
0-100% Mod Economizer w/Baro. Relief (4YCY4036)(c)(d) (e)	BAYECON101B[]
0–100% Mod Economizer w/Baro. Relief (4YCY4048–4060)(c)	BAYECON102B[]
0–100% Horizontal Economizer (4YCY4036) ^(c)	BAYECON200A []
0–100% Horizontal Economizer (4YCY4048–4060) ^(c)	BAYECON201A[]
Enthalpy Control for Economizer (ALL-BAYECON)	BAYENTH001A[]
Remote Potentiometer (ALL-BAYECON)	BAYSTAT023[]
1"—2" Filter Frame (4YCY4036) (20 x 25 filter not included)(c)	BAYFLTR101B[]
1"—2" Filter Frame (4YCY4048–4060) (20 x 20 & 20 X 18 filters not included)(c)	BAYFLTR201B[]
LP Conversion Kit (All 40K, 120K Models)	BAYLPKT100A[]
LP Conversion Kit (All 64K, 96K Models)	BAYLPKT101A[]
LP Conversion Kit (All 75K Models)	BAYLPKT102A[]
Head Pressure Control (Low Ambient Cool) (208/240v) Kit ^(f)	BAYLOAM105A[]
Quick Start Kit (4YCY4-‡1)	BAYQSKT301A[]
Crankcase Heater Scroll (4YCY4036) (230v) (f)	BAYCCHT101A[]
Crankcase Heater Scroll (4YCY4048–4060) (230v) ^(f)	BAYCCHT102A[]
Crankcase Heater Scroll (4YCY4036)(230v) (f)	BAYCCHT103A[]
Adapter Curb (4YCY4036A) to BAYCURB030,38	BAYADAP050A[]
Adapter Curb (4YCY4036A) to BAYCURB033	BAYADAP051A[]
Adapter Curb (4YCY4048–4060A) to BAYCURB030,38	BAYADAP052A []
Adapter Curb (4YCY4048–4060A) to BAYCURB033	BAYADAP053A[]
Adapter Curb (4YCY4048–4060A) to BAYCURB034	BAYADAP054A[]
12" Duct Shroud Covers Horizontal (4YCY4036–4060) ^(g)	BAYCOVR112A []
18" Duct Shroud Covers Horizontal (4YCY4036–4060)(g)	BAYCOVR118A[]
Extreme Condition Mounting Kit — All BAYCURB & BAYADAP	BAYEXMK001A[]
Extreme Condition Mounting Kit — All BAYUTIL	BAYEXMK002B[]
Extreme Condition Mounting Kit — All Slab Mounts	BAYEXMK003B[]
Lifting Lug Kit	BAYLIFT002B[]
	<u> </u>

⁽a) BAYACCDOR1A requires BAYFLTR101B & BAYACCDOR2A requires BAYFLTR201B. They are not backward compatible to BAYFLTR101/201A.

⁽b) Ships knocked down.

 $^{^{\}mbox{\scriptsize (c)}}$ Must use filter frame when economizer/fresh air kit is used .

⁽d) Dry bulb control standard with economizer.

⁽e) Downflow only.

⁽f) Low Ambient cooling requires crankcase heater (BAYCCHT——A).

 $[\]ensuremath{^{(g)}}\ BAYCOVR112,118A$ will not cover 18" square-to-round applications.



Product Specifications

MODEL	4YCY4036*075 [*096]	4YCY4048*096 [*120]	4YCY4060*
RATED Volts/PH/Hz		208-230/3/60	
Performance Cooling BTUH (a)	38000	48500	58500
Indoor Airflow (CFM)	1210	1605	1800
Power Input (KW)		LOCATED ON UNIT NAMEPLATE	
EERH/L/SEER BTU/Watt-Hr	12 / 14.2	12 / 14.2	12 / 14
Sound Power Rating [dB(A)] (b)	69	73	76
PERFORMANCE HEATING (c)			
Input BTUH- 1st Stage (N.Gas) (d)	56250 [72000]	72000 [90000]	90000
Input BTUH- 2nd Stage (N.Gas)	75000 [96000]	96000 [120000]	120000
AFUE	80	80	
Temp Rise - Min/Max	30/60 [40/70]	30/60 [40/70]	30 / 60
Orifice QTY / Drill Size (N.G.)	2/#33 [3/#37]	3/#37 [3/#32]	3 / #32
POWER CONN V/Ph/Hz		208-230/3/60	
Min. Brch. Cir. Ampacity (e)	ı	LOCATED ON UNIT NAMEPLATE	
Fuse Size — Max. (amps)	ı	LOCATED ON UNIT NAMEPLATE	
Fuse Size — Recmd. (amps)		LOCATED ON UNIT NAMEPLATE	
COMPRESSOR		SCROLL	
VOLTS/PH/HZ		208-230/3/60	
R.L. Amps — L.R. Amps		LOCATED ON UNIT NAMEPLATE	
OUTDOOR COIL — TYPE		SPINE FIN	
Rows/F.P.I		2 / 24	
Face Area (sq. ft.)	15.49	18.10	23.57
Tube Size (in.)		3/8	
Refrigerant Control		EXPANSION VALVE	
INDOOR COIL — TYPE		PLATE FIN	
Rows/F.P.I	4 / 15	3 / 15	4 / 15
Face Area (sq. ft.)	3.5	5.0	5.0
Tube Size (in.)		3/8	
Refrigeration Control		EXPANSION VALVE	
Drain Conn. Size (in.)		3/4 FEMALE NPT	
OUTDOOR FAN - TYPE		PROPELLER	
DIA. (IN.)	23.4	28.2	28.2
DRIVE/NO. SPEEDS		DIRECT / 1	
CFM @ 0.0 in. w.g. (f)	3280	4470	5730
Motor — HP/R.P.M	1/5 / 830	1/4 / 825	1/3 / 830
Volts/Ph/Hz		208-230/3/60	
F.L. Amps/L.R Amps	ı	LOCATED ON UNIT NAMEPLATE	
INDOOR FAN — TYPE		CENTRIFUGAL	
Dia. x Width (in.)	10 x 10	11 x 1	0
Drive/No. Speeds		DIRECT / VARIABLE	
CFM @ 0.0 in. w.g. (9)		See Fan Performance table	
Motor — HP / R.P.M.	1/2 / Variable	3/4 / Variable	1 / Variable
Volts/Ph/Hz		208-230/1/60	
F.L. Amps		LOCATED ON UNIT NAMEPLATE	
COMBUSTION FAN — TYPE		CENTRIFUGAL	
Drive / No. Speeds		Direct / 2	
Motor – HP / R.P.M.		1/45 / 2800/1500	
Volts/Ph/Hz		208-230/1/60	
FILTER / FURNISHED		NO	
Type Recommended		THROWAWAY	
Recmd. Face Area (sq. ft) (h)	4.0	5.3	5.3
REFRIGERANT		R-410	
Charge (lbs.)		LOCATED ON UNIT NAMEPLATE	
Subcooling	ı	LOCATED ON UNIT NAMEPLATE	
(a) Rated in accordance with AHRI Standar	•		adoor coil OED B optoring oir

