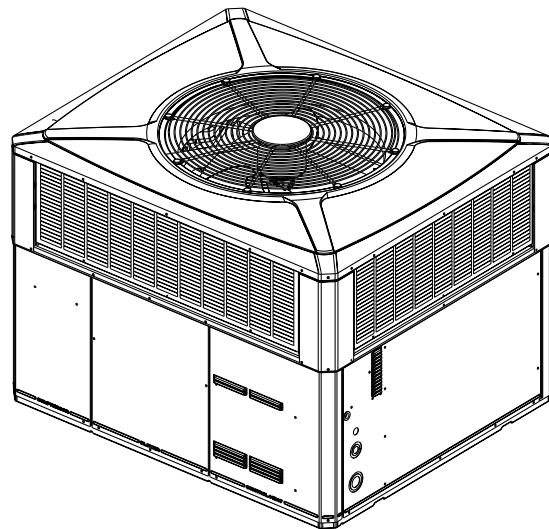


# Product Data

## Single Packaged Heat Pump 15 SEER Convertible, 2–5 Ton

4WCY5024A1000A  
4WCY5030A1000A  
4WCY5036A1000A  
4WCY5042A1000A  
4WCY5048A1000A  
4WCY5060A1000A



*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.

### **⚠ 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.

### **⚠ 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.

### **⚠ 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.

### **⚠ 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.

### **⚠ 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.

### **⚠ 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](http://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.

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# Single Packaged Heat Pump System

**Introducing the new American Standard 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, American Standard 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 American Standard 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

Hinged Filter Access Door 4WCY5024-036	BAYACCDOR1A [ ]
Hinged Filter Access Door 4WCY5042-060	BAYACCDOR2A [ ]
Roof Curb Full Perimeter 4WCY5024-036 <sup>(a)</sup>	BAYCURB050A [ ]
Roof Curb Full Perimeter 4WCY5042-060 <sup>(a)</sup>	BAYCURB051A [ ]
Roof Curb Utility Extension Kit (BAYCURB050A) 4WCY5024-036	BAYUTIL101B [ ]
Roof Curb Utility Extension Kit (BAYCURB051A) 4WCY5042-060	BAYUTIL102B [ ]
0-25% Manual Fresh Air Damper 4WCY5024-036	BAYOSAH001A [ ]
0-25% Manual Fresh Air Damper 4WCY5042-060 <sup>(b)</sup>	BAYOSAH002A [ ]
Motorized Fresh Air Damper 4WCY5024-036 <sup>(b)</sup>	BAYDMPR101A [ ]
Motorized Fresh Air Damper 4WCY5042-060 <sup>(b)</sup>	BAYDMPR102A [ ]
16" Round Duct Adapter (2 per box) 4WCY5024-036 <sup>(c)</sup>	BAYSQRD001A [ ]
18" Round Duct Adapter (2 per box) 4WCY5024-060 <sup>(c)</sup>	BAYSQRD002A [ ]
0-100% Mod Economizer w/Baro. Relief 4WCY5024-036 <sup>(b) (d) (e)</sup>	BAYECON101A [ ]
0-100% Mod Economizer w/Baro. Relief 4WCY5042 <sup>(b)(d)(e)</sup>	BAYECON102A [ ]
0-100% Mod Economizer w/Baro. Relief 4WCY5048-060 <sup>(b)(d)</sup>	BAYECON104A [ ]
0-100% Horizontal Economizer 4WCY5024-036 <sup>(b)(d)</sup>	BAYECON200A [ ]
0-100% Horizontal Economizer 4WCY5042	BAYECON201A [ ]
0-100% Horizontal Economizer 4WCY5048-060	BAYECON204A [ ]
Enthalpy Control for Economizer (solid state)	BAYENTH001A [ ]
1"-2" Filter Frame 4WCY4024-036A (20 x 25 filter not included) <sup>(b)</sup>	BAYFLTR101C [ ]
1"-2" Filter Frame 4WCY5042-060 (20 x 20 & 20 X 18 filters not included) <sup>(b)</sup>	BAYFLTR201B [ ]
Head Pressure Control (Low Ambient Cool) (208/240v) Kit <sup>(f)</sup>	BAYLOAM105A [ ]
Quick Start Kit (4WCY5-#1)	BAYQSTK300A [ ]
Crankcase Heater Scroll 4WCY5024-036 $\pm$ 1/3 (230v) <sup>(f)</sup>	BAYCCHT103A [ ]
Crankcase Heater Scroll 4WCY5042-060 (230v) <sup>(f)</sup>	BAYCCHT102A [ ]
Adapter Curb 4WCY5024-036 to BAYCURB030, 38	BAYADAP050A [ ]
Adapter Curb 4WCY5024-036 to BAYCURB033	BAYADAP051A [ ]
Adapter Curb 4WCY5042-060 to BAYCURB030, 38	BAYADAP052A [ ]
Adapter Curb 4WCY5042-060 to BAYCURB033	BAYADAP053A [ ]
Adapter Curb 4WCY5042-060 to BAYCURB034	BAYADAP054A [ ]
12" Duct Shroud Covers Horizontal 4WCY5024-060 <sup>(g)</sup>	BAYCOVR112A [ ]
18" Duct Shroud Covers Horizontal 4WCY5024-060 <sup>(g)</sup>	BAYCOVR118A [ ]

## Optional Equipment Listing

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 [ ]
<b>SUPPLEMENTARY HEATERS (1 PHASE)</b>	
3.76/5.0 KW Heater (208/240V 1 PH) 4WCY5024-060‡1	BAYHTRV105F [ ]
6.0/8.0 KW Heater (208/240V 1 PH) 4WCY5024-060‡1	BAYHTRV108F [ ]
7.50/10.0 KW Heater (208/240V 1 PH) 4WCY5024-060‡1	BAYHTRV110F [ ]
11.27/15.0 KW Heater (208/240V 1 PH) 4WCY5030-060‡1	BAYHTRV115F [ ]
15.0/20.0 KW Heater (208/240V 1 PH) 4WCY5042-060‡1	BAYHTRV120F [ ]
18.78/25.0 KW Heater (208/240V 1 PH) 4WCY5042-060‡1	BAYHTRV125F [ ]
Single Power Entry Kit <sup>(h)</sup>	BAYSPEK060F [ ]
Single Power Entry Kit	BAYSPEK061E [ ]
Single Power Entry Kit	BAYSPEK062F [ ]
Single Power Entry Kit	BAYSPEK063F [ ]
Single Power Entry Kit	BAYSPEK064E [ ]
Single Power Entry Kit	BAYSPEK065E [ ]
‡ = A or B	

- (a) Ships knocked down
- (b) Must use internal filter frame when economizer or fresh air kit is used.
- (c) It is the responsibility of the installing dealer to properly size the ductwork for each specific application
- (d) Dry bulb control standard with economizer
- (e) Downflow only
- (f) Low Ambient cooling requires crankcase heater (BAYCCHT-B)
- (g) BAYCOVR112, 118A will not cover BAYSQRD002A applications
- (h) Must be selected per unit and heater model

## Product Specifications

MODEL	4WCY5024A1000A	4WCY5030A1000A	4WCY5036A1000A
RATED Volts/PH/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Performance Cooling BTUH <sup>(a)</sup>	25000	30000	36000
Indoor Airflow (CFM)	790	985	1100
Power Input (KW)	1.94	2.41	2.88
EER/SEER (BTU/Watt-Hr.) <sup>(b)</sup>	12.00 / 15.00	12.00 / 15.00	12.00 / 15.00
Sound Power Rating [dB(A)] <sup>(c)</sup>	69.1	70.0	69.4
<b>PERFORMANCE HEATING</b>			
(High Temp.) BTUH	22400	28000	32600
Power Input (KW)	1.81	2.1	2.76
(Low Temp.) BTUH	13100	16,700	21,800
Power Input (KW)	1.65	2.0	2.51
HSPF (BTUH/Watt-Hr)	8.3	8.2	8.4
<b>POWER CONN. — V/Ph/Hz</b>	208-230/1/60	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity <sup>(d)</sup>	18.1	22.8	24.7
Fuse Size — Max. (amps)	25	35	40
Fuse Size — Recmd. (amps)	25	35	40
<b>COMPRESSOR</b>	SCROLL	SCROLL	SCROLL
VOLTS/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60
R.L. Amps — L.R. Amps	10.3 / 62	14.1 / 73.0	15.4 / 84.0
<b>OUTDOOR COIL — TYPE</b>	SPINE FIN	SPINE FIN	SPINE FIN
Rows/F.P.I	2 / 24	2 / 24	2 / 24
Face Area (sq. ft.)	13.32	13.32	15.49
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
<b>INDOOR COIL — TYPE</b>	PLATE FIN	PLATE FIN	PLATE FIN
Rows/F.P.I	3/15	4 / 15	4 / 15
Face Area (sq. ft.)	3.54	3.5	3.5
Tube Size (in.)	3/8	3/8	3/8
Refrigeration Control	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT	3/4 FEMALE NPT	3/4 FEMALE NPT
<b>OUTDOOR FAN — TYPE</b>	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.)	23.4	23.4	23.4
DRIVE/NO. SPEEDS	DIRECT / 1	DIRECT / 1	DIRECT / 1
CFM @ 0.0 in. w.g. <sup>(e)</sup>	3270	3270	3250
Motor — HP/R.P.M	1/6 / 830	1/6 / 842	1 / 5 / 855
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230 / 1 / 60
F.L. Amps/L.R Amps	.9 / 1.7	.9/1.7	1.1 / 2.0
<b>INDOOR FAN — TYPE</b>	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
Dia. x Width (in.)	10 X 10	10 X 10	10 X 10
Drive/No. Speeds	DIRECT / VARIABLE	DIRECT / VARIABLE	DIRECT / VARIABLE
CFM @ 0.0 in. w.g. <sup>(f)</sup>	SEE FAN PERF TABLE	SEE FAN PERF TABLE	SEE FAN PERF TABLE
Motor — HP/R.P.M.	1/2 / VARIABLE	1/2 / VARIABLE	1/2 / VARIABLE
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60

## Product Specifications

F.L. Amps	4.3	4.3	4.3
<b>FILTER / FURNISHED</b>	NO	NO	NO
Type Recommended	THROWAWAY	THROWAWAY	THROWAWAY
Recmd. Face Area (sq. ft.) <sup>(g)</sup>	4.0	4.0	4.0
<b>REFRIGERANT</b>	R-410	R-410	R-410
Charge (lbs.)	6.25	7.2	7.2
<b>CHARGING SPECIFICATIONS</b>			
Subcooling	12°	14°	10°
<b>DIMENSIONS</b>	H X D X W	H X D X W	H X D X W
Crated (in.)	46 X 45 X 52	48 X 45 X 52	48 X 45 X 52
<b>WEIGHT</b>			
Shipping (lbs.) / Net (lbs.)	453 / 357	430 / 355	439 / 364

(a) Rated in accordance with AHRI Standard 210/240.

