50TCQ 15−20 Nominal Tons
Single Package Rooftop
Heat Pump
with Puron® (R−410A) Refrigerant
Sizes: 17−24

Carrier
turn to the experts

Electrical Data Supplement

FOR MODELS PRODUCED ON OR AFTER JUNE 1, 2015 ONLY!

NOTE: Read the entire instruction manual before starting the installation

This supplement only applies to 50TCQ size 17-24 units manufactured on or after June 1, 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 2315 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**	**3**	**1**	**5**	X	1	2	3	4	5

Week of manufacture (fiscal calendar)

Year of manufacture ("15" = 2015)

Manufacturing location

Sequence number

C150242

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 50TCQ size 17-24 units manufactured on or after June 1, 2015. Check the first 4 digits of the unit's Serial Number (located on the unit's nameplate) if the number listed is 2315 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 – 50TCQ 17-24 Vertical Air Flow 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
50TCQ*17	208/230–3–60	STD	NONE	–	–	68.3	90	71	393	80.1	100	85	413	73.1	90	77	398	84.9	100	90	418
			279A00	18.8/25.0	52.1/60.1	133.4/143.4	150/150	131/140	445/453	145.2/155.2	150/175	145/154	465/473	138.2/148.2	150/150	137/146	450/458	150.0/160.0	150/175	150/160	470/478
			280A00	37.6/50.0	104.2/120.3	198.5/188.6	200/200	191/210	497/513	210.3/200.4	225/225	205/223	517/533	203.3/193.4	225/200	197/215	502/518	215.1/205.2	225/225	210/229	522/538
			281A00	56.3/75.0	156.4/180.4	224.7/248.7	250/300	251/279	549/573	236.5/260.5	250/300	265/292	569/593	229.5/253.5	250/300	257/284	554/578	241.3/265.3	250/300	270/298	574/598
		MED	NONE	–	–	71.4	90	75	423	83.2	100	88	443	76.2	100	80	428	88.0	100	94	448
			279A00	18.8/25.0	52.1/60.1	136.5/146.5	150/150	135/144	475/483	148.3/158.3	150/175	148/158	495/503	141.3/151.3	150/175	140/150	480/488	153.1/163.1	175/175	154/163	500/508
			280A00	37.6/50.0	104.2/120.3	201.6/191.7	225/200	195/213	527/543	213.4/203.5	225/225	208/227	547/563	206.4/196.5	225/225	200/219	532/548	218.2/208.3	225/225	214/232	552/568
			281A00	56.3/75.0	156.4/180.4	227.8/251.8	250/300	255/282	579/603	239.6/263.6	250/300	268/296	599/623	232.6/256.6	250/300	260/288	584/608	244.4/268.4	300/300	274/301	604/628
		HIGH	NONE	–	–	74.4/73.5	90/90	78/77	425	86.2/85.3	100/100	92/91	445	79.2/78.3	100/100	84/83	430	91.0/90.1	100/100	97/96	450