⁽a) Rated in accordance with AHRI Standard 210/240. AHRI standard rating conditions are: 80 D.B.67 W.B. entering air to indoor coil. 95 D. B. entering air to outdoor coil.

⁽b) Sound Power values are not adjusted for AHRI 270–95 tonal corrections.

⁽c) Ratings shown are for elevations up to 2000 ft. For higher elevations reduce ratings at a rate of 4% per 1000 ft. elevation.

⁽d) Convertible to LPG.

 $[\]ensuremath{^{(\text{e})}}$ This value is approximate. For more precise value, see Unit Nameplate.

⁽f) Standard Air — Dry Coil — Outdoor.

⁽g) Based on U.S. Government Standard Tests.

⁽h) Filters must be installed in return air stream. Square footages listed are based on 300 f.p.m. face velocity. If permanent filters are used size per manufacturer's recommendation with a clean resistance of 0.05" W.C.



Indoor Fan Performance

To set indoor motor for the desired speed options, connect the motor leads in the taps as shown below:

INDOOR FAN PERFORMANCE					EXTERNAL STATIC PRESSURE (IN.WG)							
	Y4036 k (096) ^(a)		Horizontal Airflow [Down Airflow]									
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
LOW	WATTS	162 [169]	173 [182]	197 [210]	226 [243]	256 [273]	285 [301]	313 [331]	343 [370]	383 [433]	440 [480]	525 [530]
LOW	CFM	1058 [1025]	1062 [1062]	1063 [1068]	1063 [1063]	1062 [1060]	1060 [1061]	1057 [1064]	1053 [1055]	1048 [1015]	1042 [975]	1033 [990]
MED	WATTS	179 [225]	230 [253]	265 [283]	296 [315]	329 [348]	366 [381]	403 [414]	431 [449]	450 [484]	485 [522]	555 [575]
MED	CFM	1179 [1187]	1196 [1201]	1204 [1203]	1206 [1201]	1205 [1198]	1203 [1197]	1199 [1194]	1194 [1184]	1185 [1157]	1169 [1165]	1144 [1150]
нісн	WATTS	318 [339]	336 [357]	365 [390]	399 [424]	435 [455]	469 [483]	502 [516]	533 [571]	563 [669]	_	-
HIGH	CFM	1390 [1391]	1376 [1377]	1370 [1377]	1366 [1375]	1361 [1366]	1354 [1352]	1349 [1344]	1351 [1360]	1369 [1340]	_	_

⁽a) Factory Default Setting

INDOOR FAN PERFORMANCE					EXTERNAL STATIC PRESSURE (IN.WG)							
	Y4048 k (120) ^(a)		Horizontal Airflow [Down Airflow]									
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
1.011	WATTS	200 [141]	220 [232]	250 [270]	285 [294]	320 [329]	354 [378]	386 [431]	417 [456]	449 [478]	487 [505]	538
LOW	CFM	1407 [1344]	1394 [1405]	1396 [1414]	1403 [1411]	1408 [1416]	1408 [1433]	1402 [1425]	1391 [1435]	1380 [1430]	1377 [1410]	1392
MED	WATTS	268 [253]	316 [332]	354 [379]	386 [412]	417 [443]	448 [480]	483 [524]	520 [570]	559 [607]	597 [619]	630
MED	CFM	1584 [1582]	1608 [1614]	1616 [1624]	1615 [1624]	1608 [1621]	1600 [1618]	1593 [1618]	1586 [1620]	1579 [1618]	1568 [1606]	1550
LITCH	WATTS	378 [364]	430 [461]	478 [518]	522 [558]	563 [597]	602 [643]	640 [693]	679 [739]	717 [764]	758 [785]	_
HIGH	CFM	1798 [1816]	1821 [1829]	1830 [1836]	1833 [1839]	1831 [1840]	1828 [1840]	1825 [1844]	1822 [1835]	1817 [1830]	1807 [1825]	-

⁽a) Factory Default Setting

INDOOR FAN PERFORMANCE					E	XTERNAL	STATIC	PRESSUR	E (IN.WG)		
4YCY	4060(a)		Horizontal Airflow [Down Airflow]									
Motor Speed		0.0	0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9							0.9	1	
	WATTS	394 [443]	427 [461]	464 [493]	504 [532]	548 [571]	591 [607]	633 [642]	668 [680]	_	_	_
LOW	CFM	1673 [1796]	1772 [1741]	1799 [1726]	1793 [1725]	1779 [1722]	1771 [1712]	1767 [1698]	1756 [1692]	_	_	_
MED	WATTS	695 [740]	642 [697]	660 [715]	710 [763]	764 [819]	811 [866]	849 [892]	893 [894]	966 [872]	1108 [835]	_
MED	CFM	2054 [2010]	2036 [1987]	2031 [1979]	2032 [1977]	2033 [1976]	2031 [1969]	2023 [1950]	2012 [1913]	2002 [1852]	2000 [1759]	_

