

**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 RGS/RAS 090–150 units manufactured on or after May 18, 2015.** To confirm the date of manufacture of a RGS/RAS unit, locate the unit nameplate and check the second thru fifth digits of the Serial Number. If the number listed in the 2nd thru 5th digits of the Serial Number is 1521 or higher KEEP THIS DOCUMENT and use it along with the furnished Installation Instructions. The Serial Number is located directly below the unit's Model Number.

**SERIAL NUMBER NOMENCLATURE**

1	2	3	4	5	6	7	8	9	10
U	1	5	2	1	1	2	3	4	5


Manufacture Location		Week of Manufacture (fiscal calendar)	Sequence Number
Year of Manufacture (15 = 2015)			

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 RGS/RAS 090–150 units manufactured on or after May 18, 2015. Check the second thru fifth digits of the Serial Number. If the number listed in the 2nd thru 5th digits of the Serial Number is 1521 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 – RGS090–150 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.							
			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
RGS091 (1-stage cool)	208/230–3–60	STD	40	60	38	191	44	60	43	195
		MED	43/43	60/60	42/42	244	47/47	60/60	46/46	248
		HIGH	48/47	60/60	48/47	260	52/51	60/60	52/51	264
	460–3–60	STD	20	30	19	113	22	30	21	115
		MED	22	30	21	140	23	30	23	142
		HIGH	24	30	23	148	26	30	25	150
	575–3–60	STD	15	20	14	89	18	25	18	93
		MED	16	20	15	104	20	25	19	108
		HIGH	19	25	18	118	22	30	23	122
RGS090 (2-stage cool)	208/230–3–60	STD	39	50	41	193	43	50	45	197
		MED	42/42	50/50	44/44	246	46/46	50/50	49/49	250
		HIGH	48/47	60/50	50/49	262	51/51	60/60	55/54	266
	460–3–60	STD	18	20	19	95	20	25	21	97
		MED	20	25	21	122	22	25	23	124
		HIGH	22	25	23	130	24	30	25	132
	575–3–60	STD	13	15	13	77	17	20	17	81
		MED	14	15	14	92	18	20	19	96
		HIGH	17	20	17	106	21	25	22	110
RGS101 (1-stage cool)	208/230–3–60	STD	46	60	43	222	49	60	48	226
		MED	47/47	60/60	45/45	260	51/51	60/60	50/49	264
		HIGH	51	60	50	289	55	80	54	293
	460–3–60	STD	23	30	22	108	25	30	24	110
		MED	24	30	23	127	26	30	25	129
		HIGH	26	30	25	142	28	40	27	144
	575–3–60	STD	19	30	17	91	22	30	22	95
		MED	19	30	18	95	23	30	22	99
		HIGH	20	30	19	106	24	30	23	110
RGS090 (2-stage cool)	208/230–3–60	STD	40	50	42	208	44	50	46	212
		MED	42/42	50/50	44/44	246	46/46	60/50	48/48	250
		HIGH	46	50	48	275	50	60	52	279
	460–3–60	STD	19	20	19	109	21	25	21	111
		MED	20	25	20	128	21	25	22	130
		HIGH	21	25	22	143	23	25	24	145
	575–3–60	STD	16	20	16	85	19	25	20	89
		MED	16	20	16	89	20	25	20	93
		HIGH	17	20	17	100	21	25	21	104
RGS121 (1-stage cool)	208/230–3–60	STD	46	60	44	263	50	60	48	267
		MED	52	60	50	319	55	80	55	323
		HIGH	55/54	80/80	54/53	321	58/58	80/80	58/57	325
	460–3–60	STD	26	30	24	133	27	40	26	135
		MED	28	40	27	161	30	45	29	163
		HIGH	29	45	28	162	31	45	30	164
	575–3–60	STD	19	30	18	95	23	30	22	99
		MED	20	30	19	106	24	30	23	110
		HIGH	23	30	22	120	26	30	26	124
RGS120 (2-stage cool)	208/230–3–60	STD	44	50	46	258	48	60	50	262
		MED	50	60	52	314	53	60	56	318
		HIGH	53/52	60/60	55/54	316	56/55	60/60	60/59	320
	460–3–60	STD	22	25	23	123	24	30	25	125
		MED	25	30	26	151	26	30	28	153
		HIGH	26	30	27	152	28	30	29	154
	575–3–60	STD	17	20	17	93	20	25	21	97
		MED	17	20	18	104	21	25	22	108
		HIGH	20	25	21	118	24	30	25	122
RGS150 (2-stage cool)	208/230–3–60	STD	63/63	80/80	65/65	389	66/66	80/80	69/69	393
		MED	65	80	68	403	69	80	72	407
		HIGH	68/67	80/80	71/70	405	72/71	80/80	75/74	409
	460–3–60	STD	29	35	30	193	31	40	32	195
		MED	30	40	31	200	32	40	33	202
		HIGH	31	40	33	201	33	40	35	203
	575–3–60	STD	22	25	23	147	26	30	27	151
		MED	22	25	23	147	26	30	27	151
		HIGH	25	30	26	161	29	35	30	165

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 2 – RGS090–150 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.							
			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
RGS090 (1–stage cool)	208/230–3–60	STD	40/40	50/50	41/41	197	44/43	50/50	46/46	201
		MED	43/42	50/50	45/44	227	46/46	50/50	49/48	231
		HIGH	48/47	60/50	50/49	262	51/51	60/60	55/54	266
	460–3–60	STD	19	20	19	97	20	25	21	99
		MED	20	25	20	113	21	25	22	115
		HIGH	22	25	23	130	24	30	25	132
	575–3–60	STD	14	15	14	79	18	20	19	83
		MED	16	20	16	92	19	25	21	96
		HIGH	18	20	18	106	22	25	23	110
RGS102 (2–stage cool)	208/230–3–60	STD	41/41	50/50	43/42	212	45/45	50/50	47/47	216
		MED	42/42	50/50	44/44	216	46/46	60/50	48/48	220
		HIGH	46/45	60/50	48/47	266	50/49	60/60	53/52	270
	460–3–60	STD	19	25	20	111	21	25	22	113
		MED	20	25	20	114	21	25	22	116
		HIGH	21	25	22	139	23	25	24	141
	575–3–60	STD	17	20	17	87	21	25	21	91
		MED	17	20	18	91	21	25	22	95
		HIGH	18	20	19	100	22	25	23	104
RGS120 (2–stage cool)	208/230–3–60	STD	46/46	60/60	48/47	255	50/50	60/60	52/52	259
		MED	50/49	60/60	52/51	305	54/53	60/60	56/55	309
		HIGH	53/52	60/60	55/54	316	56/55	60/60	60/59	320
	460–3–60	STD	23	30	23	122	25	30	26	124
		MED	24	30	25	147	26	30	27	149
		HIGH	26	30	27	152	28	30	29	154
	575–3–60	STD	18	20	19	95	22	25	23	99
		MED	19	25	20	104	23	25	24	108
		HIGH	21	25	22	118	25	30	26	122
RGS150 (2–stage cool)	208/230–3–60	STD	63/62	80/80	65/64	370	67/66	80/80	70/69	374
		MED	65/64	80/80	68/67	394	69/68	80/80	72/71	398
		HIGH	68/67	80/80	71/70	405	72/71	80/80	75/74	409
	460–3–60	STD	29	35	30	184	31	40	32	186
		MED	30	40	31	196	32	40	33	198
		HIGH	31	40	33	201	33	40	35	203
	575–3–60	STD	24	30	24	147	27	30	29	151
		MED	24	30	24	147	27	30	29	151
		HIGH	25	30	26	161	29	35	31	165

