



**RC SERIES AIR COOLED CONDENSING UNITS**

SPECIFICATIONS Rated in Accordance with ARI Standard 210/240				RC374F			
<b>COOLING</b>	Rated with Optional Air Handler Model		<b>VCH/HCH374</b>				
	Total BTUH		363,900				
	Sensible BTUH		282,700				
	EER		9.4				
<b>ELECTRICAL</b>	<b>SERVICE</b>	Voltage-Phase-Hz	208/230-3-60	460-3-60	380/415-3-50		
	<b>COMPRESSOR</b>	Type (Qty) HP	Scroll (2) 15.0				
		RLA	58.6/58.6	26.4/26.4	26.4/26.4		
		LRA	425/425	187/187	179/179		
		IPLV	10.0				
	Capacity Reduction (Standard) — (Optional)		Standard 50% — Optional 50% - 30%				
	<b>CONDENSER FAN MOTOR(S)</b>	Horse Power — (Qty)		1 — (4)			
		FLA (ea)	6.2	3.1	2.2		
		Total CFM	24,000				
	<b>UNIT</b>	RLA	142.0	65.2	61.6		
Unit Minimum Circuit Ampacity		156.7	71.8	68.2			
Max. Time Delay Fuse or HACR Breaker		200	90	90			
<b>PHYSICAL DATA</b>	<b>CONDENSER COIL Alum. Fins on Copper Tubes</b>	Face Area (sq.ft.)	46.2				
		Rows Deep — Fins per Inch	3 — 12				
		Suction Line OD	1 5/8 and 1 5/8				
		Liquid Line OD	5/8 and 5/8				
	<b>WEIGHTS</b>	Unit (lbs)	1910				
		Shipping Weight (lbs)	2080				

Rated With Air Handler Model	CFM		ENTERING TEMPERATURE									
			75°F DB					80°F DB				
			59°F WB	63°F WB	67°F WB	71°F WB	59°F WB	63°F WB	67°F WB	71°F WB		
VCH/HCH 374	12000	TOTAL BTUH	337,654	352,928	372,442	392,810	359,772	369,976	380,179	390,383		
		SENS BTUH	327,000	278,904	226,942	176,600	359,772	338,250	286,566	236,290		
		WATTS INPUT	33,340	33,630	33,998	34,386	33,756	33,986	34,216	34,446		
		LVG DB/WB	50.3   48.3	53.9   52.8	57.8   57.2	61.7   61.6	52.8   47.5	54.4   52.5	58.3   57.2	62.1   61.5		
	13000	TOTAL BTUH	344,406	356,854	375,896	396,176	367,120	375,606	384,093	392,579		
		SENS BTUH	340,158	289,482	234,060	180,120	367,120	352,526	298,888	244,288		
		WATTS INPUT	33,466	33,704	34,064	34,450	33,894	34,099	34,305	34,510		
		LVG DB/WB	51.3   49.0	54.8   53.5	58.7   57.9	62.4   62.4	54.4   48.2	55.4   53.2	59.1   57.9	63.0   62.2		
	14000	TOTAL BTUH	353,556	360,290	378,886	399,092	373,678	380,842	388,005	395,169		
		SENS BTUH	353,556	299,788	241,022	183,538	373,678	365,638	309,972	252,128		
		WATTS INPUT	33,636	33,768	34,120	34,506	34,018	34,201	34,385	34,568		
		LVG DB/WB	52.1   49.5	55.6   54.2	59.4   58.6	63.1   63.0	55.8   48.8	56.3   53.8	59.9   58.5	63.7   62.8		

Rated With Air Handler Model	CFM		ENTERING TEMPERATURE							
			85°F DB				90°F DB			
			59°F WB	63°F WB	67°F WB	71°F WB	59°F WB	63°F WB	67°F WB	71°F WB
VCH/HCH 374	12000	TOTAL BTUH	379,182	379,400	381,832	397,836	398,830	399,066	399,334	404,838
		SENS BTUH	379,182	379,400	349,186	297,628	398,830	399,066	399,334	359,888
		WATTS INPUT	34,126	34,130	34,182	34,378	34,502	34,506	34,510	34,622
		LVG DB/WB	56.3   46.7	56.3   51.8	58.6   56.8	62.5   61.4	59.9   45.9	59.8   51.1	59.8   56.2	62.8   61.1
	13000	TOTAL BTUH	387,042	390,258	393,474	396,690	407,206	407,448	407,720	409,910
		SENS BTUH	387,042	387,264	364,008	311,080	407,206	407,448	407,720	375,630
		WATTS INPUT	34,274	34,378	34,482	34,586	34,662	34,666	34,672	34,718
		LVG DB/WB	58.0   47.5	58.0   52.5	59.6   57.5	63.3   62.1	61.6   46.8	61.6   51.9	61.6   56.9	63.8   61.8
	14000	TOTAL BTUH	394,058	396,380	398,701	401,023	414,686	417,008	419,329	421,651
		SENS BTUH	394,058	394,284	380,532	323,160	414,686	414,928	415,208	390,912
		WATTS INPUT	34,408	34,490	34,572	34,654	34,804	34,804	34,804	34,804
		LVG DB/WB	59.5   48.2	59.5   53.1	60.3   58.1	64.1   62.7	63.1   47.5	63.1   52.5	63.1   57.5	64.7   62.4

