48/50HC 12.5 Nominal Tons
Single Package Rooftop
Gas Heating/Electric Cooling Unit
& Cooling Only/Electric Heat Unit
with Puron® (R−410A) Refrigerant
Size: 14

Carrier
turn to the experts

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 48/50HC size 14 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)

Year of manufacture ("15" = 2015)

Manufacturing location

Sequence number

C150230

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.

⚠ 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 48/50HC size 14 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 – 48HC 14 Unit Wire/Fuse or HACR Breaker Sizing Data - Single Speed Indoor Fan Motor

UNIT	NOM. V–Ph–Hz	IFM TYPE	NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
			NO P.E.				w/ P.E. (pwrd fr/ unit)				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		MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE	
					FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
48HC*D14 (2–stage cool)	208/230–3–60	STD	57	70	59	340	60	70	63	344	61	80	64	345	65	80	69	349
		MED	60	70	62	370	63	80	67	374	64	80	68	375	68	80	72	379
		HIGH	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
	460–3–60	STD	25	30	26	166	27	30	28	168	27	30	28	168	29	35	30	170
		MED	27	30	28	181	28	35	30	183	29	35	30	183	31	35	32	185
		HIGH	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
	575–3–60	STD	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
		MED	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
		HIGH	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 2 – 48HC 14 Unit Wire Sizing Data with Factory Installed HACR Breaker - Single Speed Indoor Fan Motor

UNIT	NOM. V–Ph–Hz	IFM TYPE	NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
			NO P.E.				w/ P.E. (pwrd fr/ unit)				NO P.E.				w/ P.E. (pwrd fr/ unit)			
			MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
					FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
48HC*D14 (2–stage cool)	208/230–3–60	STD	57	70	59	340	60	70	63	344	61	80	64	345	65	80	69	349
		MED	60	70	62	370	63	80	67	374	64	80	68	375	68	80	72	379
		HIGH	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
	460–3–60	STD	25	30	26	166	27	30	28	168	27	30	28	168	29	35	30	170
		MED	27	30	28	181	28	35	30	183	29	35	30	183	31	35	32	185
		HIGH	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
	575–3–60	STD	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
		MED	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
		HIGH	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 3 – 48HC 14 Unit Wire/Fuse or HACR Breaker Sizing Data - 2-Speed Indoor Fan Motor

UNIT	NOM. V–Ph–Hz	IFM TYPE	NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
			NO P.E.				w/ P.E. (pwrd fr/ unit)				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		MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE	
					FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
48HC*D14	208/230–3–60	STD	58/57	70/70	60/59	337	61/61	80/70	65/64	341	62/62	80/80	66/65	342	66/65	80/80	70/69	346
		MED	60/59	70/70	63/62	361	64/63	80/80	67/66	365	65/64	80/80	68/67	366	68/67	80/80	73/71	370
		HIGH	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
	460–3–60	STD	25	30	26	165	27	30	28	167	27	30	29	167	29	35	31	169
		MED	26	30	27	177	28	30	29	179	28	30	30	179	30	35	32	181
		HIGH	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
	575–3–60	STD	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
		MED	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
		HIGH	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 4 – 48HC 14 Unit Wire Sizing Data with Factory Installed HACR Breaker - 2-Speed Indoor Fan Motor

UNIT	NOM. V–Ph–Hz	IFM TYPE	NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
			NO P.E.				w/ P.E. (pwrd fr/ unit)				NO P.E.				w/ P.E. (pwrd fr/ unit)			
			MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
					FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
48HC*D14(2–stage cool)	208/230–3–60	STD	58/58	70/70	60/59	337	61/61	80/80	65/64	341	62/62	80/80	66/65	342	66/66	80/80	70/69	346
		MED	60/60	70/70	63/62	361	64/64	80/80	67/66	365	65/65	80/80	68/67	366	68/68	80/80	73/71	370
		HIGH	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
	460–3–60	STD	25	30	26	165	27	30	28	167	27	30	29	167	29	35	31	169
		MED	26	30	27	177	28	30	29	179	28	30	30	179	30	35	32	181
		HIGH	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
	575–3–60	STD	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
		MED	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
		HIGH	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 5 – 50HC 14 Unit Wire/Fuse or HACR Breaker Sizing Data - Single Speed Indoor Fan Motor