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 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.							
			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
RAS091 (1–stage cool)	208/230–3–60	STD	NONE	–	–	40	60	38	191	44	60	43	195
			117A	7.8/10.4	21.7/25.0	40/40	60/60	38/38	191/191	44/44	60/60	43/43	195/195
			110A	12.0/16.0	33.4/38.5	49/55	60/60	44/50	191/191	53/60	60/60	49/55	195/195
			111A	18.6/24.8	51.7/59.7	72/82	80/90	65/75	191/191	76/86	80/90	70/79	195/195
			112A	24.0/32.0	66.7/77.0	90/103	90/110	83/95	191/191	95/108	100/110	87/99	195/195
			112A+117A	31.8/42.4	88.4/102.0	117/134	125/150	108/123	191/191	122/139	125/150	112/128	195/195
		MED	NONE	–	–	43/43	60/60	42/42	244	47/47	60/60	46/46	248
			117A	7.8/10.4	21.7/25.0	43/43	60/60	42/42	244/244	47/47	60/60	46/46	248/248
			110A	12.0/16.0	33.4/38.5	53/59	60/60	48/54	244/244	57/64	60/70	52/58	248/248
	111A		18.6/24.8	51.7/59.7	76/85	80/90	69/78	244/244	80/90	80/90	73/83	248/248	
	112A		24.0/32.0	66.7/77.0	94/107	100/110	86/98	244/244	99/112	100/125	91/102	248/248	
	112A+117A	31.8/42.4	88.4/102.0	121/138	125/150	111/127	244/244	126/143	150/150	116/131	248/248		
	HIGH	NONE	–	–	48/47	60/60	48/47	260	52/51	60/60	52/51	264	
		117A	7.8/10.4	21.7/25.0	48/48	60/60	48/47	260/260	52/52	60/60	52/51	264/264	
		110A	12.0/16.0	33.4/38.5	59/64	60/70	54/59	260/260	64/69	70/70	58/63	264/264	
		111A	18.6/24.8	51.7/59.7	82/91	90/100	75/83	260/260	87/96	90/100	79/88	264/264	
		112A	24.0/32.0	66.7/77.0	101/113	110/125	92/103	260/260	106/117	110/125	97/108	264/264	
		112A+117A	31.8/42.4	88.4/102.0	128/144	150/150	117/132	260/260	133/149	150/150	122/136	264/264	
	460–3–60	STD	NONE	–	–	20	30	19	113	22	30	21	115
			116A	13.9	16.7	25	30	22	113	27	30	24	115
			113A	16.5	19.8	28	30	26	113	31	35	28	115
			114A	27.8	33.4	45	50	41	113	48	50	43	115
			115A	33.0	39.7	53	60	49	113	56	60	51	115
			114A+116A	41.7	50.2	66	70	61	113	69	70	63	115
		MED	NONE	–	–	22	30	21	140	23	30	23	142
			116A	13.9	16.7	27	30	24	140	29	30	26	142
			113A	16.5	19.8	30	30	28	140	33	35	30	142
114A			27.8	33.4	47	50	43	140	50	50	45	142	
115A			33.0	39.7	55	60	50	140	58	60	53	142	
114A+116A		41.7	50.2	68	70	63	140	71	80	65	142		
HIGH		NONE	–	–	24	30	23	148	26	30	25	150	
		116A	13.9	16.7	29	30	27	148	32	35	29	150	
		113A	16.5	19.8	33	35	30	148	35	35	32	150	
		114A	27.8	33.4	50	50	46	148	52	60	48	150	
		115A	33.0	39.7	58	60	53	148	60	60	55	150	
		114A+116A	41.7	50.2	71	80	65	148	73	80	67	150	
575–3–60	STD	NONE	–	–	15	20	14	89	18	25	18	93	
		118A	17.0	20.4	28	30	25	89	33	35	30	93	
		119A	34.0	40.9	54	60	49	89	58	60	53	93	
	MED	NONE	–	–	16	20	15	104	20	25	19	108	
		118A	17.0	20.4	29	30	27	104	34	35	31	108	
		119A	34.0	40.9	55	60	50	104	60	60	55	108	
	HIGH	NONE	–	–	19	25	18	118	22	30	23	122	
		118A	17.0	20.4	33	35	30	118	38	40	34	122	
		119A	34.0	40.9	59	60	53	118	63	70	58	122	

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – Single Speed Indoor Fan Motor (cont)**