Note: Above performance data gives gross evaporator capacity with 25' refrigerant lines and full condenser operation at 60 HZ.

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Listed

Correction Factor Multiplier for Other Ambients					
Temperature	95°F	100°F	105°F	110°F	115°F
Total Capacity	1.00	.98	.95	.91	.87
Sensible Capacity	1.00	.99	.97	.95	.93
Watts	1.00	1.03	1.05	1.08	1.11
Gross EER	1.00	.95	.90	.84	.78

50 HZ Application and Performance Multipliers		
Capacity	At 60 HZ Evaporator CFM	At 50HZ Evaporator CFM
Total	0.91	0.88
Sensible	0.95	.086
Watts	0.85	.083

Notes: 50HZ evaporator CFM is 0.83 times full rated CFM shown above.

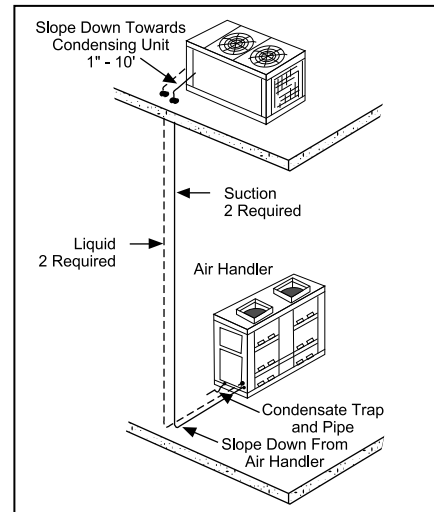
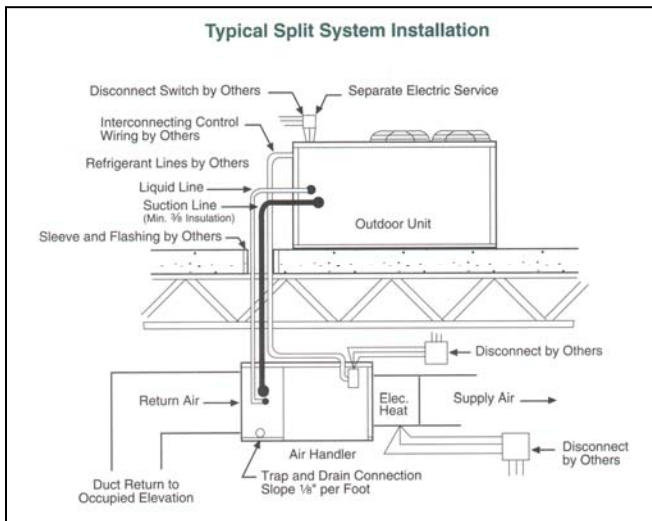
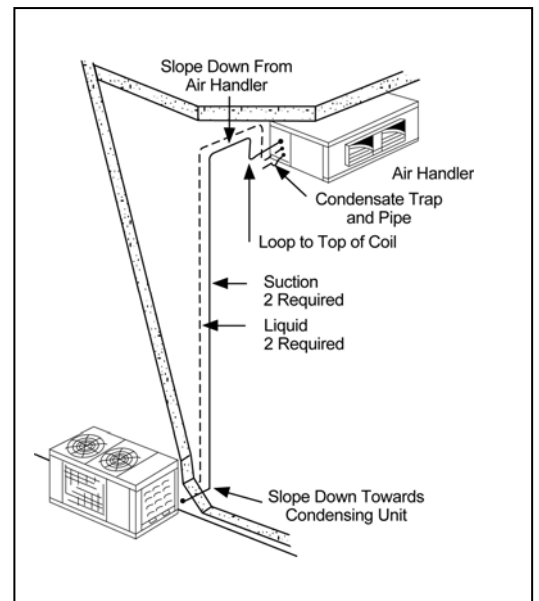
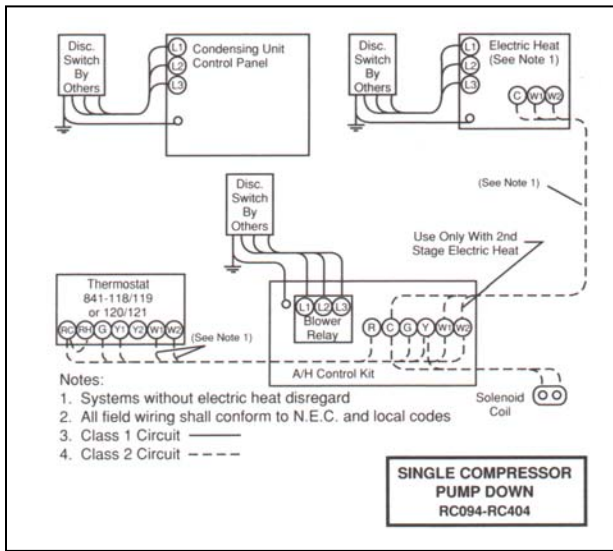
Dual Condensing Unit Performance at Varying Saturated Suction Temperatures															
Saturated Suction Temp. at Compressor	85°F		90°F		95°F		100°F		105°F		110°F		115°F		
	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW	
36°F	Lead	169.1	14.1	164.0	14.6	159.0	15.0	154.0	15.5	149.0	16.0	144.1	16.5	139.0	16.9
	Lag	169.1	12.5	164.0	13.0	159.0	13.4	154.0	13.9	149.0	14.4	144.1	14.9	139.0	15.3