⁽a) Factory Default Setting

Table 1. 4YCY*** Heating Airflow, horizontal or downflow from .2 to .6" wg

4YCY4036C*070 [4YCY4036C*090*]										
Cwitch	Nominal Airflow									
Switch Setting		Selection	Low Stage	High Stage						
7-OFF	8-OFF	А	725 [825]	1000 [1100]						
7-ON	8-OFF	В	775 [875]	1075 [1175]						
7-OFF	8-ON	С	850 [950]	1150 [1250]						
7-ON	7-ON 8-ON D 925 [1025] 1250 [1375]									
* Can be 1 or 3		^k Can be 1 or 3								

Table 2. 4YCY*** Heating Airflow, horizontal or downflow from .2 to .6" wg

4YCY4048C*090 [4YCY4048C*090]									
Nominal Airflow									
Switch Setting		Selection	Low Stage	High Stage					
7-OFF	8-OFF	А	1075 [1050]	1375 [1500]					
7-ON	8-OFF	В	1100 [1100]	1450 [1575]					
7-OFF	8-ON	С	1150 [1150]	1500 [1625]					
7-ON 8-ON D 1200 [1200] 1575 [1700]									
* Can be 1 or 3	* Can be 1 or 3								

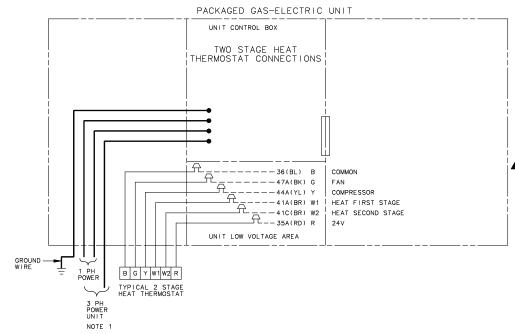
Table 3. 4YCY*** Heating Airflow, horizontal or downflow from .2 to .6" wg

	4YCY4060										
Swite	h Catting	Calaatiaa	Nomina	l Airflow							
Switch Setting		Selection	Low Stage	High Stage							
7-OFF	8-OFF	А	1375	1800							
7-ON	8-OFF	В	1450	1900							
7-OFF	8-ON	С	1525	1975							
7-ON	8-ON	D	1575	2075							
* Can be 1 or 3	•										



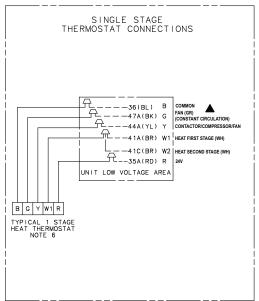
Typical Field Wiring

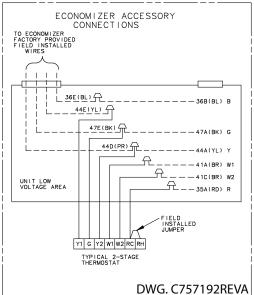
Figure 1. 4YCY4 - Field Wiring Diagram



NOTES:

- FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH CODES.
- BE SURE POWER SUPPLY AGREES
 WITH EQUIPMENT AND HEATER
 NAMEPLATE.
- 3. LOW VOLTAGE WIRING TO BE 18 AWG MINIMUM CONDUCTOR.
- 4. SEE UNIT DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.
- ▲5. THE GAS ELECTRIC UNIT WILL PROVIDE CONSTANT CIRCULATION REGARDLESS OF COOLING OR HEATING STATUS WITH A 'G' SIGNAL ONLY FROM THE THERMOSTAT.
- 6. FOR SINGLE STAGE THERMOSTATS, JUMPER W1 AND W2 TOGETHER. SECOND STAGE HEAT WILL BEGIN 10 MINUTES AFTER FIRST STAGE.





INTER-COMPONENT WIRING	
24V. FACTORY	
24V. LINE V. FIELD WIRING	
WIRE COLOR DESIGNATION	
ABBR COLOR ABBR COLOR	

	COLOR	DESIG	NATION
ABBR	COLOR	ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		



Wiring Diagram

Figure 2. Wiring Diagram - 4YCY4036 pg 1 INDOOR SECTION CONTROL BOX CN-4 OUTDOOR SECTION CN-8 35A(RD) 35B(RD) 3B(RD)--63(A)BR -61A(WH) -65B(YL) 7A(PR)-35E(RD) 4C(BK) (CF1 CN-7 9A(BR) 65A(YL) 65B(YL) 3B (YELLOW -65A(YL) Š ₫ **∭**(Y∟0 ICM 51B(RD) FAN 42B(BK) MOTOR 3 14A(GR) CN-9)B(Y ∞ **cc** COMPRESSOR SECTION B, C(BK)+02 35F(RD) LYELLOW • (81) B,C(RD CPR ® FAN ® CFM ■ TO ICM FAN MOTOR 3 BLACK क्रा 26 H INDUCER CO ORANGE TO ICM FAN CONTROL O -49A(PR) -55A(YL) -43A(BR) - 43A(BR) - 51A(GY) - 45A(BK) - 69A(BL) - 69A,B(BL) - 39A,B(OR) - 37A(OR) HEATER SECTION 90|60 IGN BLACK PP BLACK **∑** RED 23A(BK) 2A(BK) COM 8 IA(RD) 230V 4 I B (WH) ⊢NO. YELLOW 2 IA(BL) 35C(RD) 3 5 Fυ TCO -35C(RD) 49A, B(PR) 24V 35E(RD)-208V 37A(OR) LPCO 38A(GR) 39A(OR) -37A(OR) YELLOW YELLOW 36B(BL) 69B(BL) -В 47A(GR)--43A(BR) NGE PPC I P/M 41A(WH) G۷ 39B(OR)-41B(WH) ------35A(RD) RO 49B(PR) CONNECTIONS SHOWN ARE FOR A TYPICAL THERMOSTAT.