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
RAS090 (2–stage cool)	208/230–3–60	STD	NONE	–	–	39	50	41	193	43	50	45	197
			117A	7.8/10.4	21.7/25.0	39/39	50/50	41/41	193/193	43/43	50/50	45/45	197/197
			110A	12.0/16.0	33.4/38.5	49/55	50/60	44/50	193/193	53/60	60/60	49/55	197/197
			111A	18.6/24.8	51.7/59.7	72/82	80/90	65/75	193/193	76/86	80/90	70/79	197/197
			112A	24.0/32.0	66.7/77.0	90/103	90/110	83/95	193/193	95/108	100/110	87/99	197/197
		112A+117A	31.8/42.4	88.4/102.0	117/134	125/150	108/123	193/193	122/139	125/150	112/128	197/197	
		MED	NONE	–	–	42/42	50/50	44/44	246	46/46	50/50	49/49	250
			117A	7.8/10.4	21.7/25.0	42/42	50/50	44/44	246/246	46/47	50/50	49/49	250/250
			110A	12.0/16.0	33.4/38.5	53/59	60/60	48/54	246/246	57/64	60/70	52/58	250/250
	111A		18.6/24.8	51.7/59.7	76/85	80/90	69/78	246/246	80/90	80/90	73/83	250/250	
	112A		24.0/32.0	66.7/77.0	94/107	100/110	86/98	246/246	99/112	100/125	91/102	250/250	
	112A+117A	31.8/42.4	88.4/102.0	121/138	125/150	111/127	246/246	126/143	150/150	116/131	250/250		
	HIGH	NONE	–	–	48/47	60/50	50/49	262	51/51	60/60	55/54	266	
		117A	7.8/10.4	21.7/25.0	48/48	60/50	50/49	262/262	51/52	60/60	55/54	266/266	
		110A	12.0/16.0	33.4/38.5	59/64	60/70	54/59	262/262	64/69	70/70	58/63	266/266	
		111A	18.6/24.8	51.7/59.7	82/91	90/100	75/83	262/262	87/96	90/100	79/88	266/266	
		112A	24.0/32.0	66.7/77.0	101/113	110/125	92/103	262/262	106/117	110/125	97/108	266/266	
	112A+117A	31.8/42.4	88.4/102.0	128/144	150/150	117/132	262/262	133/149	150/150	122/136	266/266		
	460–3–60	STD	NONE	–	–	18	20	19	95	20	25	21	97
			116A	13.9	16.7	25	25	22	95	27	30	24	97
			113A	16.5	19.8	28	30	26	95	31	35	28	97
			114A	27.8	33.4	45	50	41	95	48	50	43	97
			115A	33.0	39.7	53	60	49	95	56	60	51	97
		114A+116A	41.7	50.2	66	70	61	95	69	70	63	97	
MED		NONE	–	–	20	25	21	122	22	25	23	124	
		116A	13.9	16.7	27	30	24	122	29	30	26	124	
		113A	16.5	19.8	30	30	28	122	33	35	30	124	
	114A	27.8	33.4	47	50	43	122	50	50	45	124		
	115A	33.0	39.7	55	60	50	122	58	60	53	124		
114A+116A	41.7	50.2	68	70	63	122	71	80	65	124			
HIGH	NONE	–	–	22	25	23	130	24	30	25	132		
	116A	13.9	16.7	29	30	27	130	32	35	29	132		
	113A	16.5	19.8	33	35	30	130	35	35	32	132		
	114A	27.8	33.4	50	50	46	130	52	60	48	132		
	115A	33.0	39.7	58	60	53	130	60	60	55	132		
114A+116A	41.7	50.2	71	80	65	130	73	80	67	132			
575–3–60	STD	NONE	–	–	13	15	13	77	17	20	17	81	
		118A	17.0	20.4	28	30	25	77	33	35	30	81	
		119A	34.0	40.9	54	60	49	77	58	60	53	81	
	MED	NONE	–	–	14	15	14	92	18	20	19	96	
		118A	17.0	20.4	29	30	27	92	34	35	31	96	
		119A	34.0	40.9	55	60	50	92	60	60	55	96	
	HIGH	NONE	–	–	17	20	17	106	21	25	22	110	
		118A	17.0	20.4	33	35	30	106	38	40	34	110	
		119A	34.0	40.9	59	60	53	106	63	70	58	110	

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – Single Speed Indoor Fan Motor (cont)**

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
RAS101 (1–stage cool)	208/230–3–60	STD	NONE	–	–	46	60	43	222	49	60	48	226
			117A	7.8/10.4	21.7/25.0	46/46	60/60	43/43	222/222	49/49	60/60	48/48	226/226
			110A	12.0/16.0	33.4/38.5	49/55	60/60	44/50	222/222	53/60	60/60	49/55	226/226
			111A	18.6/24.8	51.7/59.7	72/82	80/90	65/75	222/222	76/86	80/90	70/79	226/226
			112A	24.0/32.0	66.7/77.0	90/103	90/110	83/95	222/222	95/108	100/110	87/99	226/226
			112A+117A	31.8/42.4	88.4/102.0	117/134	125/150	108/123	222/222	122/139	125/150	112/128	226/226
		MED	NONE	–	–	47/47	60/60	45/45	260	51/51	60/60	50/49	264
			117A	7.8/10.4	21.7/25.0	47/47	60/60	45/45	260/260	51/51	60/60	50/49	264/264
			110A	12.0/16.0	33.4/38.5	51/57	60/60	46/52	260/260	56/62	60/70	51/56	264/264
	111A		18.6/24.8	51.7/59.7	74/83	80/90	67/76	260/260	78/88	80/90	72/81	264/264	
	112A		24.0/32.0	66.7/77.0	92/105	100/110	85/96	260/260	97/110	100/110	89/101	264/264	
	112A+117A		31.8/42.4	88.4/102.0	120/136	125/150	110/125	260/260	124/141	125/150	114/129	264/264	
	HIGH	NONE	–	–	51	60	50	289	55	80	54	293	
		117A	7.8/10.4	21.7/25.0	51/51	60/60	50/50	289/289	55/55	80/80	54/54	293/293	
		110A	12.0/16.0	33.4/38.5	55/62	60/70	51/56	289/289	60/67	80/80	55/61	293/293	
		111A	18.6/24.8	51.7/59.7	78/88	80/90	72/81	289/289	83/93	90/100	76/85	293/293	
		112A	24.0/32.0	66.7/77.0	97/110	100/110	89/101	289/289	102/115	110/125	93/105	293/293	
		112A+117A	31.8/42.4	88.4/102.0	124/141	125/150	114/129	289/289	129/146	150/150	118/134	293/293	
	460–3–60	STD	NONE	–	–	23	30	22	108	25	30	24	110
			116A	13.9	16.7	25	30	22	108	27	30	24	110
			113A	16.5	19.8	28	30	26	108	31	35	28	110
			114A	27.8	33.4	45	50	41	108	48	50	43	110
			115A	33.0	39.7	53	60	49	108	56	60	51	110
			114A+116A	41.7	50.2	66	70	61	108	69	70	63	110
MED		NONE	–	–	24	30	23	127	26	30	25	129	
		116A	13.9	16.7	26	30	23	127	28	30	25	129	
		113A	16.5	19.8	29	30	27	127	32	35	29	129	
HIGH	114A	27.8	33.4	46	50	42	127	49	50	44	129		
	115A	33.0	39.7	54	60	50	127	57	60	52	129		
	114A+116A	41.7	50.2	67	70	62	127	70	70	64	129		
	NONE	–	–	26	30	25	142	28	40	27	144		
	116A	13.9	16.7	28	30	25	142	30	40	27	144		
	113A	16.5	19.8	32	35	29	142	34	40	31	144		
575–3–60	STD	114A	27.8	33.4	49	50	45	142	51	60	47	144	
		115A	33.0	39.7	57	60	52	142	59	60	54	144	
		114A+116A	41.7	50.2	70	70	64	142	72	80	66	144	
	MED	NONE	–	–	19	30	17	91	22	30	22	95	
		118A	17.0	20.4	28	30	25	91	33	35	30	95	
		119A	34.0	40.9	54	60	49	91	58	60	53	95	
	HIGH	NONE	–	–	19	30	18	95	23	30	22	99	
		118A	17.0	20.4	28	30	26	95	33	35	30	99	
		119A	34.0	40.9	54	60	49	95	59	60	54	99	
HIGH	NONE	–	–	20	30	19	106	24	30	23	110		
	118A	17.0	20.4	29	30	27	106	34	35	31	110		
	119A	34.0	40.9	55	60	50	106	60	60	55	110		

