

50HT
Single Package Rooftop
Cooling Only
with Puron® (R-410A) Refrigerant
Size: 07



Electrical Data Supplement

ELECTRICAL DATA FOR UNITS PRODUCED ON OR AFTER 02/09/2015


NOTE: Read the entire instruction manual before starting the installation

IMPORTANT: The electrical data contained in this document is only for use with 50HT-A07 units produced on or after 02/09/2015. This supplement supersedes the Electrical Data found in the current Installation Instructions for these units. Retain this document and keep it with the unit's Installation Instructions.

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.

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	NO M. V – Ph – HZ	IFM TYPE	ELEC. HTR			NO C.O. or UNPWR C.O.							
			CRHEATER***A00	Nom (kW)	FLA	NO P.E.				w/ P.E. (pwrd fr/unit)			
						MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50HT – A07	208/230 – 3 – 60	STD	NONE	–	–	33/33	50/50	32/32	197	35/35	50/50	34/34	199
			102A	4.9/6.5	13.6/15.6	33/33	50/50	32/32	197/197	35/35	50/50	34/34	199/199
			104B	7.9/10.5	21.9/25.3	36/40	50/50	33/37	197/197	39/43	50/50	35/39	199/199
			105A	12.0/16.0	33.4/38.5	51/57	60/60	46/52	197/197	53/59	60/60	49/54	199/199
			104B+104B	15.8/21.0	43.8/50.5	64/72	70/80	58/66	197/197	66/74	70/80	60/68	199/199
		104B+105A	19.9/26.5	55.2/63.8	78/89	80/90	71/81	197/197	80/91	90/100	74/83	199/199	
		MED	NONE	–	–	35/35	50/50	34/34	212	37/37	50/50	36/36	214
			102A	4.9/6.5	13.6/15.6	35/35	50/50	34/34	212/212	37/37	50/50	36/36	214/214
			104B	7.9/10.5	21.9/25.3	38/42	50/50	35/39	212/212	41/45	50/50	37/41	214/214
			105A	12.0/16.0	33.4/38.5	53/59	60/60	48/54	212/212	55/61	60/70	50/56	214/214
			104B+104B	15.8/21.0	43.8/50.5	66/74	70/80	60/68	212/212	68/76	70/80	62/70	214/214
		104B+105A	19.9/26.5	55.2/63.8	80/91	80/100	73/83	212/212	82/93	90/100	75/85	214/214	
		HIGH	NONE	–	–	37	50	36	226	39	50	39	228
			102A	4.9/6.5	13.6/15.6	37/37	50/50	36/36	226/226	39/39	50/50	39/39	228/228
			104B	7.9/10.5	21.9/25.3	41/45	50/50	37/41	226/226	43/48	50/50	40/43	228/228
	105A		12.0/16.0	33.4/38.5	55/62	60/70	51/56	226/226	58/64	60/70	53/59	228/228	
	104B+104B		15.8/21.0	43.8/50.5	68/77	70/80	63/70	226/226	71/79	80/80	65/72	228/228	
	104B+105A	19.9/26.5	55.2/63.8	83/93	90/100	76/86	226/226	85/96	90/100	78/88	228/228		
	460 – 3 – 60	STD	NONE	–	–	15	20	14	96	16	20	15	97
			106A	6.0	7.2	15	20	14	96	16	20	15	97
			108A	11.5	13.8	22	25	20	96	23	25	21	97
			109A	14.0	16.8	26	30	23	96	27	30	24	97
			108A+108A	23.0	27.7	39	40	36	96	41	45	37	97
		108A+109A	25.5	30.7	43	45	39	96	44	45	40	97	
MED		NONE	–	–	16	20	15	104	17	20	16	105	
		106A	6.0	7.2	16	20	15	104	17	20	16	105	
		108A	11.5	13.8	23	25	21	104	24	25	22	105	
		109A	14.0	16.8	27	30	24	104	28	30	25	105	
		108A+108A	23.0	27.7	40	40	37	104	42	45	38	105	
108A+109A		25.5	30.7	44	45	40	104	45	45	41	105		
HIGH		NONE	–	–	17	20	16	111	18	25	18	112	
		106A	6.0	7.2	17	20	16	111	18	25	18	112	
		108A	11.5	13.8	24	25	22	111	26	30	23	112	
	109A	14.0	16.8	28	30	25	111	29	30	27	112		
	108A+108A	23.0	27.7	42	45	38	111	43	45	39	112		
108A+109A	25.5	30.7	45	50	41	111	47	50	43	112			

See "Legend and Notes for Table 1" on page 3.

