

9700C VPAC SERIES – WATER COOLED

VERTICAL PACKAGED AIR CONDITIONER



TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

**WATER-COOLED
VERTICAL PACKAGED AIR CONDITIONERS**
5-Ton through 30-Ton Capacity



RSI Company

12911 Taft Avenue, Cleveland, Ohio 44108 • PH: 216-451-9300 • FAX: 216-451-9376

• Web: www.rsicomp.com • Email: info@rsicomp.com



ITS Intertek Testing Services



9700C VPAC SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER

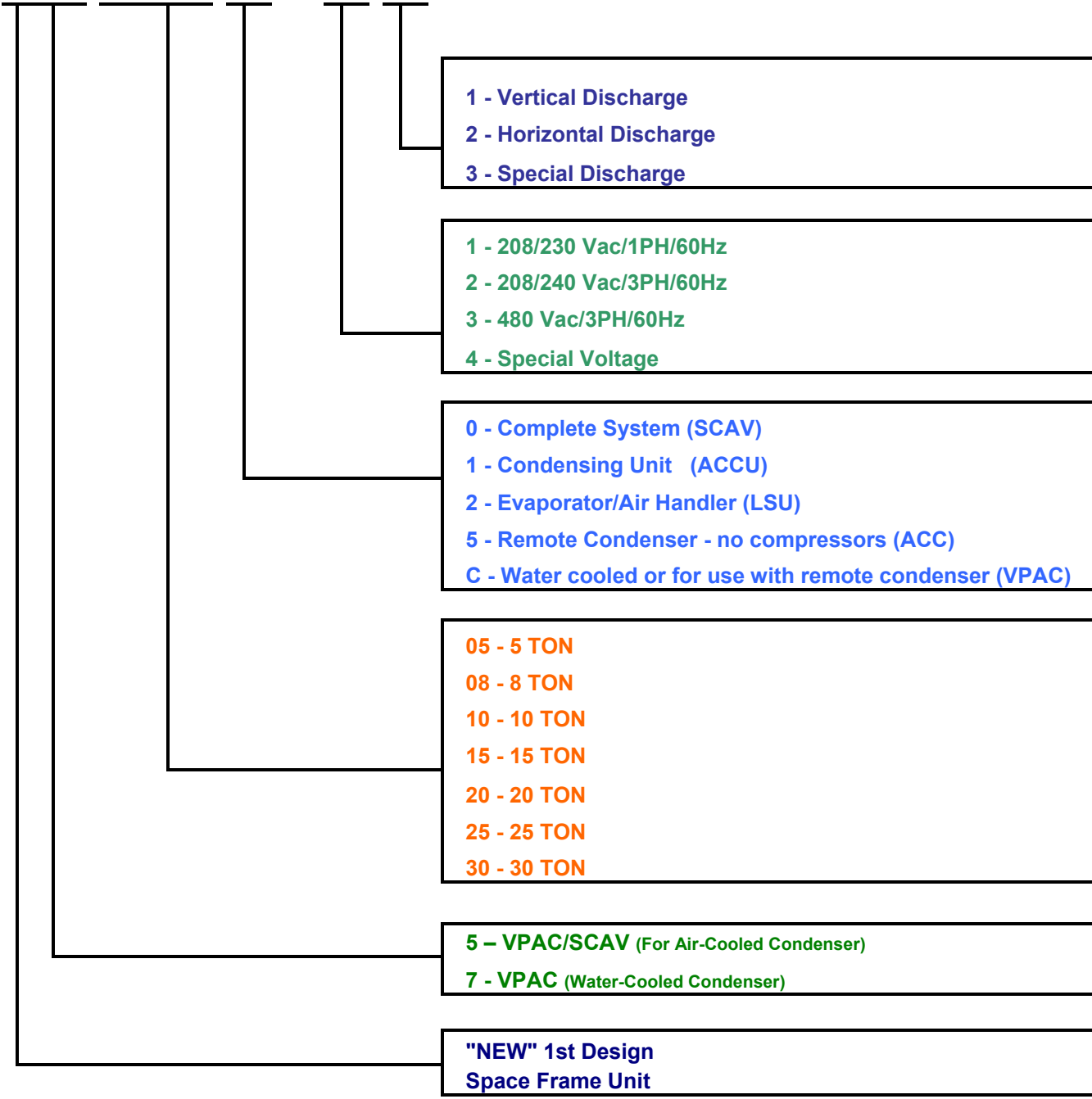


TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

VPAC UNITS

9 X X X X - X X



9700C VPAC SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER



TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

NO CONDENSER DUCTING REQUIRED FLEXIBLE INSTALLATION LOCATION ADAPTABLE AIR DELIVER

You'll find the efficiency, flexibility and unobtrusive styling of the VPAC hard to beat. Especially if your need is to provide effective air conditioning where space is at a premium and water is readily available. The VPAC needs no condenser air ducting and there is a model to handle the requirements of nearly every application.

With this thought in mind, we made the VPAC light and compact to fit in virtually every elevator and through every standard hall and doorway, even in older buildings. You never have any trouble getting the unit where the action is required. Because it is water-cooled, there is not need for condenser air ducting or to locate the unit on an outside wall. It may be located in any equipment room or closet, you need only add supply and return cooling water and duct systems to carry conditioned air to and from the area. Installation is fast, easy and your VPAC will operate at the most convenient location.

We have also designed the unit so it can be used with either an optional plenum for "Free Blow" applications, or with ducted air delivery systems. Condenser water is connected to the lower left side of the unit. Simply choose the location, install proper ducting, arrange piping, make electrical connections and you're in business. For low ambient conditions crankcase heat and low-pressure switch bypass timers are optionally available.

Because the VPAC is available in 5, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90 and 100-ton capacity, you can choose a system that fits your particular conditions and

requirements - without high installation costs. The 5-ton capacity unit has one circuit and one scroll compressor. The 8-35 ton capacity units have two circuits and are equipped with two scroll compressors. The 40-60 ton capacity units have two circuits and four scroll compressors. Units 70 ton capacity and over have two circuits and two semi-hermetic compressors. Two compressor units operate at either 50% or 100% capacity depending on the cooling demands. Four compressor units operate at 25%, 50%, 75% or 100% capacity. Further capacity control can be supplied with discharge gas bypass or semi-hermetic unloading options available.

Standard compressor warranty is valid for one year and an extended 5-year compressor option is also available. Each model features a rigid, heavy-gauge metal cabinet with internal bracing and reinforced blower framing to reduce operating noise to a minimum. Then the cabinet is thermally and acoustically insulated to make it even quieter.

The evaporator blower section can be ordered for either horizontal or vertical air discharge - to meet the needs of an existing air delivery system or to handle varying conditions such as low ceilings, etc.

Servicing the VPAC is fast and simple. The removable panels put all internal components within easy reach for inspection and service. Electrical components are centralized in a separate front or side compartment to permit servicing even while the unit is in operation. The VPAC has a nice looking appearance, too. That is because we have given it a smooth, unobtrusive styling and painted it a common, neutral color-Pearl Gray-to blend naturally and inconspicuously with modern office surroundings.



9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

EASY TO INSTALL AND SERVICE



Single, Compact Package. You just move the VPAC into position, connect the condensing water lines, connect condensate drainage and electrical power, and turn it on. It's that simple. We've done all the rest by making the VPAC one, complete unit, water-cooled, self-contained package for comfort conditioning any indoor space. It's conveniently fits into elevators and through standard doorways and passages.

Water-Cooled Condenser. Forget about space consuming condensing air ducts, air cooled condenser coil maintenance or high ambient temperatures.

Adaptable Air Delivery. We designed the VPAC blower sections so you can order it with either vertical or horizontal air discharge to meet your particular requirements. An optional plenum is also available for "free blow" applications.