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – Single Speed Indoor Fan Motor (cont)**

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
RAS102 (2–stage cool)	208/230–3–60	STD	NONE	–	–	40	50	42	208	44	50	46	212
			117A	7.8/10.4	21.7/25.0	40/40	50/50	42/42	208/208	44/44	50/50	46/46	212/212
			110A	12.0/16.0	33.4/38.5	49/55	50/60	44/50	208/208	53/60	60/60	49/55	212/212
			111A	18.6/24.8	51.7/59.7	72/82	80/90	65/75	208/208	76/86	80/90	70/79	212/212
			112A	24.0/32.0	66.7/77.0	90/103	90/110	83/95	208/208	95/108	100/110	87/99	212/212
			112A+117A	31.8/42.4	88.4/102.0	117/134	125/150	108/123	208/208	122/139	125/150	112/128	212/212
		MED	NONE	–	–	42/42	50/50	44/44	246	46/46	60/50	48/48	250
			117A	7.8/10.4	21.7/25.0	42/42	50/50	44/44	246/246	46/46	60/50	48/48	250/250
			110A	12.0/16.0	33.4/38.5	51/57	60/60	46/52	246/246	56/62	60/70	51/56	250/250
	111A		18.6/24.8	51.7/59.7	74/83	80/90	67/76	246/246	78/88	80/90	72/81	250/250	
	HIGH	NONE	–	–	46	50	48	275	50	60	52	279	
		117A	7.8/10.4	21.7/25.0	46/46	50/50	48/48	275/275	50/50	60/60	52/52	279/279	
		110A	12.0/16.0	33.4/38.5	55/62	60/70	51/56	275/275	60/67	60/70	55/61	279/279	
		111A	18.6/24.8	51.7/59.7	78/88	80/90	72/81	275/275	83/93	90/100	76/85	279/279	
		112A	24.0/32.0	66.7/77.0	97/110	100/110	89/101	275/275	102/115	110/125	93/105	279/279	
		112A+117A	31.8/42.4	88.4/102.0	124/141	125/150	114/129	275/275	129/146	150/150	118/134	279/279	
	460–3–60	STD	NONE	–	–	19	20	19	109	21	25	21	111
			116A	13.9	16.7	25	25	22	109	27	30	24	111
113A			16.5	19.8	28	30	26	109	31	35	28	111	
114A			27.8	33.4	45	50	41	109	48	50	43	111	
115A			33.0	39.7	53	60	49	109	56	60	51	111	
114A+116A			41.7	50.2	66	70	61	109	69	70	63	111	
MED		NONE	–	–	20	25	20	128	21	25	22	130	
		116A	13.9	16.7	26	30	23	128	28	30	25	130	
		113A	16.5	19.8	29	30	27	128	32	35	29	130	
	114A	27.8	33.4	46	50	42	128	49	50	44	130		
HIGH	NONE	–	–	21	25	22	143	23	25	24	145		
	116A	13.9	16.7	28	30	25	143	30	30	27	145		
	113A	16.5	19.8	32	35	29	143	34	35	31	145		
	114A	27.8	33.4	49	50	45	143	51	60	47	145		
	115A	33.0	39.7	57	60	52	143	59	60	54	145		
	114A+116A	41.7	50.2	70	70	64	143	72	80	66	145		
575–3–60	STD	NONE	–	–	16	20	16	85	19	25	20	89	
		118A	17.0	20.4	28	30	25	85	33	35	30	89	
		119A	34.0	40.9	54	60	49	85	58	60	53	89	
	MED	NONE	–	–	16	20	16	89	20	25	20	93	
		118A	17.0	20.4	28	30	26	89	33	35	30	93	
		119A	34.0	40.9	54	60	49	89	59	60	54	93	
	HIGH	NONE	–	–	17	20	17	100	21	25	21	104	
		118A	17.0	20.4	29	30	27	100	34	35	31	104	
		119A	34.0	40.9	55	60	50	100	60	60	55	104	

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – Single Speed Indoor Fan Motor (cont)**

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
RAS121 (1–stage cool)	208/230–3–60	STD	NONE	–	–	46	60	44	263	50	60	48	267
			117A	7.8/10.4	21.7/25.0	46/46	60/60	44/44	263/263	50/50	60/60	48/48	267/267
			110A	12.0/16.0	33.4/38.5	49/55	60/60	44/50	263/263	53/60	60/60	49/55	267/267
			112A	24.0/32.0	66.7/77.0	90/103	90/110	83/95	263/263	95/108	100/110	87/99	267/267
			112A+117A	31.8/42.4	88.4/102.0	117/134	125/150	108/123	263/263	122/139	125/150	112/128	267/267
			112A+110A	37.6/50.0	104.2/120.3	137/127	150/150	126/144	263/263	142/132	150/150	130/149	267/267
		MED	NONE	–	–	52	60	50	319	55	80	55	323
			117A	7.8/10.4	21.7/25.0	52/52	60/60	50/50	319/319	55/55	80/80	55/55	323/323
			110A	12.0/16.0	33.4/38.5	55/62	60/80	51/56	319/319	60/67	80/80	55/61	323/323
	HIGH	112A	24.0/32.0	66.7/77.0	97/110	100/110	89/101	319/319	102/115	110/125	93/105	323/323	
		112A+117A	31.8/42.4	88.4/102.0	124/141	125/150	114/129	319/319	129/146	150/150	118/134	323/323	
		112A+110A	37.6/50.0	104.2/120.3	144/134	150/150	132/151	319/319	149/139	150/150	136/155	323/323	
		NONE	–	–	55/54	80/80	54/53	321	58/58	80/80	58/57	325	
		117A	7.8/10.4	21.7/25.0	55/54	80/80	54/53	321/321	58/58	80/80	58/57	325/325	
		110A	12.0/16.0	33.4/38.5	59/64	80/80	54/59	321/321	64/69	80/80	58/63	325/325	
460–3–60	STD	NONE	–	–	26	30	24	133	27	40	26	135	
		116A	13.9	16.7	26	30	24	133	27	40	26	135	
		113A	16.5	19.8	28	30	26	133	31	40	28	135	
		115A	33.0	39.7	53	60	49	133	56	60	51	135	
		114A+116A	41.7	50.2	66	70	61	133	69	70	63	135	
		115A+113A	50.0	60.1	64	70	72	133	66	70	74	135	
	MED	NONE	–	–	28	40	27	161	30	45	29	163	
		116A	13.9	16.7	28	40	27	161	30	45	29	163	
		113A	16.5	19.8	32	40	29	161	34	45	31	163	
HIGH	115A	33.0	39.7	57	60	52	161	59	60	54	163		
	114A+116A	41.7	50.2	70	70	64	161	72	80	66	163		
	115A+113A	50.0	60.1	67	80	75	161	69	80	77	163		
	NONE	–	–	29	45	28	162	31	45	30	164		
	116A	13.9	16.7	29	45	28	162	32	45	30	164		
	113A	16.5	19.8	33	45	30	162	35	45	32	164		
575–3–60	STD	115A	33.0	39.7	58	60	53	162	60	60	55	164	
		114A+116A	41.7	50.2	71	80	65	162	73	80	67	164	
		115A+113A	50.0	60.1	69	80	76	162	71	80	79	164	
		NONE	–	–	19	30	18	95	23	30	22	99	
	MED	118A	17.0	20.4	28	30	26	95	33	35	30	99	
		119A	34.0	40.9	54	60	49	95	59	60	54	99	
		118A+119A	51.0	61.3	64	70	73	95	69	80	77	99	
	HIGH	NONE	–	–	20	30	19	106	24	30	23	110	
		118A	17.0	20.4	29	30	27	106	34	35	31	110	
119A		34.0	40.9	55	60	50	106	60	60	55	110		
118A+119A		51.0	61.3	65	70	74	106	70	80	78	110		
NONE		–	–	23	30	22	120	26	30	26	124		
118A		17.0	20.4	33	35	30	120	38	40	34	124		
119A	34.0	40.9	59	60	53	120	63	70	58	124			
118A+119A	51.0	61.3	69	80	77	120	74	80	81	124			

