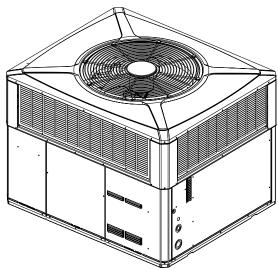


## **Product Data**

# Single Packaged Heat Pump, 14 SEER Convertible, 2 — 5 Ton, R-410A

4WCY4036B3 4WCY4048A3 4WCY4060A3



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

Note: "Unit specific Service Facts available online."





## 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 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.

### **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.

©2024 Trane 22-1789-20B-EN



## **Table of Contents**

Single Packaged Heat Pump System	4
Optional Equipment Listing	5
Product Specification	7
Supplementary Electric Heaters	
Wiring Diagrams	11
Full Perimeter Roof Mounting Curb	17
Optional Equipment — Filter Rack	19
Optional Equipment — Economizer	20
Optional Equipment — Outside Air Damper	21
Determine Unit Clearances	22
Mechanical Specifications	24



## Single Packaged Heat Pump System

### Introducing the new Trane Single Heat Pump System

## Single Packaged Electric Heat Pumps are easy and versatile to install.

Because cooling and heating functions are all contained in a single cabinet, Trane packaged heat pump systems are 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 Trane thermostat control, and air distribution ducts, you have a highly efficient, total home comfort system.

### Single Packaged Electric Heat Pump 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 Electric Heat Pump 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**

## Optional Equipment for 4WCY4 Packaged Units (check mark indicates accessories included)

	1				
Hinged Filter Access Door (4WCY4036 )	BAYACCDOR1A[]				
Hinged Filter Access Door (4WCY4048-060)	BAYACCDOR2A[]				
Roof Curb Full Perimeter (4WCY4036)(a)	BAYCURB050A[]				
Roof Curb Full Perimeter (4WCY4048-060) (a)	BAYCURB051A[]				
Roof Curb Utility Extension Kit (BAYCURB050A)	BAYUTIL101B[]				
Roof Curb Utility Extension Kit (BAYCURB051A)	BAYUTIL102B[]				
0-25% Motorized Outside Air Damper (4WCY4036)	BAYOSAH001A[]				
0-25% Motorized Outside Air Damper (4WCY4048-060A) (b)	BAYOSAH002A[]				
Motorized Fresh Air Damper (4WCY4036) (b)	BAYDMPR101A[]				
Motorized Fresh Air Damper (4WCY4048-060) (b)	BAYDMPR102A[]				
0-100% Mod Economizer w/Baro. Relief (4WCY4036) <sup>(b)(c) (d)</sup>	BAYECON101B[]				
0-100% Mod. Economizer w/Baro. Relief (4WCY4048-060) (b)(c)(d)	BAYECON102B[]				
0-100% Horizontal Economizer (4WCY4036) (b)(c)	BAYECON200A[]				
0-100% Horizontal Economizer (4WCY4048-060)(b)(c)	BAYECON201A[]				
Enthalpy Control for Economizer (solid state)	BAYENTH001A[]				
Remote Potentiometer (All-BAYECON***A)	BAYSTAT023[]				
1"-2" Filter Frame (4WCY4036) (20x25 filter not included) (b)	BAYFLTR101B[]				
1"-2" Filter Frame (4WCY4048-060) (20x20 & 20x18 filter not included) (b)	BAYFLTR201B[]				
Head Pressure Control (Low Ambient Cool) (208/240v) Kit(e)	BAYLOAM105A[]				
Quick Start Kit (4WCY4-‡1)	BAYKSKT300A[]				
Crankcase Heater Scroll (4WCY4048-060‡1/3)(230v) (e)	BAYCCHT102A[]				
Crankcase Heater Scroll (4WCY4036)(230v) (e)	BAYCCHT103A[]				
Adapter Curb 4WCY4036 to BAYCURB030,38	BAYADAP050A[]				
Adapter Curb 4WCY4036 to BAYCURB033	BAYADAP051A[]				
Adapter Curb 4WCY4048-060 to BAYCURB030,38	BAYADAP052A[]				
Adapter Curb 4WCY4048-060 to BAYCURB033	BAYADAP053A[]				
Adapter Curb 4WCY4048-060 to BAYCURB034	BAYADAP054A[]				
12" Duct Shroud Covers Horizontal 4WCY4036-060(f)	BAYCOVR112A[]				
18" Duct Shroud Covers Horizontal 4WCY4036-060 (f)	BAYCOVR118A[]				
Extreme Condition Mounting Kit - All BAYCURB & BAYADAP	BAYEXMK001A[]				
Extreme Condition Mounting Kit - All BAYUTIL	BAYEXMK002A[]				
Extreme Condition Mounting Kit - All Slab Mounts	BAYEXMK003A[]				
Lifting Lug Kit	BAYLIFT002B[]				
SUPPLEMENTARY HEATERS (1 PHASE)					
3.76/5.0 KW Heater (208/240V 1PH) (4WCY4036-060‡1)	BAYHTRV105E[]				
3.76/5.0 KW Heater (208/240V 1PH) (4WCY4036-060‡1)	BAYHTRV108E[]				
7.50/10.0 KW Heater (208/240V 1PH) (4WCY4036-060‡1)	BAYHTRV110E[]				
11.27/15.00 KW Heater (208/240V 1PH) (4WCY4036-060‡1)	BAYHTRV115E[]				
15.0/20.0 KW Heater (208/240V 1PH) (*4WCY4048-060‡1)	BAYHTRV120E[]				
	<u>. I</u>				



## **Optional Equipment Listing**

BAYHTRV125E[]
BAYHTRV305E[]
BAYHTRV308E[]
BAYHTRV310E[]
BAYHTRV315E[]
BAYHTRV320E[]
BAYHTRV325E[]
BAYSPEK060F[]
BAYSPEK061E[]
BAYSPEK062F[]
BAYSPEK063F[]
BAYSPEK064E[]
BAYSPEK065E[]

<sup>(</sup>a) Ships knocked down.