UNIT	NO M. V–Ph–HZ	IFM-TYPE	ELEC. HTR			NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
						NO P.E.				w/ P.E. (pwrd fr/unit)				NO P.E.				w/ P.E. (pwrd fr/unit)			
			CRHEATER***A00	Nom (kW)	FLA	MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
50HC*D14 (2–stage cool)	208/230–3–60	STD	NONE	–	–	57	70	59	340	60	70	63	344	61	80	64	345	65	80	69	349
			291A	12.4/16.5	34.4/39.7	57/59	70/70	59/59	340/340	60/64	70/70	63/63	344/344	61/65	80/80	64/64	345/345	65/70	80/80	69/69	349/349
			288A+291A	19.9/26.5	55.3/63.8	79/90	80/90	72/82	340/340	84/94	90/100	77/86	344/344	85/96	90/100	78/88	345/345	90/100	90/100	82/92	349/349
			294A	25.2/33.5	69.9/80.6	97/111	100/125	89/101	340/340	102/115	110/125	93/106	344/344	103/117	110/125	95/107	345/345	108/121	110/125	99/111	349/349
			288A+294A	32.7/43.5	90.7/104.7	123/141	125/150	113/129	340/340	128/145	150/150	117/133	344/344	129/147	150/150	118/135	345/345	134/151	150/175	123/139	349/349
			291A+294A	37.6/50.0	104.3/120.3	140/130	150/150	129/147	340/340	145/135	150/150	133/151	344/344	146/136	150/150	134/152	345/345	151/141	175/150	138/157	349/349
		MED	NONE	–	–	60	70	62	370	63	80	67	374	64	80	68	375	68	80	72	379
			291A	12.4/16.5	34.4/39.7	60/63	70/70	62/62	370/370	63/68	80/80	67/67	374/374	64/69	80/80	68/68	375/375	68/74	80/80	72/72	379/379
			288A+291A	19.9/26.5	55.3/63.8	83/93	90/100	76/86	370/370	88/98	90/100	80/90	374/374	89/99	90/100	81/91	375/375	94/104	100/110	86/95	379/379
			294A	25.2/33.5	69.9/80.6	101/114	110/125	93/105	370/370	106/119	110/125	97/109	374/374	107/120	110/125	98/110	375/375	112/125	125/125	102/115	379/379
			288A+294A	32.7/43.5	90.7/104.7	127/145	150/150	116/133	370/370	132/149	150/150	121/137	374/374	133/151	150/175	122/138	375/375	138/155	150/175	126/142	379/379
			291A+294A	37.6/50.0	104.3/120.3	144/134	150/150	132/151	370/370	149/139	150/150	137/155	374/374	150/140	150/150	138/156	375/375	155/145	175/175	142/160	379/379
		HIGH	NONE	–	–	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
			291A	12.4/16.5	34.4/39.7	70/76	80/80	74/74	376/376	74/80	80/80	78/78	380/380	75/82	80/90	79/79	381/381	80/86	90/90	84/84	385/385
			288A+291A	19.9/26.5	55.3/63.8	95/106	100/110	87/97	376/376	100/110	100/125	91/101	380/380	101/112	110/125	93/102	381/381	106/116	110/125	97/107	385/385
			294A	25.2/33.5	69.9/80.6	113/127	125/150	104/116	376/376	118/131	125/150	108/121	380/380	119/133	125/150	109/122	381/381	124/137	125/150	114/126	385/385
			288A+294A	32.7/43.5	90.7/104.7	139/157	150/175	128/144	376/376	144/162	150/175	132/148	380/380	145/163	150/175	133/149	381/381	150/168	150/175	138/154	385/385
			291A+294A	37.6/50.0	104.3/120.3	156/146	175/175	143/162	376/376	161/151	175/175	148/166	380/380	162/152	175/175	149/167	381/381	167/157	175/175	153/172	385/385
	460–3–60	STD	NONE	–	–	25	30	26	166	27	30	28	168	27	30	28	168	29	35	30	170
			292A	16.5	19.9	30	30	27	166	32	35	29	168	32	35	29	168	35	35	31	170
			289A+292A	26.5	31.9	45	45	41	166	47	50	43	168	47	50	43	168	50	50	45	170
			295A	33.5	40.3	55	60	50	166	57	60	52	168	58	60	53	168	60	60	55	170
			289A+295A	43.5	52.3	70	70	64	166	72	80	66	168	73	80	67	168	75	80	69	170
			292A+295A	50.0	60.2	65	70	73	166	67	70	75	168	68	80	76	168	70	80	78	170
		MED	NONE	–	–	27	30	28	181	28	35	30	183	29	35	30	183	31	35	32	185
			292A	16.5	19.9	32	35	29	181	34	35	31	183	35	35	32	183	37	40	34	185
			289A+292A	26.5	31.9	47	50	43	181	49	50	45	183	50	50	45	183	52	60	47	185
			295A	33.5	40.3	57	60	52	181	60	60	55	183	60	60	55	183	62	70	57	185
			289A+295A	43.5	52.3	72	80	66	181	75	80	68	183	75	80	69	183	77	80	71	185
			292A+295A	50.0	60.2	67	80	75	181	70	80	77	183	70	80	78	183	72	80	80	185
		HIGH	NONE	–	–	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
			292A	16.5	19.9	38	40	35	184	40	40	37	186	41	45	37	186	43	45	39	188
			289A+292A	26.5	31.9	53	60	48	184	55	60	50	186	56	60	51	186	58	60	53	188
			295A	33.5	40.3	64	70	58	184	66	70	60	186	66	70	61	186	69	70	63	188
			289A+295A	43.5	52.3	79	80	72	184	81	90	74	186	81	90	74	186	84	90	76	188
			292A+295A	50.0	60.2	73	80	81	184	76	80	83	186	76	80	83	186	78	80	86	188
	575–3–60	STD	NONE	–	–	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
			293A	16.5	15.9	24	25	22	138	29	30	26	142	26	30	23	140	31	35	28	144
			290A+293A	26.5	25.5	36	40	33	138	41	45	37	142	38	40	35	140	43	45	39	144
			296A	33.5	32.2	44	45	40	138	49	50	45	142	46	50	42	140	51	60	47	144
			290A+296A	43.5	41.8	56	60	51	138	61	70	56	142	58	60	53	140	63	70	58	144
			293A+296A	50.0	48.1	52	60	59	138	57	60	63	142	54	60	60	140	59	60	65	144
		MED	NONE	–	–	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
			293A	16.5	15.9	24	25	22	138	29	30	26	142	26	30	23	140	31	35	28	144
			290A+293A	26.5	25.5	36	40	33	138	41	45	37	142	38	40	35	140	43	45	39	144
			296A	33.5	32.2	44	45	40	138	49	50	45	142	46	50	42	140	51	60	47	144
			290A+296A	43.5	41.8	56	60	51	138	61	70	56	142	58	60	53	140	63	70	58	144
			293A+296A	50.0	48.1	52	60	59	138	57	60	63	142	54	60	60	140	59	60	65	144
		HIGH	NONE	–	–	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156
			293A	16.5	15.9	32	35	29	150	36	40	33	154	34	35	31	152	38	40	35	156
			290A+293A	26.5	25.5	44	45	40	150	48	50	44	154	46	50	42	152	50	60	46	156
			296A	33.5	32.2	52	60	47	150	57	60	52	154	54	60	49	152	59	60	54	156
			290A+296A	43.5	41.8	64	70	58	150	69	70	63	154	66	70	60	152	71	80	65	156
			293A+296A	50.0	48.1	60	70	66	150	65	70	70	154	62	70	68	152	67	70	72	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 6 – 50HC 14 Unit Wire Sizing Data with Factory Installed HACR Breaker - Single Speed Indoor Fan Motor