			279A00	18.8/25.0	52.1/60.1	139.5/148.6	150/150	138/146	477/485	151.3/160.4	175/175	152/160	497/505	144.3/153.4	150/175	144/152	482/490	156.1/165.2	175/175	157/165	502/510
			280A00	37.6/50.0	104.2/120.3	204.6/193.8	225/225	198/216	529/545	216.4/205.6	225/225	212/229	549/565	209.4/198.6	225/225	204/221	534/550	221.2/210.4	225/225	217/235	554/570
			281A00	56.3/75.0	156.4/180.4	230.8/253.9	250/300	258/285	581/605	242.6/265.7	250/300	272/298	601/625	235.6/258.7	250/300	264/290	586/610	247.4/270.5	300/300	277/304	606/630
	460–3–60	STD	NONE	–	–	33.6	45	35	234	39.8	50	42	246	35.8	45	38	236	42.0	50	45	248
			282A00	25.0	30.1	71.2	80	70	264	77.4	80	77	276	73.4	80	72	266	79.6	80	79	278
			283A00	50.0	60.1	93.7	100	104	294	99.9	110	111	306	95.9	100	107	296	102.1	110	114	308
			284A00	75.0	90.2	123.8	150	139	324	130.0	150	146	336	126.0	150	141	326	132.2	150	148	338
		MED	NONE	–	–	35.5	45	37	249	41.7	50	44	261	37.7	45	40	251	43.9	50	47	263
			282A00	25.0	30.1	73.1	80	72	279	79.3	80	79	291	75.3	80	74	281	81.5	90	82	293
			283A00	50.0	60.1	95.6	100	106	309	101.8	110	114	321	97.8	110	109	311	104.0	110	116	323
			284A00	75.0	90.2	125.7	150	141	339	131.9	150	148	351	127.9	150	144	341	134.1	150	151	353
		HIGH	NONE	–	–	36.6	45	39	250	42.8	50	46	262	38.8	50	41	252	45.0	50	48	264
			282A00	25.0	30.1	74.2	80	73	280	80.4	90	80	292	76.4	80	76	282	82.6	90	83	294
			283A00	50.0	60.1	96.7	100	108	310	102.9	110	115	322	98.9	110	110	312	105.1	110	117	324
			284A00	75.0	90.2	126.8	150	142	340	133.0	150	149	352	129.0	150	145	342	135.2	150	152	354
	575–3–60	STD	NONE	–	–	24.9	30	26	184	29.7	35	32	192	26.6	30	28	186	31.4	40	33	194
			285A00	24.8	23.9	54.7	60	53	208	59.5	60	59	216	56.4	60	55	210	61.2	70	61	218
			286A00	49.6	47.7	84.5	90	81	232	89.3	90	86	240	86.2	90	83	234	91.0	100	88	242
			287A00	74.4	71.6	96.5	100	108	256	101.3	110	114	264	98.2	110	110	258	103.0	110	116	266
		MED	NONE	–	–	24.9	30	26	184	29.7	35	32	192	26.6	30	28	186	31.4	40	33	194
			285A00	24.8	23.9	54.7	60	53	208	59.5	60	59	216	56.4	60	55	210	61.2	70	61	218
			286A00	49.6	47.7	84.5	90	81	232	89.3	90	86	240	86.2	90	83	234	91.0	100	88	242
			287A00	74.4	71.6	96.5	100	108	256	101.3	110	114	264	98.2	110	110	258	103.0	110	116	266
		HIGH	NONE	–	–	27.7	30	29	198	32.5	40	35	206	29.4	35	31	200	34.2	40	37	208
			285A00	24.8	23.9	57.5	60	57	222	62.3	70	62	230	59.2	60	59	224	64.0	70	64	232
			286A00	49.6	47.7	87.3	90	84	246	92.1	100	90	254	89.0	90	86	248	93.8	100	92	256
			287A00	74.4	71.6	99.3	110	112	270	104.1	110	117	278	101.0	110	114	272	105.8	110	119	280