Ready Accessibility. Fast-removal, quick re-mount panels make it easy to inspect and service all internal components.

Contemporary Design. Modern Styling in Pearl Gray makes the VPAC a welcome and pleasant addition to any office. You get the comfort you

want together with attractive appearance. Your custom colored VPAC is also an available option.

Scroll Compressors. The 5-ton VPAC is equipped with (1) scroll compressor. 8-ton through 35-ton are equipped with (2) scroll compressors and the 40-60-ton VPAC has (4), (2-tandem) compressors.

Centralized Electrical Controls. We have put all the electrical controls in one conveniently located, enclosed compartment where they can be reached, inspected, and serviced readily even while the unit is in operation.

Rigid, Heavy-Duty Cabinet for Quiet Operation. To build durability into each VPAC, we fabricate the cabinet from heavy-gauge steel, then bonderize it to resist rust and scratches for better paint adhesion. Next, we add rigid internal bracing to reduce the operating sound level. Generous thermal and acoustical insulation give you added assurance of unusually quiet operation.



9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

PHYSICAL DATA – 5 TONS THROUGH 15 TONS CAPACITY

Ratings cooling	5				8			10			15		
VPAC MODEL NO.	9705C				9708C			9710C			9715C		
Total Capacity BTUH	60,000				96,000			120,000			180,000		
Nominal Airflow CFM	2000				3200			4000			6000		
Power	208-230V	208-230V	460V	575V	208-230V	460V	575V	208-230V	460V	575V	208-230V	460V	575V
Disconnect Switch Size Amps	60	30	30	30	60	30	30	60	30	30	100	60	30
Wire Size AWG	8	10	14	14	8	12	14	8	12	14	4	6	10
Fuse Size Max Amps	50	30	15	15	40	25	15	50	30	20	80	45	30
COMPRESSOR TYPE	Scroll												
Nominal HP	5				4 + 4			5 + 5			7.5 + 7.5		
Nameplate Amps	32.1	19.4	10.0	7.9	14.9	8.2	5.7	19.4	10.0	7.9	30.6	16.4	12.0
Locked Rotor Amps	169	137	63.0	50.0	120	49.5	37.0	137	63.0	50.0	195	95.0	90.0
Circuit #1 Capacity-Tons	5				4			5			7.5		
Circuit #2 Capacity-Tons	N / A				4			5			7.5		
EVAPORATOR COIL	Single circuit				Full face interlaced								
Rows/FPI	4 / 13				4 / 12			4 / 12			4 / 11		
Face Area	4.44				10.11			10.11			14.58		
Tubes-Mat./Size-OD	Copper / 3/8												
Refrigerant Control	TXV												
Drain conn.-Qty/Size FPT	(1) ½												
EVAPORATOR BLOWER													
(Qty) DiameterxWidth in.	(1) 10 X 8				(1) 12 X 12			(1) 12X12			(1) 15X15		
Drive/Speed RPM	Belt / 955				Belt / 910			Belt / 981			Belt / 847		
Blower (CFM)@.50 E.S.P.	2000 CFM @ 0.5"				3200 CFM @ 0.5"			4000 CFM @ 0.5"			6000 CFM @ 0.5"		
Motor HP/Speed RPM	1 HP / 1750				1.5 HP / 1750			2 HP / 1750			3 HP / 1750		
CONDENSERS													
	Coaxial				Coaxial			Coaxial			Coaxial		
FILTERS													
Type Recommended	Disposable Pleated Air Filters												
(Qty)Size in.	(2) 28" X 18" X 1"				(3) 30" X 20" X 2"			(3) 30" X 20" X 2"			(4) 30" X 20" X 2"		
REFRIGERANT R22													
Circuit #1 Charge Lbs.	7.0				7.7			7.9			18.00		
Circuit #2 Charge Lbs.	N / A				7.7			7.9			18.0		
Shipping Weight – Lbs.	585				910			985			1360		



9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

PHYSICAL DATA – 20 TONS THROUGH 30 TONS CAPACITY

Ratings cooling	20			25			30		
VPAC MODEL NO.	9720C			9725C			9730C		
Total Capacity BTUH	240000			300000			360000		
Nominal Airflow CFM	8000			10000			12000		
Power	208-230V	460V	575V	208-230V	460V	575V	208-230V	460V	575V
Disconnect Switch Size Amps	200	60	60	200	100	60	200	100	60
Wire Size AWG	1	4	8	1/0	4	6	3/0	3	4
Fuse Size Max Amps	110	60	40	125	70	50	150	80	60
COMPRESSOR TYPE	SCROLL								
Nominal HP	10 + 10			12.5 + 12.5			15 + 15		
Nameplate Amps	42.0	19.6	13.8	47.0	25.6	19.9	56.8	27.8	23.5
Locked Rotor Amps	239	125	80	350	158	125	425	187	148
Circuit #1 Capacity-Tons	10			12.5			15		
Circuit #2 Capacity-Tons	10			12.5			15		
EVAPORATOR COIL	Full face interlaced								
Rows/FPI	4 / 11			4 / 10			4 / 10		
Face Area	14.44			23.13			23.13		
Tubes-Mat./Size-OD	Copper / 3/8 OD			Copper / 1/2 OD			Copper / 1/2 OD		
Refrigerant Control	TXV								
Drain conn.-Qty/Size FPT	(1) 1/2"			(2) 1"			(2) 1"		
EVAPORATOR BLOWER									
(Qty) DiameterxWidth in.	(1) 15" X 15"			(2) 15" X 15"			(2) 15" X 15"		
Drive/Speed RPM	Belt / 965			Belt / 827			Belt / 912		
Blower (CFM)@.50 E.S.P.	8000 @ 0.5"			10,000 @ 0.5"			12,000 @ 0.5"		
Motor HP/Speed RPM	5 HP / 1750			5 HP / 1750			7.5 HP / 1750		
CONDENSERS									
	Shell & tube			Shell & tube			Shell & tube		
FILTERS									
Type Recommended	Disposable pleated air filters								
(Qty)Size in.	(4) 20" X 30" X 2"			(8) 20" X 24" X 2"			(8) 20" X 24" X 2"		
REFRIGERANT R22									
Circuit #1 Charge Lbs.	18.0			20.0			28.0		
Circuit #2 Charge Lbs.	18.0			20.0			28.0		
Shipping Weight – Lbs.	1395			1790			2017		