UNIT	NO M. V–Ph–HZ	IFM-TYPE	ELEC. HTR			NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
						NO P.E.				w/ P.E. (pwrd fr/unit)				NO P.E.				w/ P.E. (pwrd fr/unit)			
			CRHEATER***A00	Nom (kW)	FLA	MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
50HC*D14 (2–stage cool)	208/230–3–60	STD	NONE	–	–	57	70	59	340	60	70	63	344	61	80	64	345	65	80	69	349
			291A	12.4/16.5	34.4/39.7	59/59	70/70	59/59	340/340	64/64	70/70	63/63	344/344	65/65	80/80	64/64	345/345	70/70	80/80	69/69	349/349
			288A+291A	19.9/26.5	55.3/63.8	90/90	90/90	72/82	340/340	94/94	100/100	77/86	344/344	96/96	100/100	78/88	345/345	100/100	100/100	82/92	349/349
			294A	25.2/33.5	69.9/80.6	111/111	125/125	89/101	340/340	115/115	125/125	93/106	344/344	117/117	125/125	95/107	345/345	121/121	125/125	99/111	349/349
			288A+294A	32.7/43.5	90.7/104.7	141/141	150/150	113/129	340/340	145/145	150/150	117/133	344/344	147/147	150/150	118/135	345/345	151/151	175/175	123/139	349/349
			291A+294A	37.6/50.0	104.3/120.3	140/140	150/150	129/147	340/340	145/145	150/150	133/151	344/344	146/146	150/150	134/152	345/345	151/151	175/175	138/157	349/349
		MED	NONE	–	–	60	70	62	370	63	80	67	374	64	80	68	375	68	80	72	379
			291A	12.4/16.5	34.4/39.7	63/63	70/70	62/62	370/370	68/68	80/80	67/67	374/374	69/69	80/80	68/68	375/375	74/74	80/80	72/72	379/379
			288A+291A	19.9/26.5	55.3/63.8	93/93	100/100	76/86	370/370	98/98	100/100	80/90	374/374	99/99	100/100	81/91	375/375	104/104	110/110	86/95	379/379
			294A	25.2/33.5	69.9/80.6	114/114	125/125	93/105	370/370	119/119	125/125	97/109	374/374	120/120	125/125	98/110	375/375	125/125	125/125	102/115	379/379
			288A+294A	32.7/43.5	90.7/104.7	145/145	150/150	116/133	370/370	149/149	150/150	121/137	374/374	151/151	175/175	122/138	375/375	155/155	175/175	126/142	379/379
			291A+294A	37.6/50.0	104.3/120.3	144/144	150/150	132/151	370/370	149/149	150/150	137/155	374/374	150/150	150/150	138/156	375/375	155/155	175/175	142/160	379/379
		HIGH	NONE	–	–	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
			291A	12.4/16.5	34.4/39.7	76/76	80/80	74/74	376/376	80/80	80/80	78/78	380/380	82/82	90/90	79/79	381/381	86/86	90/90	84/84	385/385
			288A+291A	19.9/26.5	55.3/63.8	106/106	110/110	87/97	376/376	110/110	125/125	91/101	380/380	112/112	125/125	93/102	381/381	116/116	125/125	97/107	385/385
			294A	25.2/33.5	69.9/80.6	127/127	150/150	104/116	376/376	131/131	150/150	108/121	380/380	133/133	150/150	109/122	381/381	137/137	150/150	114/126	385/385
			288A+294A	32.7/43.5	90.7/104.7	157/157	175/175	128/144	376/376	162/162	175/175	132/148	380/380	163/163	175/175	133/149	381/381	168/168	175/175	138/154	385/385
			291A+294A	37.6/50.0	104.3/120.3	156/156	175/175	143/162	376/376	161/161	175/175	148/166	380/380	162/162	175/175	149/167	381/381	167/167	175/175	153/172	385/385