(g) See table on page 8 for matching kit with units and heaters.

<sup>(</sup>b) Must use internal filter frame when economizer or fresh air kit is used.

<sup>(</sup>c) Dry bulb control standard with economizer.

<sup>(</sup>d) Downflow only.

<sup>(</sup>e) Low Ambient cooling requires crankcase heater (BAYCCHT——B).
(f) BAYCOVR112,118A will not cover 18" square-to-round applications.



## **Product Specification**

MODEL	4WCY4036B3	4WCY4048A3	4WCY4060A3						
RATED Volts/PH/Hz		208-230/3/60							
Performance Cooling BTUH (a)	36000	47000	58000						
Indoor Airflow (CFM)	1200	1400	1780						
Power Input (KW)									
EER/SEER (BTU/Watt-Hr.) (b)	11.75 / 14.0	11.75 / 14.0	11.5/14						
Sound Power Rating [dB(A)] (c)	69	73	76						
PERFORMANCE HEATING									
(High Temp.) BTUH	32400	42500	55000						
Power Input (KW)		LOCATED ON UNIT NAMEPLATE							
(Low Temp.) BTUH	24800	27299	37600						
Power Input (KW)		LOCATED ON UNIT NAMEPLATE							
HSPF (BTUH/Watt-Hr)		8							
POWER CONN. — V/Ph/Hz		208-230/3/60							
Min. Brch. Cir. Ampacity (d)		LOCATED ON UNIT NAMEPLATE							
Fuse Size — Max. (amps)		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	18.1	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.)	3.5	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							
DRIVE/NO. SPEEDS		DIRECT / 1							
CFM @ 0.0 in. w.g. (e)	3250	4440	5700						
Motor — HP/R.P.M	1/5 /830	1/4 /825	1/3 /830						
Volts/Ph/Hz		230/1/60							
F.L. Amps/L.R Amps		LOCATED ON UNIT NAMEPLATE							
INDOOR FAN — TYPE		CENTRIFUGAL							
Dia. x Width (in.)	1	10 X 10	11 X 10						
Drive/No. Speeds		DIRECT /VARIABLE							
CFM @ 0.0 in. w.g. (f)		SEE FAN PERFORMANCE TABLE							
Motor — HP / R.P.M.	0.5/VARIABLE	0.75/VARIABLE	1 /VARIABLE						
Volts/Ph/Hz	230/1/60								
F.L. Amps		LOCATED ON UNIT NAMEPLATE							
FILTER / FURNISHED	NO								
Type Recommended		THROWAWAY							
Recmd. Face Area (sq. ft) (g)	4 5.3								
REFRIGERANT		R-410							
Charge (lbs.)		LOCATED ON UNIT NAMEPLATE							
Subcooling		LOCATED ON UNIT NAMEPLATE							



## **Supplementary Electric Heaters**

UNIT MODEL	ELECTRIC HEATER	RATED VOLT-	PHAS-	AMPS		ATER ACITY	NO. OF	KW/S	TAGE	МСА	MAX. FUSE OR HACR	CANADA ONLY MAX.
ONTI MODEL	MODEL	AGE	E	AMES	KW	втин	STAGES	1	2	MCA	CKT BKR SIZE (a)	CKT BKR SIZE (b)
&TCC&024-060#1 &WCC&024-060#1 &TCY&024-060#1 &WCY&024-060#1 &WCZ&024-060#1	BAYHTRV105	208/ 240	1	18/ 21	3.76/ 5.0	12800/ 17100	1	3.76/ 5.0	_	23/ 26	25/30	25/30
&TCC&024-060#1 &WCC&024-060#1 &TCY&024-060#1 &WCY&024-060#1 &WCZ&024-060#1	BAYHTRV108	208/ 240	1	29/ 33	6.0/ 8.0	20500/ 27300	1	6.0/ 8.0	_	36/ 41	40/45	40/45
&TCC&024-060#1 &WCC&024-060#1 &TCY&024-060#1 &WCY&024-060#1 &WCZ&024-060#1	BAYHTRV110	208/ 240	1	36/ 42	7.5/ 10.0	25600/ 34100	1	7.5/ 10.0	ı	45/ 52	45/60	45/60
&TCC&030-060#1 &WCC&030-060#1 &TCY&030-060#1 &WCY&030-060#1 &WCZ&036-060#1	BAYHTRV115	208/ 240	1	54/ 63	11.2- 7/ 15.0	38500/ 51200	2	7.5/ 10.0	3.76/ 5.0	68/ 78	70/80	70/80
&TCC&048-060#1 &WCC&048-060#1 &TCY&042-060#1 &WCY&042-060#1 &WCZ&048-060#1	BAYHTRV120#	208/ 240	1	72/ 83	15.0/ 20.0	51200/ 68300	2	7.5/ 10.0	7.5/ 10.0	90/ 104	90/110	90/110
&TCC&060#1 &WCC&060#1 &TCY&042-060#1 &WCY&042-060#1 &WCZ&048-060#1	BAYHTRV125#	208/ 240	1	90/ 104	18.7- 8/ 25.0	64100/ 85300	2	11.2- 6/ 15.0	7.5/ 10.0	113/ 130	125/150	125/150
&W/TCY4036-060‡3 &WCZ&036-060‡3	BAYHTRV305	208/ 240	3	10/ 12	3.76/ 5.0	12800/ 17100	1	3.76/ 5.0	_	13/ 15	15/15	15/15
&W/TCY4036-060‡3 &WCZ&036-060‡3	BAYHTRV308	208/ 240	3	17/ 19	6.0/ 8.0	20500/ 27300	1	6.0/ 8.0	_	21/ 24	25/25	25/25
&W/TCY4036-060‡3 &WCZ&036-060‡3	BAYHTRV310	208/ 240	3	21/ 24	7.5/ 10.0	25600/ 34100	1	7.5/ 10.0	_	26/ 30	30/30	30/30
&W/TCY4036-060‡3 &WCZ&036-060‡3	BAYHTRV315	208/ 240	3	31/ 36	11.2- 7/ 15.0	38500/ 51200	2	7.5/ 10.0	3.76/ 5.0	39/ 45	40/45	40/45
&W/TCY4048-060‡3 &WCZ&048-060‡3	BAYHTRV320	208/ 240	3	42/ 48	15.0/ 20.0	51200/ 68300	2	7.5/ 10.0	7.5/ 10.0	52/ 60	60/60	60/60
&W/TCY4048-060‡3 &WCZ&048-060‡3	BAYHTRV325#	208/ 240	3	52/ 60	18.7- 8/ 25.0	64100/ 85300	2	11.2- 6/ 15.0	7.5/ 10.0	65/ 75	70/80	70/80
&WCZ&036-060‡4	BAYHTRV405	480	3	6	5.0	17100	1	5.0	_	8	15	15
&WCZ&036-060‡4	BAYHTRV408	480	3	10	8.0	27300	1	8.0	_	13	15	15
&WCZ&036-060‡4	BAYHTRV410	480	3	12	10.0	34100	1	10.0	_	15	15	15
&WCZ&036-060‡4	BAYHTRV415	480	3	18	15.0	51200	2	10.0	5.0	23	25	25
&WCZ&048-060‡4	BAYHTRV420	480	3	24	20.0	68300	2	10.0	10.0	30	30	30