See: “Legend and Notes for Tables 1 – 3” on page 8.

Table 1 - 50TCQ 17-24 Vertical Air Flow 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.								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
50TCQ*24	208/230–3–60	STD	NONE	–	–	91.3/90.4	100/100	95/94	564	103.1/102.2	125/125	109/108	584	96.1/95.2	125/125	101/100	569	107.9/107.0	125/125	115/114	589
			279A00	18.8/25.0	52.1/60.1	156.5/165.6	175/175	155/164	616/624	168.3/177.4	175/200	169/177	636/644	161.3/170.4	175/175	161/169	621/629	173.1/182.2	175/200	174/183	641/649
			280A00	37.6/50.0	104.2/120.3	221.6/210.7	225/225	215/233	668/684	233.4/222.5	250/250	229/246	688/704	226.4/215.5	250/225	221/238	673/689	238.2/227.3	250/250	234/252	693/709
			281A00	56.3/75.0	156.4/180.4	247.7/270.8	300/300	275/302	720/744	259.5/282.6	300/300	289/315	740/764	252.5/275.6	300/300	281/307	725/749	264.3/287.4	300/300	294/321	745/769
		MED–High Efficiency	NONE	–	–	94.8	125	99	560	106.6	125	113	580	99.6	125	105	565	111.4	125	119	585
			279A00	18.8/25.0	52.1/60.1	160.0/170.0	175/175	159/169	612/620	171.8/181.8	175/200	173/182	632/640	164.8/174.8	175/175	165/174	617/625	176.6/186.6	200/200	178/188	637/645
			280A00	37.6/50.0	104.2/120.3	225.1/215.1	250/225	219/238	664/680	236.9/226.9	250/250	233/251	684/700	229.9/219.9	250/250	225/243	669/685	241.7/231.7	250/250	238/257	689/705
			281A00	56.3/75.0	156.4/180.4	251.2/275.2	300/300	279/307	716/740	263.0/287.0	300/300	293/321	736/760	256.0/280.0	300/300	285/312	721/745	267.8/291.8	300/350	298/326	741/765
		HIGH–High Efficiency	NONE	–	–	106.2	125	113	639	118.0	150	126	659	111.0	125	118	644	122.8	150	132	664
			279A00	18.8/25.0	52.1/60.1	171.4/181.4	175/200	173/182	691/699	183.2/193.2	200/200	186/195	711/719	176.2/186.2	200/200	178/187	696/704	188.0/198.0	200/200	192/201	716/724
			280A00	37.6/50.0	104.2/120.3	236.5/226.5	250/250	232/251	743/759	248.3/238.3	250/250	246/265	763/779	241.3/231.3	250/250	238/256	748/764	253.1/243.1	300/300	252/270	768/784
			281A00	56.3/75.0	156.4/180.4	262.6/286.6	300/300	292/320	795/819	274.4/298.4	300/350	306/334	815/839	267.4/291.4	300/300	298/326	800/824	279.2/303.2	300/350	312/339	820/844
	460–3–60	STD	NONE	–	–	49.1	60	51	291	55.3	60	58	303	51.3	60	54	293	57.5	70	61	305
			282A00	25.0	30.1	86.7	90	86	321	92.9	100	93	333	88.9	90	88	323	95.1	100	96	335
			283A00	50.0	60.1	109.2	125	120	351	115.4	125	128	363	111.4	125	123	353	117.6	125	130	365
			284A00	75.0	90.2	139.3	150	155	381	145.5	150	162	393	141.5	150	158	383	147.7	175	165	395
		MED–High Efficiency	NONE	–	–	51.3	60	54	289	57.5	70	61	301	53.5	60	56	291	59.7	70	63	303
			282A00	25.0	30.1	88.9	90	88	319	95.1	100	96	331	91.1	100	91	321	97.3	100	98	333
			283A00	50.0	60.1	111.4	125	123	349	117.6	125	130	361	113.6	125	125	351	119.8	125	133	363
			284A00	75.0	90.2	141.5	150	158	379	147.7	175	165	391	143.7	150	160	381	149.9	175	167	393
		HIGH–High Efficiency	NONE	–	–	57.0	70	60	329	63.2	80	68	341	59.2	70	63	331	65.4	80	70	343
			282A00	25.0	30.1	94.6	100	95	359	100.8	110	102	371	96.8	100	98	361	103.0	110	105	373
			283A00	50.0	60.1	117.1	125	129	389	123.3	150	137	401	119.3	125	132	391	125.5	150	139	403
			284A00	75.0	90.2	147.2	175	164	419	153.4	175	171	431	149.4	175	167	421	155.6	175	174	433
	575–3–60	STD	NONE	–	–	36.2	45	38	204	41.0	50	43	212	37.9	50	40	206	42.7	50	45	214
			285A00	24.8	23.9	66.1	70	65	228	70.9	80	71	236	67.8	70	67	230	72.6	80	73	238
			286A00	49.6	47.7	95.8	100	93	252	100.6	110	98	260	97.5	100	95	254	102.3	110	100	262
			287A00	74.4	71.6	107.8	125	120	276	112.6	125	126	284	109.5	125	122	278	114.3	125	128	286
		MED–High Efficiency	NONE	–	–	38.2	50	40	202	43.0	50	46	210	39.9	50	42	204	44.7	50	48	212
			285A00	24.8	23.9	68.1	70	68	226	72.9	80	73	234	69.8	70	70	228	74.6	80	75	236
			286A00	49.6	47.7	97.8	100	95	250	102.6	110	101	258	99.5	100	97	252	104.3	110	103	260
			287A00	74.4	71.6	109.8	125	123	274	114.6	125	128	282	111.5	125	125	276	116.3	125	130	284
		HIGH–High Efficiency	NONE	–	–	40.1	50	42	229	44.9	50	48	237	41.8	50	44	231	46.6	50	50	239
			285A00	24.8	23.9	70.0	70	70	253	74.8	80	75	261	71.7	80	72	255	76.5	80	77	263
			286A00	49.6	47.7	99.7	100	97	277	104.5	110	103	285	101.4	110	99	279	106.2	110	105	287
			287A00	74.4	71.6	111.7	125	125	301	116.5	125	130	309	113.4	125	127	303	118.2	125	132	311

See: “Legend and Notes for Tables 1 – 3” on page 8.