SEE SCHEMATIC SUPPLIED WITH THERMOSTAT FOR PROPER
CONNECTIONS.LOW VOLTAGE WIRING TO UNIT MAY BE NEC
CLASS 2 AND MUST BE A MIN. OF 18 A.W.G.
SET THERMOSTAT HEAT ANTICIPATOR TO .3 AMPS.
MAXIMUM ADDITIONAL EXTERNAL LOAD (PILOT DUTY)
BETWEEN 'B" AND 'R" OF 0.5 AMPS, 24 VAC IS
AVAILABLE IN THE COOLING MODE ONLY.
FOR 208 VOLT OPERATION MAKE THE FOLLOWING WIRING CHANGES:
A: AT TNSI REMOYE 1A(RD) WIRE AND CONNECT TO 208V
TERMINAL ON TRANSFORMER.

IF ANY OF THE ORIGINAL WIRE AS SUPPLIED IN THIS UNIT MUST BE
REPLACED, REPLACE IT WITH APPLIANCE WIRING MAT'L RATED AT 105° C.
"T" TERMINAL IS NOT CONNECTED WHEN AN ELECTRONIC THERMO THREE PHASE MOTOR(S) FACTORY SUPPLIED IN THIS EQUIPMENT PROTECTED UNDER PRIMARY SINGLE-PHASE CONDITIONS WIRE COLOR DESIGNATION
ABBR COLOR ABBR COLOR
BK BLACK PR PURPLE
BL BLUE RD RED
BR BROWN WH WHITE
GR GREEN YL YELLOW
OR ORANGE "T" TERMINAL IS NOT CONNECTED WHEN AN ELECTRONIC THERMOSTAT IS USED. IF OPTIONAL HUMIDISTAT ACCESSORY IS USED, ON THE ICMC BOARD CUT THE 71A(BK/WH) JUMPER AND CONNECT THE HUMIDISTAT BETWEEN TERMINALS. DEVICE DESCRIPTION

CC COMPRESSOR CONTACTOR COIL

CFI OUTDOOR FAN CAPACITOR

CN CONNECTOR OW WIRE NUT

CFM COMBUSTION FAN MOTOR

CFM COMPRESSOR RUN CAPACITOR

RO ROLLOUT LIMIT

BY GAS TALM DETECTOR

FO ROLLOUT LIMIT

HONOOR FAN MOTOR

IGN 16HITION CONTROL MODULE

10L INTERNAL OVERLOAD

IP 16HITOR PROBE

LED 16N DIAGNOSTICS INDICATOR

ODM OUTDOOR FAN MOTOR

OUTDOOR FAN MOTOR

DOM OUTDOOR FAN MOTOR

PP POLARIZED PLUG

PS PRESSURE SWITCH

TASI

CONTROL POWER TRANSFORMER

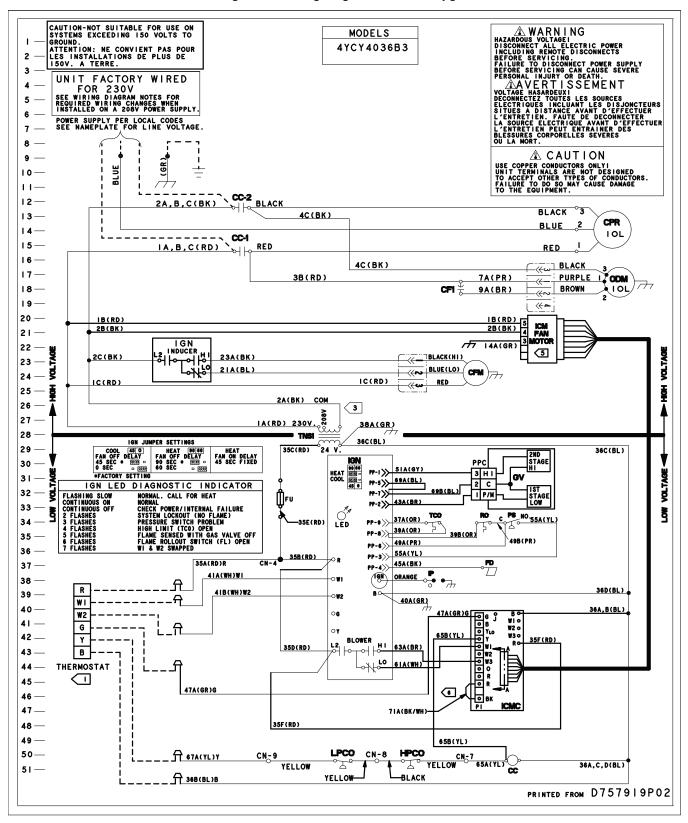
FU FUSE

HPCO HIGH PRESSURE SWITCH

LPCO LOW PRESSURE SWITCH ICMC DIP SWITCH SETTINGS ICMC DIP SWITCH SETTINGS
SWIIGH SETTINGS
SWIISW 2|SW 3|SW 4|HEAT PUMP CFM
OFF OFF OFF OFF ON 350 CFM/TON
OFF OFF OFF OFF 0400 CFM/TON
ON ON OFF OFF A50 CFM/TON
ON ON OFF OFF RATED CFM/TON PIN-I — (BLUE) FAN OFF-DELAY OPTIONS SW 5 SW 6 OFF OFF ON OFF OFF ON NOMINAL 100% NOMINAL ** NONE 45 SECONDS 90 SECONDS ENHANCED 50 % NOMINAL ENHANCED ELECTRIC HEAT DETAIL OF POLARIZED PLUG CONNECTIONS TO LED LIGHTS FACTORY SETTING AT CONTINUOUS FAN SETTING ("G" ONLY) AIRFLOW VALUES ARE APPROXIMATELY 50% OF LISTED VALUE. THE HEAT PUMP FAN OFF-DELAY IS THE SAME AS THE COOLING MODE.



