

**548J*14D
SINGLE PACKAGE ROOFTOP
HEAT PUMP
WITH PURON® (R-410A) REFRIGERANT
SIZE 14**



Electrical Data Supplement

NOTE: Read the entire instruction manual before starting the installation

This supplement only applies to 548J size 14 units when the 13th digit of the Model Number is a “3”, as shown in the Model Number Nomenclature diagram below. Check the Unit Nameplate (see Figs. 1 & 2). If the digit in the 13th position is not a “3” discard this document.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
5	4	8	J	P	1	4	D	0	0	0	A	2	A	0	A	A

Model

548J = Packaged Heat Pump
with Optional Electric Heat

Voltage

E = 460-3-60
P = 208/230-3-60
T = 575-3-60

Cooling Tons

14 = 12.5 ton

Refrig. System Options

A = Single Stage Cooling Models
D = Two Stage Cooling Models

Heat Level

(Field installed electric heaters available)
000 = No Heat

Indoor Fan Options

1 = Standard Static – Belt Drive
2 = Medium Static – Belt Drive
3 = High Static – Belt Drive

Coil Options (Outdoor – Indoor – Hail Guard)

A = Al/Cu – Al/Cu
B = Precoat Al/Cu – Al/Cu
C = E-coat Al/Cu – Al/Cu
D = E-coat Al/Cu – E-Coat Al/Cu
E = Cu/Cu – Al/Cu
F = Cu/Cu – Cu/Cu
M = Al/Cu – Al/Cu – Louvered Hail Guards
N = Precoat Al/Cu – Al/Cu – Louvered Hail Guards
P = E-coat Al/Cu – Al/Cu – Louvered Hail Guards
Q = E-coat Al/Cu – E-coat Al/Cu – Louvered Hail Guards
R = Cu/Cu – Al/Cu – Louvered Hail Guards
S = Cu/Cu – Cu/Cu – Louvered Hail Guards

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloths for brazing operations and have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions attached to the unit. Consult local building codes and appropriate national electrical codes (in USA, ANSI/NFPA70, National Electrical Code (NEC); in Canada, CSA C22.1) for special requirements.

It is important to recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices, which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

Nameplate Location

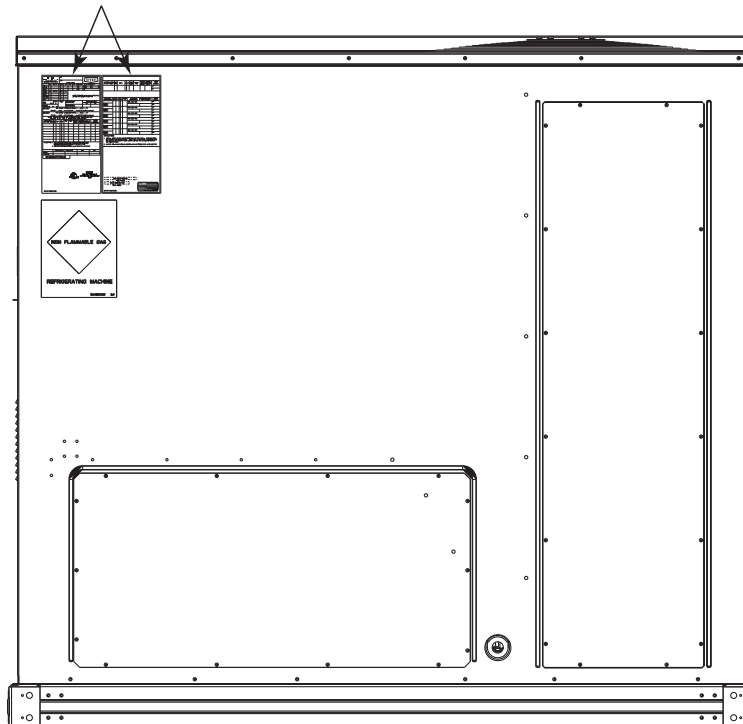


Fig. 1 - Location of Unit Nameplate

⚠ CAUTION

ELECTRICAL HAZARD

Failure to follow this caution may result in personal injury or product and property damage.

The electrical data contained in this document is only for use with 548J size 14 units which display a “3” in the 13th position of the 17 digit model number as displayed on the unit’s nameplate.

See Fig. 1 for location of the unit’s nameplate.

See Fig. 2 for details of the 17 digit model number.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could cause personal injury or death.

Before performing service or maintenance operations on unit, always turn off main power switch to unit and install lockout tag. Unit may have more than one power switch.