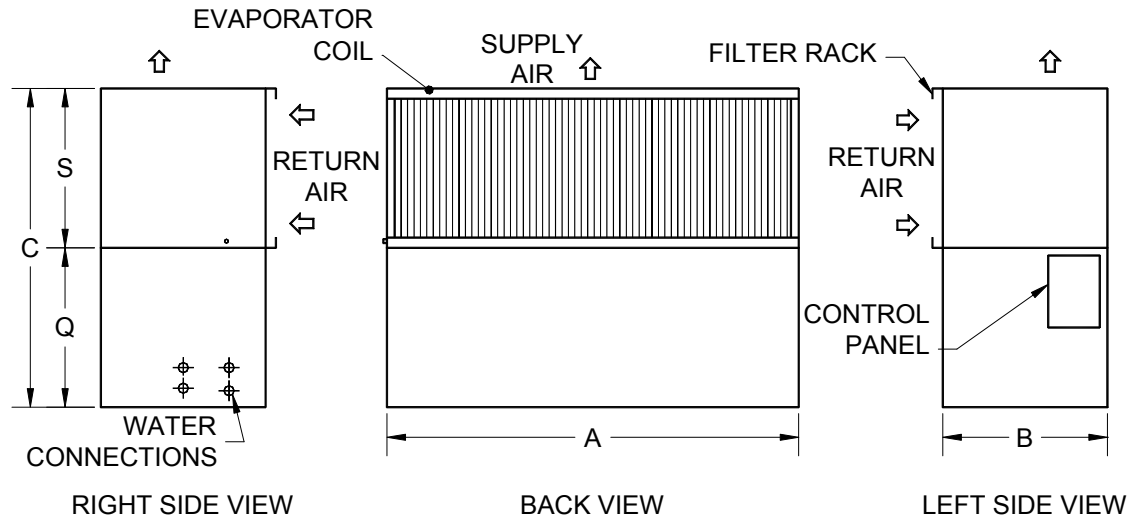


9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

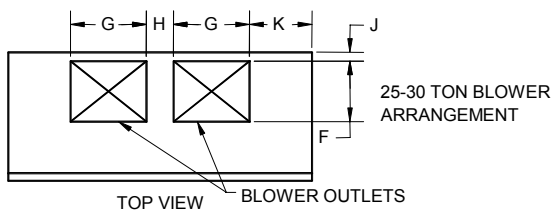
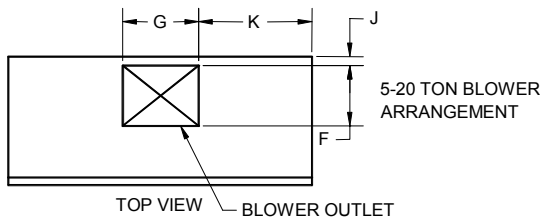
DIMENSIONAL DATA – 5 TONS THROUGH 30 TONS CAPACITY



Dimensions (Inches)

Model	A	B	C	D	E	F	G	H	J	K
05	38	32	58	12	24	11.38	10.5	N/A	7	14
08	58	32	58	12	24	13	15.5	N/A	9	21
10	58	32	62	12	24	13	15.5	N/A	9	21
15	80	32	62	12	24	15	18.5	N/A	2.75	31
20	80	32	62	12	24	15	18.5	N/A	2.75	31
25	80	32	79	12	24	15	18.5	18	2.75	12.5
30	80	32	79	12	24	15	18.5	18	2.75	12.5

IMPORTANT INSTALLATION GUIDELINES



Evaporator/Air Handler Airflow

Restrict maximum airflow across evaporator coil to 400 CFM per ton of A/C system capacity or 500 FPM, Whichever is greater. Excessive airflow will produce water carry-over and reduced performance

Condenser Water Supply

Indoor vertical packaged A/C units with integral W/C condensers require three gallons per minute per ton of clean water flow to the condensers. Failure to provide adequate water supply will result in excessive discharge pressures and unnecessary cycling, causing a severe loss of cooling performance.

- 1) Certified Dimensional Drawings Available Upon Request
- 2) Water and Refrigerant Connects for All Unit Sizes Are Located on the Right Side (When Facing Unit Front)



9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

BLOWER MOTOR PERFORMANCE - EXTERNAL STATIC PRESSURE (IN. Wg) 5-TON CAPACITY TO 10-TON CAPACITY

9705C 5-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
1500	209	0.09	355	0.14	485	0.24	772	0.43	882	0.51	983	0.69
2000	391	0.17	498	0.26	603	0.40	777	0.53	886	0.71	991	0.89
2500	563	0.33	610	0.41	637	0.59	780	0.79	910	0.93	1016	1.09
9708C 8-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
2700	692	0.63	804	0.79	906	0.96	1001	1.13	*	*	*	*
3200	742	0.9	847	1.09	941	1.29	1028	1.48	1111	1.68	1191	1.90
3700	797	1.25	894	1.48	982	1.70	1064	1.92	1142	2.15	1216	2.38
9710C 10-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
3500	774	1.10	874	1.31	965	1.52	1049	1.74	1128	1.95	1204	2.17
4000	833	1.51	923	1.74	1009	1.99	1089	2.23	1163	2.47	1235	2.72
4500	900	2.04	976	2.28	1056	2.54	1132	2.84	1204	3.09	1271	3.36
9715C 15-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
5500	690	1.93	765	2.22	839	2.54	908	2.86	972	3.19	1032	3.52
6000	729	2.41	796	2.70	865	3.03	931	3.37	994	3.73	1053	4.09
6500	769	2.95	830	3.26	893	3.60	956	3.96	1017	4.35	1075	4.74
9720C 20-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
7500	855	4.32	905	4.66	958	5.01	1013	5.40	1068	5.81	1122	6.24
8000	900	5.16	945	5.50	993	5.85	1044	6.26	1096	6.68	1148	7.14
8500	946	6.11	986	6.43	1031	6.82	1078	7.23	1126	7.66	1175	8.12
9725C 25-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
9000	661	2.62	746	3.16	823	3.70	894	4.26	962	4.84	1027	5.46
10,000	696	3.34	777	3.92	851	4.52	919	5.12	983	5.74	1045	6.38
11,000	734	4.20	808	4.80	879	5.44	946	6.10	1007	6.76	1066	7.44
9730C 30-TON VPAC												
EVAPORATOR BLOWER PERFORMANCE												
CFM	.0 ESP		.3 ESP		.6 ESP		.9 ESP		1.2 ESP		1.5 ESP	
	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp	RPM	Bhp
11,000	758	4.38	832	5.00	901	5.64	966	6.32	1027	7.00	1085	7.68
12,000	799	5.42	868	6.10	934	6.78	966	7.48	1055	8.22	1111	8.94
13,000	841	6.64	905	7.34	968	8.08	1028	8.84	1085	9.62	1139	10.38

*For operation in ranges where no figures are given
special design is required - Please consult factory

STANDARD MOTOR
FIRST OVERSIZE MOTOR
SECOND OVERSIZE MOTOR



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

5-TON

9705C													
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM								
					1500			2000			2500		
		EVAP AIR EWB TEMP °F											
		72	67		62	72	67	62	72	67	62		
65	7.5	1.3	0.6	TC	70	64	59	73	68	63	75	69	65
				SHC	38	47	58	42	53	61	45	59	64
				KW	5	4	4	5	4	4	4	4	4
	15	5.1	2.2	TC	72	67	61	76	70	65	78	72	68
				SHC	39	48	56	43	54	62	47	61	66
				KW	5	4	4	4	4	4	4	4	4
	20	8.3	3.6	TC	73	67	61	76	70	65	78	72	68
				SHC	39	48	57	43	55	62	47	61	66
				KW	5	4	4	4	4	4	4	4	4
75	7.5	1.3	0.6	TC	68	62	57	70	65	60	72	67	63
				SHC	37	46	54	41	52	59	44	58	62
				KW	5	4	4	5	4	4	5	5	4
	15	5.1	2.2	TC	70	64	59	73	67	62	75	69	65
				SHC	38	47	55	42	53	60	45	59	64
				KW	5	4	4	4	4	4	4	4	4
	20	8.3	3.6	TC	70	64	59	73	68	63	75	70	65
				SHC	38	47	55	42	53	61	46	59	64
				KW	4	4	4	4	4	4	4	4	4
85	7.5	1.3	0.6	TC	65	60	55	68	62	58	69	64	61
				SHC	36	45	53	40	51	58	43	57	60
				KW	5	5	4	5	5	5	5	5	5
	15	5.1	2.2	TC	67	61	56	70	64	60	72	66	62
				SHC	37	45	54	41	52	59	44	58	62
				KW	5	4	4	5	4	4	5	4	4
	20	8.3	3.6	TC	68	62	57	71	65	60	72	67	63
				SHC	37	46	54	41	52	59	45	58	62
				KW	4	4	4	4	4	4	5	4	4
95	15	5.1	2.2	TC	62	57	52	64	59	55	66	61	58
				SHC	35	43	52	39	50	56	42	55	58
				KW	5	5	5	5	5	5	5	5	5
	20	8.3	3.6	TC	64	59	54	67	61	57	69	63	60
				SHC	35	44	52	39	51	57	43	57	59
				KW	5	5	4	5	5	5	5	5	5