- 1. Any power supply and circuits must be wired and protected in accordance with local electrical codes.
- 2. The values listed in the above table are for the electric heater only.
- 3. Field wiring must be rated at least 75° C.
- 4. \* indicates an alpha character.
- 5. ‡ indicates model letter.
- 6. # Heater uses fuses.
- 7. & indicates a digit.

## ALL VALUES ARE FOR THE ELECTRIC HEATER ONLY

- (a) The HACR circuit breaker is for U.S.A. installations only.
- (b) For Canada installation reference only.



## **Indoor Fan Performance**

				ı	Horizon	tal and D	Downflo	w Exter	nal Stat	ic Press	ure (IN.	WG)					
4WC- Y4036		DIP S	witch	Setti	ng			Horiz	ontal A	irflow [I	Down Ai	rflow in	Bracket	s]			
Airflow Setting	1	2	3	4		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
350 CFM/	OFF	OFF	OFF	ON	Watts	162 [169]	173 [182]	197 [210]	226 [243]	256 [273]	285 [301]	313 [331]	343 [370]	360 [433]	-	-	
TON	OFF	OFF	011	OFF ON	CFM	1058 [1025]	1062 [1062]	1063 [1068]	1063 [1063]	1062 [1060]	1060 [1061]	1057 [1064]	1053 [1055]	1010 [1015]	-	-	
400 CFM/ TON	OFF	OFF	OFF	OFF	Watts	179 [225]	230 [253]	265 [283]	296 [315]	329 [348]	366 [381]	403 [414]	431 [449]	436 [484]	-	-	
(Factory Default)	OFF	OFF OFF	511 011	CFM	1179 [1187]	1196 [1201]	1204 [1203]	1206 [1201]	1205 [1198]	1203 [1197]	1199 [1194]	1194 [1184]	1185 [1157]	-	-		
45000	OFF	OFF	ON	OFF	Watts	318 [339]	336 [357]	365 [390]	399 [424]	435 [455]	469 [483]	502 [516]	533 [571]	-	-	-	
CFM/TON	OFF	OFF	ON	011	CFM	1390 [1391]	1376 [1377]	1370 [1377]	1366 [1375]	1361 [1366]	1354 [1352]	1349 [1344]	1351 [1360]	-	-	-	
4WC- Y4048		DIP S	witch	Settin	ng	Horizontal Airflow [Down Airflow in Brackets]											
Airflow Setting	1	2	3	4		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
350 CFM/	OFF	OFF	OFF	F OFF	ON	Watts	187 [208]	232 [254]	264 [284]	291 [312]	318 [343]	347 [379]	379 [414]	413 [437]	446 [460]	473 [490]	-
TON	OFF	OFF	OFF	ON	CFM	1355 [1337]	1387 [1393]	1396 [1398]	1392 [1388]	1382 [1383]	1370 [1390]	1360 [1399]	1351 [1384]	1341 [1380]	1326 [1370]	-	
400 CFM/ TON	OFF	OFF OFF	OFF	OFF	Watts	315 [302]	324 [349]	352 [386]	389 [423]	428 [465]	464 [509]	498 [552]	529 [583]	563 [599]	606 [628]	-	
(Factory Default)	OFF	OFF	OFF	OFF	CFM	1603 [1574]	1581 [1580]	1577 [1585]	1580 [1589]	1583 [1594]	1583 [1598]	1577 [1601]	1567 [1597]	1558 [1584]	1556 [1556]	-	
45000	OFF	OFF	ON	OFF	Watts	301 [501]	431 [528]	507 [555]	552 [592]	584 [631]	615 [672]	651 [714]	694 [760]	739 [800]	779 [845]	-	
CFM/TON	OFF	OFF	ON	OFF	CFM	1752 [1847]	1794 [1823]	1812 [1817]	1816 [1818]	1812 [1820]	1806 [1819]	1800 [1817]	1797 [1820]	1793 [1815]	1985 [1810]	-	
4WC- Y4060		DIP S	witch	Settir	ng			Hor	izontal A	irflow [	Down Air	flow in B	Brackets]				
Airflow Setting	1	2	3	4		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
350 CFM/	OFF	OFF	OFF	ON	Watts	394 [443]	427 [461]	464 [493]	504 [532]	548 [571]	591 [607]	633 [642]	668 [680]	-	-	-	
TON	OFF	OFF	OFF	ON	CFM	1673 [1796]	1772 [1741]	1799 [1726]	1793 [1725]	1799 [1722]	1771 [1712]	1767 [1698]	1756 [1692]	-	-	-	
400 CFM/ TON	OFF	OFF	F OFF	OFF	Watts	695 [740]	642 [697]	660 [715]	710 [763]	764 [819]	811 [866]	849 [892]	893 [894]	966 [872]	-	-	
(Factory Default)	UFF	UFF	UFF	UFF	CFM	2054 [2010]	2036 [1987]	2031 [1779]	2032 [1977]	2033 [1976]	2031 [1969]	2023 [1950]	2012 [1913]	2002 [1852]	-	-	