Figure 3. Wiring Diagram - 4YCY4036 pg 2



OUTDOOR SECTION INDOOR SECTION CONTROL BOX , RED 63A(BR) 61A(WH) 65B(YL) ODM 47A(GR) YELLOW -L65A(YL) 3B(RD) 3B(RD) 4C(BK) 36C(BL) 35E(RD) 7A(PR) 35 (CF1 ŝ 9A(BR) 4 65A(, ® Yu WI W2 W3 O R .W1 .W2 .W3 YELLOW BLACK 5 | B (RD) 42B (BK) 3 | 4A (GR) W(Y ICM FAN MOTOR COMPRESSOR SECTION የ -35F(RD) 2A,B,C(BK) C(RD) **CPR** ➂ LYELLOW. ^ე3 ୃ **®** FAN TO ICM O CFM 8 or or kuth IA,B, 2C/23/24/8L) ICMC BLUE BLACK 20 HG BLOWER INDUCER TO ICM FAN CONTROL \odot ORANGE - 49A(PR) - 55A(YL) - 43A(BR) O YELLOW HEATER SECTION - 51A(GY) - 45A(BK) 90 60 HEAT 5000 COOL 5000 IGN CFM **HPCO ∠ RED** 2A(BK) COM PS C BLACK C(B) -IA(RD) 230V 2TA(BL) 35C(RD) TNSI 3 41B(WH) ⊣ NO. Fυ TCO , D(RD) CN-4 --35C(RD) LPCO 49A,B(PR) 55A(YL) 24V 35E(RD)-208V YELLOW 37A(OR) 36C (BL.) YELLOW 39A(OR) 36B(BL) 5IA(GY) 45A(BK) -69B(BL) 47A(GR) -- -B FD 43A(BR) PPC 67A(YL)-1 P/M 2 C 41A(WH) G۷ 39B(OR) 35A(RD) (RO 49B(PR) NOTES: NOTE
THREE PHASE MOTOR(S) FACTORY
SUPPLIED IN THIS EQUIPMENT
PROTECTED UNDER PRIMARY CONNECTIONS SHOWN ARE FOR A TYPICAL THERMOSTAT.
SEE SCHEMATIC SUPPLIED WITH THERMOSTAT FOR PROPER
CONNECTIONS.LOW YOLTAGE WIRING TO UNIT MAY BE NEC
CLASS 2 AND NUST BE A MIN. OF 18 A.W.G.
SET THERMOSTAT HEAT ANTICIPATOR TO .3 AMPS.
2. MAXIMUM ADDITIONAL EXTERNAL LOAD (PILOT DUTY)
BETWEEN "B" AND "B" OF 0.5 AMPS, 24 VAC IS
AVAILABLE IN THE COOLING MODE ONLY.
3. FOR 208 YOLT OPERATION MAKE THE FOLLOWING WIRING CHANGES:
A: AT THIS I REMOVE IA(RD) WIRE AND CONNECT TO 208Y
TERMINAL ON TRANSFORMER. WIRE COLOR DESIGNATION
ABBR COLOR ABBR COLOR
BK BLACK PR PURPLE
BL BLUE RD RED
BR BROWN WH WHITE
GR GREEN YL YELLOW
OR ORANGE SINGLE-PHASE CONDITIONS IF ANY OF THE ORIGINAL WIRE AS SUPPLIED IN THIS UNIT MUST BE REPLACED, REPLACE IT WITH APPLIANCE WIRING MAT'L RATED AT 105° C. "T" TERMINAL IS NOT CONNECTED WHEN AN ELECTRONIC THERMOSTAT IS USED. IF OPTIONAL HUMIDISTAT ACCESSORY IS USED, ON THE ICMC BOARD CUT THE 71A(BK/WH) JUMPER AND CONNECT THE HUMIDISTAT BETWEEN TERMINALS. ICMC DIP SWITCH SETTINGS DEVICE CC CFI CN CFM CPR DESCRIPTION
COMPRESSOR CONTACTOR COIL
OUTDOOR FAN CAPACITOR
CONNECTOR OF WIRE NUT
COMBUSTION FAN MOTOR
COMPRESSOR COAPACITOR
ELIAME DETECTOR 15 15 24 13 13 37 34 31 22 27,40 PIN-I — (BLUE)

Figure 4. Wiring Diagram - 4YCY4048 and 4YCY4060 pg 1

22-1797-17B-EN 13

ENHANCED
ELECTRIC HEA
AIRFLOW
350 CFM/TON
400 CFM/TON

AT CONTINUOUS FAN SETTING ("G" ONLY) AIRFLOW VALUES ARE APPROXIMATELY SOX OF LISTED VALUE. THE HEAT PUMP FAN OFF-DELAY IS THE SAME AS THE COOLING MODE.