Table 2 – 50TCQ 17-24 Horizontal Air Flow 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
50TCQ*17	208/230–3–60	STD	NONE	–	–	71.4	90	75	423	83.2	100	88	443	76.2	100	80	428	88.0	100	94	448
			270A00	18.8/25.0	52.1/60.1	136.5/146.5	150/150	135/144	475/483	148.3/158.3	150/175	148/158	495/503	141.3/151.3	150/175	140/150	480/488	153.1/163.1	175/175	154/163	500/508
			271A00	37.6/50.0	104.2/120.3	201.6/191.7	225/200	195/213	527/543	213.4/203.5	225/225	208/227	547/563	206.4/196.5	225/225	200/219	532/548	218.2/208.3	225/225	214/232	552/568
			272A00	56.3/75.0	156.4/180.4	227.8/251.8	250/300	255/282	579/603	239.6/263.6	250/300	268/296	599/623	232.6/256.6	250/300	260/288	584/608	244.4/268.4	300/300	274/301	604/628
		MED	NONE	–	–	71.4	90	75	423	83.2	100	88	443	76.2	100	80	428	88.0	100	94	448
			270A00	18.8/25.0	52.1/60.1	136.5/146.5	150/150	135/144	475/483	148.3/158.3	150/175	148/158	495/503	141.3/151.3	150/175	140/150	480/488	153.1/163.1	175/175	154/163	500/508
			271A00	37.6/50.0	104.2/120.3	201.6/191.7	225/200	195/213	527/543	213.4/203.5	225/225	208/227	547/563	206.4/196.5	225/225	200/219	532/548	218.2/208.3	225/225	214/232	552/568
			272A00	56.3/75.0	156.4/180.4	227.8/251.8	250/300	255/282	579/603	239.6/263.6	250/300	268/296	599/623	232.6/256.6	250/300	260/288	584/608	244.4/268.4	300/300	274/301	604/628
		HIGH	NONE	–	–	74.4/73.5	90/90	78/77	425	86.2/85.3	100/100	92/91	445	79.2/78.3	100/100	84/83	430	91.0/90.1	100/100	97/96	450
			270A00	18.8/25.0	52.1/60.1	139.5/148.6	150/150	138/146	477/485	151.3/160.4	175/175	152/160	497/505	144.3/153.4	150/175	144/152	482/490	156.1/165.2	175/175	157/165	502/510
			271A00	37.6/50.0	104.2/120.3	204.6/193.8	225/225	198/216	529/545	216.4/205.6	225/225	212/229	549/565	209.4/198.6	225/225	204/221	534/550	221.2/210.4	225/225	217/235	554/570
			272A00	56.3/75.0	156.4/180.4	230.8/253.9	250/300	258/285	581/605	242.6/265.7	250/300	272/298	601/625	235.6/258.7	250/300	264/290	586/610	247.4/270.5	300/300	277/304	606/630
	460–3–60	STD	NONE	–	–	35.5	45	37	249	41.7	50	44	261	37.7	45	40	251	43.9	50	47	263
			273A00	25.0	30.1	73.1	80	72	279	79.3	80	79	291	75.3	80	74	281	81.5	90	82	293
			274A00	50.0	60.1	95.6	100	106	309	101.8	110	114	321	97.8	110	109	311	104.0	110	116	323
			275A00	75.0	90.2	125.7	150	141	339	131.9	150	148	351	127.9	150	144	341	134.1	150	151	353
		MED	NONE	–	–	35.5	45	37	249	41.7	50	44	261	37.7	45	40	251	43.9	50	47	263
			273A00	25.0	30.1	73.1	80	72	279	79.3	80	79	291	75.3	80	74	281	81.5	90	82	293
			274A00	50.0	60.1	95.6	100	106	309	101.8	110	114	321	97.8	110	109	311	104.0	110	116	323
			275A00	75.0	90.2	125.7	150	141	339	131.9	150	148	351	127.9	150	144	341	134.1	150	151	353
		HIGH	NONE	–	–	36.6	45	39	250	42.8	50	46	262	38.8	50	41	252	45.0	50	48	264
			273A00	25.0	30.1	74.2	80	73	280	80.4	90	80	292	76.4	80	76	282	82.6	90	83	294
			274A00	50.0	60.1	96.7	100	108	310	102.9	110	115	322	98.9	110	110	312	105.1	110	117	324
			275A00	75.0	90.2	126.8	150	142	340	133.0	150	149	352	129.0	150	145	342	135.2	150	152	354
	575–3–60	STD	NONE	–	–	24.9	30	26	184	29.7	35	32	192	26.6	30	28	186	31.4	40	33	194
			276A00	24.8	23.9	54.7	60	53	208	59.5	60	59	216	56.4	60	55	210	61.2	70	61	218
			277A00	49.6	47.7	84.5	90	81	232	89.3	90	86	240	86.2	90	83	234	91.0	100	88	242
			278A00	74.4	71.6	96.5	100	108	256	101.3	110	114	264	98.2	110	110	258	103.0	110	116	266
		MED	NONE	–	–	24.9	30	26	184	29.7	35	32	192	26.6	30	28	186	31.4	40	33	194
			276A00	24.8	23.9	54.7	60	53	208	59.5	60	59	216	56.4	60	55	210	61.2	70	61	218
			277A00	49.6	47.7	84.5	90	81	232	89.3	90	86	240	86.2	90	83	234	91.0	100	88	242
			278A00	74.4	71.6	96.5	100	108	256	101.3	110	114	264	98.2	110	110	258	103.0	110	116	266
		HIGH	NONE	–	–	27.7	30	29	198	32.5	40	35	206	29.4	35	31	200	34.2	40	37	208
			276A00	24.8	23.9	57.5	60	57	222	62.3	70	62	230	59.2	60	59	224	64.0	70	64	232
			277A00	49.6	47.7	87.3	90	84	246	92.1	100	90	254	89.0	90	86	248	93.8	100	92	256
			278A00	74.4	71.6	99.3	110	112	270	104.1	110	117	278	101.0	110	114	272	105.8	110	119	280