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

8-TON

9708C													
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM								
					3500			4000			4500		
		EVAP AIR EWB TEMP °F											
		FT	PSI			72	67	62	72	67	62	72	67
65	12	2.7	1.19	TC	111	102	94	116	107	99	119	110	104
				SHC	60	74	88	66	85	96	72	94	102
				KW	8	7	6	8	7	6	8	7	7
	24	10.9	4.75	TC	115	106	97	121	111	102	123	114	107
				SHC	62	76	90	68	87	98	74	96	104
				KW	7	7	6	7	7	6	7	7	6
32	19.4	8.4	TC	115	106	97	121	111	103	124	115	107	
			SHC	62	76	90	68	87	98	74	96	104	
			KW	7	7	6	7	7	6	7	7	6	
75	12	2.7	1.19	TC	107	98	91	111	103	96	114	106	100
				SHC	58	73	86	65	83	94	70	92	99
				KW	7	7	6	7	7	6	7	7	7
	24	10.9	4.75	TC	111	101	93	115	106	98	118	110	103
				SHC	60	74	88	66	84	96	72	94	101
				KW	7	6	6	7	7	6	7	7	6
32	19.4	8.4	TC	111	102	94	116	107	99	120	111	104	
			SHC	60	74	88	67	85	96	72	94	102	
			KW	7	6	6	7	7	6	7	7	6	
85	12	2.7	1.19	TC	103	95	87	107	99	92	110	101	96
				SHC	57	71	84	63	81	92	69	90	95
				KW	8	7	7	8	8	7	8	8	7
	24	10.9	4.75	TC	106	97	89	111	102	95	114	105	99
				SHC	58	72	85	64	82	93	70	92	98
				KW	8	7	7	7	7	7	7	7	7
32	19.4	8.4	TC	107	98	90	112	103	95	115	106	99	
			SHC	58	72	86	65	83	94	71	92	99	
			KW	8	7	7	8	7	7	8	7	7	
95	24	10.9	4.75	TC	98	90	83	102	94	88	105	97	92
				SHC	55	69	82	61	79	89	67	88	91
	32	19.4	8.4	TC	102	93	85	106	98	91	109	100	95
				SHC	56	70	83	62	80	90	68	90	94
				KW	8	7	7	8	8	7	8	8	8



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

10-TON

9710C													
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM								
					3500			4000			4500		
		EVAP AIR EWB TEMP °F											
		72	67		62	72	67	62	72	67	62		
65	15	5.1	2.2	TC	141	130	120	148	137	126	151	140	132
				SHC	76	95	112	84	108	122	92	120	130
				KW	10	9	8	10	9	8	10	10	8
	30	18.7	8.1	TC	146	134	123	153	141	131	157	145	136
				SHC	78	97	114	86	110	125	94	122	132
				KW	10	9	8	10	9	8	10	9	8
	40	33.3	14.4	TC	147	135	124	154	142	131	158	146	137
				SHC	79	97	115	87	110	125	95	123	133
				KW	9	8	8	10	9	8	10	9	8
75	15	5.1	2.2	TC	136	125	115	142	131	122	146	135	127
				SHC	74	92	110	92	105	120	90	118	126
				KW	10	9	8	10	9	9	10	9	9
	30	18.7	8.1	TC	141	129	119	147	136	125	151	140	133
				SHC	76	94	112	84	107	122	92	12	129
				KW	10	9	8	10	9	8	10	9	8
	40	33.3	14.4	TC	142	130	119	148	137	126	152	141	132
				SHC	77	95	112	85	108	122	92	120	130
				KW	10	9	8	8	8	8	8	8	8
85	15	5.1	2.2	TC	131	120	111	136	126	117	140	129	122
				SHC	72	90	107	80	103	115	87	115	121
				KW	10	9	9	10	10	9	10	10	9
	30	18.7	8.1	TC	135	124	114	141	130	120	145	134	126
				SHC	74	92	109	82	105	119	90	117	125
				KW	9	9	8	9	9	9	9	9	9
	40	33.3	14.4	TC	136	125	115	142	131	121	146	135	127
				SHC	74	92	109	83	105	119	90	117	125
				KW	9	9	8	9	9	9	9	9	9
95	30	18.7	8.1	TC	125	115	106	130	120	115	134	123	117
				SHC	70	87	104	78	100	113	85	112	116
				KW	10	10	10	11	10	10	11	10	10
	40	33.3	14.4	TC	130	119	109	135	124	115	138	128	121
				SHC	71	89	106	79	102	112	87	114	120
				KW	10	9	9	10	10	9	10	10	10



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

15-TON

9715C													
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM								
					5000			6000			7000		
		FT	PSI		EVAP AIR EWB TEMP °F								
					72	67	62	72	67	62	72	67	62
65	23	5.3	2.3	TC	205	190	176	208	192	179	210	195	182
				SHC	125	161	166	131	169	174	137	176	178
				KW	14	13	12	14	13	12	13	13	12
	45	16.6	7.2	TC	213	196	181	215	199	184	218	202	180
				SHC	132	165	169	139	169	177	140	179	181
				KW	13	12	11	13	12	11	13	12	11
	60	27.7	12	TC	214	198	182	217	201	186	220	203	189
				SHC	132	165	169	137	173	177	142	180	182
				KW	13	11	11	12	12	11	13	12	11
75	23	5.3	2.3	TC	197	182	169	200	185	172	202	187	175
				SHC	125	157	162	129	165	170	134	172	173
				KW	14	14	13	14	14	13	15	14	13
	45	16.6	7.2	TC	204	188	174	207	191	177	210	194	180
				SHC	128	161	165	132	168	173	137	175	178
				KW	13	13	12	13	13	12	13	13	12
	60	27.2	12	TC	206	190	175	209	193	178	211	195	181
				SHC	129	161	165	133	169	173	138	176	178
				KW	13	12	12	13	12	12	13	12	12
85	23	5.3	2.3	TC	189	174	161	191	176	164	193	178	167
				SHC	121	153	158	125	160	165	129	167	169
				KW	15	15	14	15	15	14	15	15	14
	45	16.6	7.2	TC	195	180	166	198	182	169	201	185	172
				SHC	124	156	161	129	164	168	133	171	172
				KW	14	14	13	14	14	13	14	14	13
	60	27.7	12	TC	197	181	167	200	184	170	202	186	174
				SHC	125	157	161	129	164	169	134	172	176
				KW	14	13	13	14	13	13	14	13	13
95	45	16.6	7.2	TC	180	166	154	182	168	157	184	170	160
				SHC	117	149	154	121	156	160	126	164	163
				KW	16	15	15	16	16	15	16	16	15
	60	27.7	12	TC	186	171	158	189	174	162	191	176	164
				SHC	120	152	157	124	169	164	129	166	167
				KW	15	15	14	15	15	14	15	15	14