	460–3–60	STD	NONE	–	–	25	30	26	166	27	30	28	168	27	30	28	168	29	35	30	170
			292A	16.5	19.9	30	30	27	166	32	35	29	168	32	35	29	168	35	35	31	170
			289A+292A	26.5	31.9	45	45	41	166	47	50	43	168	47	50	43	168	50	50	45	170
			295A	33.5	40.3	55	60	50	166	57	60	52	168	58	60	53	168	60	60	55	170
			289A+295A	43.5	52.3	70	70	64	166	72	80	66	168	73	80	67	168	75	80	69	170
			292A+295A	50.0	60.2	65	70	73	166	67	70	75	168	68	80	76	168	70	80	78	170
		MED	NONE	–	–	27	30	28	181	28	35	30	183	29	35	30	183	31	35	32	185
			292A	16.5	19.9	32	35	29	181	34	35	31	183	35	35	32	183	37	40	34	185
			289A+292A	26.5	31.9	47	50	43	181	49	50	45	183	50	50	45	183	52	60	47	185
			295A	33.5	40.3	57	60	52	181	60	60	55	183	60	60	55	183	62	70	57	185
			289A+295A	43.5	52.3	72	80	66	181	75	80	68	183	75	80	69	183	77	80	71	185
			292A+295A	50.0	60.2	67	80	75	181	70	80	77	183	70	80	78	183	72	80	80	185
		HIGH	NONE	–	–	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
			292A	16.5	19.9	38	40	35	184	40	40	37	186	41	45	37	186	43	45	39	188
			289A+292A	26.5	31.9	53	60	48	184	55	60	50	186	56	60	51	186	58	60	53	188
			295A	33.5	40.3	64	70	58	184	66	70	60	186	66	70	61	186	69	70	63	188
			289A+295A	43.5	52.3	79	80	72	184	81	90	74	186	81	90	74	186	84	90	76	188
			292A+295A	50.0	60.2	73	80	81	184	76	80	83	186	76	80	83	186	78	80	86	188
	575–3–60	STD	NONE	–	–	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
			293A	16.5	15.9	24	25	22	138	29	30	26	142	26	30	23	140	31	35	28	144
			290A+293A	26.5	25.5	36	40	33	138	41	45	37	142	38	40	35	140	43	45	39	144
			296A	33.5	32.2	44	45	40	138	49	50	45	142	46	50	42	140	51	60	47	144
			290A+296A	43.5	41.8	56	60	51	138	61	70	56	142	58	60	53	140	63	70	58	144
			293A+296A	50.0	48.1	52	60	59	138	57	60	63	142	54	60	60	140	59	60	65	144
		MED	NONE	–	–	20	25	21	138	24	30	25	142	22	25	23	140	26	30	27	144
			293A	16.5	15.9	24	25	22	138	29	30	26	142	26	30	23	140	31	35	28	144
			290A+293A	26.5	25.5	36	40	33	138	41	45	37	142	38	40	35	140	43	45	39	144
			296A	33.5	32.2	44	45	40	138	49	50	45	142	46	50	42	140	51	60	47	144
			290A+296A	43.5	41.8	56	60	51	138	61	70	56	142	58	60	53	140	63	70	58	144
			293A+296A	50.0	48.1	52	60	59	138	57	60	63	142	54	60	60	140	59	60	65	144
		HIGH	NONE	–	–	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156
			293A	16.5	15.9	32	35	29	150	36	40	33	154	34	35	31	152	38	40	35	156
			290A+293A	26.5	25.5	44	45	40	150	48	50	44	154	46	50	42	152	50	60	46	156
			296A	33.5	32.2	52	60	47	150	57	60	52	154	54	60	49	152	59	60	54	156
			290A+296A	43.5	41.8	64	70	58	150	69	70	63	154	66	70	60	152	71	80	65	156
			293A+296A	50.0	48.1	60	70	66	150	65	70	70	154	62	70	68	152	67	70	72	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 7 – 50HC 14 Unit Wire/Fuse or HACR Breaker Sizing Data - 2-Speed Indoor Fan Motor