SW 5 SW 6 OFF OFF ON OFF OFF ON

OFF ON ON

SW 7 SW 8 OFF OFF ON OFF

FACTORY SETTING

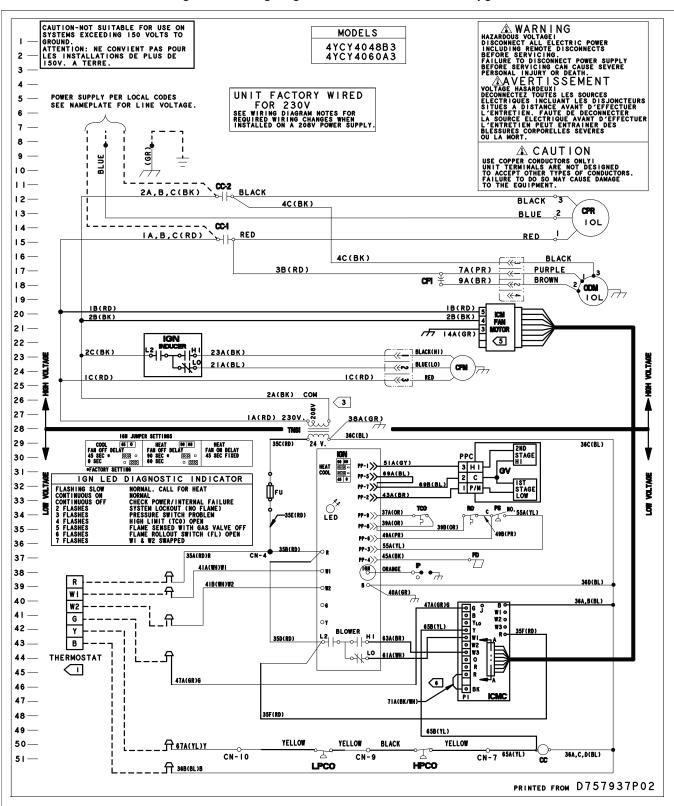
PIN-16

VIEW A-A

DETAIL OF POLARIZED PLUG CONNECTIONS TO LED LIGHTS

Wiring Diagram

Figure 5. Wiring Diagram - 4YCY4048 and 4YCY4060 pg 2





Full Perimeter Roof Mounting Curb

Figure 6. 2.0 - 3.0 Ton Models

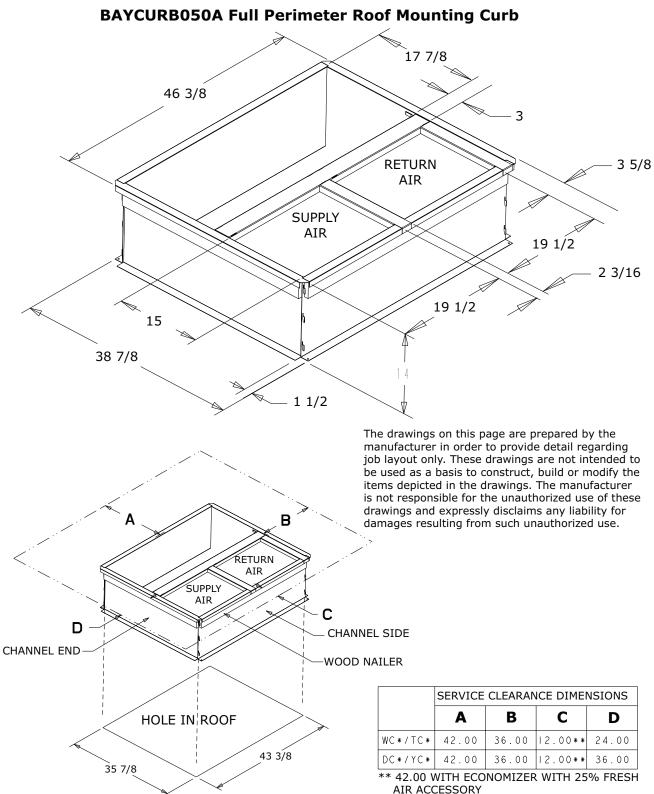
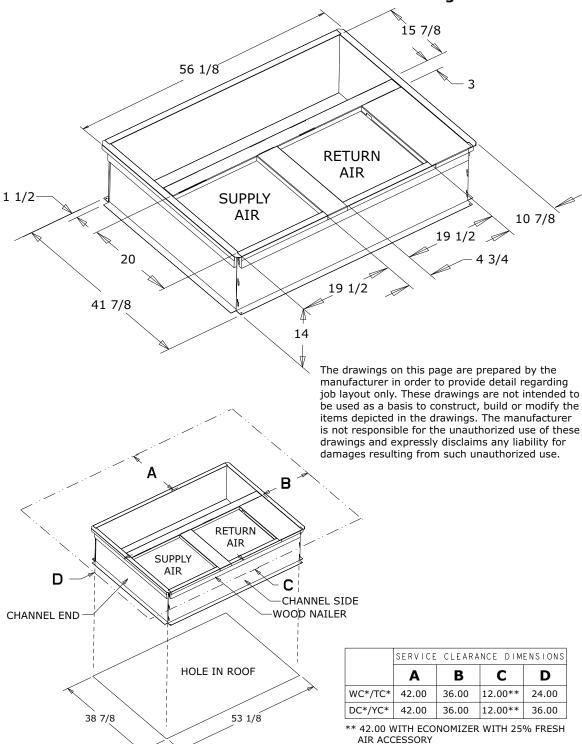




Figure 7. 3.5 - 5.0 Ton Models

BAYCURB051A Full Perimeter Roof Mounting Curb





Optional Equipment — Filter Rack

Figure 8. BAYFLTR101 Filter Rack (2.0 – 3.0 Ton Models)
BAYFLTR201 (3.5 – 5.0 Ton Models)
(Mounts in Filter/Coil Section)

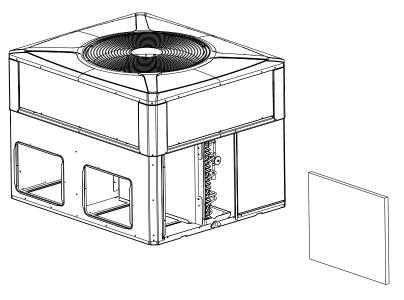
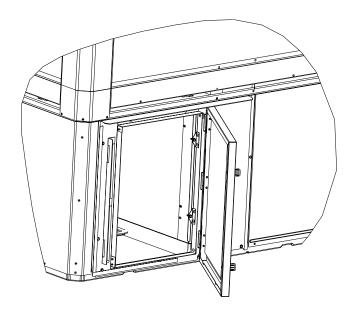


Figure 9. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)

BAYACCDOR2A (3.5 – 5.0 Ton Models)

Replaces Filter/Coil Access Panel



Note: The drawings on this page are prepared by the manufacturer in order to provide detail regarding job layout only. These drawings are not intended to be used as a basis to construct, build or modify the items depicted in the drawings. The manufacturer is not responsible for the unauthorized use of these drawings and expressly disclaims any liability for damages resulting from such unauthorized use.



