



RC SERIES AIR COOLED CONDENSING UNITS

SPECIFICATIONS Rated in Accordance with ARI Standard 210/240				RC134F			
COOLING	Rated with Optional Air Handler Model			VCH/HCH134			
	Total BTUH			117,400			
	Sensible BTUH			89,200			
	EER			9.1			
ELECTRICAL	SERVICE	Voltage-Phase-Hz			208/230-3-60	460-3-60	380/415-3-50
	COMPRESSOR	Type (Qty) HP			Scroll (2) 5.0		
		RLA			20.7/20.7	10.0/10.0	10.0/10.0
		LRA			128/128	63/63	58.6/58.6
		IPLV			9.9		
		Capacity Reduction (Standard) — (Optional)			Standard 50% — Optional 50% - 30%		
	CONDENSER FAN MOTOR(S)	Horse Power — (Qty)			1 — (1)		
		FLA (ea)			6.2	3.1	2.2
		Total CFM			5,800		
	UNIT	RLA			47.6	23.1	22.1
		Unit Minimum Circuit Ampacity			52.8	25.6	24.7
		Max. Time Delay Fuse or HACR Breaker			70	35	30
PHYSICAL DATA	CONDENSER COIL Alum. Fins on Copper Tubes	Face Area (sq.ft.)			15.4		
		Rows Deep — Fins per Inch			4 — 12		
		Suction Line OD			1 1/8 and 1 1/8		
		Liquid Line OD			3/8 and 3/8		
	WEIGHTS	Unit (lbs)			615		
		Shipping Weight (lbs)			690		

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 134	3500	TOTAL BTUH	106,204	111,438	118,734	125,966	112,632	113,688	119,680	127,052
		SENS BTUH	99,838	85,148	70,454	55,540	112,632	103,412	87,866	73,388
		WATTS INPUT	10,854	11,012	11,266	11,490	11,046	11,114	11,296	11,524
		LVG DB/WB	49.1 47.4	52.9 51.8	56.7 56.2	60.6 60.6	50.8 46.5	53.2 51.5	57.2 56.2	61.0 60.4
	4000	TOTAL BTUH	109,548	114,150	120,906	128,124	117,054	120,475	123,896	127,318
		SENS BTUH	107,084	91,050	74,122	57,744	117,054	110,616	94,196	77,488
		WATTS INPUT	10,954	11,126	11,332	11,556	11,214	11,340	11,466	11,592
		LVG DB/WB	49.1 47.4	52.9 51.8	56.7 56.2	60.6 60.6	50.8 46.5	53.2 51.5	57.2 56.2	61.0 60.4
	4500	TOTAL BTUH	113,670	116,102	122,644	129,846	120,730	123,343	125,956	128,568
		SENS BTUH	113,670	96,256	77,644	59,508	120,730	117,640	99,786	81,442
		WATTS INPUT	11,078	11,186	11,386	11,610	11,326	11,433	11,541	11,648
		LVG DB/WB	52.1 49.5	55.6 54.1	59.3 58.5	63.0 62.9	55.7 48.8	56.3 53.8	59.9 58.4	63.6 62.7

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 134	3500	TOTAL BTUH	119,178	119,254	121,186	127,786	125,794	127,932	130,071	132,209
		SENS BTUH	119,178	119,254	106,328	91,296	125,794	125,876	123,474	109,458
		WATTS INPUT	11,280	11,282	11,344	11,546	11,484	11,523	11,563	11,602
		LVG DB/WB	54.1 45.7	54.1 50.8	57.4 55.8	61.3 60.3	57.4 44.8	57.4 50.0	58.0 55.4	61.6 60.1
	4000	TOTAL BTUH	123,906	123,984	124,536	130,550	130,894	130,980	131,078	132,766
		SENS BTUH	123,906	123,984	114,546	98,180	130,894	130,980	131,078	118,416
		WATTS INPUT	11,424	11,428	11,446	11,634	11,644	11,646	11,650	11,706
		LVG DB/WB	56.9 47.0	56.9 52.0	59.0 57.0	62.7 61.5	60.3 46.2	60.3 51.3	60.3 56.4	63.1 61.3
	4500	TOTAL BTUH	127,888	128,691	129,494	130,298	135,198	135,286	135,390	135,412
		SENS BTUH	127,888	127,970	121,806	104,262	135,198	135,286	135,390	126,136
		WATTS INPUT	11,548	11,599	11,649	11,700	11,778	11,782	11,786	11,788
		LVG DB/WB	56.9 47.0	56.9 52.0	59.0 57.0	62.7 61.5	60.3 46.2	60.3 51.3	60.3 56.4	63.1 61.3

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

Applied Research Laboratories, Inc.