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

20-TON

9720C														
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM									
					6000			7000			8000			
		EVAP AIR EWB TEMP °F												
		FT	PSI		72	67	62	72	67	62	72	67	62	
65	30	3.9	1.7	TC	283	261	240	295	273	253	302	280	264	
				SHC	153	189	225	169	216	245	184	240	259	
				KW	18	17	16	18	17	16	18	17	17	
	60	14.6	6.3	TC	292	269	246	305	282	261	314	291	272	
				SHC	157	193	228	173	220	249	188	244	265	
				KW	17	16	15	18	17	16	18	17	16	
	80	25.4	11.0	TC	294	270	248	308	284	263	317	293	274	
				SHC	158	194	229	174	221	250	189	245	266	
				KW	16	16	15	16	16	15	18	17	16	
75	30	3.9	1.7	TC	273	251	231	284	262	244	292	270	255	
				SHC	148	185	219	164	211	239	179	235	252	
				KW	19	18	17	19	18	17	19	18	18	
	60	14.6	6.3	TC	282	259	237	294	271	251	302	279	262	
				SHC	152	188	223	169	215	244	183	239	258	
				KW	18	17	19	17	17	16	17	17	16	
	80	25.4	11.0	TC	284	261	239	297	273	253	305	282	264	
				SHC	153	189	224	169	216	245	184	240	259	
				KW	17	16	15	17	16	16	17	16	16	
85	30	3.9	1.7	TC	262	241	221	273	251	234	279	259	245	
				SHC	144	180	214	161	206	233	175	230	243	
				KW	20	19	18	20	19	18	20	20	19	
	60	14.6	6.3	TC	271	248	228	282	260	241	291	268	252	
				SHC	148	184	217	164	210	238	179	233	2560	
				KW	18	18	17	18	19	17	19	18	18	
	80	25.4	11.0	TC	273	250	229	285	262	243	293	270	253	
				SHC	148	184	219	165	211	238	180	235	251	
				KW	18	17	17	18	18	17	18	18	17	
95	60	14.6	6.3	TC	251	230	211	261	240	224	267	246	235	
				SHC	140	178	209	156	201	226	171	224	233	
				KW	21	20	19	21	20	22	22	21	20	
	80	36.4	11.0	TC	259	237	217	270	248	231	277	256	242	
				SHC	246	179	212	159	205	229	174	229	240	
				KW	20	19	18	20	19	19	20	19	19	



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

25-TON

9725C													
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM								
					9000			10,000			11,000		
		EVAP AIR EWB TEMP °F											
		72	67		62	72	67	62	72	67	62		
		FT	PSI										
65	38	6.4	2.8	TC	339	313	290	343	317	295	347	322	300
				SHC	207	266	273	217	278	287	226	290	293
				KW	23	22	21	23	22	21	23	22	21
	75	25.0	10.8	TC	351	324	298	355	329	304	360	333	398
				SHC	217	272	279	224	279	292	232	296	299
				KW	21	20	13	21	20	19	21	20	20
	100	33.0	14.7	TC	354	326	300	359	331	306	363	336	312
				SHC	218	273	279	226	285	293	234	297	300
				KW	20	20	19	20	20	19	20	20	19
75	38	6.4	2.8	TC	325	300	278	329	304	283	333	308	288
				SHC	206	260	268	213	272	280	220	284	286
				KW	25	23	22	25	23	23	25	24	23
	75	25.0	10.8	TC	337	310	286	342	315	292	346	319	297
				SHC	211	265	272	218	277	285	226	289	293
				KW	23	22	21	23	22	21	23	22	21
	100	33.0	14.7	TC	340	313	288	345	318	294	349	322	299
				SHC	212	266	273	220	278	286	227	290	293
				KW	22	21	20	22	21	20	22	21	21
85	38	6.4	2.8	TC	312	287	266	315	291	271	318	294	276
				SHC	199	253	261	207	264	273	214	276	278
				KW	26	25	24	26	25	24	26	25	24
	75	25.0	10.8	TC	323	297	274	327	301	279	331	305	284
				SHC	204	258	265	212	270	278	219	282	284
				KW	24	23	23	24	23	23	25	24	23
	100	33.0	14.7	TC	325	299	276	330	303	281	334	307	286
				SHC	206	259	266	213	271	279	220	283	285
				KW	24	23	22	24	23	22	24	23	23
95	75	25.0	10.8	TC	297	274	254	300	277	259	304	280	264
				SHC	193	246	254	200	258	265	208	270	270
				KW	28	26	26	28	27	26	28	27	25
	110	33.0	14.7	TC	308	283	261	312	287	266	315	290	271
				SHC	198	251	258	205	263	270	213	275	276
				KW	26	25	24	26	25	24	26	26	25



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER



COMMERCIAL AIR CONDITIONING SYSTEMS

UNIT PERFORMANCE DATA
VPAC UNITS WITH INTEGRAL WATER-COOLED CONDENSERS

30-TON

9730C													
EWT	GPM	PRESSURE DROP			EVAP AIR – CFM								
					8000			10,000			12,000		
		EVAP AIR EWB TEMP °F											
		FT	PSI		72	67	62	72	67	62	72	67	62
65	45	3.5	1.5	TC	410	379	352	415	385	357	420	390	363
				SHC	251	322	332	262	337	347	274	352	355
				KW	28	26	24	28	25	24	28	26	25
	90	14.8	6.4	TC	425	392	362	431	398	369	436	404	361
				SHC	263	329	338	272	338	354	281	358	362
				KW	26	24	23	25	24	23	26	25	23
	120	25.6	11.1	TC	429	395	364	435	401	371	440	407	378
				SHC	265	331	339	274	245	355	283	360	364
				KW	26	24	23	26	24	22	26	24	22
75	45	3.5	1.5	TC	394	364	337	399	369	343	404	374	349
				SHC	249	315	324	258	329	339	264	344	347
				KW	29	27	26	29	27	26	29	28	27
	90	14.8	6.4	TC	409	376	347	414	382	354	419	387	360
				SHC	256	321	329	265	336	345	274	350	355
				KW	26	25	24	26	25	24	27	26	25
	120	25.6	11.1	TC	412	379	350	418	385	356	423	390	363
				SHC	257	322	331	267	337	347	276	352	356
				KW	26	25	24	26	25	24	26	25	24
85	45	3.5	1.5	TC	378	348	323	382	353	328	386	357	334
				SHC	242	306	316	251	321	330	259	335	337
				KW	31	29	28	31	29	28	31	30	28
	90	14.8	6.4	TC	391	360	332	396	365	339	401	370	345
				SHC	248	313	322	257	328	337	266	342	344
				KW	28	27	26	28	27	26	29	28	27
	120	25.6	11.1	TC	394	362	335	400	368	341	404	372	347
				SHC	249	314	323	258	329	338	267	343	346
				KW	28	27	26	28	27	26	28	27	26
95	45	3.5	1.5	TC	360	332	308	364	336	314	368	340	320
				SHC	234	299	308	243	313	321	252	327	327
				KW	32	31	30	33	31	30	33	31	30
	90	14.8	6.4	TC	373	343	317	378	348	323	382	352	329
				SHC	240	304	313	249	319	327	258	333	334
				KW	30	29	28	31	29	28	31	30	29
	120	25.6	11.1	TC	376	345	319	381	350	325	385	355	331
				SHC	241	305	314	250	320	328	259	334	336
				KW	30	29	28	30	29	28	30	29	28

