

**48HC 3 to 12.5 Nominal Tons  
Single Package Rooftop  
Gas Heating/Electric Cooling Unit  
with Puron® (R-410A) Refrigerant  
Sizes: 04 – 14**



# Electrical Data Supplement

**FOR MODELS PRODUCED ON OR AFTER JULY 30, 2012 ONLY!**

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

This supplement only applies to 48HC size 04 to 14 units manufactured on or after July 30, 2012. To confirm the date of manufacture of a 48HC unit, locate the unit nameplate and check the first four digits of the Serial Number. If the number listed in the first 4 digits of the Serial Number is 3112 or higher KEEP THIS DOCUMENT and use it along with the furnished Installation Instructions. See Fig. 1 for location of the nameplate; the Serial Number is located directly below the unit's Model Number.

## SERIAL NUMBER NOMENCLATURE

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

<p>Week of manufacture (fiscal calendar)</p> <hr/> <p>Year of manufacture ("12" = 2012)</p>	<p style="text-align: right;">Sequence number</p> <hr/> <p>Manufacturing location</p>
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To select which tables apply to a given unit, check the 7<sup>th</sup> and 8<sup>th</sup> digits of the Model Number to determine the unit's size (Cooling Tons) and the 17<sup>th</sup> digit to determine the unit's electrical option(s).

## MODEL NUMBER NOMENCLATURE

Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Example:	4	8	H	C	D	E	0	9	A	2	A	6	A	0	A	3	G	0

Cooling Tons
04 - 3 ton
05 - 4 ton
06 - 5 ton
07 - 6 ton
08 - 7.5 ton
09 - 8.5 ton
11 - 10 ton (12 EER)
12 - 10 ton
14 - 12.5 ton


Electrical Options
A = None
B = HACR Breaker
C = Non-Fused Disconnect
D = Thru-The-Base Connections
E = HACR & Thru-The-Base Connections
F = Non-Fused Disconnect and Thru-The-Base Connections
G = 2-Speed Indoor Fan (VFD) Controller
H = 2-Speed Fan Controller (VFD) and HACR Breaker
J = 2-Speed Fan Controller (VFD) and Non-Fused Disconnect
K = 2-Speed Fan Controller (VFD) and Thru-The-Base Connections
L = 2-Speed Fan Controller (VFD) with HACR & Thru-The-Base Connections
M = 2-Speed Fan Controller (VFD) with Non-Fused Disconnect and Thru-The-Base Connections

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## 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 48HC size 04 to 14 units manufactured on or after July 30, 2012. Check the first 4 digits of the unit's Serial Number (located on the unit's nameplate) if the number listed is 3112 or higher keep this document.

See Fig. 1 for location of the unit's nameplate. The Serial Number is located directly below the unit's 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.