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

UNIT	NO. M. V-Ph-HZ	IFM TYPE	ELEC. HTR			w/ PWRD C.O.							
			CRHEATER***A00	Nom (kW)	FLA	NO P.E.				w/ P.E. (pwrd fr/unit)			
						MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50HT -A07	208/230-3-60	STD	NONE	-	-	38/38	50/50	38/37	202	40/40	50/50	40/40	204
			102A	4.9/6.5	13.6/15.6	38/38	50/50	38/37	202/202	40/40	50/50	40/40	204/204
			104B	7.9/10.5	21.9/25.3	42/46	50/50	39/42	202/202	45/49	50/50	41/45	204/204
			105A	12.0/16.0	33.4/38.5	57/63	60/70	52/58	202/202	59/65	60/70	54/60	204/204
			104B+104B	15.8/21.0	43.8/50.5	70/78	70/80	64/71	202/202	72/80	80/80	66/73	204/204
			104B+105A	19.9/26.5	55.2/63.8	84/95	90/100	77/87	202/202	86/97	90/100	79/89	204/204
		MED	NONE	-	-	40/40	50/50	39/39	217	42/41	60/60	42/42	219
			102A	4.9/6.5	13.6/15.6	40/40	50/50	39/39	217/217	42/41	60/60	42/42	219/219
			104B	7.9/10.5	21.9/25.3	44/48	50/50	40/44	217/217	47/51	60/60	43/46	219/219
			105A	12.0/16.0	33.4/38.5	59/65	60/70	54/59	217/217	61/67	70/70	56/62	219/219
			104B+104B	15.8/21.0	43.8/50.5	72/80	80/80	66/73	217/217	74/82	80/90	68/75	219/219
			104B+105A	19.9/26.5	55.2/63.8	86/97	90/100	79/88	217/217	88/99	90/100	81/91	219/219
	HIGH	NONE	-	-	42	60	42	231	44	60	44	233	
		102A	4.9/6.5	13.6/15.6	42/42	60/60	42/42	231/231	44/44	60/60	44/44	233/233	
		104B	7.9/10.5	21.9/25.3	47/51	60/60	43/47	231/231	49/54	60/60	45/49	233/233	
		105A	12.0/16.0	33.4/38.5	61/68	70/70	56/62	231/231	64/70	70/70	58/64	233/233	
		104B+104B	15.8/21.0	43.8/50.5	74/83	80/90	68/76	231/231	77/85	80/90	70/78	233/233	
		104B+105A	19.9/26.5	55.2/63.8	89/99	90/100	81/91	231/231	91/102	100/110	83/93	233/233	
	460-3-60	STD	NONE	-	-	17	20	17	98	18	25	18	99
			106A	6.0	7.2	17	20	17	98	18	25	18	99
			108A	11.5	13.8	25	25	22	98	26	30	23	99
			109A	14.0	16.8	28	30	26	98	30	30	27	99
			108A+108A	23.0	27.7	42	45	38	98	43	45	39	99
			108A+109A	25.5	30.7	46	50	42	98	47	50	43	99
MED		NONE	-	-	18	25	18	106	19	25	19	107	
		106A	6.0	7.2	18	25	18	106	19	25	19	107	
		108A	11.5	13.8	26	30	23	106	27	30	24	107	
		109A	14.0	16.8	29	30	27	106	31	35	28	107	
		108A+108A	23.0	27.7	43	45	39	106	44	45	40	107	
		108A+109A	25.5	30.7	47	50	43	106	48	50	44	107	
HIGH		NONE	-	-	19	25	19	113	20	25	20	114	
		106A	6.0	7.2	19	25	19	113	20	25	20	114	
		108A	11.5	13.8	27	30	24	113	28	30	26	114	
		109A	14.0	16.8	31	35	28	113	32	35	29	114	
		108A+108A	23.0	27.7	44	45	40	113	46	50	42	114	
		108A+109A	25.5	30.7	48	50	44	113	49	50	45	114	

See "Legend and Notes for Table 1" on page 3.

Legend and Notes for Table 1

LEGEND:

- BRKR - Circuit breaker
- CO - Convenient outlet
- DISC - Disconnect
- FLA - Full load amps
- 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 voltage 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

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

Determine maximum deviation from average voltage.

(AB) 227 - 224 = 3 v

(BC) 231 - 227 = 4 v

(AC) 227 - 226 = 1 v

Maximum deviation is 4 v.

Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.76\%$$

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.