Optional Equipment — Economizer

Table 4. BAYECON101,102A Down Discharge Economizer and Rain Hood (Mounts Over Horizontal Return Air Opening)

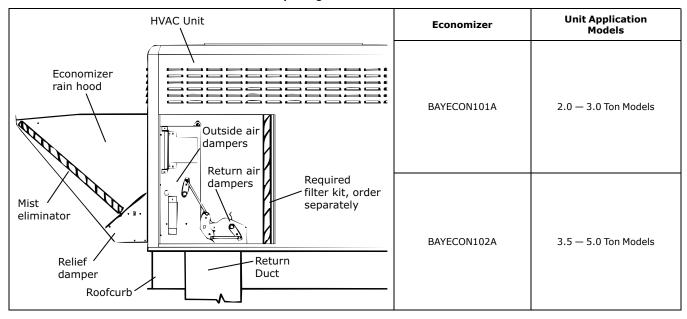
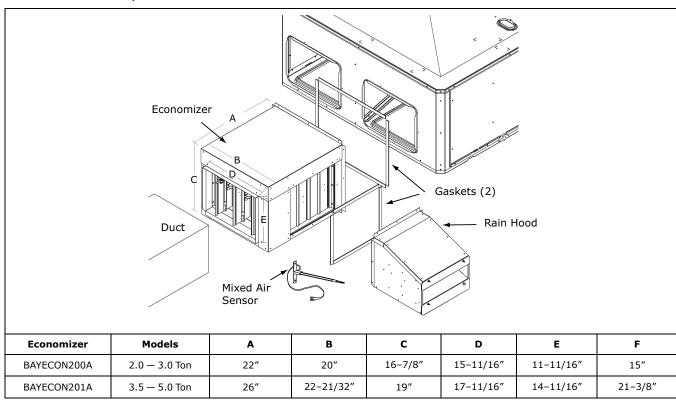


Table 5. BAYCON200, 201A Horizontal Economizer and Rain Hood



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Optional Equipment — Outside Air Damper

Table 6. BAYOSAH001 and 002A Outside Air Damper (Replaces Filter/Coil Access Panel

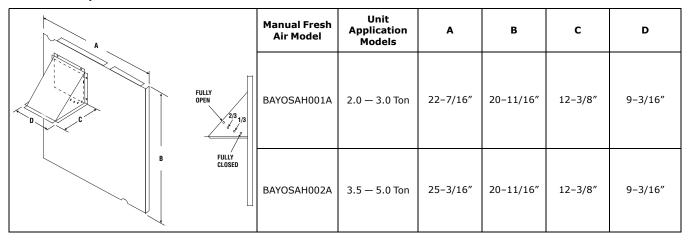


Table 7. BAYDMPR101 and 102A, 25% Motorized Outside Air Damper (Mounts Over Horizontal Return Air Opening)

: A		Manual Fresh Air Model	Unit Application Models	A	В	С	D	E
	C B	BAYDM- PR101A	2.0 — 3.0 Ton	15-13/16"	11-13/16"	10-1/4"	11-1/2"	12-1/4"
E		BAYDM- PR102A	3.5 — 5.0 Ton	18-3/16"	15-1/8"	10-1/4"	11-1/2"	12-1/4"

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BOTTOM

TOP

BB

CC

DD -Depth

EE -Width

1093.72 [43-/16]

1284.99 [50-5/8]

497.8 [19-5/8]

2 - 3 TON

Determine Unit Clearances

EE D CC | 11.56 [15/32] (DUCT FLANGE) INLET 97.96 [3-27/32] 17.78 SECTION X-X
TYPICAL (8) SIDES OF SIDEFLOW DUCT OPENINGS DD- INLET -İ 18.03 [23/32] 18.29 [23/32] BB 4 SECTION Y-Y
TYPICAL (8) SIDES OF DOWNFLOW DUCT OPENINGS INLET TOP SIDE -CENTER OF GRAVITY . . FRONT SIDE CONDENSATE DRAIN FOR 19.0 [3/4] FEMALE NPT FF LEFT SIDE 2 - 3 TON Units 3.5 - 5 TON Units RECOMMENDED SERVICE CLEARANCE mm [Inches] W/ ECONOMIZER W/ ECONOMIZER BACK SIDE 305 762 [30] 305 [12] 762 [30] 914 [36] LEFT SIDE 762 [30] 1067 [42] 914 [36] RIGHT SIDE 610 [24] 610 [24] 762 [30] FRONT SIDE | 1067 [42] CLEARANCE TO COMBUSTIBLE MATERIAL mm [inches] 25 [1] 25 [1] LEFT SIDE 152 [6] 152 [6] RIGHT SIDE 152 [6] 152 [6] FRONT SIDE 305 [12] 914 [36] 914 [36] DIMENSIONS mm [Inches] HEIGHT OF UNIT - TABLE NEXT PAGE CENTER OF GRAVITY - TABLE NEXT PAGE **BOTTOM SIDE** CENTER OF GRAVITY - TABLE NEXT PAGE

Figure 10. Space on Sides Requirements

20 22-1797-17B-EN

Note: The view labeled "Bottom side"

represents the base as viewed looking

up from underneath the unit.