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Nameplate Location

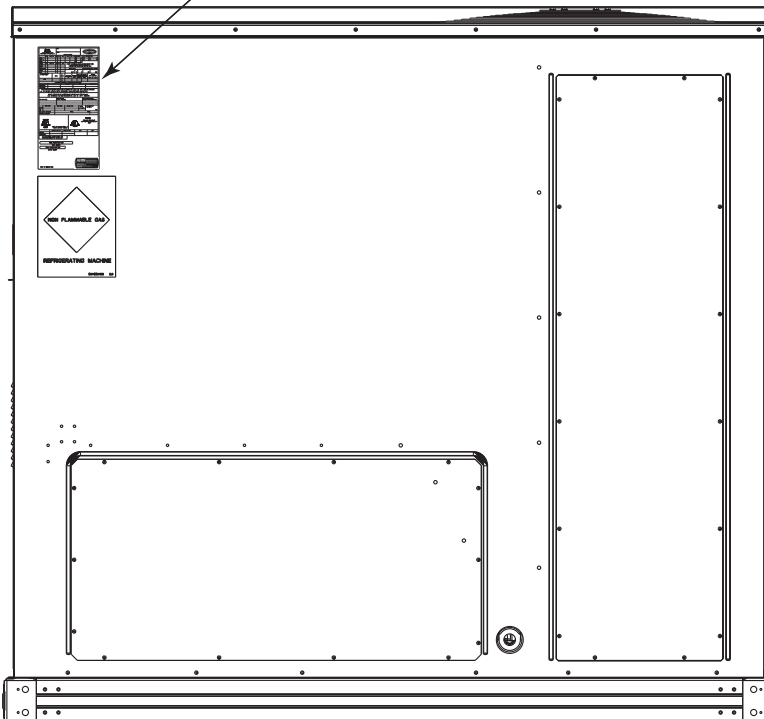


Fig. 1 - Location of Unit Nameplate

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

UNIT	NOM. V-Ph-Hz	IFM TYPE	NO C.O. or UNPWR C.O.						w/ PWRD C.O.								
			NO PE.			w/ P.E. (pwrdr fr/ unit)			NO PE.			w/ P.E. (pwrdr fr/ unit)					
			MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA			
48HC*A04	208/230-1-60	DD-STD	30	45	29	88	32	45	31	90	34	93	36	50	36	95	
		STD	27	40	26	93	29	45	28	95	32	98	34	45	34	100	
		MED	27	40	26	93	29	45	28	95	32	98	34	45	34	100	
	208/230-3-60	DD-STD	22	30	22	82	24	30	24	84	27	87	29	35	29	89	
		STD	20	25	19	94	22	30	21	96	24	99	26	30	27	101	
		MED	20	25	19	94	22	30	21	96	24	99	26	30	27	101	
	48HC*A05	460-3-60	HIGH	21/21	30/30	21/21	132	23/23	30/30	23/23	134	26/26	30/30	27/26	35/35	29/29	139
			DD-STD	12	15	12	43	13	15	13	44	14	45	15	20	16	46
			STD	11	15	10	48	12	15	11	49	13	50	14	20	14	51
		575-3-60	MED	11	15	10	48	12	15	11	49	13	50	14	20	14	51
			HIGH	12	15	11	67	13	15	12	68	14	69	15	20	15	70
			DD-STD	10	15	10	42	12	15	12	44	11	44	13	15	14	46
208/230-1-60		STD	7	15	6	45	9	15	9	47	9	47	11	15	10	49	
		MED	7	15	6	45	9	15	9	47	9	47	11	15	10	49	
		HIGH	8	15	7	49	10	15	9	51	9	51	11	15	11	53	
	DD-STD	37	50	35	127	38	50	37	129	41	132	43	60	43	134		
	STD	34	50	32	132	36	50	35	134	39	137	41	60	40	139		
	MED	34	50	32	132	36	50	35	134	39	137	41	60	40	139		
48HC*A05	208/230-3-60	DD-STD	26	30	26	93	28	40	28	95	31	98	33	45	34	100	
		STD	24	30	23	105	26	30	26	107	29	110	31	40	31	112	
		MED	24/24	30/30	23/23	122	26/26	30/30	26/25	124	29/29	40/40	31/31	40/40	31/31	129	
	575-3-60	HIGH	27/27	40/40	27/27	158	29/29	40/40	29/29	160	32/32	45/45	33/32	45/45	35/35	165	
		DD-STD	13	15	13	47	14	20	14	48	15	49	16	20	16	50	
		STD	12	15	11	52	13	15	12	53	14	54	15	20	15	55	
575-3-60	MED	12	15	11	61	13	15	12	62	14	63	15	20	15	64		
	HIGH	13	15	13	79	14	20	14	80	16	81	17	20	17	82		
	DD-STD	11	15	11	39	13	15	13	41	13	41	15	20	15	43		
575-3-60	STD	9	15	8	42	10	15	10	44	10	44	12	15	12	46		
	MED	9	15	8	42	11	15	11	44	11	44	13	15	13	46		
	HIGH	10	15	10	57	12	15	12	59	12	59	14	15	14	61		

See: "Legend and Notes for Tables 1 - 4" on page 13.

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

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	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA					
48HC*A06	208/230-1-60	DD-STD	41	60	39	144	42	60	41	146	45	60	44	149	47	60	47	151	
		STD	38	60	36	149	40	60	38	151	43	60	42	154	45	60	44	156	
		MED	40	60	38	174	42	60	41	176	45	60	44	179	47	60	46	181	
	208/230-3-60	DD-STD	29	40	28	120	31	45	31	122	34	45	34	125	36	50	36	127	
		STD	27	40	26	132	29	40	28	134	32	45	31	137	34	45	34	139	
		MED	29/28	40/40	28/28	170	31/30	45/45	30/30	172	33/33	45/45	33/33	175	35/35	50/50	36/35	177	
	48HC*A07	460-3-60	HIGH	30/30	45/45	30/29	185	32/32	45/45	32/32	187	35/35	50/50	35/35	190	37/37	50/50	37/37	192
			DD-STD	14	20	14	58	15	20	15	59	16	20	16	60	17	20	17	61
			STD	13	15	12	63	14	20	13	64	15	20	15	65	16	20	16	66
		575-3-60	MED	14	20	13	82	15	20	14	83	16	20	16	84	17	20	17	85
			HIGH	14	20	14	90	15	20	15	91	17	20	16	92	18	20	18	93
			DD-STD	12	15	12	46	14	15	14	48	13	15	13	48	15	20	16	50
48HC*D08		208/230-3-60	STD	9	15	8	49	11	15	10	51	11	15	10	51	13	15	12	53
			MED	10	15	9	53	12	15	11	55	11	15	11	55	13	15	13	57
			HIGH	11	15	10	64	12	15	12	66	12	15	12	66	14	15	14	68
		460-3-60	STD	32/32	50/50	31/31	165	36/36	50/50	36/35	169	37/37	50/50	37/36	170	41/41	50/50	41/41	174
			MED	36/36	50/50	35/35	201	39/39	50/50	39/39	205	40/40	50/50	40/40	206	44/44	60/60	45/45	210
			HIGH	41/40	50/50	41/40	217	45/44	60/60	45/44	221	46/45	60/60	46/45	222	49/49	60/60	51/50	226
	575-3-60	STD	17	25	16	84	18	25	18	86	19	25	18	86	21	25	20	88	
		MED	18	25	18	102	20	25	20	104	21	25	20	104	22	30	22	106	
		HIGH	21	25	20	110	22	30	22	112	23	30	23	112	25	30	25	114	
	48HC*A07	208/230-3-60	STD	13	15	12	61	16	20	16	65	14	20	14	63	18	20	18	67
			MED	14	20	13	76	18	20	17	80	15	20	15	78	19	25	19	82
			HIGH	17	20	16	90	20	25	21	94	18	25	18	92	22	25	23	96
575-3-60		STD	39/39	50/50	41/40	208	43/43	50/50	45/45	212	44/44	50/50	46/46	213	48/48	60/60	51/50	217	
		MED	41/41	50/50	43/42	229	45/45	50/50	47/47	233	46/46	50/50	48/48	234	50/49	60/60	53/52	238	
		HIGH	45	50	47	258	48	60	51	262	49	60	52	263	53	60	57	267	
460-3-60		STD	18	20	19	104	20	25	21	106	20	25	21	106	22	25	23	108	
		MED	19	25	20	114	21	25	22	116	21	25	22	116	23	25	24	118	
		HIGH	21	25	22	129	23	25	24	131	23	25	24	131	25	30	27	133	
575-3-60		STD	13	15	13	77	17	20	17	81	14	15	15	79	18	20	19	83	
		MED	13	15	13	81	17	20	18	85	15	20	15	83	19	20	20	87	
		HIGH	14	15	14	92	18	20	19	96	16	20	16	94	19	25	21	98	

See: Legend and Notes for Tables 1 - 4 \* on page 13.