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – Single Speed Indoor Fan Motor (cont)**

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
RAS120 (2–stage cool)	208/230–3–60	STD	NONE	–	–	44	50	46	258	48	60	50	262
			117A	7.8/10.4	21.7/25.0	44/44	50/50	46/46	258/258	48/48	60/60	50/50	262/262
			110A	12.0/16.0	33.4/38.5	49/55	50/60	46/50	258/258	53/60	60/60	50/55	262/262
			112A	24.0/32.0	66.7/77.0	90/103	90/110	83/95	258/258	95/108	100/110	87/99	262/262
			112A+117A	31.8/42.4	88.4/102.0	117/134	125/150	108/123	258/258	122/139	125/150	112/128	262/262
			112A+110A	37.6/50.0	104.2/120.3	137/127	150/150	126/144	258/258	142/132	150/150	130/149	262/262
		MED	NONE	–	–	50	60	52	314	53	60	56	318
			117A	7.8/10.4	21.7/25.0	50/50	60/60	52/52	314/314	53/53	60/60	56/56	318/318
			110A	12.0/16.0	33.4/38.5	55/62	60/70	52/56	314/314	60/67	60/70	56/61	318/318
	HIGH	112A	24.0/32.0	66.7/77.0	97/110	100/110	89/101	314/314	102/115	110/125	93/105	318/318	
		112A+117A	31.8/42.4	88.4/102.0	124/141	125/150	114/129	314/314	129/146	150/150	118/134	318/318	
		112A+110A	37.6/50.0	104.2/120.3	144/134	150/150	132/151	314/314	149/139	150/150	136/155	318/318	
	460–3–60	STD	NONE	–	–	22	25	23	123	24	30	25	125
			116A	13.9	16.7	25	25	23	123	27	30	25	125
			113A	16.5	19.8	28	30	26	123	31	35	28	125
			115A	33.0	39.7	53	60	49	123	56	60	51	125
			114A+116A	41.7	50.2	66	70	61	123	69	70	63	125
			115A+113A	50.0	60.1	64	70	72	123	66	70	74	125
MED		NONE	–	–	25	30	26	151	26	30	28	153	
		116A	13.9	16.7	28	30	26	151	30	30	28	153	
		113A	16.5	19.8	32	35	29	151	34	35	31	153	
HIGH	115A	33.0	39.7	57	60	52	151	59	60	54	153		
	114A+116A	41.7	50.2	70	70	64	151	72	80	66	153		
	115A+113A	50.0	60.1	67	80	75	151	69	80	77	153		
575–3–60	STD	NONE	–	–	17	20	17	93	20	25	21	97	
		118A	17.0	20.4	28	30	26	93	33	35	30	97	
		119A	34.0	40.9	54	60	49	93	59	60	54	97	
		118A+119A	51.0	61.3	64	70	73	93	69	80	77	97	
		MED	NONE	–	–	17	20	18	104	21	25	22	108
			118A	17.0	20.4	29	30	27	104	34	35	31	108
	119A		34.0	40.9	55	60	50	104	60	60	55	108	
	HIGH	118A+119A	51.0	61.3	65	70	74	104	70	80	78	108	
		NONE	–	–	20	25	21	118	24	30	25	122	
118A		17.0	20.4	33	35	30	118	38	40	34	122		
119A	34.0	40.9	59	60	53	118	63	70	58	122			
118A+119A	51.0	61.3	69	80	77	118	74	80	81	122			

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 3 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – Single Speed Indoor Fan Motor (cont)**

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
RAS150 (2–stage cool)	208/230–3–60	STD	NONE	–	–	63/63	80/80	65/65	389	66/66	80/80	69/69	393
			117A	7.8/10.4	21.7/25.0	63/63	80/80	65/65	389/389	66/66	80/80	69/69	393/393
			110A	12.0/16.0	33.4/38.5	63/63	80/80	65/65	389/389	66/66	80/80	69/69	393/393
			112A	24.0/32.0	66.7/77.0	94/107	100/110	86/98	389/389	99/112	100/125	91/102	393/393
			112A+117A	31.8/42.4	88.4/102.0	121/138	125/150	111/127	389/389	126/143	150/150	116/131	393/393
			112A+110A	37.6/50.0	104.2/120.3	141/131	150/150	129/148	389/389	146/136	150/150	134/152	393/393
		MED	NONE	–	–	65	80	68	403	69	80	72	407
			117A	7.8/10.4	21.7/25.0	65/65	80/80	68/68	403/403	69/69	80/80	72/72	407/407
			110A	12.0/16.0	33.4/38.5	65/65	80/80	68/68	403/403	69/69	80/80	72/72	407/407
	HIGH	112A	24.0/32.0	66.7/77.0	97/110	100/110	89/101	403/403	102/115	110/125	93/105	407/407	
		112A+117A	31.8/42.4	88.4/102.0	124/141	125/150	114/129	403/403	129/146	150/150	118/134	407/407	
		112A+110A	37.6/50.0	104.2/120.3	144/134	150/150	132/151	403/403	149/139	150/150	136/155	407/407	
		NONE	–	–	68/67	80/80	71/70	405	72/71	80/80	75/74	409	
		117A	7.8/10.4	21.7/25.0	68/67	80/80	71/70	405/405	72/71	80/80	75/74	409/409	
		110A	12.0/16.0	33.4/38.5	68/67	80/80	71/70	405/405	72/71	80/80	75/74	409/409	
460–3–60	STD	NONE	–	–	29	35	30	193	31	40	32	195	
		116A	13.9	16.7	29	35	30	193	31	40	32	195	
		113A	16.5	19.8	30	35	30	193	33	40	32	195	
		115A	33.0	39.7	55	60	50	193	58	60	53	195	
		114A+116A	41.7	50.2	68	70	63	193	71	80	65	195	
		115A+113A	50.0	60.1	66	70	74	193	68	80	76	195	
	MED	NONE	–	–	30	40	31	200	32	40	33	202	
		116A	13.9	16.7	30	40	31	200	32	40	33	202	
		113A	16.5	19.8	32	40	31	200	34	40	33	202	
HIGH	115A	33.0	39.7	57	60	52	200	59	60	54	202		
	114A+116A	41.7	50.2	70	70	64	200	72	80	66	202		
	115A+113A	50.0	60.1	67	80	75	200	69	80	77	202		
	NONE	–	–	31	40	33	201	33	40	35	203		
	116A	13.9	16.7	31	40	33	201	33	40	35	203		
	113A	16.5	19.8	33	40	33	201	35	40	35	203		
575–3–60	STD	NONE	–	–	22	25	23	147	26	30	27	151	
		118A	17.0	20.4	29	30	27	147	34	35	31	151	
		119A	34.0	40.9	55	60	50	147	60	60	55	151	
		118A+119A	51.0	61.3	65	70	74	147	70	80	78	151	
		NONE	–	–	22	25	23	147	26	30	27	151	
		118A	17.0	20.4	29	30	27	147	34	35	31	151	
	MED	119A	34.0	40.9	55	60	50	147	60	60	55	151	
		118A+119A	51.0	61.3	65	70	74	147	70	80	78	151	
		NONE	–	–	25	30	26	161	29	35	30	165	
HIGH	118A	17.0	20.4	33	35	30	161	38	40	34	165		
	119A	34.0	40.9	59	60	53	161	63	70	58	165		
	118A+119A	51.0	61.3	69	80	77	161	74	80	81	165		