38°F	Lead	175.5	14.3	170.3	14.8	165.1	15.2	159.9	15.7	154.8	16.2	149.5	16.7	144.4	17.2
	Lag	175.5	12.7	170.3	13.2	165.1	13.6	159.9	14.1	154.8	14.6	149.5	15.1	144.4	15.6
40°F	Lead	182.0	14.5	176.6	15.0	171.3	15.5	165.9	16.0	160.5	16.5	155.2	17.0	149.8	17.5
	Lag	182.0	12.9	176.6	13.4	171.3	13.9	165.9	14.4	160.5	14.9	155.2	15.4	149.8	15.9
42°F	Lead	188.6	14.6	183.0	15.2	177.5	15.7	172.0	16.2	166.4	16.7	160.8	17.3	155.3	17.8
	Lag	188.6	13.0	183.0	13.6	177.5	14.1	172.0	14.6	166.4	15.1	160.8	15.7	155.3	16.2
44°F	Lead	195.2	14.8	189.5	15.4	183.8	15.9	178.1	16.4	172.3	17.0	166.6	17.5	160.9	18.1
	Lag	195.2	13.2	189.5	13.8	183.8	14.3	178.1	14.8	172.3	15.4	166.6	15.9	160.9	16.5
46°F	Lead	201.9	15.0	196.1	15.6	190.2	16.1	184.3	16.7	178.4	17.2	172.5	17.8	166.5	18.4
	Lag	201.9	13.4	196.1	14.0	190.2	14.5	184.3	15.1	178.4	15.6	172.5	16.2	166.5	16.8
48°F	Lead	208.7	15.2	202.7	15.8	196.7	16.4	190.5	16.9	184.5	17.5	180.2	18.1	174.1	18.7
	Lag	208.7	13.6	202.7	14.2	196.7	14.8	190.5	15.3	184.5	15.9	180.2	16.5	174.1	17.1
50°F	Lead	215.7	15.4	209.4	16.0	203.2	16.6	196.9	17.2	190.6	17.8	184.4	18.4	178.0	19.0
	Lag	215.7	13.8	209.4	14.4	203.2	15.0	196.9	15.6	190.6	16.2	184.4	16.8	178.0	17.4