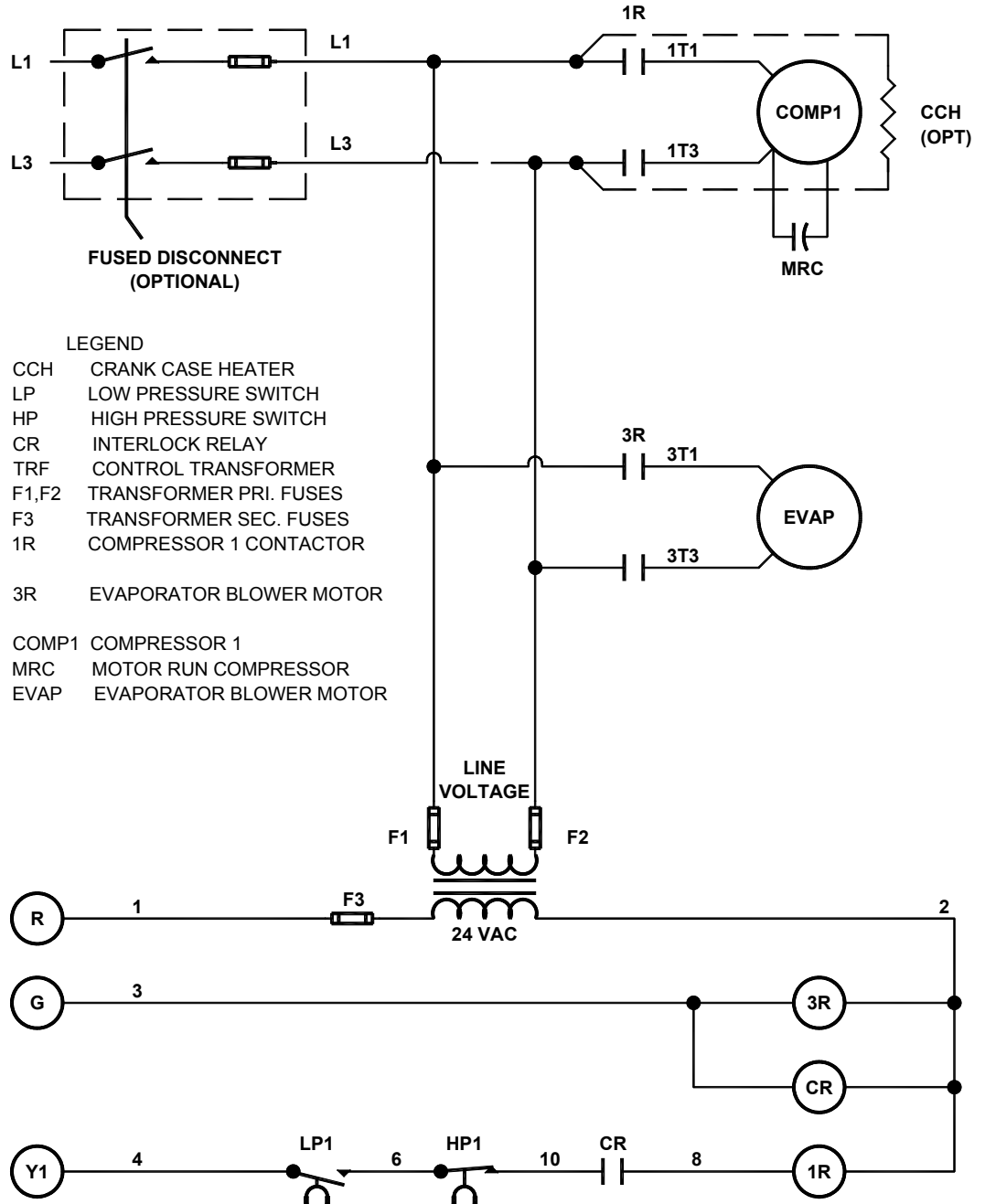


9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

WIRING DIAGRAM - 5 TON 1 PHASE



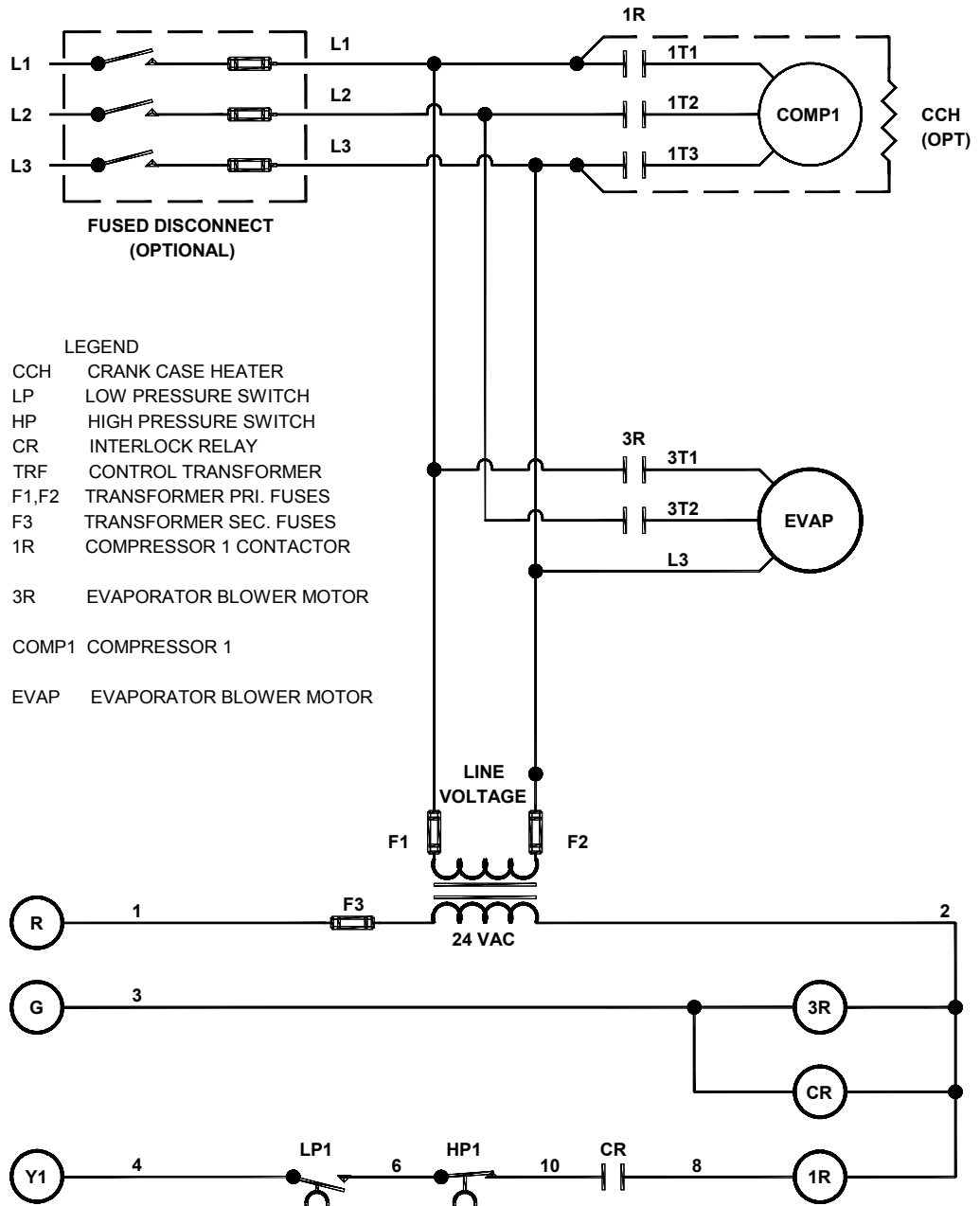


9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

WIRING DIAGRAM - 5 TON 3 PHASE



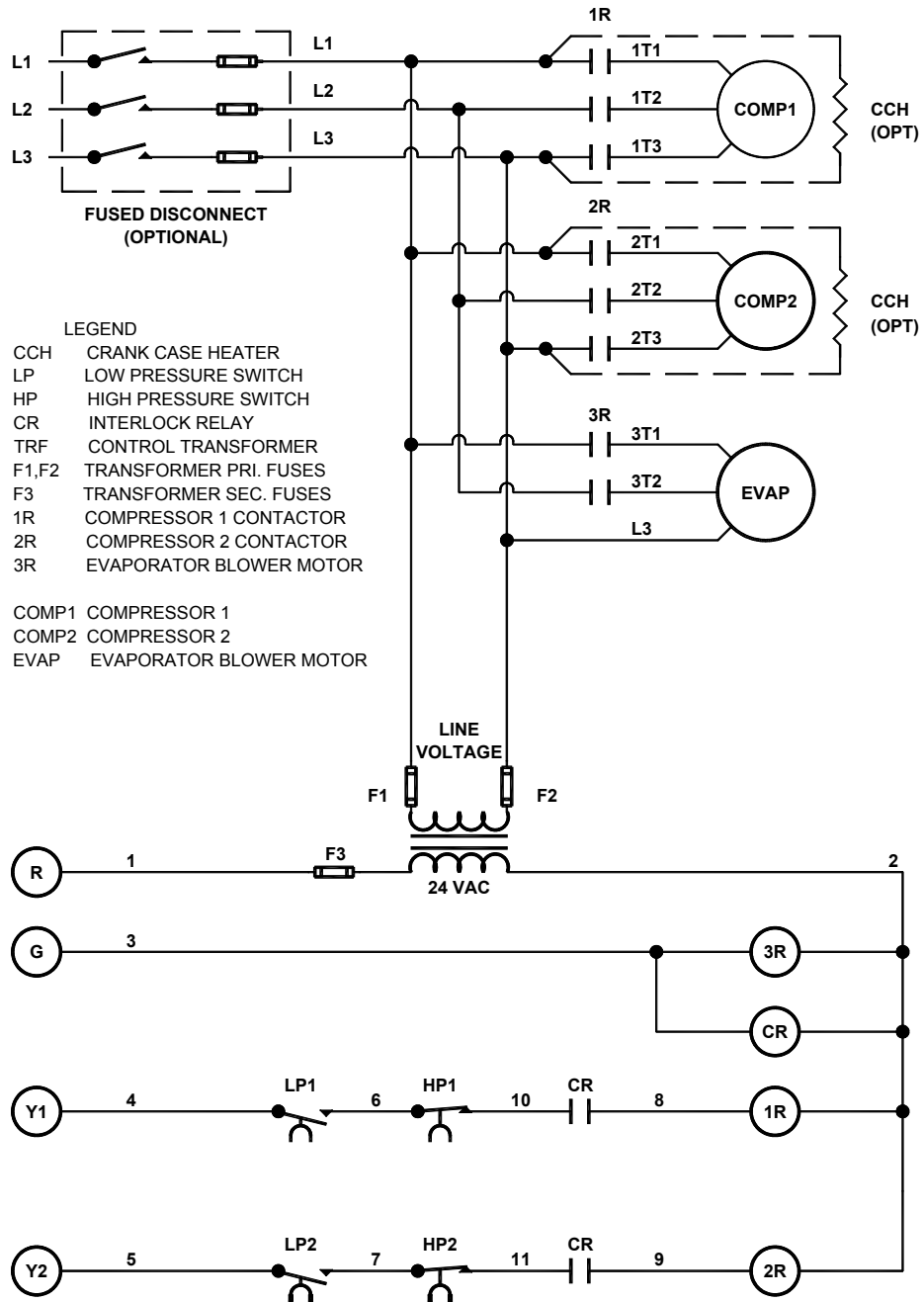


9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

WIRING DIAGRAM – 8 – 20 TON 3 PHASE



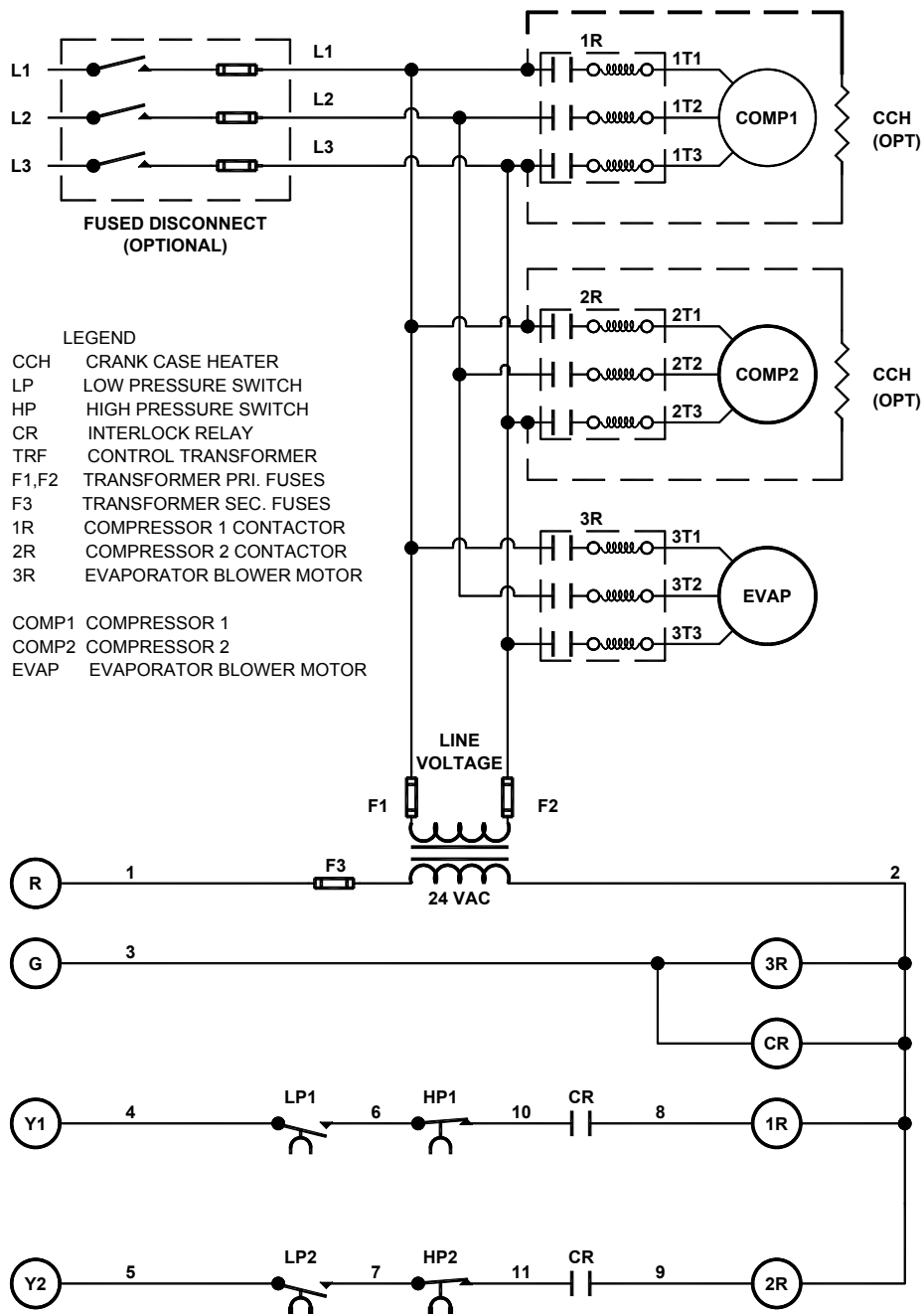


9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

WIRING DIAGRAM – 25 – 30 TON 3 PHASE





9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

Part 1 – General SYSTEM DESCRIPTION

Indoor mounted electric cooling unit utilizing twin scroll hermetic compressors for cooling duty*. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.

QUALITY ASSURANCE

RSI A/C units are ETL listed to UL 1995/CSA C22.2 No. 236 Safety Standards by Intertek Testing Services and accepted for use in the City of New York by the Department of Buildings per MEA 79-96-E Vol II.

Insulation and adhesive shall meet UL 723, CAN/ULC-S102 and NFPA 90A requirements for flame spread and smoke generation.

Cabinet insulation shall meet ASHRAE standard 62P.

DELIVERY, STORAGE AND HANDLING

Unit shall be stored and handled per the original manufacturer's recommendations.

Part 2 – Products

EQUIPMENT

General: Factory-Assembled, unitary cooling unit. Contained within the enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-22) and special features required prior to field start-up.

Split units are evacuated and sealed (less refrigerant charge). Unit must be assembled and piping brazed, evacuated and charged with refrigerant.

Unit Cabinet:

Unit frame and cabinet shall be constructed of galvanized painted steel.

Unit frame is freestanding, allowing cabinet panels to be easily removed for servicing.