(b) Rated in accordance with D.O.E. test procedure.

(c) Sound Power values are not adjusted for AHRI 270-95 tonal corrections.

(d) Calculated in accordance with currently prevailing Nat'l Electrical Code.

(e) Standard Air — Dry Coil — Outdoor.

(f) Standard Air — Dry Coil — Indoor.

(g) 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.

<b>MODEL</b>	4WCY5042A1000A	4WCY5048A1000A	4WCY5060A1000A
RATED Volts/PH/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Performance Cooling BTUH <sup>(a)</sup>	41500	47500	57500
Indoor Airflow (CFM)	1400	1625	1780
Power Input (KW)	3.12	3.96	4.97
EER/SEER (BTU/Watt-Hr.) <sup>(b)</sup>	12.00/15.00	12.00 / 15.00	11.5 / 15.00
Sound Power Rating [dB(A)] <sup>(c)</sup>	72	72.0	74
<b>PERFORMANCE HEATING</b>			
(High Temp.) BTUH	37000	42500	55000
Power Input (KW)	3.00	3.32	4.45
(Low Temp.) BTUH	21200	23200	34000
Power Input (KW)	2.31	2.99	3.99
HSPF (BTUH/Watt-Hr) <sup>(b)</sup>	8.4	8.4	8.4
<b>POWER CONN. — V/Ph/Hz</b>	208-230/1/60	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity <sup>(d)</sup>	28.6	34.2	42.2
Fuse Size — Max. (amps)	45	50	60
Fuse Size — Recmd. (amps)	45	50	60
<b>COMPRESSOR</b>	SCROLL	SCROLL	SCROLL
VOLTS/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60
R.L. Amps — L.R. Amps	16.7 / 109	21.2 / 104	27.1 / 152.9
<b>OUTDOOR COIL — TYPE</b>	SPINE FIN	SPINE FIN	SPINE FIN
Rows/F.P.I	2 / 24	2 / 24	2 / 24
Face Area (sq. ft.)	23.57	23.57	23.57
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
<b>INDOOR COIL — TYPE</b>	PLATE FIN	PLATE FIN	PLATE FIN
Rows/F.P.I	3 / 15	4 / 15	4 / 15
Face Area (sq. ft.)	5.0	5.0	5.0
Tube Size (in.)	3/8	3/8	3/8



**Product Specifications**

Refrigeration Control	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 FEMALE NPT	3/4 FEMALE NPT	3/4 FEMALE NPT
<b>OUTDOOR FAN — TYPE</b>	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.)	28.2	28.2	28.2
DRIVE/NO. SPEEDS	DIRECT / 1	DIRECT / 1	DIRECT / 1
CFM @ 0.0 in. w.g. <sup>(e)</sup>	4220	4220	4700
Motor — HP/R.P.M	1/6 / 830	1/6 / 830	1/4 / 830
Volts/Ph/Hz	208–230/1/60	208–230/1/60	208–230 / 1 / 60
F.L. Amps/L.R Amps	.9 / 1.65	.9 / 1.65	1.4 / 3.4
<b>INDOOR FAN — TYPE</b>	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
Dia. x Width (in.)	10 X 10	10 X 10	11 X 10
Drive/No. Speeds	DIRECT / VARIABLE	DIRECT / VARIABLE	DIRECT / VARIABLE
CFM @ 0.0 in. w.g. <sup>(f)</sup>	SEE FAN PERF TABLE	SEE FAN PERF TABLE	SEE FAN PERF TABLE
Motor — HP/R.P.M.	3/4 / VARIABLE	3/4 / VARIABLE	1 / VARIABLE
Volts/Ph/Hz	208–230/1/60	208–230/1/60	208–230/1/60
F.L. Amps	6.8	6.8	6.9
<b>FILTER / FURNISHED</b>	NO	NO	NO
Type Recommended	THROWAWAY	THROWAWAY	THROWAWAY
Recmd. Face Area (sq. ft) <sup>(g)</sup>	5.3	5.3	5.3
<b>REFRIGERANT</b>	R-410	R-410	R-410
Charge (lbs.)	9.4	9.6	9.8
<b>CHARGING SPECIFICATIONS</b>			
Subcooling	13.5°	10°	9°
<b>DIMENSIONS</b>	H X D X W	H X D X W	H X D X W
Crated (in.)	52 X 47 X 62	52 X 47 X 62	52 X 47 X 62
<b>WEIGHT</b>			
Shipping (lbs.) / Net (lbs.)	607 / 479	607 / 479	623 / 495

<sup>(a)</sup> Rated in accordance with AHRI Standard 210/240.

<sup>(b)</sup> Rated in accordance with D.O.E. test procedure.

<sup>(c)</sup> Sound Power values are not adjusted for AHRI 270–95 tonal corrections.

<sup>(d)</sup> Calculated in accordance with currently prevailing Nat'l Electrical Code.

<sup>(e)</sup> Standard Air — Dry Coil — Outdoor.

<sup>(f)</sup> Standard Air — Dry Coil — Indoor

<sup>(g)</sup> 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.

## Heater Data

Unit Model <sup>(a)</sup>	Electric Heater Model	Rated Voltage	Phase	Amps	Heater Capacity		No. of Stages	KW/Stage		MCA <sup>(b),(c)</sup>	Max Fuse or HACR CKT BKR Size <sup>(d)</sup>	Canada Only Max. CKT BKR Size <sup>(e)</sup>
					KW	BTUH		1	2			
4WCY5024-060#1	BAYHTRV105F	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0	-	23/26	25/30	25/30
4WCY5024-060#1	BAYHTRV108F	208/240	1	29/33	6.0/8.0	20500/27300	1	6.0/8.0	-	36/41	40/45	40/45
4WCY5024-060#1	BAYHTRV110F	208/240	1	36/42	7.5/10.0	25600/34100	1	7.5/10.0	-	45/52	45/60	45/60
4WCY5030-060#1	BAYHTRV115F <sup>(f)</sup>	208/240	1	54/63	11.27/15.0	38500/51200	2	7.5/10.0	3.76/5.0	68/78	70/80	70/80
4WCY5042-060#1	BAYHTRV120F <sup>(f)</sup>	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
4WCY5042-060#1	BAYHTRV125F <sup>(f)</sup>	208/240	1	90/104	18.78/25.0	64100/85300	2	11.26/15.0	7.5/10.0	113/130	125/150	125/150

<sup>(a)</sup> All power supplies and circuits must be wired and protected in accordance with local electrical codes.

<sup>(b)</sup> The MCA values listed are for electric heater only.

<sup>(c)</sup> Field wire must be rated at least 75°C

<sup>(d)</sup> The HACR circuit breaker is for U.S.A. installations only.

<sup>(e)</sup> For Canada installation reference only.

<sup>(f)</sup> Heater uses fuses

## Indoor Fan Performance (230v)

**Table 1. Horizontal Airflow**

4WCY5024A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	52	66	89	115	140	164	186	206	229	259	-
	CFM	706	716	727	733	731	719	700	679	662	659	-
MEDIUM	WATTS	72	94	120	148	177	207	233	254	267	290	-
	CFM	786	793	805	813	813	806	793	780	778	799	-
HIGH	WATTS	80	99	125	153	182	211	243	284	342	-	-
	CFM	860	862	877	892	903	904	897	884	869	-	-

**Table 2. Down Airflow**

4WCY5024A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	35	70	90	108	131	160	188	204	225	250	-
	CFM	695	729	734	728	721	715	705	679	680	685	-
COOLING — MED	WATTS	79	87	105	129	155	180	206	232	264	306	-
	CFM	846	807	802	810	816	813	803	794	800	846	-
COOLING — HIGH	WATTS	86	102	127	156	185	213	242	275	319	-	-
	CFM	884	870	882	899	909	907	895	886	898	-	-

**Table 3. Horizontal Airflow**

4WCY5030A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	75	97	122	145	180	-	-	-	-	-	-
	CFM	874	893	904	912	916	-	-	-	-	-	-
MEDIUM	WATTS	91	117	142	170	198	236	273	-	-	-	-
	CFM	955	978	989	998	1002	1014	1014	-	-	-	-
HIGH	WATTS	-	-	191	222	248	281	318	364	-	-	-
	CFM	-	-	1133	1140	1144	1150	1151	1151	-	-	-

**Table 4. Down Airflow**

4WCY5030A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	74	96	115	137	169	-	-	-	-	-	-
	CFM	854	872	877	877	872	-	-	-	-	-	-
COOLING — MED	WATTS	90	115	134	162	191	228	260	-	-	-	-
	CFM	937	960	954	964	966	968	956	-	-	-	-
COOLING — HIGH	WATTS	-	-	178	216	246	272	298	350	-	-	-
	CFM	-	-	1088	1106	1116	1112	1100	1109	-	-	-

## Indoor Fan Performance (230v)

**Table 5. Horizontal Airflow**

4WCY5036A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	162	173	197	226	256	285	313	343	360	-	-
	CFM	1058	1062	1063	1063	1062	1060	1057	1053	1010	-	-
MEDIUM	WATTS	179	230	265	296	329	366	403	431	436	-	-
	CFM	1179	1196	1204	1206	1205	1203	1199	1194	1185	-	-
HIGH	WATTS	318	336	365	399	435	469	502	533	-	-	-
	CFM	1390	1376	1370	1366	1361	1354	1349	1351	-	-	-

**Table 6. Down Airflow**

4WCY5036A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	169	182	210	243	273	301	331	370	433	-	-
	CFM	1025	1062	1068	1063	1060	1061	1064	1055	1015	-	-
COOLING — MED	WATTS	225	253	283	315	348	381	414	449	484	-	-
	CFM	1187	1201	1203	1201	1198	1197	1194	1184	1157	-	-
COOLING — HIGH	WATTS	339	357	390	424	455	483	516	571	-	-	-
	CFM	1391	1377	1377	1375	1366	1352	1344	1360	-	-	-

**Table 7. Horizontal Airflow**

4WCY5042A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	-	181	211	241	270	298	327	355	382	408	-
	CFM	-	1248	1250	1253	1254	1249	1240	1225	1209	1195	-
MEDIUM	WATTS	-	261	296	325	352	380	411	444	477	509	-
	CFM	-	1444	1448	1441	1429	1417	1407	1400	1394	1386	-
HIGH	WATTS	-	353	390	426	462	499	536	573	609	645	-
	CFM	-	1608	1611	1613	1613	1612	1608	1603	1597	1590	-

**Table 8. Down Airflow**

4WCY5042A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	-	195	229	258	283	308	335	362	390	415	-
	CFM	-	1240	1244	1245	1243	1238	1229	1217	1203	1189	-
COOLING — MED	WATTS	-	289	312	341	371	402	432	461	491	523	-
	CFM	-	1433	1422	1415	1411	1405	1399	1392	1383	1377	-
COOLING — HIGH	WATTS	-	385	422	457	491	527	563	600	636	670	-
	CFM	-	1604	1602	1600	1598	1596	1593	1590	1585	1578	-