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 4 – RAS090–150 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.							
			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
RAS090 (2–stage cool)	208/230–3–60	STD	NONE	–	–	40/40	50/50	41/41	197	44/43	50/50	46/46	201
			117A	7.8/10.4	21.7/25.0	40/40	50/50	41/41	197/197	44/43	50/50	46/46	201/201
			110A	12.0/16.0	33.4/38.5	49/56	50/60	45/51	197/197	54/60	60/60	49/55	201/201
			111A	18.6/24.8	51.7/59.7	72/82	80/90	66/75	197/197	77/87	80/90	70/79	201/201
			112A	24.0/32.0	66.7/77.0	91/104	100/110	83/95	197/197	96/108	100/110	88/99	201/201
			112A + 117A	31.8/42.4	88.4/102.0	118/135	125/150	108/124	197/197	123/140	125/150	113/128	201/201
		MED	NONE	–	–	43/42	50/50	45/44	227	46/46	50/50	49/48	231
			117A	7.8/10.4	21.7/25.0	43/42	50/50	45/44	227/227	46/46	50/50	49/48	231/231
			110A	12.0/16.0	33.4/38.5	53/58	60/60	48/53	227/227	58/63	60/70	53/58	231/231
	111A		18.6/24.8	51.7/59.7	76/85	80/90	69/78	227/227	81/90	90/90	74/82	231/231	
	112A		24.0/32.0	66.7/77.0	95/106	100/110	87/98	227/227	99/111	100/125	91/102	231/231	
	112A + 117A		31.8/42.4	88.4/102.0	122/138	125/150	112/126	227/227	126/142	150/150	116/131	231/231	
	HIGH	NONE	–	–	48/47	60/50	50/49	262	51/51	60/60	55/54	266	
		117A	7.8/10.4	21.7/25.0	48/48	60/50	50/49	262/262	51/52	60/60	55/54	266/266	
		110A	12.0/16.0	33.4/38.5	59/64	60/70	54/59	262/262	64/69	70/70	58/63	266/266	
111A		18.6/24.8	51.7/59.7	82/91	90/100	75/83	262/262	87/96	90/100	79/88	266/266		
112A		24.0/32.0	66.7/77.0	101/113	110/125	92/103	262/262	106/117	110/125	97/108	266/266		
112A + 117A		31.8/42.4	88.4/102.0	128/144	150/150	117/132	262/262	133/149	150/150	122/136	266/266		
RAS090 (2–stage cool)	460–3–60	STD	NONE	–	–	19	20	19	97	20	25	21	99
			116A	13.9	16.7	25	25	23	97	27	30	25	99
			113A	16.5	19.8	29	30	26	97	31	35	28	99
			114A	27.8	33.4	46	50	42	97	48	50	44	99
			115A	33.0	39.7	54	60	49	97	56	60	51	99
			114A + 116A	41.7	50.2	67	70	61	97	69	70	63	99
		MED	NONE	–	–	20	25	20	113	21	25	22	115
			116A	13.9	16.7	26	30	24	113	28	30	26	115
			113A	16.5	19.8	30	30	27	113	32	35	29	115
	114A		27.8	33.4	47	50	43	113	49	50	45	115	
	115A		33.0	39.7	55	60	50	113	57	60	52	115	
	114A + 116A		41.7	50.2	68	70	62	113	70	70	64	115	
	HIGH	NONE	–	–	22	25	23	130	24	30	25	132	
		116A	13.9	16.7	29	30	27	130	32	35	29	132	
		113A	16.5	19.8	33	35	30	130	35	35	32	132	
114A		27.8	33.4	50	50	46	130	52	60	48	132		
115A		33.0	39.7	58	60	53	130	60	60	55	132		
114A + 116A		41.7	50.2	71	80	65	130	73	80	67	132		
575–3–60	STD	NONE	–	–	14	15	14	79	18	20	19	83	
		118A	17.0	20.4	29	30	27	79	34	35	31	83	
		119A	34.0	40.9	55	60	50	79	60	60	55	83	
	MED	NONE	–	–	16	20	16	92	19	25	21	96	
		118A	17.0	20.4	32	35	29	92	36	40	33	96	
		119A	34.0	40.9	57	60	52	92	62	70	57	96	
	HIGH	NONE	–	–	18	20	18	106	22	25	23	110	
		118A	17.0	20.4	34	35	31	106	38	40	35	110	
		119A	34.0	40.9	59	60	54	106	64	70	59	110	

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 4 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – 2–Speed Indoor Fan Motor (cont)**