UNIT	NO M. V–Ph–HZ	IFM-TYPE	ELEC. HTR			NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
						NO P.E.				w/ P.E. (pwrd fr/unit)				NO P.E.				w/ P.E. (pwrd fr/unit)			
			CRHEATER***A00	Nom (kW)	FLA	MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE		MCA	MAX FUSE or HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
50HC*D14 (2–stage cool)	208/230–3–60	STD	NONE	–	–	58/57	70/70	60/59	337	61/61	80/70	65/64	341	62/62	80/80	66/65	342	66/65	80/80	70/69	346
			291A	12.4/16.5	34.4/39.7	58/60	70/70	60/59	337/337	61/65	80/70	65/64	341/341	62/66	80/80	66/65	342/342	66/71	80/80	70/69	346/346
			288A+291A	19.9/26.5	55.3/63.8	80/90	80/90	73/82	337/337	85/95	90/100	78/87	341/341	86/96	90/100	79/88	342/342	91/101	100/110	83/92	346/346
			294A	25.2/33.5	69.9/80.6	99/111	100/125	90/102	337/337	103/116	110/125	95/106	341/341	105/117	110/125	96/107	342/342	109/122	110/125	100/112	346/346
			288A+294A	32.7/43.5	90.7/104.7	125/141	125/150	114/129	337/337	129/146	150/150	119/134	341/341	131/147	150/150	120/135	342/342	135/152	150/175	124/139	346/346
			291A+294A	37.6/50.0	104.3/120.3	142/131	150/150	130/147	337/337	146/135	150/150	134/152	341/341	148/137	150/150	135/153	342/342	152/141	175/150	140/157	346/346
		MED	NONE	–	–	60/59	70/70	63/62	361	64/63	80/80	67/66	365	65/64	80/80	68/67	366	68/67	80/80	73/71	370
			291A	12.4/16.5	34.4/39.7	60/62	70/70	63/62	361/361	64/67	80/80	67/66	365/365	65/68	80/80	68/67	366/366	68/73	80/80	73/71	370/370
			288A+291A	19.9/26.5	55.3/63.8	83/92	90/100	76/85	361/361	88/97	90/100	80/89	365/365	89/98	90/100	82/90	366/366	94/103	100/110	86/95	370/370
			294A	25.2/33.5	69.9/80.6	101/113	110/125	93/104	361/361	106/118	110/125	97/108	365/365	107/119	110/125	98/109	366/366	112/124	125/125	103/114	370/370
			288A+294A	32.7/43.5	90.7/104.7	127/144	150/150	117/132	361/361	132/148	150/150	121/136	365/365	133/150	150/150	122/137	366/366	138/154	150/175	127/142	370/370
			291A+294A	37.6/50.0	104.3/120.3	144/133	150/150	132/150	361/361	149/138	150/150	137/154	365/365	150/139	150/150	138/155	366/366	155/144	175/175	142/160	370/370
		HIGH	NONE	–	–	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
			291A	12.4/16.5	34.4/39.7	70/76	80/80	74/74	376/376	74/80	80/80	78/78	380/380	75/82	80/90	79/79	381/381	80/86	90/90	84/84	385/385
			288A+291A	19.9/26.5	55.3/63.8	95/106	100/110	87/97	376/376	100/110	100/125	91/101	380/380	101/112	110/125	93/102	381/381	106/116	110/125	97/107	385/385
			294A	25.2/33.5	69.9/80.6	113/127	125/150	104/116	376/376	118/131	125/150	108/121	380/380	119/133	125/150	109/122	381/381	124/137	125/150	114/126	385/385
			288A+294A	32.7/43.5	90.7/104.7	139/157	150/175	128/144	376/376	144/162	150/175	132/148	380/380	145/163	150/175	133/149	381/381	150/168	150/175	138/154	385/385
			291A+294A	37.6/50.0	104.3/120.3	156/146	175/175	143/162	376/376	161/151	175/175	148/166	380/380	162/152	175/175	149/167	381/381	167/157	175/175	153/172	385/385