Indoor Fan Performance (230v)

**Table 9. Horizontal Airflow**

4WCY5048A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	-	954	973	977	973	966	957	950	944	-	-
	CFM	-	1363	1390	1396	1390	1379	1368	1358	1349	-	-
MEDIUM	WATTS	-	1121	1106	1104	1106	1108	1108	1104	1097	-	-
	CFM	-	1601	1580	1577	1580	1583	1583	1577	1567	-	-
HIGH	WATTS	-	1223	1254	1268	1271	1268	1264	1261	1258	-	-
	CFM	-	1747	1792	1811	1816	1812	1806	1801	1797	-	-

**Table 10. Down Airflow**

4WCY5048A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	-	948	977	977	970	969	975	979	962	-	-
	CFM	-	1354	1396	1396	1386	1384	1393	1399	1375	-	-
COOLING — MED	WATTS	-	1102	1106	1109	1113	1116	1119	1120	1118	-	-
	CFM	-	1574	1580	1585	1589	1594	1599	1601	1597	-	-
COOLING — HIGH	WATTS	-	1295	1277	1272	1273	1274	1273	1272	1273	-	-
	CFM	-	1851	1824	1817	1818	1820	1819	1817	1819	-	-

**Table 11. Horizontal Airflow**

4WCY5060A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
LOW	WATTS	-	1163	1238	1259	1256	1246	1240	1237	1230	-	-
	CFM	-	1662	1768	1799	1794	1780	1771	1767	1757	-	-
MEDIUM	WATTS	-	1443	1427	1422	1422	1423	1422	1418	1410	-	-
	CFM	-	2062	2038	2031	2031	2034	2032	2025	2015	-	-

**Table 12. Down Airflow**

4WCY5060A1		EXTERNAL STATIC PRESSURE (IN. WG)										
MOTOR SPEED		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
COOLING — LOW	WATTS	-	1259	1219	1208	1207	1206	1199	1188	1185	-	-
	CFM	-	1799	1742	1726	1725	1723	1712	1698	1692	-	-
COOLING — MED	WATTS	-	1410	1393	1386	1384	1383	1380	1368	1344	-	-
	CFM	-	2015	1990	1980	1977	1976	1971	1955	1920	-	-

## Supplementary Electric Heater

**Table 13. BAYHTRV — Supplementary Electric Heaters**

UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLT-AGE	PHASE	AMPS	HEATER CAPACITY		NO. OF STAGES	KW/STAGE		MCA	MAX. FUSE OR HACR CKT BKR SIZE	CANADA ONLY MAX. CKT BKR SIZE
					KW	BTUH		1	2			
4WCY5 024-060	BAYHTRV105	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0	—	23/26	25/30	25/30
4WCY5 024-060	BAYHTRV108	208/240	1	29/33	6.0/8.0	20500/27300	1	6.0/8.0	—	36/41	40/45	40/45
4WCY5 024-060	BAYHTRV110	208/240	1	36/42	7.5/10.0	25600/34100	1	7.5/10.0	—	45/52	45/60	45/60
4WCY5 030-060	BAYHTRV115	208/240	1	54/63	11.27/15.0	38500/51200	2	7.5/10.0	3.76/5.0	68/78	70/80	70/80
4WCY5 048-060	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
4WCY5 060	BAYHTRV125	208/240	1	90/104	18.78/25.0	64100/85300	2	11.26/15.0	7.5/10.0	113/130	125/150	125/150

**Table 14. BAYSPEK — Single Power Entry Kit**

SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCY5024A	BAYSPEK60	BAYHTRV105	44	45
		BAYHTRV108	59	60
	BAYSPEK62	BAYHTRV110	70	70

**Table 15. BAYSPEK — Single Power Entry Kit**

SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCY5030A	BAYSPEK60	BAYHTRV105	49	50
	BAYSPEK62	BAYHTRV108	64	70
		BAYHTRV110	75	80
	BAYSPEK63	BAYHTRV115	102	110

**Table 16. BAYSPEK — Single Power Entry Kit**

SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCY5036A	BAYSPEK60	BAYHTRV105	51	60
	BAYSPEK62	BAYHTRV108	66	70
		BAYHTRV110	77	80
	BAYSPEK63	BAYHTRV115	103	110

**Supplementary Electric Heater**

**Table 17. BAYSPEK – Single Power Entry Kit**

<b>SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION</b>				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCY5042A	BAYSPEK62	BAYHTRV105	55	60
		BAYHTRV108	70	70
		BAYHTRV110	81	80
	BAYSPEK63	BAYHTRV115	107	110
		BAYHTRV120	132	150

**Table 18. BAYSPEK – Single Power Entry Kit**

<b>SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION</b>				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCY5048A	BAYSPEK62	BAYHTRV105	61	70
		BAYHTRV108	76	80
		BAYHTRV110	87	90
	BAYSPEK63	BAYHTRV115	113	125
		BAYHTRV120	138	150

**Table 19. BAYSPEK – Single Power Entry Kit**

<b>SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION</b>				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4WCY5060A	BAYSPEK62	BAYHTRV105	68	90
		BAYHTRV108	83	100
		BAYHTRV110	95	110
	BAYSPEK63	BAYHTRV115	121	125
		BAYHTRV120	146	150

## Wiring

Figure 1. Wiring Diagram 4WCY5024 — 5042

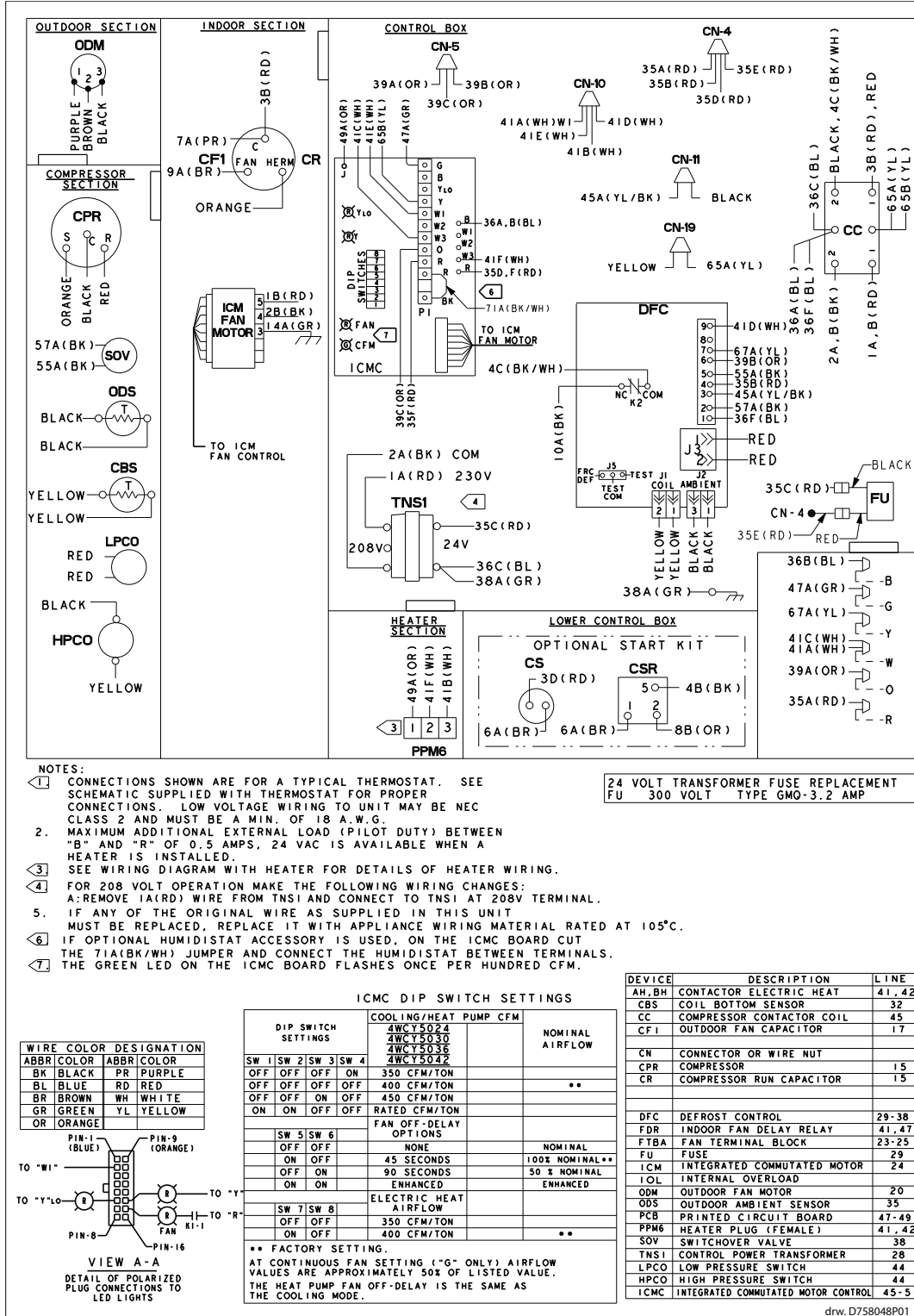
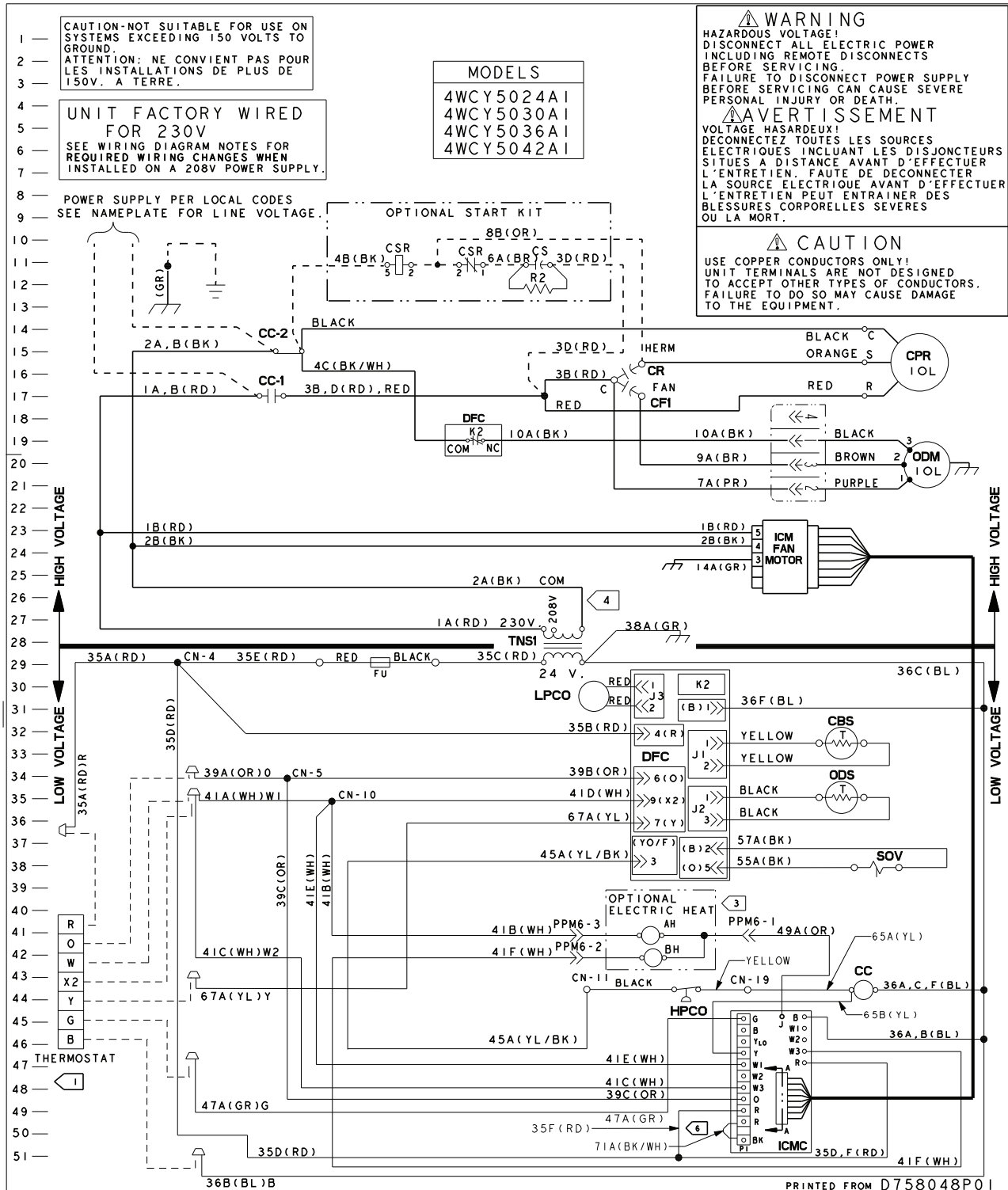