Table 1 – Unit Wire/Fuse or HACR Breaker Sizing Data

UNIT	NOM. V – Ph – Hz	IFM TYPE	ELEC. HTR			PE	NO C.O. or UNPWR C.O.							
			CRHEATER ***A00	Nom (kW)	FLA	FLA	NO P.E.				w/ P.E. (pwrd fr/unit)			
							MCA	FUSE or HACR BRKR	DISC. SIZE		MCA	FUSE or HACR BRKR	DISC. SIZE	
									FLA	LRA			FLA	LRA
548J*14D	208/230 – 3 – 60	STD	NONE	–	–	3.8	62.4	80	65	366	66.2	80	70	370
			291A00	12.4/16.5	34.4/39.7		105.4/112.0	110/125	105/111	400/406	109.2/115.8	110/125	109/115	404/410
			288A00,291A00	19.9/26.5	55.3/63.8		131.5/142.2	150/150	129/139	477/494	135.3/146.0	150/150	133/143	481/498
			294A00	25.2/33.5	69.9/80.6		149.8/163.2	150/175	146/158	436/447	153.6/167.0	175/175	150/162	440/451
			288A00,294A00	32.7/43.5	90.7/104.7		175.8/193.3	200/200	170/186	547/575	179.6/197.1	200/200	174/190	551/579
			291A00,294A00	37.6/50.0	104.3/120.3		192.8/182.7	200/200	185/204	575/607	196.6/186.5	200/200	190/208	579/611
		MED	NONE	–	–	3.8	62.4	80	65	366	66.2	80	70	370
			291A00	12.4/16.5	34.4/39.7		105.4/112.0	110/125	105/111	400/406	109.2/115.8	110/125	109/115	404/410
			288A00,291A00	19.9/26.5	55.3/63.8		131.5/142.2	150/150	129/139	477/494	135.3/146.0	150/150	133/143	481/498
			294A00	25.2/33.5	69.9/80.6		149.8/163.2	150/175	146/158	436/447	153.6/167.0	175/175	150/162	440/451
			288A00,294A00	32.7/43.5	90.7/104.7		175.8/193.3	200/200	170/186	547/575	179.6/197.1	200/200	174/190	551/579
			291A00,294A00	37.6/50.0	104.3/120.3		192.8/182.7	200/200	185/204	575/607	196.6/186.5	200/200	190/208	579/611
		HIGH	NONE	–	–	3.8	71.6/70.1	80/80	76/74	394	75.4/73.9	90/80	80/79	398
			291A00	12.4/16.5	34.4/39.7		114.6/119.7	125/125	115/120	428/434	118.4/123.5	125/125	120/124	432/438
			288A00,291A00	19.9/26.5	55.3/63.8		140.7/149.9	150/150	139/148	505/522	144.5/153.7	150/175	144/152	509/526
			294A00	25.2/33.5	69.9/80.6		159.0/170.9	175/175	156/167	464/475	162.8/174.7	175/175	161/171	468/479
			288A00,294A00	32.7/43.5	90.7/104.7		185.0/201.0	200/225	180/195	575/603	188.8/204.8	200/225	185/199	579/607
			291A00,294A00	37.6/50.0	104.3/120.3		202.0/190.4	225/200	196/213	603/635	205.8/194.2	225/200	200/217	607/639
	460 – 3 – 60	STD	NONE	–	–	1.8	29.7	40	31	184	31.5	40	33	186
			292A00	16.5	19.9		54.5	60	54	204	56.3	60	56	206
			289A00,292A00	26.5	31.9		69.5	70	68	248	71.3	80	70	250
			295A00	33.5	40.3		80.0	90	77	224	81.8	90	79	226
			289A00,295A00	43.5	52.3		95.0	100	91	289	96.8	100	93	291
			292A00,295A00	50.0	60.2		89.9	100	100	304	91.7	100	102	306
		MED	NONE	–	–	1.8	29.7	40	31	184	31.5	40	33	186
			292A00	16.5	19.9		54.5	60	54	204	56.3	60	56	206
			289A00,292A00	26.5	31.9		69.5	70	68	248	71.3	80	70	250
			295A00	33.5	40.3		80.0	90	77	224	81.8	90	79	226
			289A00,295A00	43.5	52.3		95.0	100	91	289	96.8	100	93	291
			292A00,295A00	50.0	60.2		89.9	100	100	304	91.7	100	102	306
		HIGH	NONE	–	–	1.8	33.9	40	36	198	35.7	45	38	200
			292A00	16.5	19.9		58.7	60	59	218	60.5	70	61	220
			289A00,292A00	26.5	31.9		73.7	80	73	262	75.5	80	75	264
			295A00	33.5	40.3		84.2	90	82	238	86.0	90	84	240
			289A00,295A00	43.5	52.3		99.2	100	96	303	101.0	110	98	305
			292A00,295A00	50.0	60.2		94.1	100	105	318	95.9	100	107	320
	575 – 3 – 60	STD	NONE	–	–	3.8	24.0	30	25	136	27.8	30	30	140
			293A00	16.5	15.9		43.9	45	43	152	47.7	50	48	156
			290A00,293A00	26.5	25.5		55.9	60	55	187	59.7	60	59	191
			296A00	33.5	32.2		64.3	70	62	168	68.1	70	67	172
			290A00,296A00	43.5	41.8		76.3	80	73	220	80.1	90	78	224
			293A00,296A00	50.0	48.1		72.1	80	81	232	75.9	80	85	236
		MED	NONE	–	–	3.8	24	30	25	136	27.8	30	30	140
			293A00	16.5	15.9		43.9	45	43	152	47.7	50	48	156
			290A00,293A00	26.5	25.5		55.9	60	55	187	59.7	60	59	191
			296A00	33.5	32.2		64.3	70	62	168	68.1	70	67	172
			290A00,296A00	43.5	41.8		76.3	80	73	220	80.1	90	78	224
			293A00,296A00	50.0	48.1		72.1	80	81	232	75.9	80	85	236
		HIGH	NONE	–	–	3.8	27.3	30	29	139	31.1	35	33	143
			293A00	16.5	15.9		47.2	50	47	155	51.0	60	52	159
			290A00,293A00	26.5	25.5		59.2	60	58	190	63.0	70	63	194
			296A00	33.5	32.2		67.6	70	66	171	71.4	80	70	175
			290A00,296A00	43.5	41.8		79.6	80	77	223	83.4	90	81	227
			293A00,296A00	50.0	48.1		75.4	80	84	235	79.2	90	89	239