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

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	FUSE or HACR BRKR	FLA	LRA	MCA	FUSE or HACR BRKR	FLA	LRA	MCA	FUSE or HACR BRKR	FLA	LRA	MCA	FUSE or HACR BRKR	FLA	LRA	MCA	FUSE or HACR BRKR	FLA	LRA	MCA	FUSE or HACR BRKR	FLA	LRA
48HC*D09	208/230-3-60	STD	39/39	50/50	41/41	208	43/43	50/50	45/45	212	44/44	50/50	46/46	213	48/48	51/50	217	48/48	60/60	51/50	217	48/48	60/60	51/50	217	
		MED	41/41	50/50	43/43	229	45/45	50/50	47/47	233	46/46	50/50	48/48	234	50/50	60/60	238	48/48	60/60	53/53	238	50/50	60/60	53/53	238	
		HIGH	45	50	47	258	49	60	52	262	50	60	53	263	53	60	267	53	60	57	267	53	60	57	267	
	460-3-60	STD	19	20	19	104	20	25	21	106	21	25	22	106	23	25	108	108	23	25	24	108	23	25	24	108
		MED	19	25	20	114	21	25	22	116	22	25	23	116	23	25	118	118	23	25	25	118	23	25	25	118
		HIGH	21	25	22	129	23	25	24	131	24	25	25	131	25	30	133	133	25	30	27	133	25	30	27	133
48HC*D11	575-3-60	STD	14	15	14	77	18	20	19	81	16	20	16	79	20	25	83	83	20	25	21	83	20	25	21	83
		MED	14	20	15	81	18	20	19	85	16	20	17	83	20	25	87	87	20	25	21	87	20	25	21	87
		HIGH	15	20	16	92	19	20	20	96	17	20	18	94	21	25	98	98	21	25	22	98	21	25	22	98
	208/230-3-60	STD	51/50	60/60	53/53	284	54/54	60/60	57/57	288	55/55	60/60	59/58	289	59/59	70/70	63/63	293	59/59	70/70	63/63	293	59/59	70/70	63/63	293
		MED	54	60	57	313	58	70	62	317	59	70	63	318	63	70	322	322	63	70	67	322	63	70	67	322
		HIGH	57/56	70/60	61/60	315	61/60	70/70	65/64	319	62/61	70/70	66/65	320	66/65	80/80	71/70	324	66/65	80/80	71/70	324	66/65	80/80	71/70	324
48HC*D12	460-3-60	STD	23	25	24	136	25	30	26	138	25	30	27	138	27	30	140	140	27	30	29	140	27	30	29	140
		MED	25	30	26	151	27	30	28	153	27	30	29	153	29	35	155	155	29	35	31	155	29	35	31	155
		HIGH	26	30	28	152	28	30	30	154	28	30	30	154	30	35	156	156	30	35	32	156	30	35	32	156
	575-3-60	STD	18	20	18	95	21	25	23	99	19	25	20	97	23	25	101	101	23	25	24	101	23	25	24	101
		MED	18	20	19	106	22	25	23	110	20	25	21	108	24	25	112	112	24	25	25	112	24	25	25	112
		HIGH	21	25	22	120	25	30	27	124	23	25	24	122	27	30	126	126	27	30	29	126	27	30	29	126
48HC*D14	208/230-3-60	STD	49/49	60/60	52/51	309	53/53	60/60	56/56	313	54/54	60/60	57/57	314	58/58	70/70	62/61	318	58/58	70/70	62/61	318	58/58	70/70	62/61	318
		MED	53	60	56	338	57	70	60	342	58	70	61	343	62	70	347	347	62	70	66	347	62	70	66	347
		HIGH	56/55	60/60	59/58	340	60/59	70/70	64/63	344	61/60	70/70	65/64	345	65/64	80/70	69/68	349	65/64	80/70	69/68	349	65/64	80/70	69/68	349
	460-3-60	STD	24	30	25	148	26	30	27	150	26	30	28	150	28	30	152	152	28	30	30	152	28	30	30	152
		MED	26	30	27	163	28	30	29	165	28	30	30	165	30	35	167	167	30	35	32	167	30	35	32	167
		HIGH	27	30	29	164	29	35	31	166	29	35	31	166	31	35	168	168	31	35	33	168	31	35	33	168
48HC*D14	575-3-60	STD	18	20	18	105	22	25	23	109	19	25	20	107	23	25	111	111	23	25	25	111	23	25	25	111
		MED	19	20	19	116	22	25	24	120	20	25	21	118	24	30	122	122	24	30	26	122	24	30	26	122
		HIGH	21	25	22	130	25	30	27	134	23	25	24	132	27	30	136	136	27	30	29	136	27	30	29	136
	208/230-3-60	STD	56/56	70/70	59/58	330	60/60	70/70	63/63	334	61/61	70/70	64/64	335	65/65	80/80	68/68	339	65/65	80/80	68/68	339	65/65	80/80	68/68	339
		MED	58	70	61	344	62	80	65	348	63	80	67	349	67	80	353	353	67	80	71	353	67	80	71	353
		HIGH	68	80	72	350	72	80	77	354	73	80	78	355	77	90	359	359	77	90	82	359	77	90	82	359
48HC*D14	460-3-60	STD	29	35	30	166	31	35	32	168	31	40	32	168	33	40	170	170	33	40	35	170	33	40	35	170
		MED	30	35	31	173	32	40	33	175	32	40	34	175	34	40	177	177	34	40	36	177	34	40	36	177
		HIGH	35	40	37	176	37	45	39	178	37	45	39	178	39	45	180	180	39	45	41	180	39	45	41	180
	575-3-60	STD	22	25	23	128	26	30	27	132	24	30	25	130	28	30	134	134	28	30	29	134	28	30	29	134
		MED	22	25	23	128	26	30	27	132	24	30	25	130	28	30	134	134	28	30	29	134	28	30	29	134
		HIGH	29	35	30	140	32	40	34	144	30	35	32	142	34	40	146	146	34	40	36	146	34	40	36	146

See: "Legend and Notes for Tables 1 - 4" on page 13.