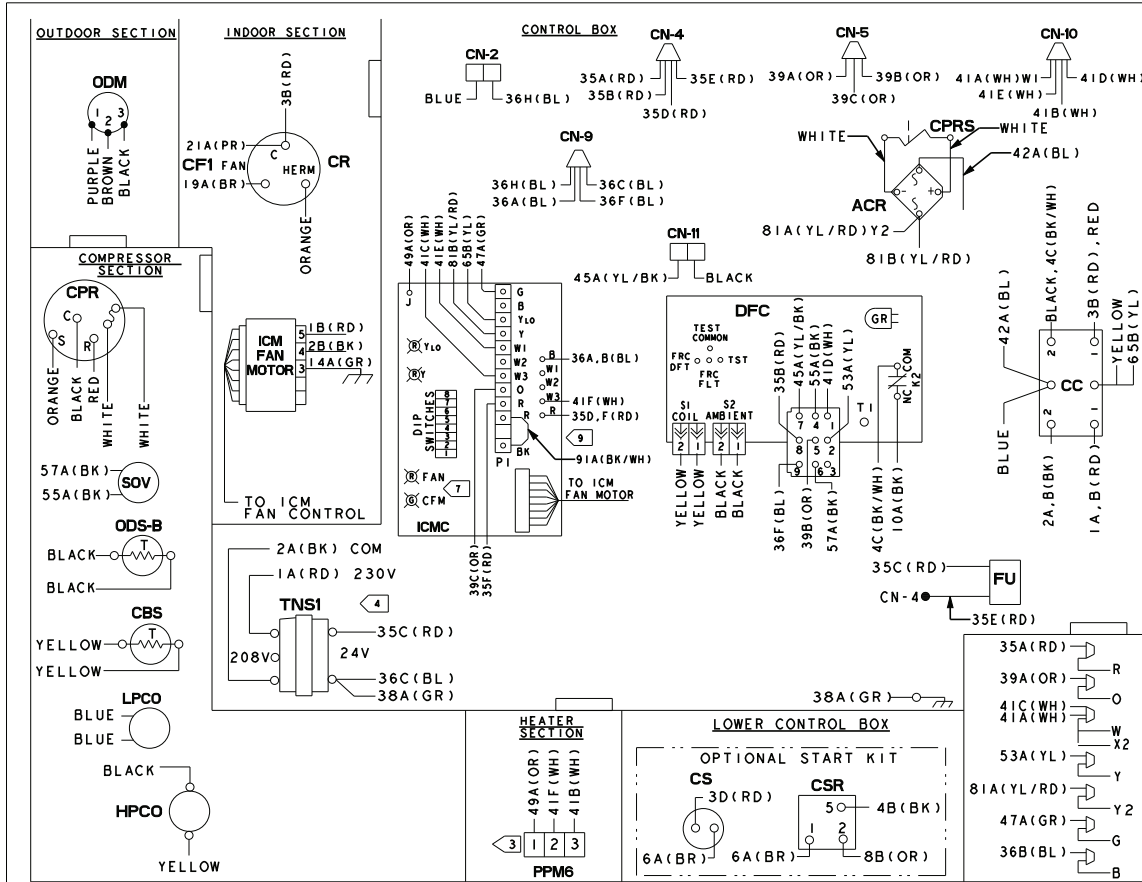


Figure 2. Wiring Diagram 4WCY5024 – 5042 Pg 2



Wiring

Figure 3. Wiring Diagram 4WCY5048

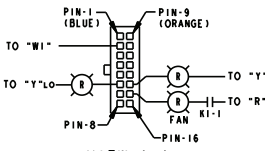


NOTES:

- 1 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.
2. MAXIMUM ADDITIONAL EXTERNAL LOAD (PILOT DUTY) BETWEEN "B" AND "R" OF 0.5 AMPS, 24 VAC IS AVAILABLE WHEN A HEATER IS INSTALLED.
3. SEE WIRING DIAGRAM WITH HEATER FOR DETAILS OF HEATER WIRING.
4. FOR 208 VOLT OPERATION MAKE THE FOLLOWING WIRING CHANGES: A: REMOVE 1A(RD) WIRE FROM TNS1 AND CONNECT TO 208V TERMINAL.
5. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED IN THIS UNIT MUST BE REPLACED, REPLACE IT WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
6. "T" TERMINAL IS NOT CONNECTED WHEN AN ELECTRONIC THERMOSTAT IS USED.
7. THE GREEN LED ON THE ICMC BOARD FLASHES ONCE PER HUNDRED CFM.
8. WHEN MECHANICAL THERMOSTATS ARE USED, DO NOT CONNECT THE "W" LEAD AT THERMOSTAT.
9. IF OPTIONAL HUMIDISTAT ACCESSORY IS USED, ON THE ICMC BOARD CUT THE 91A(BK/WH) JUMPER AND CONNECT THE HUMIDISTAT BETWEEN TERMINALS.

WIRE	COLOR	DESIGNATION
ABBR	COLOR	ABBR
BK	BLACK	PR
BL	BLUE	RD
BR	BROWN	WH
GR	GREEN	YL
OR	ORANGE	YL

24 VOLT TRANSFORMER FUSE REPLACEMENT  
FU 300 VOLT TYPE GMQ-3.2 AMP



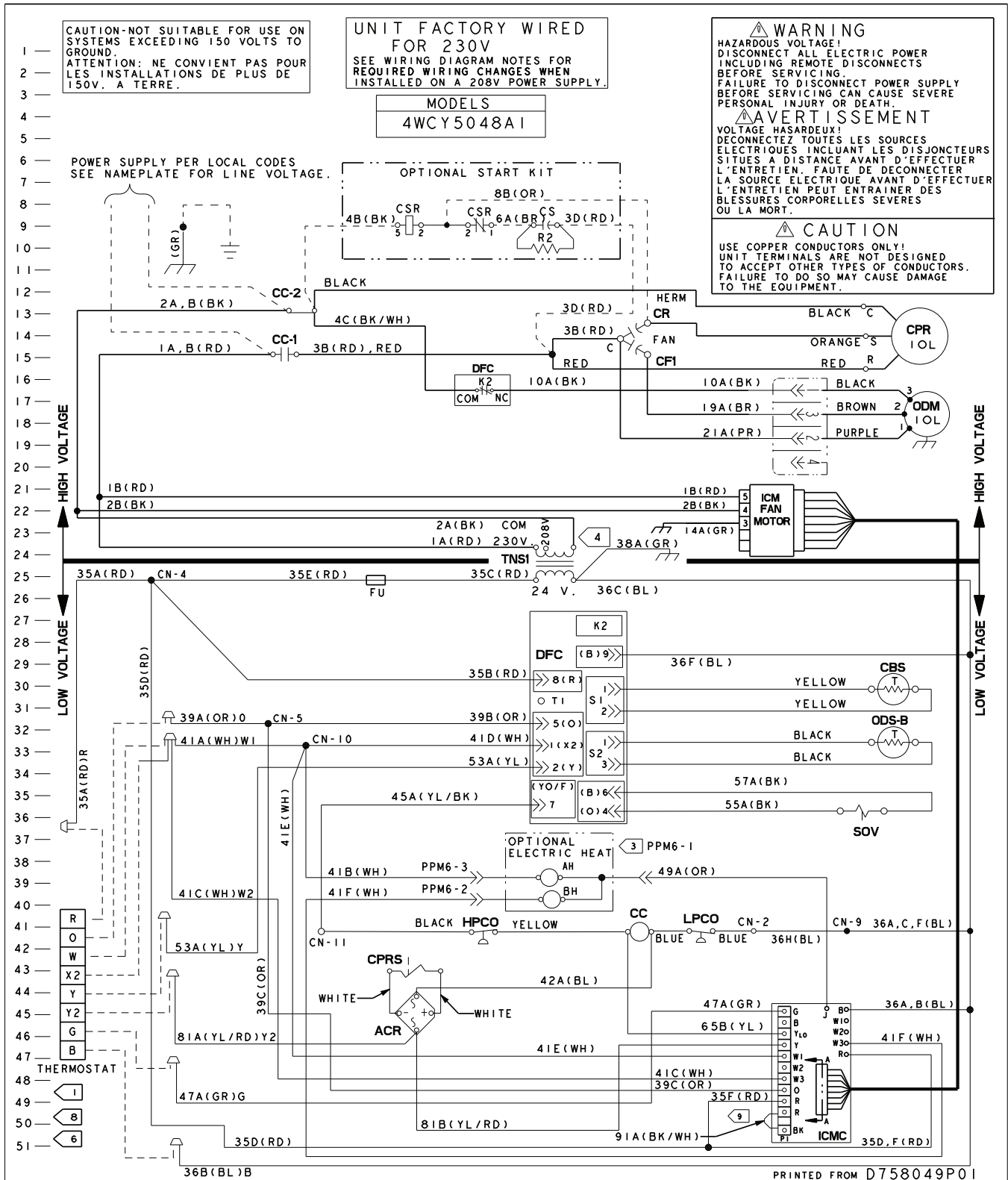
ICMC DIP SWITCH SETTINGS			
DIP SWITCH SETTINGS	COOLING / HEAT PUMP	CFM	NOMINAL AIRFLOW
SW 1 SW 2 SW 3 SW 4	HEAT PUMP	CFM	
OFF OFF OFF ON	350	CFM/TON	
OFF OFF OFF OFF	400	CFM/TON	**
OFF OFF ON OFF	450	CFM/TON	
FAN OFF-DELAY OPTIONS			
SW 5 SW 6	NONE	NOMINAL	
ON OFF	45 SECONDS	100% NOMINAL**	
OFF ON	90 SECONDS	50% NOMINAL	
ON ON	ENHANCED	ENHANCED	
ELECTRIC HEAT AIRFLOW			
SW 7 SW 8	350	CFM/TON	
OFF OFF	400	CFM/TON	**
ON OFF	400	CFM/TON	**

\*\* 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.

