

**50HTQ 10 Nominal Tons  
Single Package Rooftop for AutoZone®  
Heat Pump  
with Puron® (R-410A) Refrigerant  
Size: 12**



## Electrical Data Supplement

**FOR MODELS PRODUCED ON OR AFTER MAY 18, 2015 ONLY!**

**NOTE:** Read the entire instruction manual before starting the installation

This supplement only applies to 50HTQ size 12 units manufactured on or after May 18, 2015. To confirm the date of manufacture of the unit, locate the unit nameplate and check the first four digits of the Serial Number which is located directly below the unit's Model Number at the top of the nameplate. If the number listed in the first 4 digits of the Serial Number is 2115 or higher KEEP THIS DOCUMENT and use it along with the furnished Installation Instructions.

### SERIAL NUMBER NOMENCLATURE

Position:	1	2	3	4	5	6	7	8	9	10
Example:	2	1	1	5	X	1	2	3	4	5


  

Week of manufacture (fiscal calendar)	Sequence number
Year of manufacture ("15" = 2015)	Manufacturing location

### 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.


C150230

 **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 50HTQ size 12 units manufactured on or after May 18, 2015. Check the first 4 digits of the unit's Serial Number (located on the unit's nameplate) if the number listed is 2115 or higher keep this document.

 **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 – 50HTQ 12 Unit Wire/Fuse or HACR Breaker Sizing Data - Single Speed Indoor Fan Motor**