Airflow with Auxilary Heat (CFM)											
CWITCH	CETTINGS	CEL ECTION		NOMINAL AIRFLOW							
SWITCH	SETTINGS	SELECTION	4WCY4036	4WCY4048	4WCY4060						
7 - OFF	8 - OFF	LOW	1050 CFM	1400 CFM	1400 CFM						
7 - ON	8 - OFF	HIGH	1200 CFM	1600 CFM	1600 CFM						
7 - OFF	8 - ON	HIGH	1200CFM	1600 CFM	1600 CFM						
7 - ON	8 - ON	HIGH	1200CFM	1600 CFM	1600 CFM						



## **Supplementary Electric Heaters**

	Cooling Off -	Delay Options		
SWITCH	SETTNGS	DELAY	NOMINAL AIRFLOW	100% if necessary
5 - OFF	6 - OFF	NONE	100%	80% Dehumidify 50%
5 - ON	6 - OFF	45 SECONDS	100%	Dehumidify  50%  Fast Coil Cooling and Heating  OFF  Dehumidify
5 - OFF	6 - ON	90 SECONDS	50%	as required  1 7.5 minute minutes  COMPRESSOR OPERATION ON  OFF
5 - ON	6 - ON	**(a)	50 -100%	OFFI OF THE STATE

<sup>(</sup>a) This ENHANCED MODE selection provides a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. The graph showS the ramping process.



## **Wiring Diagrams**

INDOOR SECTION OUTDOOR SECTION CONTROL BOX CN-10 ODM 35A(RD) 35E(RD) 35E(RD) 41A(WH)WI -41D(WH) 3B(RD)-39C(OR) -49A(OR) -41C(WH) -41E(WH) -65B(YL) 7A(PR) -(CF1 YELLOW TELACK 9A(BR) -36C(BL) 2→4C(BK/WH), YELLOW 65A(YL) COMPRESSOR SECTION CN-18 3B(RD) **Œ**γι 45A(YL/BK) TYELLOW oWI oW2 oW3 2 3 1 -36A,B(BL) -65A(YL) -65B(YL) œ 35B(RD) 45A(YL/BK) 55A(BK) 41D(WH) 53A(YL) GR TEST BLUE BLACK -RED FRC O O TST NC COM 1CM 5 1B (RD) 42B (BK) FAN 3 14A (GR) -7 LA(BK/WH) FRC OCFM 8 SI S2 COIL AMBIENT 57A(BK) SOV 36A(BL) 36F(BL) ICMC 8 5 2 B(BK) 36F (BL) ODS-B YELLOW-YELLOW-BLACK-BLACK-37A(BR) (BK/WH) 10A(BK) 8₽ BLACK-O B 39C 2 A, TO ICM 2A(BK) COM BLACK 7 IA(RD) 230V FU YELLOW-→(-√\\ 35E(RD) RED 4 YELLOW -35C(RD) 208V YELLOW 36B(BL) -36C(BL) YELLOW 7 38A(GR)-0-// BLACK -G 7 HEATER SECTION 41%{\#i} -49A(OR) -41F(WH) -41B(WH) 39A(OR)-7 YELLOW 35A(RD) 3 | 2 | 3 NOTES:

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.

MAXIMUM ADDITIONAL EXTERNAL LOAD (PILOT DUTY) BETWEEN "B" AND "R" OF 0.5 AMPS, 24 VAC IS AVAILABLE WHEN A HEATER IS INSTALLED.

SEE WIRING DIAGRAM WITH HEATER FOR DETAILS OF HEATER WIRING.

FOR 208 VOLT OPERATION MAKE THE FOLLOWING WIRING CHANGES: A:REMOVE IACRD) WIRE FROM TISI AND CONNECT TO TNSI AT 208V TERMINAL.

IF ANY OF THE ORIGINAL WIRE AS SUPPLIED IN THIS UNIT MUST BE REPLACED, REPLACE IT WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.

"T" TERMINAL IS NOT CONNECTED WHEN AN ELECTRONIC THERMOSTAT IS USED.

THE 71A(BK/WH) JUMPER AND CONNECT THE HUMIDISTAT BETWEEN TERMINALS.

THE GREEN LED ON THE ICKME BOAD ONCE PER HUNDRED CFM.

THE 71A(BK/WH) JUMPER AND CONNECT THE HUMIDISTAT BETWEEN TERMINALS.