NOTE: See page 6 for table legend and notes.

Table 1 — Unit Wire/Fuse or HACR Breaker Sizing Data (cont)

UNIT	NOM. V – Ph – Hz	IFM TYPE	ELEC. HTR			PE	w/ PWRD C.O.								
			CRHEATER ***A00	Nom (kW)	FLA		FLA	NO P.E.				w/ P.E. (pwrdr/unit)			
								MCA	FUSE or HACR BRKR	DISC. SIZE		MCA	FUSE or HACR BRKR	DISC. SIZE	
										FLA	LRA			FLA	LRA
548J*14D	208/230 – 3 – 60	STD	NONE	–	–	3.8	67.2	80	71	371	71.0	80	75	375	
			291A00	12.4/16.5	34.4/39.7		110.2/116.8	125/125	110/116	405/411	114.0/120.6	125/125	115/121	409/415	
			288A00,291A00	19.9/26.5	55.3/63.8		136.3/147.0	150/150	134/144	482/499	140.1/150.8	150/175	139/149	486/503	
			294A00	25.2/33.5	69.9/80.6		154.6/168.0	175/175	151/164	441/452	158.4/171.8	175/175	156/168	445/456	
			288A00,294A00	32.7/43.5	90.7/104.7		180.6/198.1	200/200	175/191	552/580	184.4/201.9	200/225	180/196	556/584	
			291A00,294A00	37.6/50.0	104.3/120.3		197.6/187.5	200/200	191/209	580/612	201.4/191.3	225/200	195/214	584/616	
		MED	NONE	–	–	3.8	67.2	80	71	371	71	80	75	375	
			291A00	12.4/16.5	34.4/39.7		110.2/116.8	125/125	110/116	405/411	114.0/120.6	125/125	115/121	409/415	
			288A00,291A00	19.9/26.5	55.3/63.8		136.3/147.0	150/150	134/144	482/499	140.1/150.8	150/175	139/149	486/503	
			294A00	25.2/33.5	69.9/80.6		154.6/168.0	175/175	151/164	441/452	158.4/171.8	175/175	156/168	445/456	
			288A00,294A00	32.7/43.5	90.7/104.7		180.6/198.1	200/200	175/191	552/580	184.4/201.9	200/225	180/196	556/584	
			291A00,294A00	37.6/50.0	104.3/120.3		197.6/187.5	200/200	191/209	580/612	201.4/191.3	225/200	195/214	584/616	
		HIGH	NONE	–	–	3.8	76.4/74.9	90/90	81/80	399	80.2/78.7	100/100	86/84	403	
			291A00	12.4/16.5	34.4/39.7		119.4/124.5	125/125	121/125	433/439	123.2/128.3	125/150	125/130	437/443	
			288A00,291A00	19.9/26.5	55.3/63.8		145.5/154.7	150/175	145/153	510/527	149.3/158.5	150/175	149/157	514/531	
			294A00	25.2/33.5	69.9/80.6		163.8/175.7	175/200	162/172	469/480	167.6/179.5	175/200	166/177	473/484	
			288A00,294A00	32.7/43.5	90.7/104.7		189.8/205.8	200/225	186/200	580/608	193.6/209.6	200/225	190/204	584/612	
			291A00,294A00	37.6/50.0	104.3/120.3		206.8/195.2	225/225	201/218	608/640	210.6/199.0	225/225	206/222	612/644	
	460 – 3 – 60	STD	NONE	–	–	1.8	31.9	40	34	186	33.7	40	36	188	
			292A00	16.5	19.9		56.7	60	56	206	58.5	60	59	208	
			289A00,292A00	26.5	31.9		71.7	80	70	250	73.5	80	72	252	
			295A00	33.5	40.3		82.2	90	80	226	84.0	90	82	228	
			289A00,295A00	43.5	52.3		97.2	100	94	291	99.0	100	96	293	
			292A00,295A00	50.0	60.2		92.1	100	103	306	93.9	100	105	308	
		MED	NONE	–	–	1.8	31.9	40	34	186	33.7	40	36	188	
			292A00	16.5	19.9		56.7	60	56	206	58.5	60	59	208	