UNIT	IFM TYPE	ELEC. HTR		NO C.O. or UNPWR C.O.						w/ PWRD C.O.											
		CRHEATER***400	Nom (kW)	FLA	NO RE.			w/ RE. (pwrd fr/unit)			NO PE.			w/ PE. (pwrd fr/unit)							
					MCA	MAX FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	MAX FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	MAX FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	MAX FUSE or HACR BRKR	DISC. SIZE FLA LRA					
50HTQD12	STD	NONE	-	-	47	60/80	74/78	282	51	60	54	286	52	60	55	287	56	60	59	291	
		117A	7.8/10.4	21.7/25.0	74/79	80/80	304/307	78/82	80/90	80/80	80/80	308/311	79/83	80/90	80/84	80/84	309/312	83/87	90/90	84/88	313/316
		110A	12.0/16.0	33.4/38.5	89/95	90/100	315/321	93/99	100/100	92/98	100/100	319/325	94/100	100/100	93/99	100/100	320/326	98/104	100/110	98/104	324/330
		112A	24.0/32.0	66.7/77.0	131/144	150/150	349/359	135/147	150/150	130/142	150/150	353/363	136/148	150/150	132/143	150/150	354/364	139/152	150/175	136/148	358/368
		112A+117A	31.8/42.4	88.4/102.0	158/175	175/175	459/486	162/179	175/200	155/171	175/200	463/490	163/180	175/200	157/172	175/200	464/491	166/183	175/200	161/177	468/495
		112A+110A	37.6/50.0	104.2/120.3	178/168	200/175	490/523	181/171	200/175	174/192	200/175	494/527	182/172	200/200	175/193	200/200	495/528	186/176	200/200	179/198	499/532
	MED	NONE	-	-	53	60	338	57	70	60	342	58	70	61	70	61	343	61	70	65	347
		117A	7.8/10.4	21.7/25.0	80/84	80/90	360/363	84/88	90/90	85/89	90/90	364/367	85/89	90/90	86/90	90/90	365/368	88/93	90/100	90/94	369/372
		110A	12.0/16.0	33.4/38.5	94/101	100/110	371/377	98/105	100/110	98/104	100/110	375/381	99/106	100/110	99/105	100/110	376/382	103/109	110/110	104/110	380/386
		112A	24.0/32.0	66.7/77.0	136/149	150/150	405/415	140/153	150/175	137/148	150/175	409/419	141/154	150/175	138/150	150/175	410/420	145/158	150/175	142/154	414/424
		112A+117A	31.8/42.4	88.4/102.0	163/180	175/200	515/542	167/184	175/200	162/177	175/200	519/546	168/185	175/200	163/178	175/200	520/547	172/189	175/200	167/183	524/551
		112A+110A	37.6/50.0	104.2/120.3	183/173	200/200	546/579	187/177	200/200	180/198	200/200	550/583	188/178	200/200	181/199	200/200	551/584	192/182	200/200	185/204	555/588
HIGH	NONE	-	-	56/55	60/60	340	60/59	70/70	63/62	344	61/60	70/70	65/63	70/70	345	64/63	70/70	69/68	349		
	117A	7.8/10.4	21.7/25.0	83/86	90/90	362/365	87/90	90/90	88/91	366/369	88/91	90/100	89/92	90/100	367/370	91/95	100/100	94/97	371/374		
	110A	12.0/16.0	33.4/38.5	97/103	100/110	373/379	101/107	110/110	102/107	377/383	102/108	110/110	103/108	103/108	378/384	106/112	110/125	107/112	382/388		
	112A	24.0/32.0	66.7/77.0	139/151	150/175	407/417	143/155	150/175	140/151	411/421	144/156	150/175	141/152	141/152	412/422	148/160	150/175	146/156	416/426		
	112A+117A	31.8/42.4	88.4/102.0	166/182	175/200	517/544	170/186	175/200	165/180	521/548	171/187	175/200	166/181	166/181	522/549	175/191	175/200	171/185	526/553		
	112A+110A	37.6/50.0	104.2/120.3	186/175	200/200	548/581	190/179	200/200	183/201	552/585	191/180	200/200	184/202	184/202	553/586	195/184	200/200	189/206	557/590		
460 I-3-60	STD	NONE	-	-	23	30	24	25	26	26	137	26	30	27	27	137	27	30	29	139	
		116A	13.9	16.7	44	45	43	46	46	46	154	46	50	46	46	154	48	50	48	156	
		113A	16.5	19.8	48	50	47	50	50	50	157	50	50	50	50	157	52	60	52	159	
		115A	33.0	39.7	73	80	70	75	75	75	237	75	80	77	75	237	77	80	77	239	
		114A+116A	41.7	50.2	86	90	82	88	88	84	237	88	90	85	85	237	90	90	87	239	
		115A+113A	50.0	60.1	84	90	93	85	85	95	257	86	90	96	96	257	88	90	98	259	
	MED	NONE	-	-	26	30	27	28	28	29	165	28	30	30	30	165	30	35	32	167	
		116A	13.9	16.7	47	50	47	49	49	49	182	49	50	49	49	182	51	60	51	184	
		113A	16.5	19.8	51	60	50	53	53	52	185	53	60	53	53	185	55	60	55	187	
		115A	33.0	39.7	76	80	73	78	78	78	206	78	80	76	76	206	80	80	78	207	
		114A+116A	41.7	50.2	89	90	85	91	91	87	265	91	100	88	88	265	93	100	90	267	
		115A+113A	50.0	60.1	86	90	96	88	88	99	285	88	90	99	99	285	90	100	101	287	
HIGH	NONE	-	-	27	30	29	29	29	31	166	29	35	35	31	166	31	35	33	168		
	116A	13.9	16.7	48	50	48	50	50	50	183	50	50	50	50	183	52	60	52	185		
	113A	16.5	19.8	52	60	51	54	54	53	186	54	60	54	54	186	56	60	56	188		
	115A	33.0	39.7	77	80	74	79	79	79	206	79	80	77	77	206	81	90	79	208		
	114A+116A	41.7	50.2	90	90	86	92	92	88	266	92	100	89	89	266	94	100	91	268		
	115A+113A	50.0	60.1	87	90	98	89	89	100	286	89	100	100	100	286	91	100	102	288		
STD	NONE	-	-	18	20	18	22	22	23	109	20	25	25	23	107	23	25	25	111		
	118A	17.0	20.4	43	45	42	47	47	46	129	45	45	45	44	127	49	50	48	131		
	119A	34.0	40.9	69	70	65	71	71	70	150	71	80	70	67	148	75	80	72	152		
	118A+119A	51.0	61.3	79	90	89	83	83	93	232	81	90	90	91	230	85	90	95	234		
	NONE	-	-	19	20	19	23	23	24	120	20	25	25	21	118	24	30	26	122		
	118A	17.0	20.4	44	45	43	48	48	47	140	46	50	50	45	138	50	50	49	142		
575 I-3-60	MED	119A	34.0	40.9	66	70	66	71	71	161	72	80	80	68	159	75	80	73	163		
		118A+119A	51.0	61.3	80	90	80	84	84	90	243	82	90	92	241	86	90	96	245		
		NONE	-	-	22	25	23	25	25	24	134	23	25	25	24	132	27	30	29	136	
		118A	17.0	20.4	47	50	46	51	51	50	154	49	50	50	48	152	53	60	52	156	
		119A	34.0	40.9	73	80	70	76	76	74	171	74	80	80	72	173	78	80	76	177	
		118A+119A	51.0	61.3	83	90	83	87	87	93	253	85	90	95	95	255	88	90	99	259	

See: "Legend and Notes for Tables 1 and 2" on page 4.



## Legend and Notes for Tables 1 and 2

### 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
MOCP	-	MAX FUSE or HACR Breaker
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.