	460–3–60	STD	NONE	–	–	25	30	26	165	27	30	28	167	27	30	29	167	29	35	31	169
			292A	16.5	19.9	30	30	27	165	32	35	29	167	33	35	30	167	35	35	32	169
			289A+292A	26.5	31.9	45	45	41	165	47	50	43	167	48	50	44	167	50	50	46	169
			295A	33.5	40.3	56	60	51	165	58	60	53	167	58	60	53	167	61	70	55	169
			289A+295A	43.5	52.3	71	80	65	165	73	80	67	167	73	80	67	167	76	80	69	169
			292A+295A	50.0	60.2	65	70	74	165	68	80	76	167	68	80	76	167	70	80	78	169
		MED	NONE	–	–	26	30	27	177	28	30	29	179	28	30	30	179	30	35	32	181
			292A	16.5	19.9	31	35	29	177	34	35	31	179	34	35	31	179	36	40	33	181
			289A+292A	26.5	31.9	46	50	42	177	49	50	44	179	49	50	45	179	51	60	47	181
			295A	33.5	40.3	57	60	52	177	59	60	54	179	60	60	55	179	62	70	57	181
			289A+295A	43.5	52.3	72	80	66	177	74	80	68	179	75	80	68	179	77	80	70	181
			292A+295A	50.0	60.2	67	80	75	177	69	80	77	179	70	80	77	179	72	80	79	181
		HIGH	NONE	–	–	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
			292A	16.5	19.9	38	40	35	184	40	40	37	186	41	45	37	186	43	45	39	188
			289A+292A	26.5	31.9	53	60	48	184	55	60	50	186	56	60	51	186	58	60	53	188
			295A	33.5	40.3	64	70	58	184	66	70	60	186	66	70	61	186	69	70	63	188
			289A+295A	43.5	52.3	79	80	72	184	81	90	74	186	81	90	74	186	84	90	76	188
			292A+295A	50.0	60.2	73	80	81	184	76	80	83	186	76	80	83	186	78	80	86	188
	575–3–60	STD	NONE	–	–	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
			293A	16.5	15.9	26	30	23	138	31	35	28	142	28	30	25	140	33	35	30	144
			290A+293A	26.5	25.5	38	40	35	138	43	45	39	142	40	40	36	140	45	45	41	144
			296A	33.5	32.2	46	50	42	138	51	60	47	142	48	50	44	140	53	60	49	144
			290A+296A	43.5	41.8	58	60	53	138	63	70	58	142	60	60	55	140	65	70	60	144
			293A+296A	50.0	48.1	54	60	60	138	59	60	65	142	56	60	62	140	61	70	67	144
		MED	NONE	–	–	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
			293A	16.5	15.9	26	30	23	138	31	35	28	142	28	30	25	140	33	35	30	144
			290A+293A	26.5	25.5	38	40	35	138	43	45	39	142	40	40	36	140	45	45	41	144
			296A	33.5	32.2	46	50	42	138	51	60	47	142	48	50	44	140	53	60	49	144
			290A+296A	43.5	41.8	58	60	53	138	63	70	58	142	60	60	55	140	65	70	60	144
			293A+296A	50.0	48.1	54	60	60	138	59	60	65	142	56	60	62	140	61	70	67	144
		HIGH	NONE	–	–	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156
			293A	16.5	15.9	32	35	29	150	36	40	33	154	34	35	31	152	38	40	35	156
			290A+293A	26.5	25.5	44	45	40	150	48	50	44	154	46	50	42	152	50	60	46	156
			296A	33.5	32.2	52	60	47	150	57	60	52	154	54	60	49	152	59	60	54	156
			290A+296A	43.5	41.8	64	70	58	150	69	70	63	154	66	70	60	152	71	80	65	156
			293A+296A	50.0	48.1	60	70	66	150	65	70	70	154	62	70	68	152	67	70	72	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Table 8 – 50HC 14 Unit Wire Sizing Data with Factory Installed HACR Breaker - 2-Speed Indoor Fan Motor