DEVICE	DESCRIPTION	LINE
AH, BH	CONTACTOR ELECTRIC HEAT	39, 40
CBS	COIL BOTTOM SENSOR	32
CC	COMPRESSOR CONTACTOR COIL	41
CN	CONNECTOR OR WIRE NUT	
CPR	COMPRESSOR	14
CR	COMPRESSOR RUN CAPACITOR	13
CS	COMPRESSOR START CAPACITOR	9
CSR	COMPRESSOR START RELAY COIL	9
DFC	DEFROST CONTROL	26-36
FU	FUSE	25
ICM	INTEGRATED COMMUTATED MOTOR	20
IOL	INTERNAL OVERLOAD	
ODM	OUTDOOR FAN MOTOR	18
ODS	OUTDOOR AMBIENT SENSOR	35
ICMC	INTEGRATED COMMUTATED MOTOR	45-51
PPM6	HEATER PLUG (FEMALE)	39, 40
SOV	SWITCHOVER VALVE	36
TNS1	CONTROL POWER TRANSFORMER	24
LPCO	LOW PRESSURE SWITCH	46
HPCO	HIGH PRESSURE SWITCH	41
CPRS	COMPRESSOR SOLENOID	43
CFI	OUTDOOR FAN CAPACITOR	15
ACR	RECTIFIER BRIDGE	45

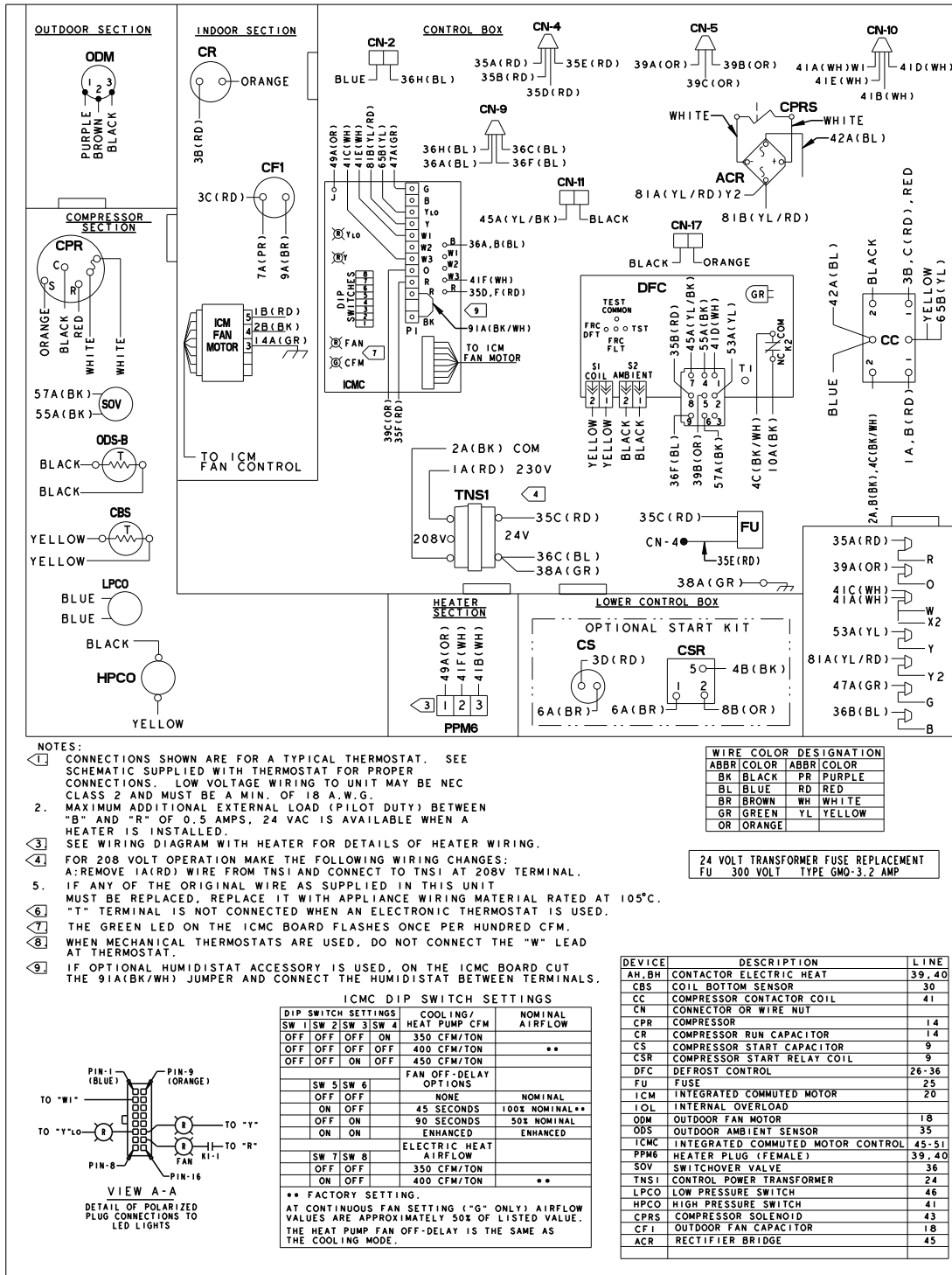
drw. D758049p01

Figure 4. Wiring Diagram 4WCY5048



Wiring

Figure 5. Wiring Diagram 4WCY5060



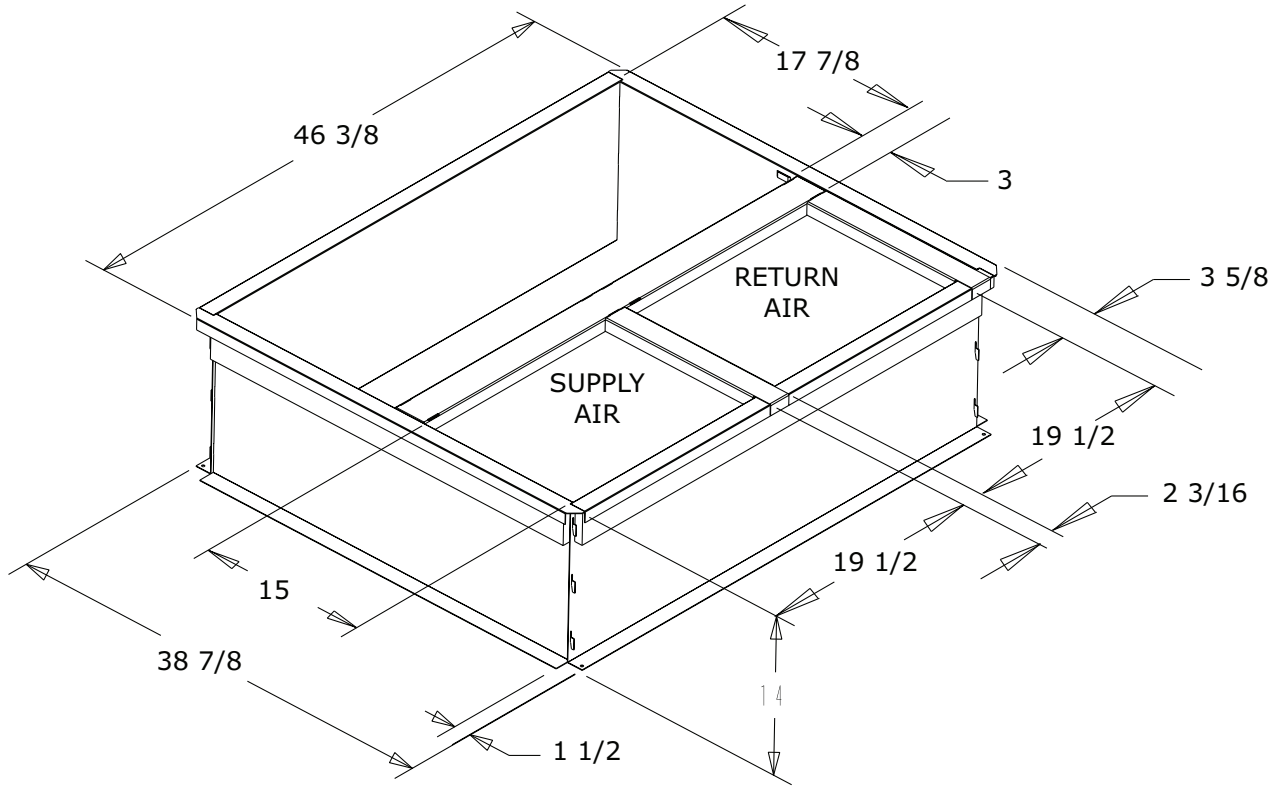
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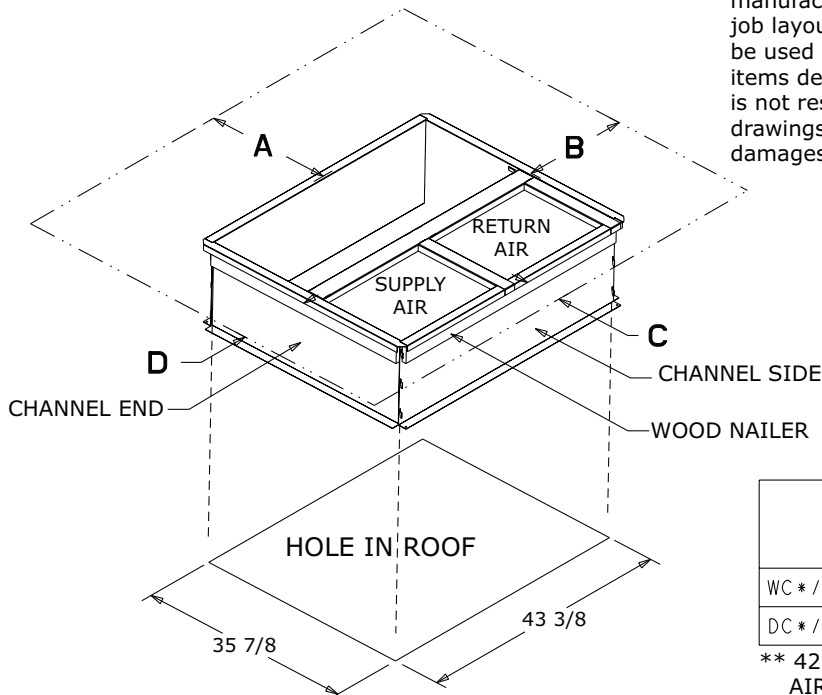
# Full Perimeter Roof Mounting Curb