DEVICE

WHEN MECHANICAL THERMOSTATS ARE USED, DO NOT CONNECT THE "W" LEAD AM, BH COI DEVICE

DESCRIPTION

AH, BH CONTACTOR ELECTRIC HEAT

CBS COLL BOTTOM SENSOR

CC COMPRESSOR CONTACTOR COIL

CFI OUTDOOR FAN CAPACITOR

CF2 INDOOR MOTOR CAPACITOR

CF2 INDOOR MOTOR CAPACITOR

CF3 COMPRESSOR RUN CAPACITOR

CS COMPRESSOR START CAPACITOR

CS COMPRESSOR START CAPACITOR

CS COMPRESSOR START CAPACITOR

CS COMPRESSOR START CAPACITOR

CSP COMPRESSOR START CAPACITOR

CSP COMPRESSOR START CAPACITOR

CSP COMPRESSOR START RELAY COIL

DFC DEFROST CONTROL

FT INDOOR FAN MOTOR

IDM INDOOR FAN MOTOR

IOL INTERNAL OVERLOAD

OBM OUTDOOR FAN MOTOR

OBS OUTDOOR AND HOTOR

OBS OUTDOOR AND HOTOR

OBS OUTDOOR FAN MOTOR

OBS OUTDOOR FAN MOTOR

OBS OUTDOOR FAN MOTOR

OSS OUTDOOR FAN MOTOR

OSS OUTDOOR AND HOTOR

TO START CAPACITOR

ONS OUTDOOR FAN MOTOR

ONS OUTDOOR AND HOTOR

INTERNAL OVERLOAD

ONS OUTDOOR FAN MOTOR

ONS OUTDOOR FAN MOTOR

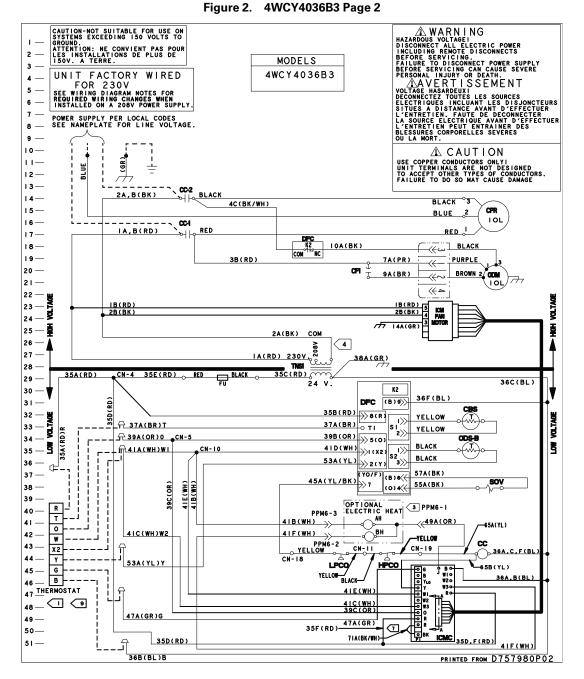
ONS OUTDOOR AND FAN MOTOR

OND OUTDOOR AND FAN MOTOR

OUTDOOR AND F 11 NE 41,42 32 45 17 23 WHEN MECHANICAL THERMOSTATS ARE USED, DO NOT CONNECT THE "W" LEAD AT THERMOSTAT. | ICMC DIP SWITCH SETTINGS | COOLING/ SWITCH SET 15 15 PIN-9 (ORANGE) PIN-I — (BLUE) 20 35 ELECTRIC HEAT SW 7 SW 8 OFF OFF ON OFF 350 CFM/TON 400 CFM/TON VIEW A-A
DETAIL OF POLARIZED
PLUG CONNECTIONS TO
LED LIGHTS ON OFF 400 CFM/TON = 6

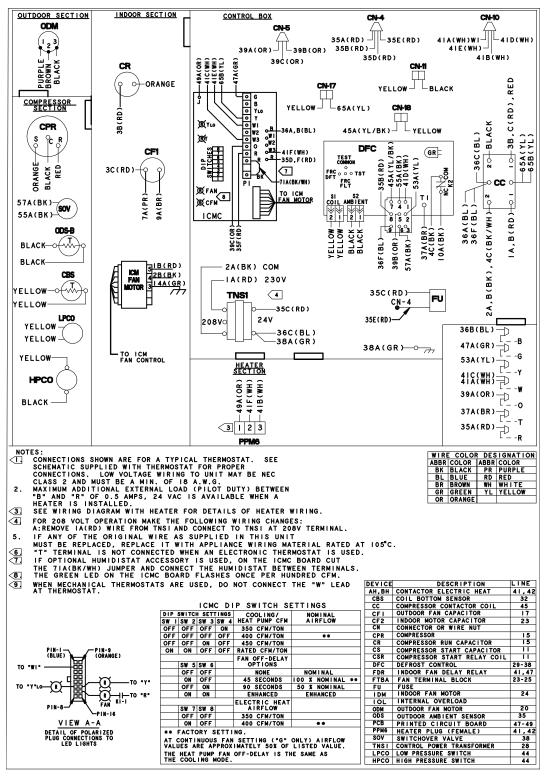
• FACTORY SETTING
AT CONTINUOUS FAM SETTING ("G" ONLY) AIRFLOW
VALUES ARE APPROXIMATELY 50% OF LISTED VALUE.
THE HEAT PUMP FAM OFF-DELAY IS THE SAME AS
THE COOLING MODE.