UNIT	NO M. V–Ph–HZ	IFM-TYPE	ELEC. HTR			NO C.O. or UNPWR C.O.								w/ PWRD C.O.							
						NO P.E.				w/ P.E. (pwrd fr/unit)				NO P.E.				w/ P.E. (pwrd fr/unit)			
			CRHEATER***A00	Nom (kW)	FLA	MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA			FLA	LRA			FLA	LRA
50HC*D14 (2–stage cool)	208/230–3–60	STD	NONE	–	–	58/58	70/70	60/59	337	61/61	80/80	65/64	341	62/62	80/80	66/65	342	66/66	80/80	70/69	346
			291A	12.4/16.5	34.4/39.7	60/60	70/70	60/59	337/337	65/65	80/80	65/64	341/341	66/66	80/80	66/65	342/342	71/71	80/80	70/69	346/346
			288A+291A	19.9/26.5	55.3/63.8	90/90	90/90	73/82	337/337	95/95	100/100	78/87	341/341	96/96	100/100	79/88	342/342	101/101	110/110	83/92	346/346
			294A	25.2/33.5	69.9/80.6	111/111	125/125	90/102	337/337	116/116	125/125	95/106	341/341	117/117	125/125	96/107	342/342	122/122	125/125	100/112	346/346
			288A+294A	32.7/43.5	90.7/104.7	141/141	150/150	114/129	337/337	146/146	150/150	119/134	341/341	147/147	150/150	120/135	342/342	152/152	175/175	124/139	346/346
			291A+294A	37.6/50.0	104.3/120.3	142/142	150/150	130/147	337/337	146/146	150/150	134/152	341/341	148/148	150/150	135/153	342/342	152/152	175/175	140/157	346/346
		MED	NONE	–	–	60/60	70/70	63/62	361	64/64	80/80	67/66	365	65/65	80/80	68/67	366	68/68	80/80	73/71	370
			291A	12.4/16.5	34.4/39.7	62/62	70/70	63/62	361/361	67/67	80/80	67/66	365/365	68/68	80/80	68/67	366/366	73/73	80/80	73/71	370/370
			288A+291A	19.9/26.5	55.3/63.8	92/92	100/100	76/85	361/361	97/97	100/100	80/89	365/365	98/98	100/100	82/90	366/366	103/103	110/110	86/95	370/370
			294A	25.2/33.5	69.9/80.6	113/113	125/125	93/104	361/361	118/118	125/125	97/108	365/365	119/119	125/125	98/109	366/366	124/124	125/125	103/114	370/370
			288A+294A	32.7/43.5	90.7/104.7	144/144	150/150	117/132	361/361	148/148	150/150	121/136	365/365	150/150	150/150	122/137	366/366	154/154	175/175	127/142	370/370
			291A+294A	37.6/50.0	104.3/120.3	144/144	150/150	132/150	361/361	149/149	150/150	137/154	365/365	150/150	150/150	138/155	366/366	155/155	175/175	142/160	370/370
		HIGH	NONE	–	–	70	80	74	376	73	80	78	380	74	80	79	381	78	90	84	385
			291A	12.4/16.5	34.4/39.7	76/76	80/80	74/74	376/376	80/80	80/80	78/78	380/380	82/82	90/90	79/79	381/381	86/86	90/90	84/84	385/385
			288A+291A	19.9/26.5	55.3/63.8	106/106	110/110	87/97	376/376	110/110	125/125	91/101	380/380	112/112	125/125	93/102	381/381	116/116	125/125	97/107	385/385
			294A	25.2/33.5	69.9/80.6	127/127	150/150	104/116	376/376	131/131	150/150	108/121	380/380	133/133	150/150	109/122	381/381	137/137	150/150	114/126	385/385
			288A+294A	32.7/43.5	90.7/104.7	157/157	175/175	128/144	376/376	162/162	175/175	132/148	380/380	163/163	175/175	133/149	381/381	168/168	175/175	138/154	385/385
			291A+294A	37.6/50.0	104.3/120.3	156/156	175/175	143/162	376/376	161/161	175/175	148/166	380/380	162/162	175/175	149/167	381/381	167/167	175/175	153/172	385/385