Figure 7. 2.0 – 3.0 Ton Models

## BAYCURB050A Full Perimeter Roof Mounting Curb



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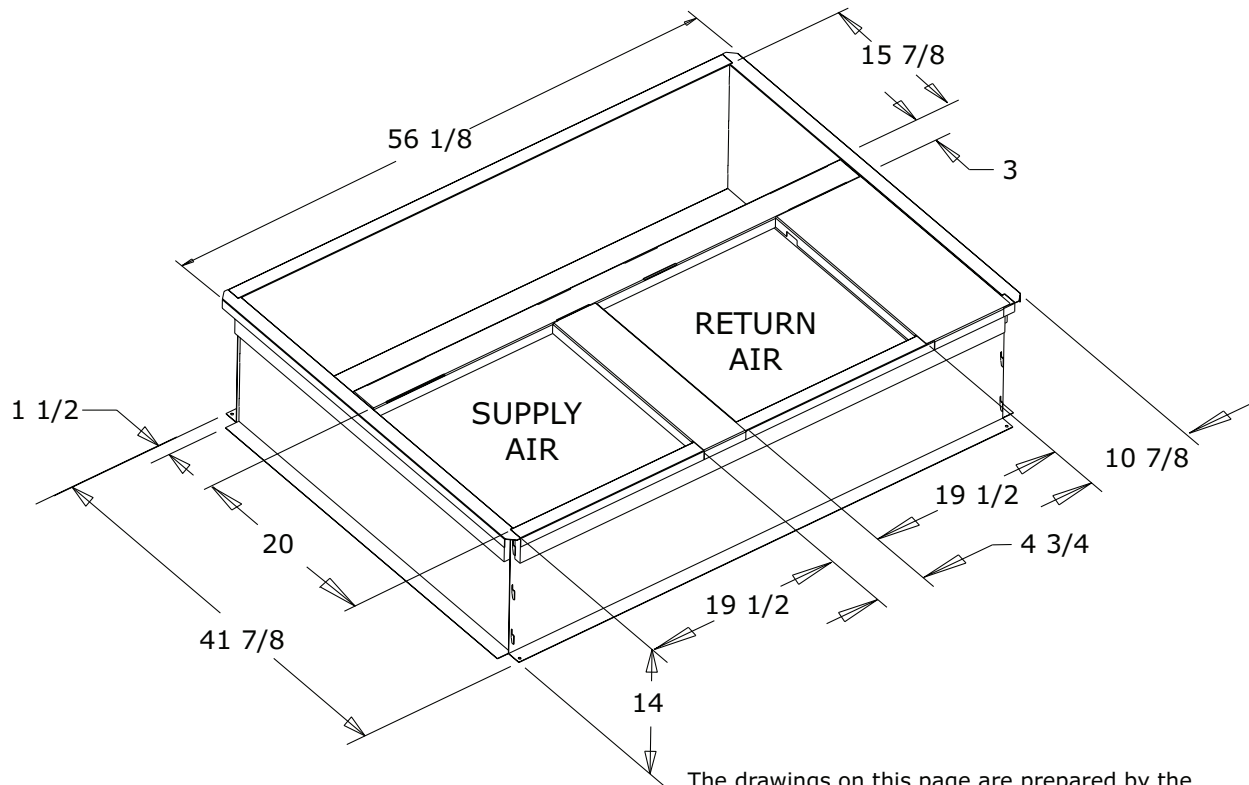
	SERVICE CLEARANCE DIMENSIONS			
	A	B	C	D
WC*/TC*	42.00	36.00	12.00**	24.00
DC*/YC*	42.00	36.00	12.00**	36.00

\*\* 42.00 WITH ECONOMIZER WITH 25% FRESH AIR ACCESSORY

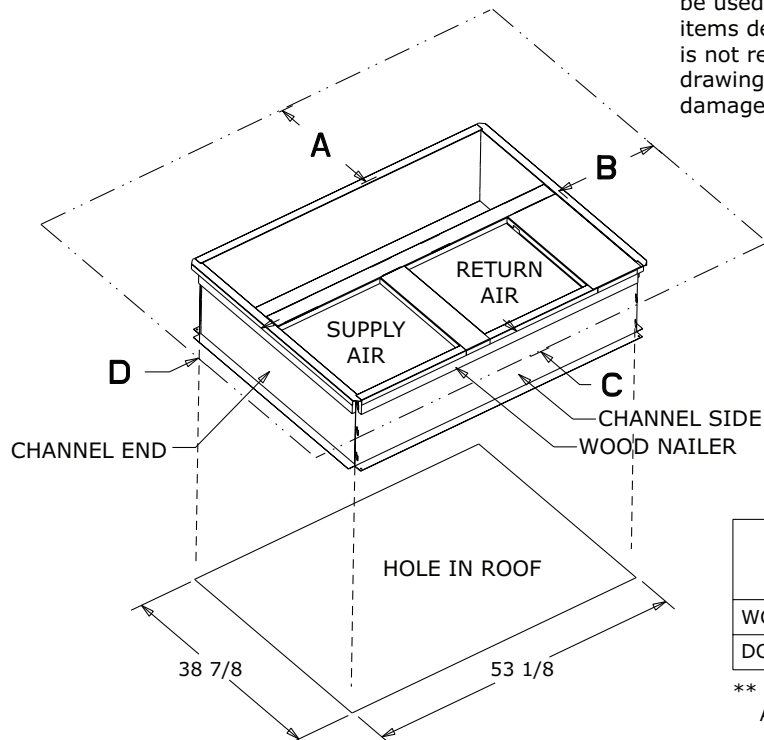
Full Perimeter Roof Mounting Curb

Figure 8. 3.5 – 5.0 Ton Models

**BAYCURB051A Full Perimeter Roof Mounting Curb**



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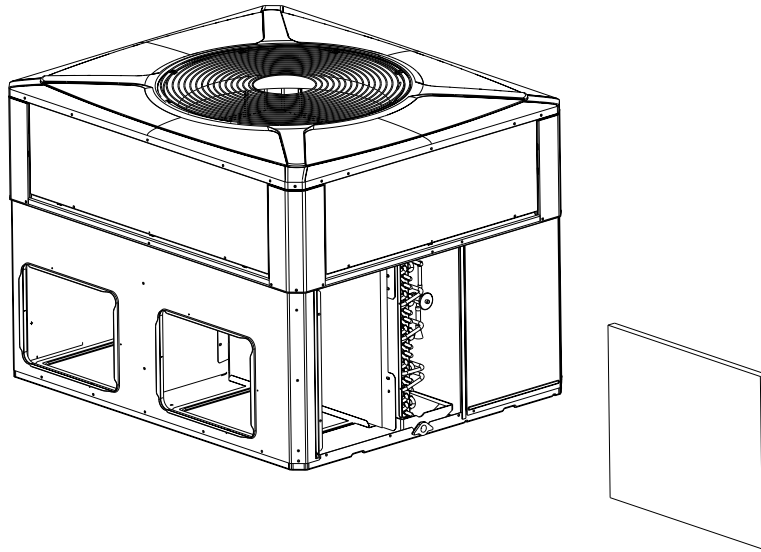


	SERVICE CLEARANCE DIMENSIONS			
	A	B	C	D
WC*/TC*	42.00	36.00	12.00**	24.00
DC*/YC*	42.00	36.00	12.00**	36.00

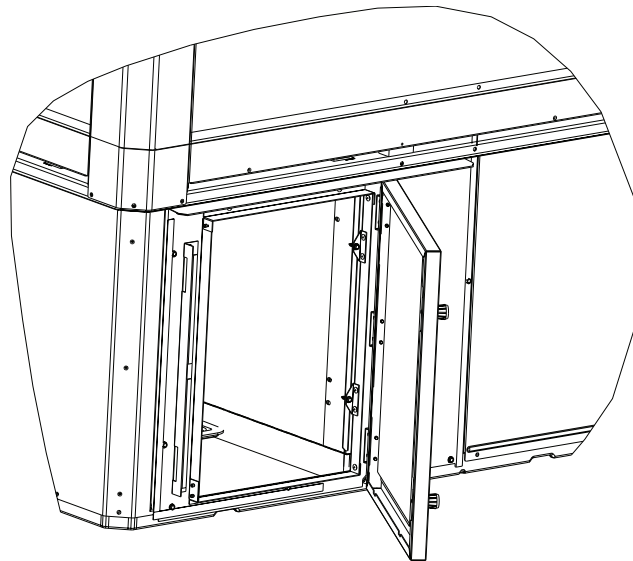
\*\* 42.00 WITH ECONOMIZER WITH 25% FRESH AIR ACCESSORY

## 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**

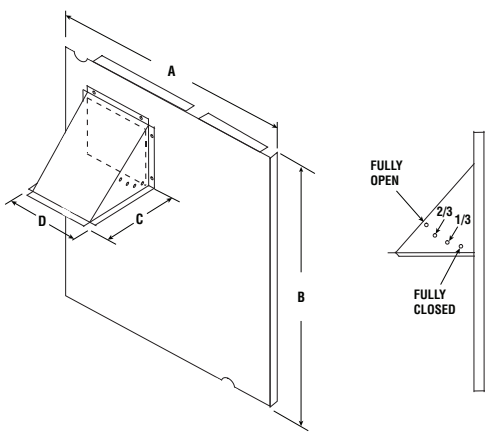


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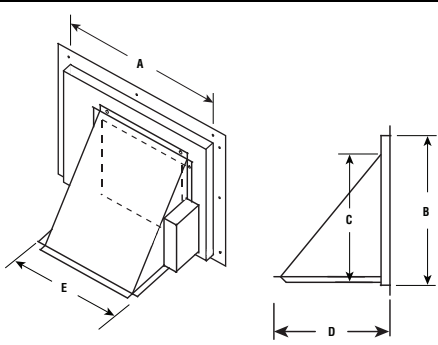


# Optional Equipment – Outside Air Damper

**Table 20. BAYOSAH001 and 002A**

	Manual Fresh Air Model	Unit Application Models	A	B	C	D
	BAYOSAH001A	2.0 – 3.0 Ton	22-7/16"	20-11/16"	12-3/8"	9-3/16"
BAYOSAH002A	3.5 – 5.0 Ton	25-3/16"	20-11/16"	12-3/8"	9-3/16"	