Figure 1. 4WCY4036B3 Page 1



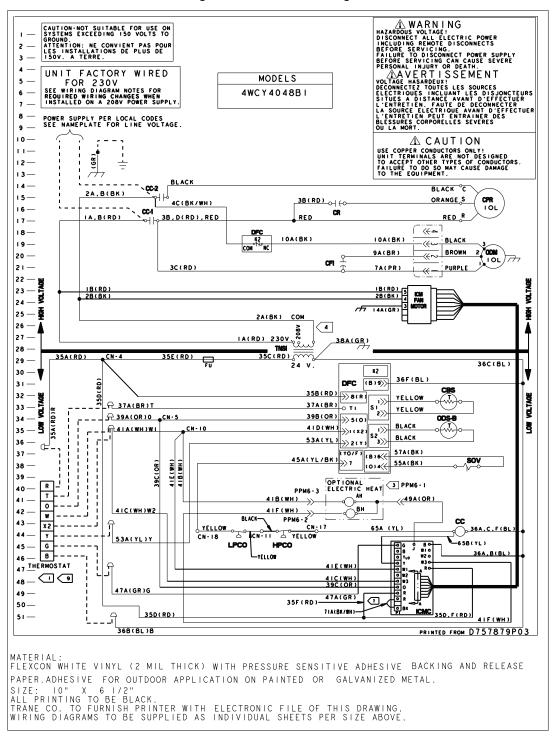
TRANE

Figure 3. 4WCY4048A3 Page 1



## Wiring Diagrams

Figure 4. 4WCY4048A3 Page 2



TRANE

Figure 5. 4WCY4060A3 Page 1

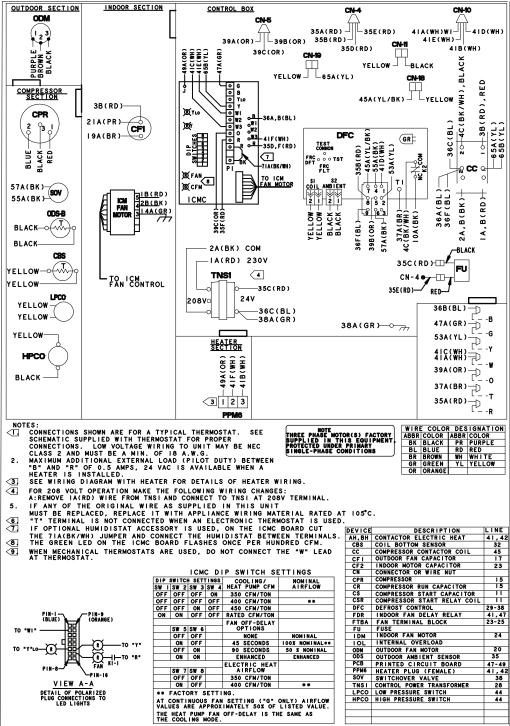
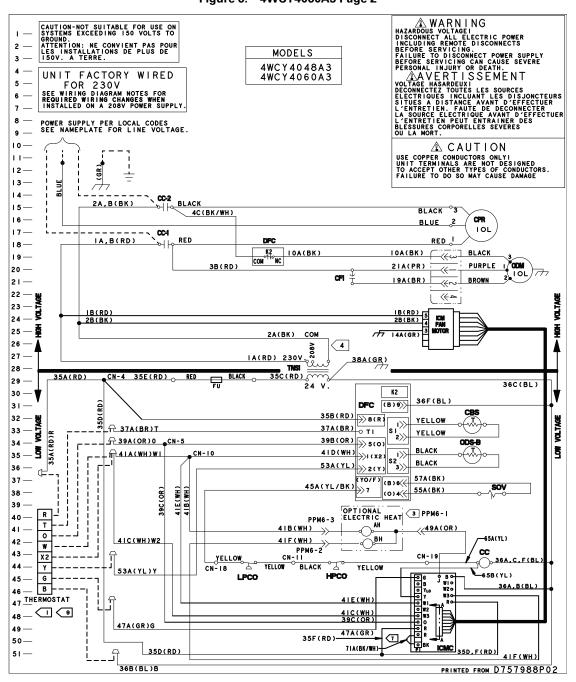