See: “Legend and Notes for Tables 1 – 3” on page 8.

Table 2 – 50TCQ 17-24 Horizontal Air Flow 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.								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
50TCQ*24	208/230–3–60	MED–High Efficiency	NONE	–	–	94.8	125	99	560	106.6	125	113	580	99.6	125	105	565	111.4	125	119	585
			270A00	18.8/25.0	52.1/60.1	160.0/170.0	175/175	159/169	612/620	171.8/181.8	175/200	173/182	632/640	164.8/174.8	175/175	165/174	617/625	176.6/186.6	200/200	178/188	637/645
			271A00	37.6/50.0	104.2/120.3	225.1/215.1	250/225	219/238	664/680	236.9/226.9	250/250	233/251	684/700	229.9/219.9	250/250	225/243	669/685	241.7/231.7	250/250	238/257	689/705
			272A00	56.3/75.0	156.4/180.4	251.2/275.2	300/300	279/307	716/740	263.0/287.0	300/300	293/321	736/760	256.0/280.0	300/300	285/312	721/745	267.8/291.8	300/350	298/326	741/765
		HIGH–High Efficiency	NONE	–	–	106.2	125	113	639	118.0	150	126	659	111.0	125	118	644	122.8	150	132	664
			270A00	18.8/25.0	52.1/60.1	171.4/181.4	175/200	173/182	691/699	183.2/193.2	200/200	186/195	711/719	176.2/186.2	200/200	178/187	696/704	188.0/198.0	200/200	192/201	716/724
			271A00	37.6/50.0	104.2/120.3	236.5/226.5	250/250	232/251	743/759	248.3/238.3	250/250	246/265	763/779	241.3/231.3	250/250	238/256	748/764	253.1/243.1	300/300	252/270	768/784
			272A00	56.3/75.0	156.4/180.4	262.6/286.6	300/300	292/320	795/819	274.4/298.4	300/350	306/334	815/839	267.4/291.4	300/300	298/326	800/824	279.2/303.2	300/350	312/339	820/844
	460–3–60	MED–High Efficiency	NONE	–	–	51.3	60	54	289	57.5	70	61	301	53.5	60	56	291	59.7	70	63	303
			273A00	25.0	30.1	88.9	90	88	319	95.1	100	96	331	91.1	100	91	321	97.3	100	98	333
			274A00	50.0	60.1	111.4	125	123	349	117.6	125	130	361	113.6	125	125	351	119.8	125	133	363
			275A00	75.0	90.2	141.5	150	158	379	147.7	175	165	391	143.7	150	160	381	149.9	175	167	393
		HIGH–High Efficiency	NONE	–	–	57.0	70	60	329	63.2	80	68	341	59.2	70	63	331	65.4	80	70	343
			273A00	25.0	30.1	94.6	100	95	359	100.8	110	102	371	96.8	100	98	361	103.0	110	105	373
			274A00	50.0	60.1	117.1	125	129	389	123.3	150	137	401	119.3	125	132	391	125.5	150	139	403
			275A00	75.0	90.2	147.2	175	164	419	153.4	175	171	431	149.4	175	167	421	155.6	175	174	433
	575–3–60	MED–High Efficiency	NONE	–	–	38.2	50	40	202	43.0	50	46	210	39.9	50	42	204	44.7	50	48	212
			276A00	24.8	23.9	68.1	70	68	226	72.9	80	73	234	69.8	70	70	228	74.6	80	75	236
			277A00	49.6	47.7	97.8	100	95	250	102.6	110	101	258	99.5	100	97	252	104.3	110	103	260
			278A00	74.4	71.6	109.8	125	123	274	114.6	125	128	282	111.5	125	125	276	116.3	125	130	284
		HIGH–High Efficiency	NONE	–	–	40.1	50	42	229	44.9	50	48	237	41.8	50	44	231	46.6	50	50	239
			276A00	24.8	23.9	70.0	70	70	253	74.8	80	75	261	71.7	80	72	255	76.5	80	77	263
			277A00	49.6	47.7	99.7	100	97	277	104.5	110	103	285	101.4	110	99	279	106.2	110	105	287
			278A00	74.4	71.6	111.7	125	125	301	116.5	125	130	309	113.4	125	127	303	118.2	125	132	311

NOTE: STD IFM not available on the horizontal 50TCQ*24. It is available on the vertical 50TCQ*24.