**Table 21. BAYDMPR101 and 102A, 25% Motorized Outside Air Damper (Mounts Over Horizontal Return Air Opening)**

	Manual Fresh Air Model	Unit Application Models	A	B	C	D	E
	BAYDM-PR101A	2.0 – 3.0 Ton	15-13/16"	11-13/16"	10-1/4"	11-1/2"	12-1/4"
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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# Outline Drawing

Figure 11. 2.0 – 3.0 Ton Models

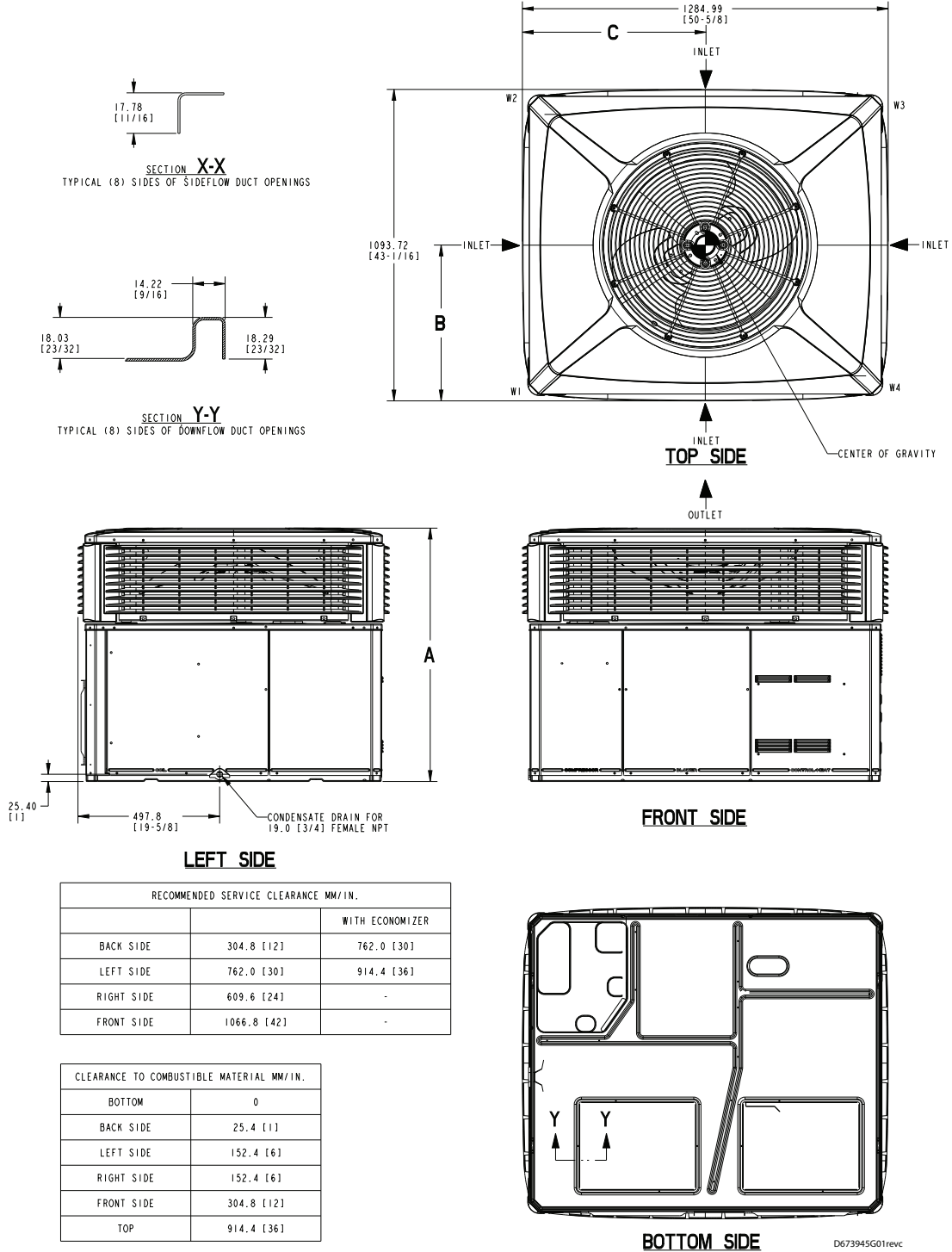
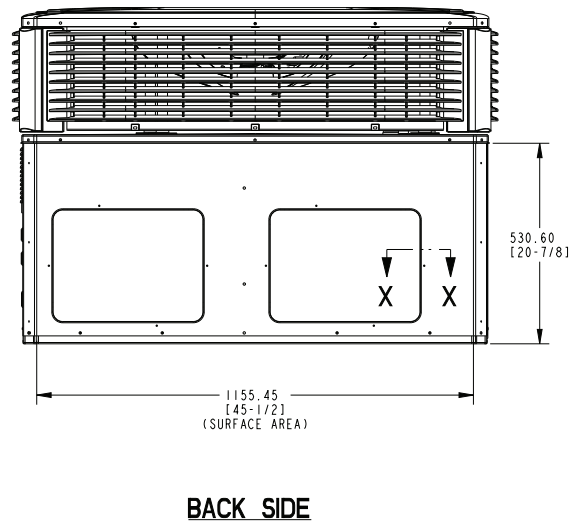
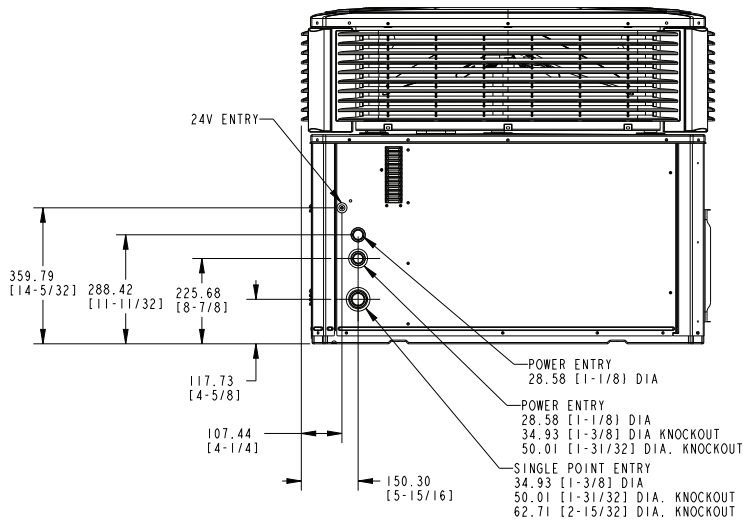
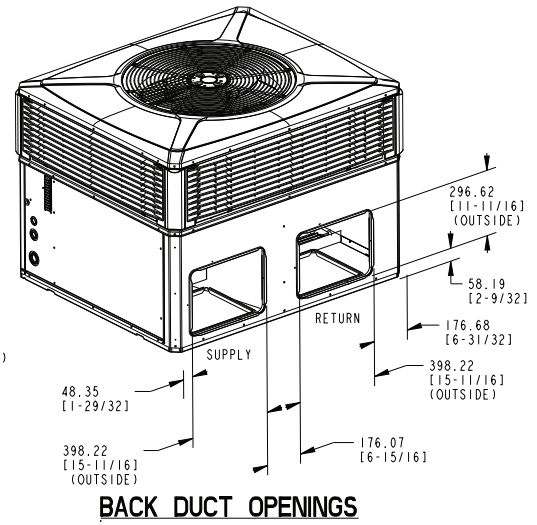
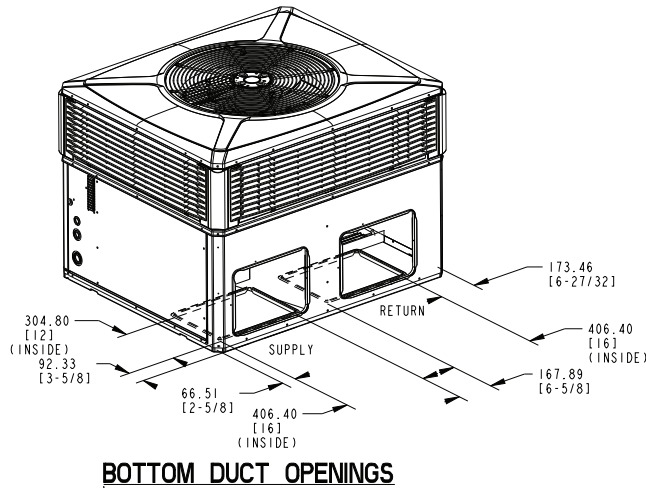


Figure 12. 2.0 – 3.0 Ton Models



MODEL	HEIGHT MM/IN.		APPROX. CORNER WEIGHT - KG/LBS				SHIPPING WEIGHT KG/LBS	TOTAL UNIT WEIGHT KG/LBS	CENTER OF GRAVITY MM/IN.	
	A	W1	W2	W3	W4	B			C	
4TCY4024/030	898.53 [35-3/8]	56.7 [125]	35.8 [79]	25.4 [56]	39.9 [88]	201.6 [444]	157.9 [348]	401.3 [15.8]	508.0 [20.0]	
4TCY5024	898.53 [35-3/8]	51.8 [114]	32.7 [72]	23.2 [51]	36.5 [80]	176.0 [388]	144.2 [318]	401.3 [15.8]	508.0 [20.0]	
4TCY4036	949.33 [37-3/8]	57.6 [127]	36.3 [80]	25.9 [57]	40.8 [90]	204.3 [450]	160.6 [354]	401.3 [15.8]	508.0 [20.0]	
4TCY5030	949.33 [37-3/8]	56.7 [125]	35.8 [79]	25.4 [56]	39.9 [88]	189.6 [418]	157.9 [348]	401.3 [15.8]	508.0 [20.0]	
4TCY5036	949.33 [37-3/8]	57.4 [126]	36.2 [80]	25.7 [57]	40.4 [89]	191.4 [422]	159.7 [352]	401.3 [15.8]	508.0 [20.0]	
4WCY4024/030	898.53 [35-3/8]	57.6 [127]	36.3 [80]	26.3 [58]	41.7 [92]	205.7 [453]	161.9 [357]	401.3 [15.8]	515.6 [20.3]	
4WCY4036	949.33 [37-3/8]	60.8 [134]	38.1 [84]	27.2 [60]	42.6 [94]	212.5 [468]	168.7 [372]	401.3 [15.8]	508.0 [20.0]	
4WCZ6036	949.33 [37-3/8]	60.8 [134]	38.1 [84]	27.2 [60]	42.6 [94]	212.5 [468]	168.7 [372]	401.3 [15.8]	508.0 [20.0]	
4WCY5024	898.53 [35-3/8]	57.6 [127]	36.3 [80]	26.3 [58]	41.7 [92]	205.7 [453]	161.9 [357]	401.3 [15.8]	515.6 [20.3]	
4WCY5030/036	949.33 [37-3/8]	60.8 [134]	38.1 [84]	27.2 [60]	42.6 [94]	212.5 [468]	168.7 [372]	401.3 [15.8]	508.0 [20.0]	