			289A00,292A00	26.5	31.9		71.7	80	70	250	73.5	80	72	252	
			295A00	33.5	40.3		82.2	90	80	226	84.0	90	82	228	
			289A00,295A00	43.5	52.3		97.2	100	94	291	99.0	100	96	293	
			292A00,295A00	50.0	60.2		92.1	100	103	306	93.9	100	105	308	
		HIGH	NONE	–	–	1.8	36.1	45	38	200	37.9	45	40	202	
			292A00	16.5	19.9		60.9	70	61	220	62.7	70	63	222	
			289A00,292A00	26.5	31.9		75.9	80	75	264	77.7	80	77	266	
			295A00	33.5	40.3		86.4	90	85	240	88.2	90	87	242	
			289A00,295A00	43.5	52.3		101.4	110	99	305	103.2	110	101	307	
			292A00,295A00	50.0	60.2		96.3	100	108	320	98.1	110	110	322	
	575 – 3 – 60	STD	NONE	–	–	3.8	25.7	30	27	138	29.5	35	32	142	
			293A00	16.5	15.9		45.6	50	45	154	49.4	50	50	158	
			290A00,293A00	26.5	25.5		57.6	60	56	189	61.4	70	61	193	
			296A00	33.5	32.2		66.0	70	64	170	69.8	70	69	174	
			290A00,296A00	43.5	41.8		78.0	80	75	222	81.8	90	80	226	
			293A00,296A00	50.0	48.1		73.8	80	82	234	77.6	80	87	238	
		MED	NONE	–	–	3.8	25.7	30	27	138	29.5	35	32	142	
			293A00	16.5	15.9		45.6	50	45	154	49.4	50	50	158	
			290A00,293A00	26.5	25.5		57.6	60	56	189	61.4	70	61	193	
			296A00	33.5	32.2		66.0	70	64	170	69.8	70	69	174	
			290A00,296A00	43.5	41.8		78.0	80	75	222	81.8	90	80	226	
			293A00,296A00	50.0	48.1		73.8	80	82	234	77.6	80	87	238	
		HIGH	NONE	–	–	3.8	29.0	35	31	141	32.8	40	35	145	
			293A00	16.5	15.9		48.9	50	49	157	52.7	60	54	161	
			290A00,293A00	26.5	25.5		60.9	70	60	192	64.7	70	65	196	
			296A00	33.5	32.2		69.3	70	68	173	73.1	80	72	177	
			290A00,296A00	43.5	41.8		81.3	90	79	225	85.1	90	83	229	
			293A00,296A00	50.0	48.1		77.1	80	86	237	80.9	90	91	241	

NOTE: See page 6 for table legend and notes.

Legend and Notes for Table 1

LEGEND:

BRKR	–	Circuit breaker
CO	–	Convenience outlet
DISC	–	Disconnect
FLA	–	Full load amps
IFM	–	Indoor fan motor
LRA	–	Locked rotor amps
MCA	–	Minimum circuit amps
PE	–	Power exhaust
PWRD CO	–	Powered convenient outlet
UNPWR CO	–	Unpowered convenient outlet



NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.

2. Unbalanced 3-Phase Supply Voltage

Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 230-3-60



AB = 224 v
BC = 231 v
AC = 226 v

$$\begin{aligned} \text{Average Voltage} &= \frac{(224 + 231 + 226)}{3} = \frac{681}{3} \\ &= 227 \end{aligned}$$

Determine maximum deviation from average voltage.

(AB) $227 - 224 = 3 \text{ v}$

(BC) $231 - 227 = 4 \text{ v}$

(AC) $227 - 226 = 1 \text{ v}$

Maximum deviation is 4 v.

Determine percent of voltage imbalance.

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{4}{227} \\ &= 1.76\% \end{aligned}$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