See: “Legend and Notes for Tables 1 – 3” on page 8.

Table 3 – 50TCQ 17-24 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 VERT/HORIZ	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
50TCQ*17	208/230–3–60	STD	NONE	–	–	69.4/68.6	90/90	73/72	390	81.2/80.4	100/100	86/85	410	74.2/73.4	90/90	78/77	395	86.0/85.2	100/100	92/91	415
			279/270A00	18.8/25.0	52.1/60.1	134.5/143.7	150/150	132/141	442/450	146.3/155.5	150/175	146/154	462/470	139.3/148.5	150/150	138/146	447/455	151.1/160.3	175/175	152/160	467/475
			280/271A00	37.6/50.0	104.2/120.3	199.6/188.9	200/200	192/210	494/510	211.4/200.7	225/225	206/224	514/530	204.4/193.7	225/200	198/216	499/515	216.2/205.5	225/225	211/229	519/535
			281/272A00	56.3/75.0	156.4/180.4	225.8/249.0	250/300	252/279	546/570	237.6/260.8	250/300	266/293	566/590	230.6/253.8	250/300	258/285	551/575	242.4/265.6	250/300	272/298	571/595
		MED	NONE	–	–	71.6/70.6	90/90	75/74	414	83.4/82.4	100/100	89/88	434	76.4/75.4	100/100	81/79	419	88.2/87.2	100/100	94/93	439
			279/270A00	18.8/25.0	52.1/60.1	136.7/145.7	150/150	135/143	466/474	148.5/157.5	150/175	149/157	486/494	141.5/150.5	150/175	141/149	471/479	153.3/162.3	175/175	154/162	491/499
			280/271A00	37.6/50.0	104.2/120.3	201.8/190.9	225/200	195/212	518/534	213.6/202.7	225/225	208/226	538/554	206.6/195.7	225/225	200/218	523/539	218.4/207.5	225/225	214/231	543/559
			281/272A00	56.3/75.0	156.4/180.4	228.0/251.0	250/300	255/281	570/594	239.8/262.8	250/300	269/295	590/614	232.8/255.8	250/300	260/287	575/599	244.6/267.6	300/300	274/300	595/619
		HIGH	NONE	–	–	74.4/73.5	90/90	78/77	425	86.2/85.3	100/100	92/91	445	79.2/78.3	100/100	84/83	430	91.0/90.1	100/100	97/96	450
			279/270A00	18.8/25.0	52.1/60.1	139.5/148.6	150/150	138/146	477/485	151.3/160.4	175/175	152/160	497/505	144.3/153.4	150/175	144/152	482/490	156.1/165.2	175/175	157/165	502/510
			280/271A00	37.6/50.0	104.2/120.3	204.6/193.8	225/225	198/216	529/545	216.4/205.6	225/225	212/229	549/565	209.4/198.6	225/225	204/221	534/550	221.2/210.4	225/225	217/235	554/570
			281/272A00	56.3/75.0	156.4/180.4	230.8/253.9	250/300	258/285	581/605	242.6/265.7	250/300	272/298	601/625	235.6/258.7	250/300	264/290	586/610	247.4/270.5	300/300	277/304	606/630
	460–3–60	STD	NONE	–	–	34.0	45	36	233	40.2	50	43	245	36.2	45	38	235	42.4	50	45	247
			282/273A00	25.0	30.1	71.6	80	70	263	77.8	80	77	275	73.8	80	73	265	80.0	80	80	277
			283/274A00	50.0	60.1	94.1	100	105	293	100.3	110	112	305	96.3	100	107	295	102.5	110	114	307
			284/275A00	75.0	90.2	124.2	150	139	323	130.4	150	146	335	126.4	150	142	325	132.6	150	149	337
		MED	NONE	–	–	35.1	45	37	245	41.3	50	44	257	37.3	45	39	247	43.5	50	46	259
			282/273A00	25.0	30.1	72.7	80	71	275	78.9	80	79	287	74.9	80	74	277	81.1	90	81	289
			283/274A00	50.0	60.1	95.2	100	106	305	101.4	110	113	317	97.4	110	108	307	103.6	110	116	319
			284/275A00	75.0	90.2	125.3	150	141	335	131.5	150	148	347	127.5	150	143	337	133.7	150	150	349
		HIGH	NONE	–	–	36.6	45	39	250	42.8	50	46	262	38.8	50	41	252	45.0	50	48	264
			282/273A00	25.0	30.1	74.2	80	73	280	80.4	90	80	292	76.4	80	76	282	82.6	90	83	294
			283/274A00	50.0	60.1	96.7	100	108	310	102.9	110	115	322	98.9	110	110	312	105.1	110	117	324
			284/275A00	75.0	90.2	126.8	150	142	340	133.0	150	149	352	129.0	150	145	342	135.2	150	152	354
	575–3–60	STD	NONE	–	–	26.6	30	28	184	31.4	40	33	192	28.3	35	30	186	33.1	40	35	194
			285/276A00	24.8	23.9	56.4	60	55	208	61.2	70	61	216	58.1	60	57	210	62.9	70	63	218
			286/277A00	49.6	47.7	86.2	90	83	232	91.0	100	88	240	87.9	90	85	234	92.7	100	90	242
			287/278A00	74.4	71.6	98.2	110	110	256	103.0	110	116	264	99.9	110	112	258	104.7	110	118	266
		MED	NONE	–	–	26.6	30	28	184	31.4	40	33	192	28.3	35	30	186	33.1	40	35	194
			285/276A00	24.8	23.9	56.4	60	55	208	61.2	70	61	216	58.1	60	57	210	62.9	70	63	218
			286/277A00	49.6	47.7	86.2	90	83	232	91.0	100	88	240	87.9	90	85	234	92.7	100	90	242
			287/278A00	74.4	71.6	98.2	110	110	256	103.0	110	116	264	99.9	110	112	258	104.7	110	118	266
		HIGH	NONE	–	–	28.3	35	30	198	33.1	40	35	206	30.0	35	32	200	34.8	40	37	208
			285/276A00	24.8	23.9	58.1	60	57	222	62.9	70	63	230	59.8	60	59	224	64.6	70	65	232
			286/277A00	49.6	47.7	87.9	90	85	246	92.7	100	90	254	89.6	90	87	248	94.4	100	92	256
			287/278A00	74.4	71.6	99.9	110	112	270	104.7	110	118	278	101.6	110	114	272	106.4	110	120	280