D673645G01revc

**Outline Drawing**

**Figure 13. 3.5 – 5.0 Ton Models**

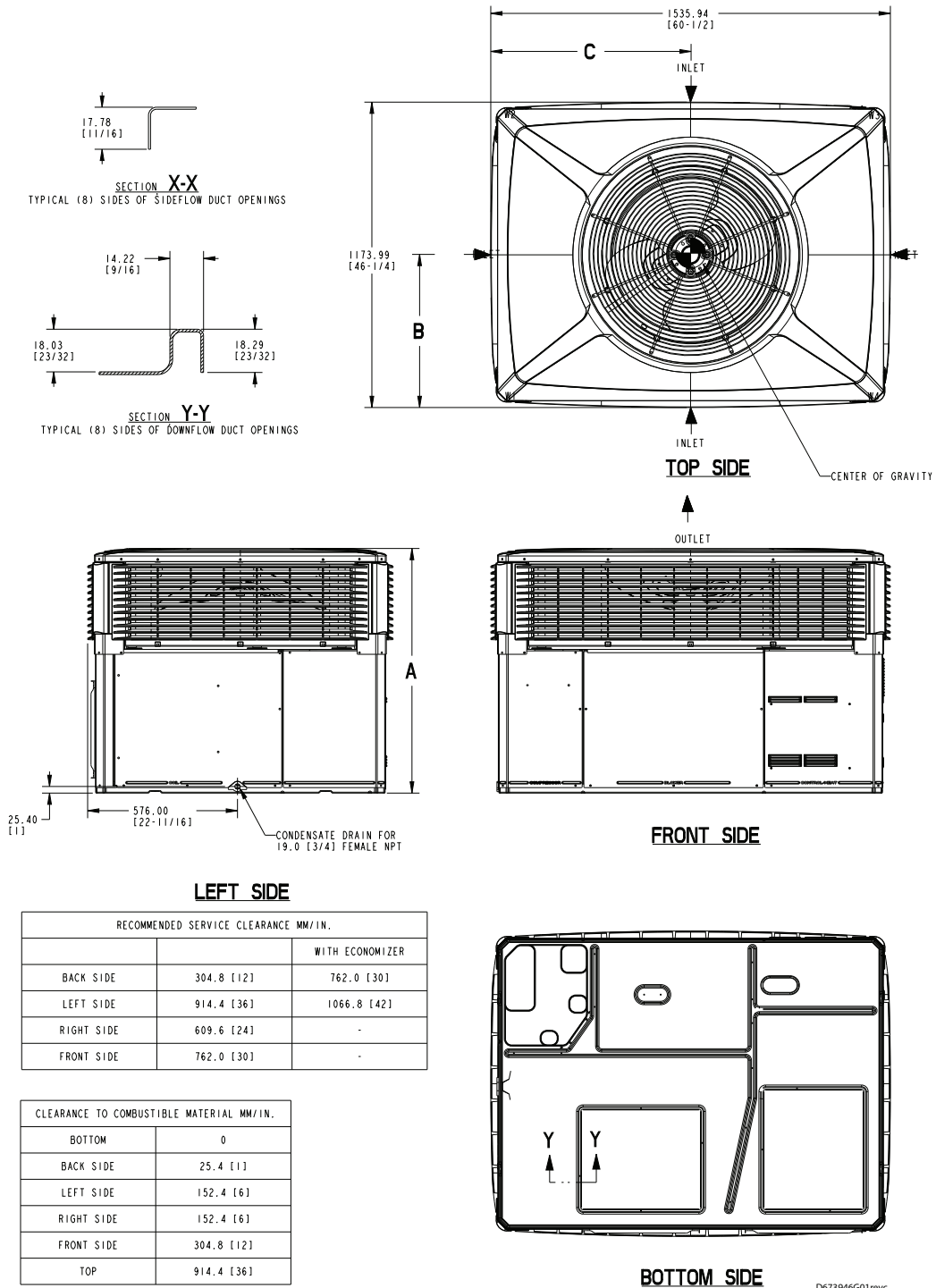
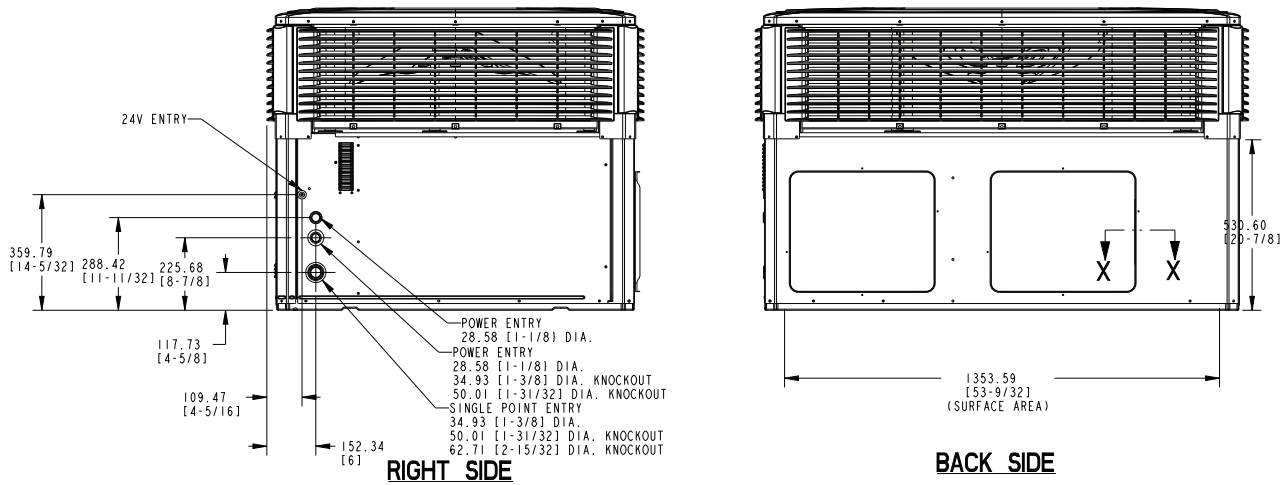
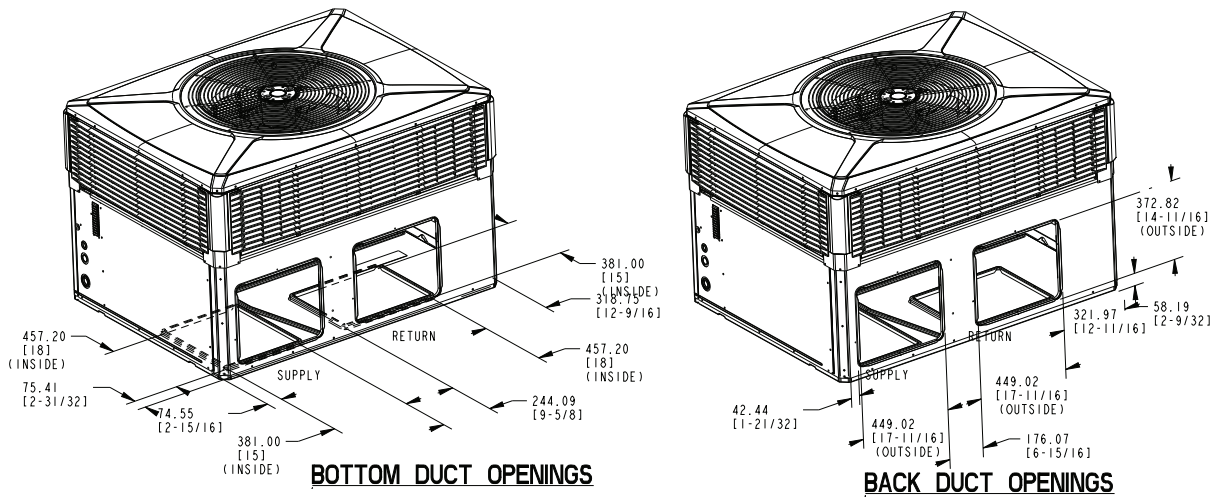


Figure 14. 3.5 – 5.0 Ton Models



MODEL	HEIGHT MM/IN.		APPROX. CORNER WEIGHT - KG/LBS				SHIPPING WEIGHT KG/LBS	TOTAL UNIT WEIGHT KG/LBS	CENTER OF GRAVITY MM/IN.	
	A	W1	W2	W3	W4	B			C	
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 [131]	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]	
4TCY5042	1050.93 [41-3/8]	75.3 [166]	47.6 [105]	33.7 [74]	53.0 [117]	248.1 [547]	209.6 [462]	414.0 [16.3]	635.0 [25.0]	
4TCY5048	1050.93 [41-3/8]	79.0 [174]	49.9 [110]	35.4 [78]	55.6 [123]	258.5 [570]	220.0 [485]	414.0 [16.3]	635.0 [25.0]	
4TCY5060	1050.93 [41-3/8]	81.0 [179]	51.2 [113]	36.3 [80]	57.0 [126]	264.0 [582]	225.4 [497]	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 [131]	282.5 [623]	224.4 [495]	414.0 [16.3]	635.0 [25.0]	
4WCY4060B	1050.93 [41-3/8]	79.8 [176]	50.8 [112]	38.6 [85]	60.8 [134]	288.0 [635]	230.0 [507]	414.0 [16.3]	635.0 [25.0]	
4WCY4060A3	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]	
4WCZ6048	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]	
4WCZ6060	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]	
4WCY5042/048	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]	
4WCY5060	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]	

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# 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 AHRI 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 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 scroll compressors. Internal overcurrent and over temperature protection, internal pressure relief shall be standard. Other features include centrifugal oil pump, low vibration and noise.

## Refrigeration System

All units shall have refrigerant control. Service pressure tap ports and a refrigerant line filter shall be standard.

**Evaporator Coil** Internally enhanced 3/8" OD seamless copper tubing mechanically bonded to aluminum fins, factory pressure and leak tested at 480 – 650 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" 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

Constant Torque, forward-curved, centrifugal wheel in a Composite Vortica® Blower housing. Motor shall have thermal overload protection and permanently lubricated motor bearings. Motor/blower assembly isolated from unit with rubber mounts.

## Outdoor Fan

One direct-drive, statically and dynamically balanced propeller fan shall be used in a draw-through vertical discharge configuration. Permanently lubricated weather proof motor shall have built-in thermal overload protection.

## 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 heater 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 pigtailed 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 barometric 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.

#### **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 Setting Thermostat**

Programmable electronic thermostat shall provide heating setback and cooling setup with 7–day programming capability. 1H/1C or 2H/2C models available.

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