Table 2 – Unit Wire Sizing Data with Factory Installed HACR Breaker

UNIT	NOM. V-Ph-Hz	IFM TYPE	NO C.O. or UNPWR C.O.										w/ PWRD C.O.										
			NO PE.					w/ P.E. (pwrdr fr/ unit)					NO PE.					w/ P.E. (pwrdr fr/ unit)					
			MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	
48HC*A04	208/230-1-60	DD-STD	30	45	29	88	32	45	31	90	34	50	34	93	36	50	36	95	36	95	36	95	
		STD	27	40	26	93	29	45	28	95	32	45	31	98	34	45	34	100	34	100	34	100	
	208/230-3-60	MED	27	40	26	93	29	45	28	95	32	45	31	98	34	45	34	100	34	100	34	100	
		DD-STD	22	30	22	82	24	30	24	84	27	30	27	87	29	35	29	89	29	89	29	89	
	460-3-60	STD	20	25	19	94	22	30	21	96	24	30	25	99	26	30	27	101	26	101	26	101	
		MED	20	25	19	94	22	30	21	96	24	30	25	99	26	30	27	101	26	101	26	101	
	48HC*A05	208/230-1-60	HIGH	21/21	30/30	21/21	132	23/23	30/30	23/23	134	26/26	30/30	27/26	137	28/28	35/35	29/29	139	28/28	35/35	29/29	139
			DD-STD	12	15	12	43	13	15	13	44	14	20	14	45	15	20	16	46	15	20	16	46
		575-3-60	STD	11	15	10	48	12	15	11	49	13	15	13	50	14	20	14	51	14	20	14	51
			MED	11	15	10	48	12	15	11	49	13	15	13	50	14	20	14	51	14	20	14	51
208/230-3-60		HIGH	12	15	11	67	13	15	12	68	14	15	14	69	15	20	15	70	15	20	15	70	
		DD-STD	10	15	10	42	12	15	12	44	11	15	12	44	13	15	14	46	13	15	14	46	
460-3-60		STD	7	15	6	45	9	15	9	47	9	15	8	47	11	15	10	49	11	15	10	49	
		MED	7	15	6	45	9	15	9	47	9	15	8	47	11	15	10	49	11	15	10	49	
208/230-1-60		HIGH	8	15	7	49	10	15	9	51	9	15	9	51	11	15	11	53	11	15	11	53	
		DD-STD	37	50	35	127	38	50	37	129	41	60	41	132	43	60	43	134	43	60	43	134	
48HC*A05	208/230-3-60	STD	34	50	32	132	36	50	35	134	39	60	38	137	41	60	40	139	41	60	40	139	
		MED	34	50	32	132	36	50	35	134	39	60	38	137	41	60	40	139	41	60	40	139	
48HC*A05	208/230-3-60	DD-STD	26	30	26	93	28	40	28	95	31	40	31	98	33	45	34	100	33	45	34	100	
		STD	24	30	23	105	26	30	26	107	29	40	29	110	31	40	31	112	31	40	31	112	
	460-3-60	MED	24/24	30/30	23/23	122	26/26	30/30	26/25	124	29/29	40/40	29/29	127	31/31	40/40	31/31	129	31/31	40/40	31/31	129	
		HIGH	27/27	40/40	27/27	158	29/29	40/40	29/29	160	32/32	45/45	33/32	163	34/34	45/45	35/35	165	34/34	45/45	35/35	165	
	575-3-60	DD-STD	13	15	13	47	14	20	14	48	15	20	15	49	16	20	16	50	16	20	16	50	
		STD	12	15	11	52	13	15	12	53	14	20	14	54	15	20	15	55	15	20	15	55	
	48HC*A05	460-3-60	MED	12	15	11	61	13	15	12	62	14	15	14	63	15	20	15	64	15	20	15	64
			HIGH	13	15	13	79	14	20	14	80	16	20	16	81	17	20	17	82	17	20	17	82
	48HC*A05	575-3-60	DD-STD	11	15	11	39	13	15	13	41	13	15	13	41	15	20	15	43	15	20	15	43
			STD	9	15	8	42	10	15	10	44	10	15	10	44	12	15	12	46	12	15	12	46
48HC*A05	575-3-60	MED	9	15	8	42	11	15	11	44	11	15	10	44	13	15	13	46	13	15	13	46	
		HIGH	10	15	10	57	12	15	12	59	12	15	12	59	14	15	14	61	14	15	14	61	

See: "Legend and Notes for Tables 1 - 4" on page 13.