Evaporator fan compartment interior cabinet surfaces shall be insulated with a minimum ½ in. thick, flexible fiberglass insulation, coated on the airside.

Unit shall have an integral stainless steel condensate drain pan and a field-supplied condensate trap.

Fans:

The evaporator fan shall be a V-belt driven. Constant volume units will be equipped with an adjustable pitch motor pulley. Variable frequency drive equipped units will be equipped with a fixed pitch motor pulley.

Fan wheels shall be made from steel, be double inlet type with forward curved blades with corrosion resistant finish and be dynamically balanced.

Compressors*:

Fully hermetic scroll compressors with factory-installed vibration isolation.

Compressor Protection Device:

Compressors shall incorporate an automatic internal thermal overload protector.

Coils:

Evaporator coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed with a minimum of 5% silver alloy.

Refrigerant Components:

Refrigerant Components shall be constructed of copper and brass materials designed and certified for refrigerant carrying service.

Air filter section shall consist of factory installed disposable pleated filter panels.

Controls and Safeties:

Unit Controls: Unit shall be complete with self-contained low voltage control circuit, operating at 24 Volts.

High and Low Pressure Switches:

RSI shall provide high and low pressure safety protection for (cut-out/cut-in) 325/230 PSI and 25/80 PSI respectively.

Operating Characteristics:

Unit shall be capable of starting and running a 125°F ambient outdoor temperature per maximum load criteria of ARI Standard 210.

Electrical Requirements:

All unit power wiring shall be copper and enter unit cabinet at a single location, as specified on the unit and by the installation manual.

Motors:

Compressor motors shall be of the refrigerant cooled type with line break thermal and current overload protection.

All fan motors shall be open drip proof, have permanently lubricated bearings. Motors up to 5 HP will have inherent automatic reset thermal overload protection. Motors 7.5 HP and larger will have contactor mounted overload relays.

***NOTE: 5-ton unit has one circuit and one scroll compressor**



9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

OPTIONAL FEATURES

Evaporator Fan Motors

Higher than stock horsepower motors are available to meet high external static conditions.

Totally enclosed fan cooled motors are optional for hostile environments.

Pillow Block Bearings

Evaporator fan pillow block bearings with extended grease lines are available in place of standard rubber mounted cartridge bearings.

Top Mounted discharge Plenum

A top mounted galvanized steel discharge plenum may be ordered for free blow applications. Custom discharge grills are optional.

Filters

5-ton units are available with 2" thick disposable filters in place of standard 1" filters.

Sight Glasses

Sight glasses for visual inspection of refrigerant charge are optional.

Unit As Two Modules

Unit can be shipped pre-split into top and bottom halves to facilitate movement through tight doorways, halls and elevators in existing buildings.

Reversed Evaporator Units

Units can be provided with the top evaporator section reversed so that the return air is in the front to simplify ducting or provide better service access.

Water Cooled Condensers

Shell and tube condensers are available for units with coaxial condensers standard. Marine duty shell tube condensers are optional for severe service.

Condenser Water Control

Head pressure sensing pilot line operated bypass or inline

condenser water control valves are available.

Coils

Copper fin / copper tube evaporator coils are available.

Electrofin anti-corrosive coil coatings are optional.

Hot water, chilled water and steam heating coils are available.

Electric Heat

Electric heat modules are available to provide single unit cooling/heating capability. Option includes discharge opening mounted resistance heater module, unit or remote mounted control box and wiring.

Discharge Air Temperature Control

Honeywell W7100 series solid - state discharge air controls are available to control compressor staging. Up to six control stages are possible.

Variable Frequency Drive

V.F.D. control for evaporator fan speed is available.

VAV Units

Discharge air temperature control and evaporator fan V.F.D. control can be combined to provide full unit output control for variable air volume applications.

Discharge Gas Bypass

Discharge gas bypass for capacity control is available on one or both circuits.

Solenoid valve control is optional for switching discharge gas bypass systems on and off for more precise unit staging.

Airside Economizer

Airside economizer mixing boxes are available to provide free cooling with outside air when weather conditions permit. Option includes mixing box, outside and return air dampers and actuators and enthalpy control sensor.

Waterside Economizer

Waterside economizer coil modules are available to provide cooling directly from building chilled water systems, without mechanical refrigeration. Options available include 2-row and 4-row coils; two 2-way or single three way control valves.

Phase Loss/Reversal Protection

Solid-state phase loss module provides protection against single-phase condition.

Phase reversal protection relay senses phase reversal and prevents compressor damage due to counter rotation.

Compressor Anti-Short Cycle Timers

Solid-State control shall protect compressors by preventing short cycling.

Extended compressor warranty

2nd to fifth year extended compressor warranty covers compressor failure for an additional four years past standard factory warranty (see warranty page for details of coverage).

Semi-hermetic Compressors

Semi-hermetic compressors are optional in place of standard scroll compressors.

Semi-hermetic compressors are available with unloading heads to provide capacity control.

Compressor Crankcase Heaters

Electric crankcase heaters are available for both scroll and semi-hermetic compressors to provide positive oil/refrigerant separation in low ambient conditions to insure proper compressor lubrication.

Disconnect Switches

Unit mounted non-fused disconnect switches are available to provide convenient unit power isolation.



9700C SERIES – WATER COOLED VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS

STANDARD WARRANTY PROCEDURE

RSI Air Conditioning Units are warranted by the RSI Company for a period of (1) year from the date of purchase by the original purchaser to be free of defects in workmanship and materials. If the unit failed within this period, the Purchaser may arrange for local field service through an authorized RSI Product Service Representative or return parts freight pre-paid (with adequate packaging) insured for their value, to RSI Company, 12911 Taft Avenue, Cleveland, OH 44108, for repair or replacement, and credit determination. The purchaser must procure a return authorization number from the factory either direct or through a distributor and must provide the proof of purchase, date, and serial number. All available information concerning the field problem must be furnished to RSI Company with the return. Upon approval, RSI Company will ship replacement part via ground transportation. Charges incurred for alternate shipping arrangements will be assumed by the customer.

RSI Company will not assume liability for any back charges, labor, freight or postage required to replace defective parts without previous formal approval from the RSI Company. RSI Company does not warrant Air Conditioning Units if they have been disassembled, modified or used in a manner other than specified by the RSI Company. Parts broken due to accident, shipping damage, abuse, misuse or any parts that have

been tampered with or altered in any way are not covered by this warranty.

Internal components such as the refrigerant compressor, will carry the original manufacture's standard warranty for new installations. Extended compressor warranties may be purchased as an option. Except for expressly set forth herein, RSI Company makes no warranties, expressed or implied, including but not limited to, any warranty of merchantability or fitness for a particular purpose. RSI Company shall not be held liable or responsible for incidental or consequential damages resulting from the use or operation of Air Conditioning Units.

If the RSI Company determines these Air Conditioning Units or components have been repaired or returned for damages not covered by this limited warranty, the Purchaser will be advised of and bear the necessary repair charges before RSI Company will issue credit or proceed with the repair. **NOTE:** RSI Company/Manufacturer reserves the right to discontinue or change at any time, these published specifications and designs without notice or obligation. As RSI VPAC unit features are continually upgraded to satisfy contemporary market demands, RSI will not provide retroactive feature changes to units sold prior to the date these upgrades are implemented.

RSI Company - Typhoon Commercial Air Conditioning Systems

12911 Taft Avenue, Cleveland, Ohio 44108 • PH: 800-231-3286 • FAX: 216-451-9376

• Web: www.rsicomp.com • Email: info@rsicomp.com



ITS Intertek Testing Services



9700C SERIES – WATER COOLED
VERTICAL PACKAGED AIR CONDITIONER

TYPHOON

COMMERCIAL AIR CONDITIONING SYSTEMS