Figure 6. 4WCY4060A3 Page 2





## **Full Perimeter Roof Mounting Curb**

Figure 7. 2.0 - 3.0 Ton Models

## **BAYCURB050A Full Perimeter Roof Mounting Curb**

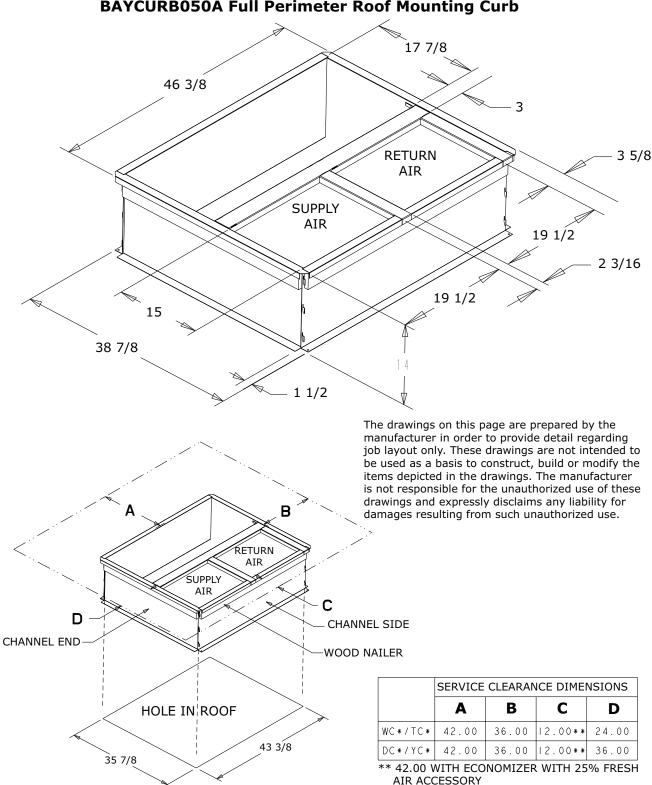
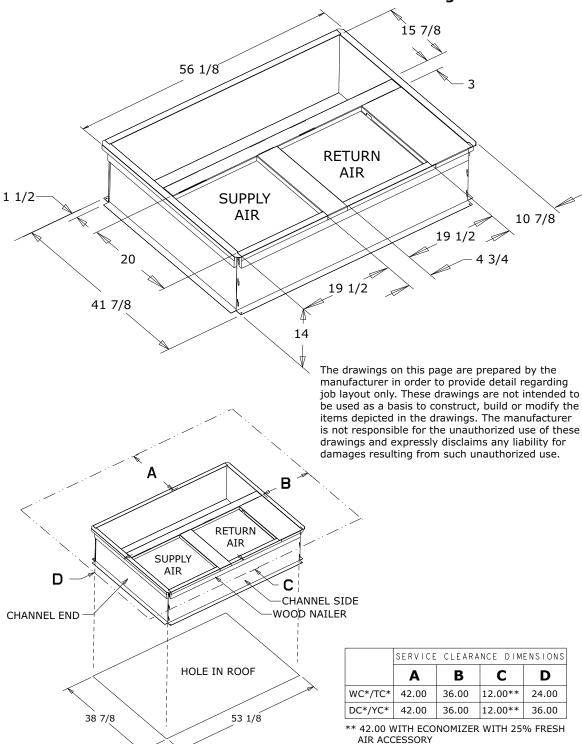




Figure 8. 3.5 - 5.0 Ton Models

## **BAYCURB051A Full Perimeter Roof Mounting Curb**





## **Optional Equipment — Filter Rack**

Figure 9. BAYFLTR101 Filter Rack (2.0 – 3.0 Ton Models)
BAYFLTR201 (3.5 – 5.0 Ton Models)
(Mounts in Filter/Coil Section)

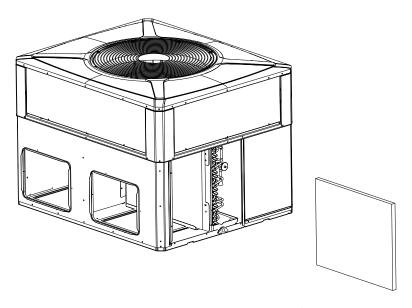
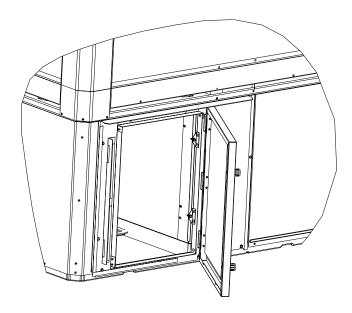


Figure 10. BAYACCDOR1A Hinged Filter Access Door (2.0 – 3.0 Ton Models)

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

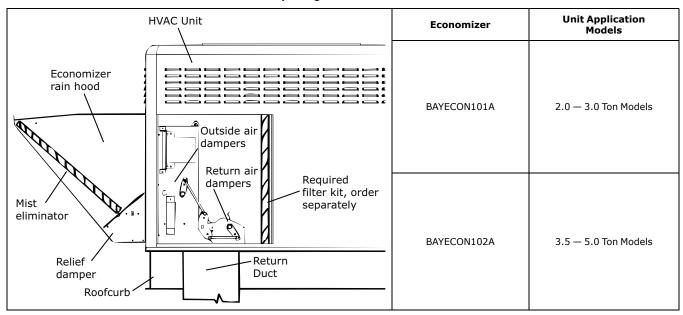
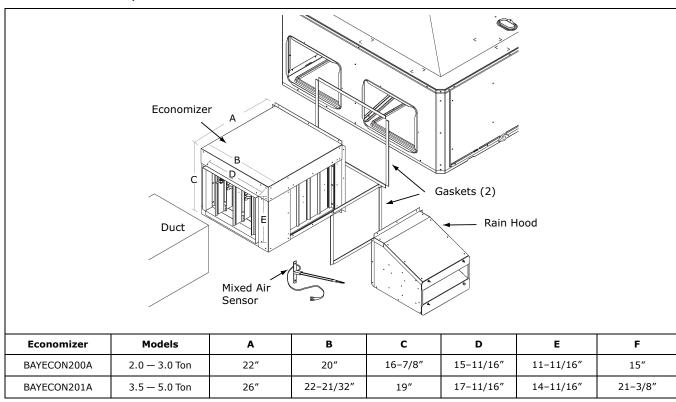


Table 2. BAYCON200, 201A Horizontal Economizer and Rain Hood



**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 — Outside Air Damper**

Table 3. BAYOSAH001 and 002A Outside Air Damper (Replaces Filter/Coil Access Panel

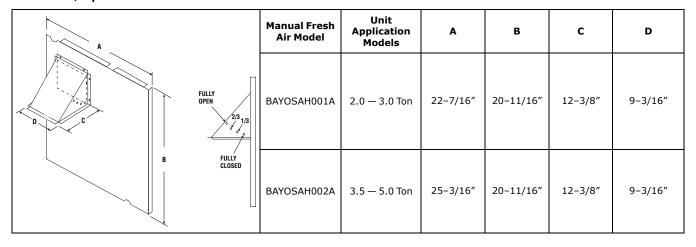


Table 4. BAYDMPR101 and 102A, 25% Motorized Outside Air Damper (Mounts Over Horizontal Return Air Opening)