**Table 2 - Unit Wire Sizing Data with Factory Installed HACR Breaker (cont)**

UNIT	NOM. V-Ph-Hz	IFM TYPE	NO C.O. or UNPWR C.O.												w/ PWRD C.O.												
			NO PE.						w/ P.E. (pwrd fr/ unit)						NO PE.						w/ P.E. (pwrd fr/ unit)						
			MCA	HACR BRKR	FLA	DISC. SIZE	LRA	MCA	HACR BRKR	FLA	DISC. SIZE	LRA	MCA	HACR BRKR	FLA	DISC. SIZE	LRA	MCA	HACR BRKR	FLA	DISC. SIZE	LRA	MCA	HACR BRKR	FLA	DISC. SIZE	LRA
48HC*A06	208/230-1-60	DD-STD	41	60	39	144	42	60	41	146	45	60	44	149	47	60	47	151	44	149	47	60	47	151	44	149	
		STD	38	60	36	149	40	60	38	151	43	60	42	154	45	60	44	156	42	154	45	60	44	156	42	154	
		MED	40	60	38	174	42	60	41	176	45	60	44	179	47	60	46	181	44	179	47	60	46	181	44	179	
	208/230-3-60	DD-STD	29	40	28	120	31	45	31	122	34	45	34	125	36	50	36	127	34	125	36	50	36	127	34	125	
		STD	27	40	26	132	29	40	28	134	32	45	31	137	34	45	34	139	31	137	34	45	34	139	31	137	
		MED	29/29	40/40	28/28	170	31/31	45/45	30/30	172	33/33	45/45	33/33	175	35/35	50/50	36/35	177	33/33	175	35/35	50/50	36/35	177	33/33	175	
	460-3-60	HIGH	30/30	45/45	30/29	185	32/32	45/45	32/32	187	35/35	50/50	35/35	190	37/37	50/50	37/37	192	35/35	190	37/37	50/50	37/37	192	35/35	190	
		DD-STD	14	20	14	58	15	20	15	59	16	20	16	60	17	20	17	61	15	60	17	20	17	61	15	60	
		STD	13	15	12	63	14	20	13	64	15	20	15	65	16	20	16	66	14	65	16	20	16	66	14	65	
	48HC*A07	460-3-60	MED	14	20	13	82	15	20	14	83	16	20	16	84	17	20	17	85	15	84	17	20	17	85	15	84
			HIGH	14	20	14	90	15	20	15	91	17	20	16	92	18	20	18	93	15	92	18	20	18	93	15	92
			DD-STD	12	15	12	46	14	15	14	48	13	15	13	48	15	20	16	50	13	48	15	20	16	50	13	48
575-3-60		STD	9	15	8	49	11	15	10	51	11	15	10	51	13	15	12	53	10	51	13	15	12	53	10	51	
		MED	10	15	9	53	12	15	11	55	11	15	11	55	13	15	13	57	11	55	13	15	13	57	11	55	
		HIGH	11	15	10	64	12	15	12	66	12	15	12	66	14	15	14	68	12	66	14	15	14	68	12	66	
48HC*A08		208/230-3-60	STD	32/32	50/50	31/31	165	36/36	50/50	36/35	169	37/37	50/50	37/36	170	41/41	50/50	41/41	174	37/36	170	41/41	50/50	41/41	174	37/36	170
			MED	36/36	50/50	35/35	201	39/39	50/50	39/39	205	40/40	50/50	40/40	206	44/44	60/60	44/45	210	40/40	206	44/44	60/60	44/45	210	40/40	206
			HIGH	41/41	50/50	41/40	217	45/45	60/60	45/44	221	46/46	60/60	46/45	222	49/49	60/60	49/50	226	46/46	222	49/49	60/60	49/50	226	46/46	222
		460-3-60	STD	17	25	16	84	18	25	18	86	19	25	18	86	21	25	20	88	18	86	21	25	20	88	18	86
			MED	18	25	18	102	20	25	20	104	21	25	20	104	22	30	22	106	20	104	22	30	22	106	20	104
			HIGH	21	25	20	110	22	30	22	112	23	30	23	112	25	30	25	114	23	112	25	30	25	114	23	112
	48HC*D08	208/230-3-60	STD	13	15	12	61	16	20	65	16	20	14	63	18	20	18	67	14	63	18	20	18	67	14	63	
			MED	14	20	13	76	18	20	17	80	15	20	15	78	19	25	19	82	15	78	19	25	19	82	15	78
			HIGH	17	20	16	90	20	25	21	94	18	25	18	92	22	25	23	96	18	92	22	25	23	96	18	92
		460-3-60	STD	39/39	50/50	41/40	208	43/43	50/50	45/45	212	44/44	50/50	46/46	213	48/48	60/60	48/48	217	44/44	213	48/48	60/60	48/48	217	44/44	213
			MED	41/41	50/50	43/42	229	45/45	50/50	47/47	233	46/46	50/50	48/48	234	50/50	60/60	50/52	238	46/46	234	50/50	60/60	50/52	238	46/46	234
			HIGH	45	50	47	258	48	60	51	262	49	60	52	263	53	60	57	267	49	263	53	60	57	267	49	263
575-3-60		STD	18	20	19	104	20	25	21	106	20	25	21	106	22	25	23	108	20	106	22	25	23	108	20	106	
		MED	19	25	20	114	21	25	22	116	21	25	22	116	23	25	24	118	21	116	23	25	24	118	21	116	
		HIGH	21	25	22	129	23	25	24	131	23	25	24	131	25	30	27	133	23	131	25	30	27	133	23	131	
575-3-60		STD	13	15	13	77	17	20	17	81	14	15	15	79	18	20	19	83	14	79	18	20	19	83	14	79	
		MED	13	15	13	81	17	20	18	85	15	20	15	83	19	20	20	87	15	83	19	20	20	87	15	83	
		HIGH	14	15	14	92	18	20	19	96	16	20	16	94	19	25	21	98	16	94	19	25	21	98	16	94	

See: "Legend and Notes for Tables 1 - 4" on page 13.