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
208/230–3–60	STD	NONE	–	–	41/41	50/50	43/42	212	45/45	50/50	47/47	216	
		117A	7.8/10.4	21.7/25.0	41/41	50/50	43/42	212/212	45/45	50/50	47/47	216/216	
		110A	12.0/16.0	33.4/38.5	49/56	50/60	45/51	212/212	54/60	60/60	49/55	216/216	
		111A	18.6/24.8	51.7/59.7	72/82	80/90	66/75	212/212	77/87	80/90	70/79	216/216	
		112A	24.0/32.0	66.7/77.0	91/104	100/110	83/95	212/212	96/108	100/110	88/99	216/216	
		112A + 117A	31.8/42.4	88.4/102.0	118/135	125/150	108/124	212/212	123/140	125/150	113/128	216/216	
	MED	NONE	–	–	42/42	50/50	44/44	216	46/46	60/50	48/48	220	
		117A	7.8/10.4	21.7/25.0	42/42	50/50	44/44	216/216	46/46	60/50	48/48	220/220	
		110A	12.0/16.0	33.4/38.5	51/57	60/60	47/52	216/216	56/62	60/70	51/56	220/220	
		111A	18.6/24.8	51.7/59.7	74/84	80/90	68/76	216/216	79/88	80/90	72/81	220/220	
		112A	24.0/32.0	66.7/77.0	93/105	100/110	85/96	216/216	97/110	100/110	89/101	220/220	
		112A + 117A	31.8/42.4	88.4/102.0	120/136	125/150	110/125	216/216	125/141	125/150	114/129	220/220	
	HIGH	NONE	–	–	46/45	60/50	48/47	266	50/49	60/60	53/52	270	
		117A	7.8/10.4	21.7/25.0	46/45	60/50	48/47	266/266	50/49	60/60	53/52	270/270	
		110A	12.0/16.0	33.4/38.5	56/61	60/70	51/56	266/266	60/66	60/70	55/60	270/270	
		111A	18.6/24.8	51.7/59.7	79/87	80/90	72/80	266/266	83/92	90/100	76/84	270/270	
		112A	24.0/32.0	66.7/77.0	97/109	100/110	89/100	266/266	102/114	110/125	93/104	270/270	
		112A + 117A	31.8/42.4	88.4/102.0	124/140	125/150	114/129	266/266	129/145	150/150	118/133	270/270	
RAS102 (2–stage cool)	STD	NONE	–	–	19	25	20	111	21	25	22	113	
		116A	13.9	16.7	25	25	23	111	27	30	25	113	
		113A	16.5	19.8	29	30	26	111	31	35	28	113	
		114A	27.8	33.4	46	50	42	111	48	50	44	113	
		115A	33.0	39.7	54	60	49	111	56	60	51	113	
		114A + 116A	41.7	50.2	67	70	61	111	69	70	63	113	
	MED	NONE	–	–	20	25	20	114	21	25	22	116	
		116A	13.9	16.7	26	30	23	114	28	30	25	116	
		113A	16.5	19.8	29	30	27	114	32	35	29	116	
		114A	27.8	33.4	46	50	42	114	49	50	44	116	
		115A	33.0	39.7	54	60	50	114	57	60	52	116	
		114A + 116A	41.7	50.2	67	70	62	114	70	70	64	116	
	HIGH	NONE	–	–	21	25	22	139	23	25	24	141	
		116A	13.9	16.7	27	30	25	139	30	30	27	141	
		113A	16.5	19.8	31	35	28	139	34	35	30	141	
		114A	27.8	33.4	48	50	44	139	51	60	46	141	
		115A	33.0	39.7	56	60	51	139	58	60	53	141	
		114A + 116A	41.7	50.2	69	70	63	139	72	80	65	141	
575–3–60	STD	NONE	–	–	17	20	17	87	21	25	21	91	
		118A	17.0	20.4	29	30	27	87	34	35	31	91	
		119A	34.0	40.9	55	60	50	87	60	60	55	91	
	MED	NONE	–	–	17	20	18	91	21	25	22	95	
		118A	17.0	20.4	30	30	27	91	35	35	32	95	
		119A	34.0	40.9	56	60	51	91	61	70	55	95	
	HIGH	NONE	–	–	18	20	19	100	22	25	23	104	
		118A	17.0	20.4	32	35	29	100	36	40	33	104	
		119A	34.0	40.9	57	60	52	100	62	70	57	104	

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 4 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – 2–Speed Indoor Fan Motor (cont)**

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
208/230–3–60	STD	NONE	–	–	46/46	60/60	48/47	255	50/50	60/60	52/52	259	
		117A	7.8/10.4	21.7/25.0	46/46	60/60	48/47	255/255	50/50	60/60	52/52	259/259	
		110A	12.0/16.0	33.4/38.5	51/57	60/60	48/52	255/255	56/62	60/70	52/56	259/259	
		112A	24.0/32.0	66.7/77.0	93/105	100/110	85/96	255/255	97/110	100/110	89/101	259/259	
		112A + 117A	31.8/42.4	88.4/102.0	120/136	125/150	110/125	255/255	125/141	125/150	114/129	259/259	
	112A + 110A	37.6/50.0	104.2/120.3	140/129	150/150	128/146	255/255	144/134	150/150	132/151	259/259		
	MED	NONE	–	–	50/49	60/60	52/51	305	54/53	60/60	56/55	309	
		117A	7.8/10.4	21.7/25.0	50/49	60/60	52/51	305/305	54/53	60/60	56/55	309/309	
		110A	12.0/16.0	33.4/38.5	56/61	60/70	52/56	305/305	60/66	60/70	56/60	309/309	
		112A	24.0/32.0	66.7/77.0	97/109	100/110	89/100	305/305	102/114	110/125	93/104	309/309	
		112A + 117A	31.8/42.4	88.4/102.0	124/140	125/150	114/129	305/305	129/145	150/150	118/133	309/309	
	112A + 110A	37.6/50.0	104.2/120.3	144/133	150/150	132/150	305/305	149/138	150/150	137/154	309/309		
	HIGH	NONE	–	–	53/52	60/60	55/54	316	56/55	60/60	60/59	320	
		117A	7.8/10.4	21.7/25.0	53/52	60/60	55/54	316/316	56/55	60/60	60/59	320/320	
		110A	12.0/16.0	33.4/38.5	59/64	60/70	55/59	316/316	64/69	70/70	60/63	320/320	
112A		24.0/32.0	66.7/77.0	101/113	110/125	92/103	316/316	106/117	110/125	97/108	320/320		
112A + 117A		31.8/42.4	88.4/102.0	128/144	150/150	117/132	316/316	133/149	150/150	122/136	320/320		
112A + 110A	37.6/50.0	104.2/120.3	148/137	150/150	135/153	316/316	152/141	175/175	140/157	320/320			
RAS120 (2–stage cool)	STD	NONE	–	–	23	30	23	122	25	30	26	124	
		116A	13.9	16.7	26	30	23	122	28	30	26	124	
		113A	16.5	19.8	29	30	27	122	32	35	29	124	
		115A	33.0	39.7	54	60	50	122	57	60	52	124	
		114A + 116A	41.7	50.2	67	70	62	122	70	70	64	124	
	115A + 113A	50.0	60.1	65	70	73	122	67	70	75	124		
	MED	NONE	–	–	24	30	25	147	26	30	27	149	
		116A	13.9	16.7	27	30	25	147	30	30	27	149	
		113A	16.5	19.8	31	35	28	147	34	35	30	149	
		115A	33.0	39.7	56	60	51	147	58	60	53	149	
		114A + 116A	41.7	50.2	69	70	63	147	72	80	65	149	
	115A + 113A	50.0	60.1	67	80	75	147	69	80	77	149		
	HIGH	NONE	–	–	26	30	27	152	28	30	29	154	
		116A	13.9	16.7	29	30	27	152	32	35	29	154	
		113A	16.5	19.8	33	35	30	152	35	35	32	154	
115A		33.0	39.7	58	60	53	152	60	60	55	154		
114A + 116A		41.7	50.2	71	80	65	152	73	80	67	154		
115A + 113A	50.0	60.1	69	80	76	152	71	80	79	154			
575–3–60	STD	NONE	–	–	18	20	19	95	22	25	23	99	
		118A	17.0	20.4	30	30	27	95	35	35	32	99	
		119A	34.0	40.9	56	60	51	95	61	70	55	99	
		118A + 119A	51.0	61.3	66	70	75	95	71	80	79	99	
	MED	NONE	–	–	19	25	20	104	23	25	24	108	
		118A	17.0	20.4	32	35	29	104	36	40	33	108	
		119A	34.0	40.9	57	60	52	104	62	70	57	108	
		118A + 119A	51.0	61.3	67	80	76	104	72	80	80	108	
	HIGH	NONE	–	–	21	25	22	118	25	30	26	122	
		118A	17.0	20.4	34	35	31	118	38	40	35	122	
		119A	34.0	40.9	59	60	54	118	64	70	59	122	
		118A + 119A	51.0	61.3	70	80	78	118	74	80	82	122	