See: “Legend and Notes for Tables 1 – 3” on page 8.

Table 3 - 50TCQ 17-24 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.								w/ PWRD C.O.							
						NO P.E.				w/ P.E. (pwrd fr/unit)				NO P.E.				w/ P.E. (pwrd fr/unit)			
			CRHEATER ***A00 VERT/HORIZ	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
50TCQ*24	208/230–3–60	STD	NONE	–	–	91.3/90.4	100/100	95/94	564	103.1/102.2	125/125	109/108	584	96.1/95.2	125/125	101/100	569	107.9/107.0	125/125	115/114	589
			279/___A00	18.8/25.0	52.1/60.1	156.5/165.6	175/175	155/164	616/624	168.3/177.4	175/200	169/177	636/644	161.3/170.4	175/175	161/169	621/629	173.1/182.2	175/200	174/183	641/649
			280/___A00	37.6/50.0	104.2/120.3	221.6/210.7	225/225	215/233	668/684	233.4/222.5	250/250	229/246	688/704	226.4/215.5	250/225	221/238	673/689	238.2/227.3	250/250	234/252	693/709
			281/___A00	56.3/75.0	156.4/180.4	247.7/270.8	300/300	275/302	720/744	259.5/282.6	300/300	289/315	740/764	252.5/275.6	300/300	281/307	725/749	264.3/287.4	300/300	294/321	745/769
		MED	NONE	–	–	94.8	125	99	560	106.6	125	113	580	99.6	125	105	565	111.4	125	119	585
			279/270A00	18.8/25.0	52.1/60.1	160.0/170.0	175/175	159/169	612/620	171.8/181.8	175/200	173/182	632/640	164.8/174.8	175/175	165/174	617/625	176.6/186.6	200/200	178/188	637/645
			280/271A00	37.6/50.0	104.2/120.3	225.1/215.1	250/225	219/238	664/680	236.9/226.9	250/250	233/251	684/700	229.9/219.9	250/250	225/243	669/685	241.7/231.7	250/250	238/257	689/705
			281/272A00	56.3/75.0	156.4/180.4	251.2/275.2	300/300	279/307	716/740	263.0/287.0	300/300	293/321	736/760	256.0/280.0	300/300	285/312	721/745	267.8/291.8	300/350	298/326	741/765
		HIGH	NONE	–	–	106.2	125	113	639	118.0	150	126	659	111.0	125	118	644	122.8	150	132	664
			279/270A00	18.8/25.0	52.1/60.1	171.4/181.4	175/200	173/182	691/699	183.2/193.2	200/200	186/195	711/719	176.2/186.2	200/200	178/187	696/704	188.0/198.0	200/200	192/201	716/724
			280/271A00	37.6/50.0	104.2/120.3	236.5/226.5	250/250	232/251	743/759	248.3/238.3	250/250	246/265	763/779	241.3/231.3	250/250	238/256	748/764	253.1/243.1	300/300	252/270	768/784
			281/272A00	56.3/75.0	156.4/180.4	262.6/286.6	300/300	292/320	795/819	274.4/298.4	300/350	306/334	815/839	267.4/291.4	300/300	298/326	800/824	279.2/303.2	300/350	312/339	820/844
	460–3–60	STD	NONE	–	–	49.1	60	51	291	55.3	60	58	303	51.3	60	54	293	57.5	70	61	305