: 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"

**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.



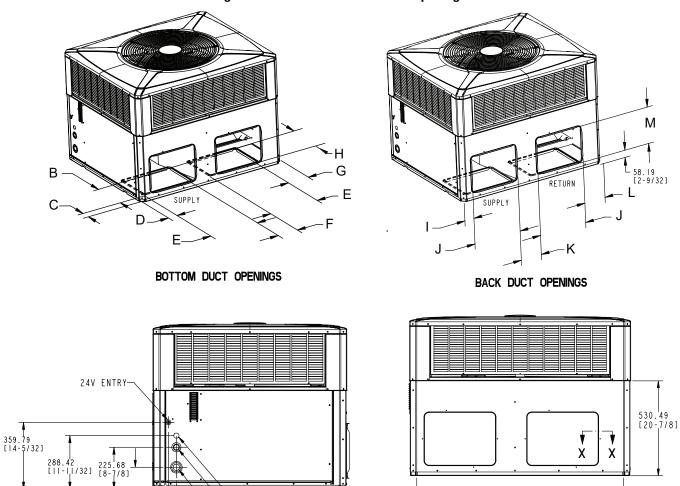
## **Determine Unit Clearances**

- EE CC INLET 1 17.78 [11/16] W2 SECTION X-X
TYPICAL (8) SIDES OF SIDEFLOW DUCT OPENINGS DD → NLET-■INLET 18.03 [23/32] 18.29 [23/32] BB [9/16] **SECTION Y-Y** TYPICAL (8) SIDES OF DOWNFLOW DUCT OPENINGS INLET TOP SIDE CENTER OF GRAVITY **A** OUTLET 25.40 [1] -CONDENSATE DRAIN FOR 19.0 [3/4] FEMALE NPT FRONT SIDE LEFT SIDE 2 - 3 TON Units 3.5 - 5 TON Units RECOMMENDED SERVICE CLEARANCE mm [Inches] W/ ECONOMIZER W/ ECONOMIZER BACK SIDE 305 [12] 305 [12] 762 [30] 762 [30] LEFT SIDE 762 [30] 914 [36] 914 [36] 1067 [42] RIGHT SIDE 610 [24] 610 [24] FRONT SIDE 1067 [42] 762 [30] CLEARANCE TO COMBUSTIBLE MATERIAL mm [Inches] BOTTOM BACK SIDE 25 [1] 25 [1] LEFT SIDE 152 [6] 152 [6] 152 [6] RIGHT SIDE 152 [6] FRONT SIDE 305 [12] 305 [12] TOP 914 [36] 914 [36] DIMENSIONS mm [Inches] HEIGHT OF UNIT - TABLE NEXT PAGE Α ВВ CENTER OF GRAVITY - TABLE NEXT PAGE CENTER OF GRAVITY - TABLE NEXT PAGE CC **BOTTOM SIDE** DD -Depth 1093.72 [43-1/16] 1173.99 [46-1/4] EE -Width 1284.99 [50-5/8] 1535.94 [60-1/2] FF 497.8 [19-5/8] 576.00 [22-11/16]

Figure 11. Space on Sides Requirements



Figure 12. Bottom and Back Duct Openings



**BACK SIDE** 

Ν

(SURFACE AREA)

	Height mm[in]		PHYSICAL DIMENSIONS mm[in]											
	A -Height	В	U	D	E	F	G	Н	_	J	K	L	М	N
4WCY4036	949.33 [37.38]	304.80 [12]	84.46 [3.32]	82.16 [3.23]	406.40 [16]	167.89 [6.61]	180.20 [7.09]	304.80 [12]	86.25 [3.39]	398.22 [15.68]	176.07 [6.93]	177.55 [6.99]	296.62 [11.68]	1105.06 [43.50]
4WCY4048		457.20	82.16	82.16	381.00	244.09	325.49	381.00	86.25	449.02	176.07	329.58	372.82	1351.95
4WCY4060	1050.93 [41.38]	[18]	[3.23]	[3.23]	[15]	[9.61]	[12.81]	[15]	[3.39]	[17.68]	[6.93]	[12.97]	[14.68]	[53.22]

		Corner Weig	hts KG/LBS		SHIPPING	UNIT WEIGHT	Center Of Gravity mm[inch]		
	W1	W2	W3	W4	WEIGHT KG/LBS	KG/LBS	ВВ	СС	
4WCY4036	60.8 [134]	38.1 [84]	27.2[60]	42.6 [94]	212.5 [468]	168.7 [372]	401.3 [15.8]	508.0 [20]	
4WCY4048	78 [172]	49.4 [109]	37.6 [83]	59.4 [131]	282.5 [623]	224.5 [495]	414 [16.3]	635 [25.01]	
4WCY4060	80.3 [177]	47.6 [105]	35.8 [79]	60.8 [134]	282.8 [623]	224.5 [495]	414 [16.3]	635 [25]	

-POWER ENTRY 28.58 [I-I/8] DIA. KNOCKOUT

150.94 [5-15/16]

RIGHT SIDE

-SINGLE POINT ENTRY 34.93 [1-3/8] DIA. KNOCKOUT 50.01 [1-31/32] DIA. KNOCKOUT 62.71 [2-15/32] DIA. KNOCKOUT

117.73 [4-5/8] 108.08 [4-1/4]



## **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.

## **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.

## **Evaporator Coil (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 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, 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 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.

## **Mechanical Specifications**

#### **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.



Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane. com or tranetechnologies.com.





The AHRI Certified mark indicates Trane U.S. Inc. participation in the AHRI Certification program. For verification of individual certified products, go to ahridirectory. org.

Trane has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.