See: Legend and Notes for Tables 1 – 4 on page 15.

**Table 4 – RAS090–150 Unit Wire/Fuse or HACR Breaker Sizing Data – 2–Speed Indoor Fan Motor (cont)**

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
RAS150 (2–stage cool)	208/230–3–60	STD	NONE	–	–	63/62	80/80	65/64	370	67/66	80/80	70/69	374
			117A	7.8/10.4	21.7/25.0	63/62	80/80	65/64	370/370	67/66	80/80	70/69	374/374
			110A	12.0/16.0	33.4/38.5	63/62	80/80	65/64	370/370	67/66	80/80	70/69	374/374
			112A	24.0/32.0	66.7/77.0	95/106	100/110	87/98	370/370	99/111	100/125	91/102	374/374
			112A + 117A	31.8/42.4	88.4/102.0	122/138	125/150	112/126	370/370	126/142	150/150	116/131	374/374
		112A + 110A	37.6/50.0	104.2/120.3	141/131	150/150	130/147	370/370	146/135	150/150	134/152	374/374	
		MED	NONE	–	–	65/64	80/80	68/67	394	69/68	80/80	72/71	398
			117A	7.8/10.4	21.7/25.0	65/64	80/80	68/67	394/394	69/68	80/80	72/71	398/398
			110A	12.0/16.0	33.4/38.5	65/64	80/80	68/67	394/394	69/68	80/80	72/71	398/398
	112A		24.0/32.0	66.7/77.0	97/109	100/110	89/100	394/394	102/114	110/125	93/104	398/398	
	112A + 117A		31.8/42.4	88.4/102.0	124/140	125/150	114/129	394/394	129/145	150/150	118/133	398/398	
	112A + 110A	37.6/50.0	104.2/120.3	144/133	150/150	132/150	394/394	149/138	150/150	137/154	398/398		
	HIGH	NONE	–	–	68/67	80/80	71/70	405	72/71	80/80	75/74	409	
		117A	7.8/10.4	21.7/25.0	68/67	80/80	71/70	405/405	72/71	80/80	75/74	409/409	
		110A	12.0/16.0	33.4/38.5	68/67	80/80	71/70	405/405	72/71	80/80	75/74	409/409	
112A		24.0/32.0	66.7/77.0	101/113	110/125	92/103	405/405	106/117	110/125	97/108	409/409		
112A + 117A		31.8/42.4	88.4/102.0	128/144	150/150	117/132	405/405	133/149	150/150	122/136	409/409		
112A + 110A	37.6/50.0	104.2/120.3	148/137	150/150	135/153	405/405	152/141	175/175	140/157	409/409			
RAS150 (2–stage cool)	460–3–60	STD	NONE	–	–	29	35	30	184	31	40	32	186
			116A	13.9	16.7	29	35	30	184	31	40	32	186
			113A	16.5	19.8	30	35	30	184	32	40	32	186
			115A	33.0	39.7	55	60	50	184	57	60	52	186
			114A + 116A	41.7	50.2	68	70	62	184	70	70	64	186
		115A + 113A	50.0	60.1	65	70	73	184	68	80	76	186	
		MED	NONE	–	–	30	40	31	196	32	40	33	198
			116A	13.9	16.7	30	40	31	196	32	40	33	198
			113A	16.5	19.8	31	40	31	196	34	40	33	198
	115A		33.0	39.7	56	60	51	196	58	60	53	198	
	114A + 116A		41.7	50.2	69	70	63	196	72	80	65	198	
	115A + 113A	50.0	60.1	67	80	75	196	69	80	77	198		
	HIGH	NONE	–	–	31	40	33	201	33	40	35	203	
		116A	13.9	16.7	31	40	33	201	33	40	35	203	
		113A	16.5	19.8	33	40	33	201	35	40	35	203	
115A		33.0	39.7	58	60	53	201	60	60	55	203		
114A + 116A		41.7	50.2	71	80	65	201	73	80	67	203		
115A + 113A	50.0	60.1	69	80	76	201	71	80	79	203			
575–3–60	STD	NONE	–	–	24	30	24	147	27	30	29	151	
		118A	17.0	20.4	32	35	29	147	36	40	33	151	
		119A	34.0	40.9	57	60	52	147	62	70	57	151	
		118A + 119A	51.0	61.3	67	80	76	147	72	80	80	151	
	MED	NONE	–	–	24	30	24	147	27	30	29	151	
		118A	17.0	20.4	32	35	29	147	36	40	33	151	
		119A	34.0	40.9	57	60	52	147	62	70	57	151	
		118A + 119A	51.0	61.3	67	80	76	147	72	80	80	151	
	HIGH	NONE	–	–	25	30	26	161	29	35	31	165	
		118A	17.0	20.4	34	35	31	161	38	40	35	165	
		119A	34.0	40.9	59	60	54	161	64	70	59	165	
		118A + 119A	51.0	61.3	70	80	78	161	74	80	82	165	

See: Legend and Notes for Tables 1 – 4 on page 15.

## 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
MOCP	-	MAX FUSE or HACR Breaker
PE	-	Power exhaust
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 v

(BC) 231 – 227 = 4 v

(AC) 227 – 226 = 1 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.