			282/___A00	25.0	30.1	86.7	90	86	321	92.9	100	93	333	88.9	90	88	323	95.1	100	96	335
			283/___A00	50.0	60.1	109.2	125	120	351	115.4	125	128	363	111.4	125	123	353	117.6	125	130	365
			284/___A00	75.0	90.2	139.3	150	155	381	145.5	150	162	393	141.5	150	158	383	147.7	175	165	395
		MED	NONE	–	–	51.3	60	54	289	57.5	70	61	301	53.5	60	56	291	59.7	70	63	303
			282/273A00	25.0	30.1	88.9	90	88	319	95.1	100	96	331	91.1	100	91	321	97.3	100	98	333
			283/274A00	50.0	60.1	111.4	125	123	349	117.6	125	130	361	113.6	125	125	351	119.8	125	133	363
			284/275A00	75.0	90.2	141.5	150	158	379	147.7	175	165	391	143.7	150	160	381	149.9	175	167	393
		HIGH	NONE	–	–	57.0	70	60	329	63.2	80	68	341	59.2	70	63	331	65.4	80	70	343
			282/273A00	25.0	30.1	94.6	100	95	359	100.8	110	102	371	96.8	100	98	361	103.0	110	105	373
			283/274A00	50.0	60.1	117.1	125	129	389	123.3	150	137	401	119.3	125	132	391	125.5	150	139	403
			284/275A00	75.0	90.2	147.2	175	164	419	153.4	175	171	431	149.4	175	167	421	155.6	175	174	433
	575–3–60	STD	NONE	–	–	36.8	45	39	204	41.6	50	44	212	38.5	50	41	206	43.3	50	46	214
			285/___A00	24.8	23.9	66.7	70	66	228	71.5	80	72	236	68.4	70	68	230	73.2	80	74	238
			286/___A00	49.6	47.7	96.4	100	93	252	101.2	110	99	260	98.1	100	95	254	102.9	110	101	262
			287/___A00	74.4	71.6	108.4	125	121	276	113.2	125	127	284	110.1	125	123	278	114.9	125	128	286
		MED	NONE	–	–	38.2	50	40	202	43.0	50	46	210	39.9	50	42	204	44.7	50	48	212
			285/276A00	24.8	23.9	68.1	70	68	226	72.9	80	73	234	69.8	70	70	228	74.6	80	75	236
			286/277A00	49.6	47.7	97.8	100	95	250	102.6	110	101	258	99.5	100	97	252	104.3	110	103	260
			287/278A00	74.4	71.6	109.8	125	123	274	114.6	125	128	282	111.5	125	125	276	116.3	125	130	284
		HIGH	NONE	–	–	40.1	50	42	229	44.9	50	48	237	41.8	50	44	231	46.6	50	50	239
			285/276A00	24.8	23.9	70.0	70	70	253	74.8	80	75	261	71.7	80	72	255	76.5	80	77	263
			286/277A00	49.6	47.7	99.7	100	97	277	104.5	110	103	285	101.4	110	99	279	106.2	110	105	287
			287/278A00	74.4	71.6	111.7	125	125	301	116.5	125	130	309	113.4	125	127	303	118.2	125	132	311

NOTE: STD IFM not available on the horizontal 50TCQ*24. It is available on the vertical 50TCQ*24.

See: “Legend and Notes for Tables 1 – 3” on page 8.

Legend and Notes for Tables 1 - 3

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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