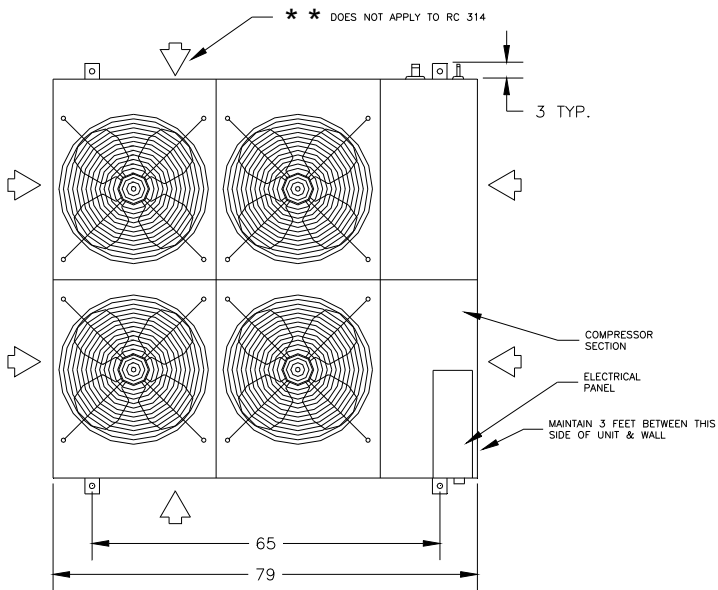
Notes: 1. Ratings are for 60 HZ. See above for 50 HZ multipliers.  
 2. Ratings assume 15°F subcooling and 12°F superheat at the compressor.

Recommended Refrigerant Line Sizes — O.D.														
Equivalent Line Length — Feet														
0 to 25					26 to 50					51 to 75				
			Hot Gas* Reheat					Hot Gas* Reheat					Hot Gas* Reheat	
Suction	Liquid	Hot Gas* Bypass	S	R	Suction	Liquid	Hot Gas* Bypass	S	R	Suction	Liquid	Hot Gas* Bypass	S	R
Two 1 <sup>5</sup> / <sub>8</sub>	Two 5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	Two 1 <sup>5</sup> / <sub>8</sub>	Two 5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	Two 1 <sup>5</sup> / <sub>8</sub>	Two 3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>

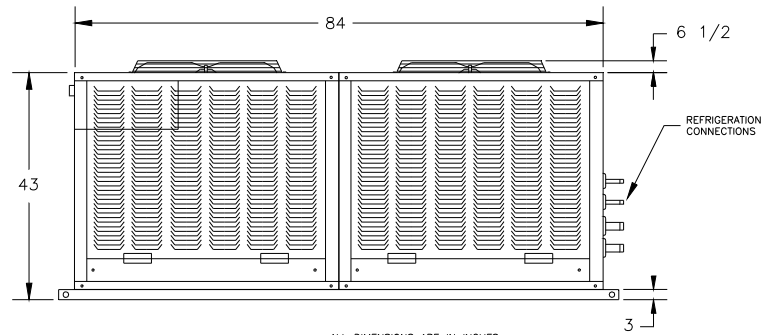
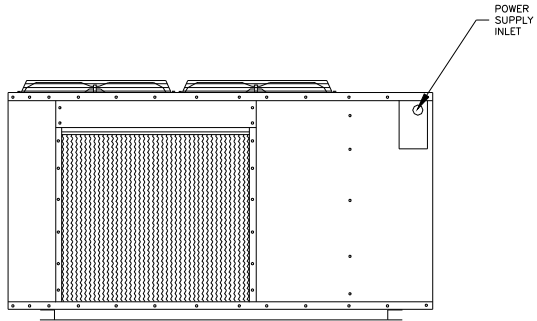
- Notes:
- Line lengths are equivalent, including all fittings. Use long radius ells only.
  - Line sizes are for both vertical and horizontal runs.
  - Over 75 equivalent feet, **consult factory** for sizing recommendations.
  - Liquid line sizes and hot gas reheat return line sizes are designed to minimize system refrigerant charge.
  - Over 75 total feet, a special hot gas bypass system must be installed in the condensing unit with an oil separator. Contact Factory.
  - "S" = Hot gas supply line from RC to VC/HC; "R" = Hot gas return line from VC/HC to RC unit.
  - When condensing unit is above air handler, trap suction line at base and every 20 feet of vertical rise. Contact ASHRAE Refrigeration Handbook.

\* Hot gas bypass and hot gas reheat only on lead circuit of dual circuit units.





# RC374



3 ft. clearance must be left for access to compressor and electrical panel



**Installation Code and Annual Inspections:**

All installations and service of ADDISON equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Addison and conform to all requirements set forth in the ADDISON manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Addison recommends that a qualified contractor annually inspect your ADDISON equipment and perform service where necessary, using only replacement parts sold and supplied by ADDISON.

**Further Information:** Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through ADDISON representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

**These products are not for residential use.**

**This document is intended to assist licensed professionals in the exercise of their professional judgment.**



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