**48HC\*\*04-14**

Table 2 - Unit Wire Sizing Data with Factory Installed HACR Breaker (cont)

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	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA	MCA	HACR BRKR	FLA	DISC. SIZE LRA
48HC*D09	208/230-3-60	STD	39/39	50/50	41/41	208	43/43	50/50	45/45	212	44/44	50/50	46/46	213	48/48	60/60	51/50	217				
		MED	41/41	50/50	43/43	229	45/45	50/50	47/47	233	46/46	50/50	48/48	234	50/50	60/60	53/53	238				
		HIGH	45	50	47	258	49	60	52	262	50	60	53	263	53	60	57	267				
	460-3-60	STD	19	20	19	104	20	25	21	106	21	25	22	106	23	25	24	108				
		MED	19	25	20	114	20	25	22	116	22	25	23	116	23	25	25	118				
		HIGH	21	25	22	129	23	25	24	131	24	25	25	131	25	30	27	133				
48HC*D11	575-3-60	STD	14	15	14	77	18	20	19	81	16	20	16	79	20	25	21	83				
		MED	14	20	15	81	18	20	19	85	16	20	17	83	20	25	21	87				
		HIGH	15	20	16	92	19	20	20	96	17	20	18	94	21	25	22	98				
	208/230-3-60	STD	51/51	60/60	53/53	284	54/54	60/60	57/57	288	55/55	60/60	59/58	289	59/59	70/70	63/63	293				
		MED	54	60	57	313	58	70	62	317	59	70	63	318	63	70	67	322				
		HIGH	57/57	70/70	61/60	315	61/61	70/70	65/64	319	62/62	70/70	66/65	320	66/66	80/80	71/70	324				
48HC*D12	460-3-60	STD	23	25	24	136	25	30	26	138	25	30	27	138	27	30	29	140				
		MED	25	30	26	151	27	30	28	153	27	30	29	153	29	35	31	155				
		HIGH	26	30	28	152	28	30	30	154	28	30	30	154	30	35	32	156				
	575-3-60	STD	18	20	18	95	21	25	23	99	19	25	20	97	23	25	24	101				
		MED	18	20	19	106	22	25	23	110	20	25	21	108	24	25	25	112				
		HIGH	21	25	22	120	25	30	27	124	23	25	24	122	27	30	29	126				
48HC*D14	208/230-3-60	STD	49/49	60/60	52/51	309	53/53	60/60	56/56	313	54/54	60/60	57/57	314	58/58	70/70	62/61	318				
		MED	53	60	56	338	57	70	60	342	58	70	61	343	62	70	66	347				
		HIGH	56/56	60/60	59/58	340	60/60	70/70	64/63	344	61/61	70/70	65/64	345	65/65	80/80	69/68	349				
	460-3-60	STD	24	30	25	148	26	30	27	150	26	30	28	150	28	30	30	152				
		MED	26	30	27	163	28	30	29	165	28	30	30	165	30	35	32	167				
		HIGH	27	30	29	164	29	35	31	166	29	35	31	166	31	35	33	168				
48HC*D14	575-3-60	STD	18	20	18	105	22	25	23	109	19	25	20	107	23	25	25	111				
		MED	19	20	19	116	22	25	24	120	20	25	21	118	24	30	26	122				
		HIGH	21	25	22	130	25	30	27	134	23	25	24	132	27	30	29	136				
	208/230-3-60	STD	56/56	70/70	59/58	330	60/60	70/70	63/63	334	61/61	70/70	64/64	335	65/65	80/80	68/68	339				
		MED	58	70	61	344	62	80	65	348	63	80	67	349	67	80	71	353				
		HIGH	68	80	72	350	72	80	77	354	73	80	78	355	77	90	82	359				
48HC*D14	460-3-60	STD	29	35	30	166	31	35	32	168	31	40	32	168	33	40	35	170				
		MED	30	35	31	173	32	40	33	175	32	40	34	175	34	40	36	177				
		HIGH	35	40	37	176	37	45	39	178	37	45	39	178	39	45	41	180				
	575-3-60	STD	22	25	23	128	26	30	27	132	24	30	25	130	28	30	29	134				
		MED	22	25	23	128	26	30	27	132	24	30	25	130	28	30	29	134				
		HIGH	29	35	30	140	32	40	34	144	30	35	32	142	34	40	36	146				

See: "Legend and Notes for Tables 1 - 4" on page 13.



**Table 3 – Unit Wire Sizing Data with Factory Installed 2 Speed Indoor Fan Option**

UNIT	NOM. V-Ph-Hz	IFM TYPE	NO C.O. or UNPWR C.O.						w/ PWRD C.O.									
			NO PE.			w/ P.E. (pwrdr fr/ unit)			NO PE.			w/ P.E. (pwrdr fr/ unit)						
			MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA				
48HC*D08	208/230-3-60	STD	40/40	50/50	41/41	195	44/43	50/50	46/46	199	45/44	50/50	47/47	200	48/48	60/60	51/51	204
		MED	41/41	50/50	43/43	199	45/45	50/50	47/47	203	46/46	50/50	48/48	204	50/49	60/60	53/52	208
		HIGH	45/44	50/50	47/46	249	49/48	60/60	52/50	253	50/49	60/60	53/52	254	53/52	60/60	57/56	258
	460-3-60	STD	19	20	19	97	20	25	21	99	21	25	22	99	23	25	24	101
		MED	20	25	20	100	21	25	22	102	22	25	23	102	24	25	25	104
		HIGH	21	25	22	125	22	25	24	127	23	25	24	127	25	30	26	129
575-3-60	STD	14	15	14	79	18	20	19	83	16	20	16	81	19	25	21	85	
	MED	15	20	15	83	18	20	19	87	16	20	17	85	20	25	21	89	
	HIGH	16	20	16	92	19	25	21	96	17	20	18	94	21	25	23	98	
48HC*D09	208/230-3-60	STD	40/40	50/50	42/41	195	44/44	50/50	46/46	199	45/45	50/50	47/47	200	49/48	60/60	52/51	204
		MED	41/41	50/50	43/43	199	45/45	50/50	47/47	203	46/46	50/50	49/48	204	50/50	60/60	53/53	208
		HIGH	45/44	50/50	47/46	249	49/48	60/60	52/51	253	50/49	60/60	53/52	254	54/53	60/60	57/56	258
	460-3-60	STD	19	25	19	97	21	25	22	99	21	25	22	99	23	25	24	101
		MED	20	25	20	100	22	25	23	102	22	25	23	102	24	25	25	104
		HIGH	21	25	22	125	23	25	24	127	23	25	24	127	25	30	26	129
575-3-60	STD	15	20	16	79	19	20	20	83	17	20	18	81	21	25	22	85	
	MED	16	20	16	83	20	25	21	87	18	20	18	85	21	25	23	89	
	HIGH	17	20	18	92	21	25	22	96	19	20	20	94	22	25	24	98	
48HC*D11	208/230-3-60	STD	51/50	60/60	53/53	254	55/54	60/60	58/57	258	56/55	60/60	59/58	259	59/59	70/70	63/63	263
		MED	54/53	60/60	58/56	304	58/57	70/70	62/61	308	59/58	70/70	63/62	309	63/62	70/70	67/66	313
		HIGH	57/56	70/60	61/60	315	61/60	70/70	65/64	319	62/61	70/70	66/65	320	66/65	80/80	71/70	324
	460-3-60	STD	24	30	25	122	25	30	27	124	26	30	27	124	28	30	29	126
		MED	25	30	26	147	27	30	28	149	27	30	28	149	29	35	30	151
		HIGH	26	30	28	152	28	30	30	154	28	30	30	154	30	35	32	156
575-3-60	STD	19	20	20	97	23	25	24	101	21	25	22	99	25	30	26	103	
	MED	20	25	21	106	24	25	25	110	22	25	23	108	26	30	27	112	
	HIGH	22	25	23	120	26	30	27	124	24	25	25	122	28	30	29	126	