1173.99 [46-1/4]

1535.94 [60-1/2]

3.5 - 5 TON

576 [22-11/16

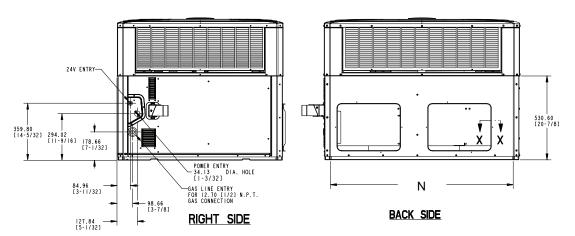


B SUPPLY F SUPPLY K

Figure 11. Bottom and Back Duct Openings

BOTTOM DUCT OPENINGS

BACK DUCT OPENINGS



	PHYSICAL DIMENSIONS mm[ln]												
	В	С	D	Е	F	G	Н	I	J	K	L	М	N
4YCY4036	304.80	75.41	75.41	406.40	167.89	406.40	173.46	79.50	398.22	176.07	177.55	296.62	1155.45
	[12]	[2.93]	[2.93]	[16]	[6.61]	[16]	[6.8]	[3.13]	[15.68]	[6.93]	[6.99]	[11.68]	[45.49]
4YCY4048	457.20	85.60	84.12	381.00	244.09	318.75	327.45	88.21	449.02	176.07	331.54	372.82	1355.64
4YCY4060	[18]	[3.37]	[3.31]	[15]	[9.61]	[12.55]	[12.89]	[3.47]	[17.68]	[6.93]	[13.05]	[14.68]	[53.37]

			Corner Wei	ghts KG/LBS		SHIPPING	UNIT WEIGHT KG/LBS	Center Of Gravity mm[inch]	
	HEIGHT-A mm[inch]	W1	W2	W3	W4	KG/LBS		BB	СС
4YCY4036* (070)	949.33 [37-3/8]	60 [133]	36 [80]	30 [67]	50 [111]	222 [488]	178 [392]	389 [15]	559 [22]
4YCY4036* (090)	949.33 [37-3/8]	61 [135]	37 [81]	31 [68]	51 [113]	224 [493]	180 [397]	389 [15]	559 [22]
4YCY4048* *	949.33 [37-3/8]	77 [170]	52 [115]	47 [104]	69 [153]	303 [669]	245 [541]	445 [18]	699 [28]
4YCY4060* *	1050.93 [41-3/8]	82 [181]	46 [102]	43 [95]	77 [169]	307 [676]	249 [548]	401 [16]	711 [28]



Mechanical Specifications

General

All units shall be factory assembled, piped, internally wired and fully charged with refrigerant. All units shall be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be rated in accordance with A.H.R.I. standards. The heating/cooling unit design is certified to ANSI 221.47/CSA2.3, specifically for outdoor applications using natural gas or propane. All units shall be designed for outdoor rooftop or ground level installation. Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint.

Shipped for horizontal application, convertible to downflow.

Casings

All panels shall be heavy gauge steel, gasketed and insulated. Foil-faced insulation shall be in the heat exchanger section. Foil-faced insulation shall be in the evaporator section. Base pan shall be heavy gauge steel. **WEATHERGUARD™** exterior corrosion resistant screws shall be used for added resistance to rust and corrosion.

Controls

Refrigeration cycle controls shall include condenser fan, evaporator fan and compressor contactors. Compressors shall be equipped with a combination internal winding thermostat/current overload. Internal high pressure relief shall also be provided.

Refrigeration System

Compressors -

The **Climatuff**® two-stage compressor features internal over temperature and pressure protector, total dipped hermetic motor. Other features include: centrifugal oil pump, and low vibration and noise.

Evaporator Coil -

(2-4 Ton Models) All aluminum micro channel, extruded tubes, mechanically bonded to aluminum fins and factory pressure tested at 480 PSIG and leak tested at 250 to 300 PSIG. All units have TXV to control refrigerant flow.

(5 Ton Models) Internally enhanced 3/8" OD seamless copper tubing mechanically bonded to aluminum fins, factory pressure tested at 480 PSIG and leak tested at 250 to 300 PSIG. All units have TXV to control refrigerant flow.

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 OD 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, forward-curved, 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 through propeller type. Weather-proofed permanent split capacitor fan motor shall have built-in thermal overload and permanently lubricated motor bearings.

Low Ambient — Standard refrigerant system operation down to 55°F. Low ambient accessory required for operation to 0°F ambient condition.

Gas-Fired Heating System — Models shall provide completely assembled, wired and piped gas fired heating systems within unit. Design certified by UL, specifically for outdoor application. Threaded gas connection on the unit.

Mechanical Specifications

Electronic Ignition System — Main burner is lit each time thermostat calls for gas heat. Flame sensor proves flame and keeps the main burners on. Should a loss of flame occur, the main valve closes and the spark recurs within 0.8 second. When thermostat is satisfied, main burner is extinguished.

Forced Combustion Blower — Insures flame stability under varying wind conditions. Gives higher combustion efficiency and location flexibility.

Heat Exchanger — stainless steel tubes. Free floating design.

Burners - stainless steel. Multi-port inshot.

Accessories (U.S. Domestic Models)

Roof Curb — The roof curb shall be designed to mate with the unit and provide support and complete weather-tight installation when properly installed. Curb shall ship knocked down for field assembly, and include wood nailer strips.

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 polarized 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.

Manual Fresh Air Hood

Manual outside air provides a fixed outside air quantity from 0 to 25 percent. Includes hood and birdscreen.

Low Ambient Control

Control allows cycling of compressor under low ambient cooling conditions. Required for cooling operation to 0°F.

Propane Gas

Conversion Kit — For conversion from natural gas to LP gas.



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