	460–3–60	STD	NONE	–	–	25	30	26	165	27	30	28	167	27	30	29	167	29	35	31	169
			292A	16.5	19.9	30	30	27	165	32	35	29	167	33	35	30	167	35	35	32	169
			289A+292A	26.5	31.9	45	45	41	165	47	50	43	167	48	50	44	167	50	50	46	169
			295A	33.5	40.3	56	60	51	165	58	60	53	167	58	60	53	167	61	70	55	169
			289A+295A	43.5	52.3	71	80	65	165	73	80	67	167	73	80	67	167	76	80	69	169
			292A+295A	50.0	60.2	65	70	74	165	68	80	76	167	68	80	76	167	70	80	78	169
		MED	NONE	–	–	26	30	27	177	28	30	29	179	28	30	30	179	30	35	32	181
			292A	16.5	19.9	31	35	29	177	34	35	31	179	34	35	31	179	36	40	33	181
			289A+292A	26.5	31.9	46	50	42	177	49	50	44	179	49	50	45	179	51	60	47	181
			295A	33.5	40.3	57	60	52	177	59	60	54	179	60	60	55	179	62	70	57	181
			289A+295A	43.5	52.3	72	80	66	177	74	80	68	179	75	80	68	179	77	80	70	181
			292A+295A	50.0	60.2	67	80	75	177	69	80	77	179	70	80	77	179	72	80	79	181
		HIGH	NONE	–	–	32	40	33	184	34	40	35	186	34	40	36	186	36	45	38	188
			292A	16.5	19.9	38	40	35	184	40	40	37	186	41	45	37	186	43	45	39	188
			289A+292A	26.5	31.9	53	60	48	184	55	60	50	186	56	60	51	186	58	60	53	188
			295A	33.5	40.3	64	70	58	184	66	70	60	186	66	70	61	186	69	70	63	188
			289A+295A	43.5	52.3	79	80	72	184	81	90	74	186	81	90	74	186	84	90	76	188
			292A+295A	50.0	60.2	73	80	81	184	76	80	83	186	76	80	83	186	78	80	86	188
	575–3–60	STD	NONE	–	–	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
			293A	16.5	15.9	26	30	23	138	31	35	28	142	28	30	25	140	33	35	30	144
			290A+293A	26.5	25.5	38	40	35	138	43	45	39	142	40	40	36	140	45	45	41	144
			296A	33.5	32.2	46	50	42	138	51	60	47	142	48	50	44	140	53	60	49	144
			290A+296A	43.5	41.8	58	60	53	138	63	70	58	142	60	60	55	140	65	70	60	144
			293A+296A	50.0	48.1	54	60	60	138	59	60	65	142	56	60	62	140	61	70	67	144
		MED	NONE	–	–	22	25	23	138	26	30	27	142	24	25	25	140	27	30	29	144
			293A	16.5	15.9	26	30	23	138	31	35	28	142	28	30	25	140	33	35	30	144
			290A+293A	26.5	25.5	38	40	35	138	43	45	39	142	40	40	36	140	45	45	41	144
			296A	33.5	32.2	46	50	42	138	51	60	47	142	48	50	44	140	53	60	49	144
			290A+296A	43.5	41.8	58	60	53	138	63	70	58	142	60	60	55	140	65	70	60	144
			293A+296A	50.0	48.1	54	60	60	138	59	60	65	142	56	60	62	140	61	70	67	144
		HIGH	NONE	–	–	27	30	28	150	31	35	32	154	29	35	30	152	33	40	34	156
			293A	16.5	15.9	32	35	29	150	36	40	33	154	34	35	31	152	38	40	35	156
			290A+293A	26.5	25.5	44	45	40	150	48	50	44	154	46	50	42	152	50	60	46	156
			296A	33.5	32.2	52	60	47	150	57	60	52	154	54	60	49	152	59	60	54	156
			290A+296A	43.5	41.8	64	70	58	150	69	70	63	154	66	70	60	152	71	80	65	156
			293A+296A	50.0	48.1	60	70	66	150	65	70	70	154	62	70	68	152	67	70	72	156

See: “Legend and Notes for Tables 1 – 8” on page 8.

Legend and Notes for Tables 1 - 8

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

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

$$= 227$$

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.

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