See: "Legend and Notes for Tables 1 – 4" on page 13.

Table 3 - Unit Wire Sizing Data with Factory Installed 2 Speed Indoor Fan Option (cont)

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	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA	MCA	FUSE or HACR BRKR	DISC. SIZE FLA LRA				
48HC*D12	208/230-3-60	STD	50/49	60/60	52/52	279	53/53	60/60	56/56	283	54/54	60/60	57/57	284	58/58	70/70	62/61	288
		MED	53/52	60/60	56/55	329	57/56	70/60	60/59	333	58/57	70/70	62/60	334	62/61	70/70	66/65	338
		HIGH	56/55	60/60	59/58	340	60/59	70/70	64/63	344	61/60	70/70	65/64	345	65/64	80/70	69/68	349
	460-3-60	STD	25	30	26	134	26	30	28	136	27	30	28	136	29	35	30	138
		MED	26	30	27	159	28	30	29	161	28	30	29	161	30	35	32	163
		HIGH	27	30	29	164	29	35	31	166	29	35	31	166	31	35	33	168
575-3-60	STD	19	25	20	107	23	25	24	111	21	25	22	109	25	30	26	113	
	MED	20	25	21	116	24	30	26	120	22	25	23	118	26	30	27	122	
	HIGH	22	25	23	130	26	30	27	134	24	25	25	132	28	30	29	136	
48HC*D14	208/230-3-60	STD	56/56	70/60	59/58	311	60/59	70/70	63/62	315	61/60	70/70	64/63	316	65/64	80/80	69/68	320
		MED	59/58	70/70	61/60	335	62/61	80/70	66/65	339	63/62	80/80	67/66	340	67/66	80/80	71/70	344
		HIGH	68	80	72	350	72	80	77	354	73	80	78	355	77	90	82	359
	460-3-60	STD	28	35	29	157	30	35	32	159	31	35	32	159	32	40	34	161
		MED	30	35	31	169	31	40	33	171	32	40	33	171	34	40	35	173
		HIGH	35	40	37	176	37	45	39	178	37	45	39	178	39	45	41	180
575-3-60	STD	24	30	25	128	28	30	29	132	25	30	27	130	29	35	31	134	
	MED	24	30	25	128	28	30	29	132	25	30	27	130	29	35	31	134	
	HIGH	29	35	30	140	32	40	34	144	30	35	32	142	34	40	36	146	

See: Legend and Notes for Tables 1 - 4 " on page 13.

**Table 4 – Unit Wire Sizing Data with Factory Installed HACR Breaker and 2 Speed Indoor Fan Option**

UNIT	NOM. V-Ph-Hz	IFM TYPE	NO C.O. or UNPWR C.O.						w/ PWRD C.O.									
			NO P.E.			w/ P.E. (pwrdr fr/ unit)			NO P.E.			w/ P.E. (pwrdr fr/ unit)						
			MCA	HACR BRKR	DISC. SIZE	MCA	HACR BRKR	DISC. SIZE	MCA	HACR BRKR	DISC. SIZE	MCA	HACR BRKR	DISC. SIZE	MCA	HACR BRKR	DISC. SIZE	
48HC*D08	208/230-3-60	STD	40/40	50/50	41/41	195	44/44	50/50	46/46	199	45/45	50/50	47/47	200	48/48	60/60	51/51	204
		MED	41/41	50/50	43/43	199	45/45	50/50	47/47	203	46/46	50/50	48/48	204	50/50	60/60	53/52	208
		HIGH	45/45	50/50	47/46	249	49/49	60/60	52/50	253	50/50	60/60	53/52	254	53/53	60/60	57/56	258
48HC*D09	460-3-60	STD	19	20	19	97	20	25	21	99	21	25	22	99	23	25	24	101
		MED	20	25	20	100	21	25	22	102	22	25	23	102	24	25	25	104
		HIGH	21	25	22	125	22	25	24	127	23	25	24	127	25	30	26	129
48HC*D11	208/230-3-60	STD	14	15	14	79	18	20	19	83	16	20	16	81	19	25	21	85
		MED	15	20	15	83	18	20	19	87	16	20	17	85	20	25	21	89
		HIGH	16	20	16	92	19	25	21	96	17	20	18	94	21	25	23	98
48HC*D09	460-3-60	STD	40/40	50/50	42/41	195	44/44	50/50	46/46	199	45/45	50/50	47/47	200	49/49	60/60	52/51	204
		MED	41/41	50/50	43/43	199	45/45	50/50	47/47	203	46/46	50/50	49/48	204	50/50	60/60	53/53	208
		HIGH	45/45	50/50	47/46	249	49/49	60/60	52/51	253	50/50	60/60	53/52	254	54/54	60/60	57/56	258
48HC*D09	460-3-60	STD	19	25	19	97	21	25	22	99	21	25	22	99	23	25	24	101
		MED	20	25	20	100	22	25	23	102	22	25	23	102	24	25	25	104
		HIGH	21	25	22	125	23	25	24	127	23	25	24	127	25	30	26	129
48HC*D11	208/230-3-60	STD	15	20	16	79	19	20	20	83	17	20	18	81	21	25	22	85
		MED	16	20	16	83	20	25	21	87	18	20	18	85	21	25	23	89
		HIGH	17	20	18	92	21	25	22	96	19	20	20	94	22	25	24	98
48HC*D11	460-3-60	STD	51/51	60/60	53/53	254	55/55	60/60	58/57	258	56/56	60/60	59/58	259	59/59	70/70	63/63	263
		MED	54/54	60/60	58/56	304	58/58	70/70	62/61	308	59/59	70/70	63/62	309	63/63	70/70	67/66	313
		HIGH	57/57	70/70	61/60	315	61/61	70/70	65/64	319	62/62	70/70	66/65	320	66/66	80/80	71/70	324
48HC*D11	460-3-60	STD	24	30	25	122	25	30	27	124	26	30	27	124	28	30	29	126
		MED	25	30	26	147	27	30	28	149	27	30	28	149	29	35	30	151
		HIGH	26	30	28	152	28	30	30	154	28	30	30	154	30	35	32	156
48HC*D11	575-3-60	STD	19	20	20	97	23	25	24	101	21	25	22	99	25	30	26	103
		MED	20	25	21	106	24	25	25	110	22	25	23	108	26	30	27	112
		HIGH	22	25	23	120	26	30	27	124	24	25	25	122	28	30	29	126

See: "Legend and Notes for Tables 1 - 4" on page 13.

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Table 4 - Unit Wire Sizing Data with Factory Installed HACR Breaker and 2 Speed Indoor Fan Option (cont)

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	FLA	LRA	DISC. SIZE		MCA	HACR BRKR	FLA	LRA	DISC. SIZE		MCA	HACR BRKR	FLA	LRA	DISC. SIZE		MCA	HACR BRKR	FLA	LRA	DISC. SIZE	
48HC*D12	208/230-3-60	STD	50/50	60/60	52/52	279	53/53	60/60	56/56	283	54/54	60/60	57/57	284	58/58	70/70	57/57	284	58/58	70/70	62/62	334	62/62	70/70	66/65	338
		MED	53/53	60/60	56/55	329	57/57	70/70	60/59	333	58/58	70/70	60/59	334	59/58	70/70	64/63	344	61/61	70/70	65/64	345	65/65	80/80	69/68	349
		HIGH	56/56	60/60	59/58	340	60/60	70/70	64/63	344	61/61	70/70	64/63	344	61/61	70/70	64/63	344	61/61	70/70	65/64	345	65/65	80/80	69/68	349
48HC*D14	460-3-60	STD	25	30	26	134	26	30	28	136	27	30	28	136	27	30	28	136	27	30	28	136	29	35	30	138
		MED	26	30	27	159	28	30	29	161	28	30	29	161	28	30	29	161	28	30	29	161	30	35	32	163
		HIGH	27	30	29	164	29	35	31	166	29	35	31	166	29	35	31	166	29	35	31	166	31	35	33	168
48HC*D14	575-3-60	STD	19	25	20	107	23	25	24	111	21	25	24	111	21	25	24	111	21	25	22	109	25	30	26	113
		MED	20	25	21	116	24	30	26	120	22	25	23	118	22	25	23	118	22	25	23	118	26	30	27	122
		HIGH	22	25	23	130	26	30	27	134	24	25	25	132	24	25	25	132	24	25	25	132	28	30	29	136
48HC*D14	208/230-3-60	STD	56/56	70/70	59/58	311	60/60	70/70	63/62	315	61/61	70/70	64/63	316	65/65	80/80	64/63	316	65/65	80/80	69/68	320	69/68	80/80	69/68	320
		MED	59/59	70/70	61/60	335	62/62	80/80	66/65	339	63/63	80/80	67/66	340	67/66	80/80	67/66	340	67/67	80/80	71/70	344	71/70	80/80	71/70	344
		HIGH	68	80	72	350	72	80	77	354	73	80	78	355	77	90	82	359	77	90	82	359	77	90	82	359
48HC*D14	460-3-60	STD	28	35	29	157	30	35	32	159	31	35	32	159	31	35	32	159	31	35	32	159	32	40	34	161
		MED	30	35	31	169	31	40	33	171	32	40	33	171	32	40	33	171	32	40	33	171	34	40	35	173
		HIGH	35	40	37	176	37	45	39	178	37	45	39	178	37	45	39	178	37	45	39	178	39	45	41	180
48HC*D14	575-3-60	STD	24	30	25	128	28	30	29	132	25	30	27	130	25	30	27	130	25	30	27	130	29	35	31	134
		MED	24	30	25	128	28	30	29	132	25	30	29	132	25	30	29	132	25	30	27	130	29	35	31	134
		HIGH	29	35	30	140	32	40	34	144	30	35	32	142	30	35	32	142	30	35	32	142	34	40	36	146

See: "Legend and Notes for Tables 1 - 4" on page 13.

## Legend and Notes for Tables 1 - 4

### 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:

- 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.

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