Listed

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 154	4000	TOTAL BTUH	113,174	117,684	124,849	132,402	119,752	120,793	126,285	133,522								
		SENS BTUH	108,747	93,797	76,691	59,468	119,752	114,069	97,165	80,267								
		WATTS INPUT	11,081	11,222	11,444	11,678	11,281	11,332	11,500	11,712								
		LVG DB/WB	49.9 47.9	53.4 52.4	57.3 56.8	61.2 61.2	52.2 47.2	53.8 52.1	57.7 56.7	61.5 61.0								
	4500	TOTAL BTUH	116,383	119,901	126,721	134,260	123,697	124,125	128,261	135,443								
		SENS BTUH	113,518	99,788	80,472	61,539	123,697	119,278	103,021	84,519								
		WATTS INPUT	11,178	11,301	11,501	11,737	11,420	11,434	11,550	11,773								
		LVG DB/WB	51.7 48.9	54.6 53.5	58.5 57.9	62.3 62.2	54.4 48.2	55.5 53.1	58.9 57.9	62.7 62.1								
	5000	TOTAL BTUH	119,220	121,909	128,250	135,772	127,046	129,700	132,354	135,009								
		SENS BTUH	117,983	105,187	84,140	63,504	127,046	123,797	109,351	88,636								
		WATTS INPUT	11,265	11,363	11,549	11,786	11,523	11,623	11,723	11,823								
		LVG DB/WB	53.1 49.8	55.6 54.4	59.5 58.7	63.2 63.1	56.3 49.1	57.1 54.0	59.9 58.7	63.7 63.0								

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 154	4000	TOTAL BTUH	126,764	128,606	130,448	132,291	133,854	135,696	137,538	139,381								
		SENS BTUH	126,764	125,910	118,026	101,126	133,854	133,934	131,485	121,885								
		WATTS INPUT	11,517	11,595	11,674	11,752	11,726	11,755	11,785	11,814								
		LVG DB/WB	55.5 46.3	55.8 51.5	57.9 56.4	61.8 60.9	58.9 45.5	58.9 50.7	59.6 55.9	62.0 60.7								
	4500	TOTAL BTUH	131,009	131,086	131,966	136,801	138,438	138,523	138,619	140,318								
		SENS BTUH	131,009	131,086	124,870	107,690	138,438	138,523	138,619	130,652								
		WATTS INPUT	11,649	11,652	11,680	11,817	11,872	11,874	11,877	11,911								
		LVG DB/WB	57.9 47.4	57.9 52.5	59.5 57.4	63.0 61.9	61.4 46.7	61.3 51.7	61.3 56.8	63.4 61.7								
	5000	TOTAL BTUH	134,608	134,688	135,049	138,838	142,369	142,456	142,555	143,521								
		SENS BTUH	134,608	134,688	129,925	114,264	142,369	142,456	142,555	136,171								
		WATTS INPUT	11,747	11,750	11,763	11,860	11,998	12,000	12,004	12,036								
		LVG DB/WB	57.9 47.4	57.9 52.5	59.5 57.4	63.0 61.9	61.4 46.7	61.3 51.7	61.3 56.8	63.4 61.7								

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

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

Capacity	At 60 HZ	
	Evaporator CFM	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.

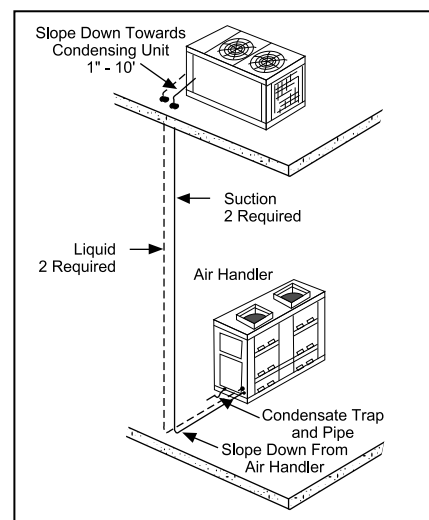
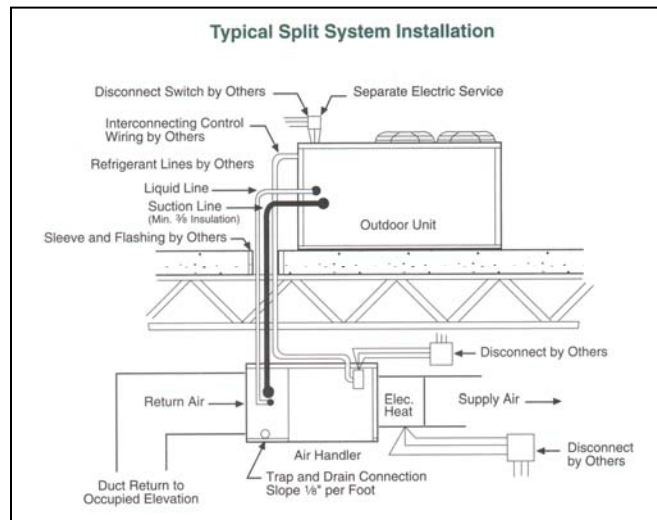
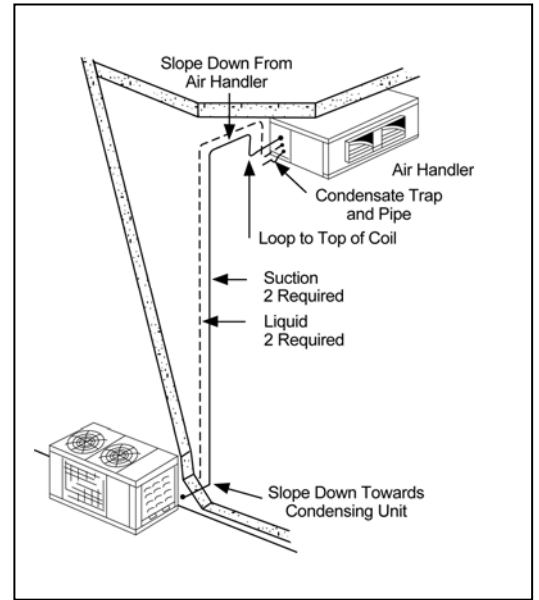
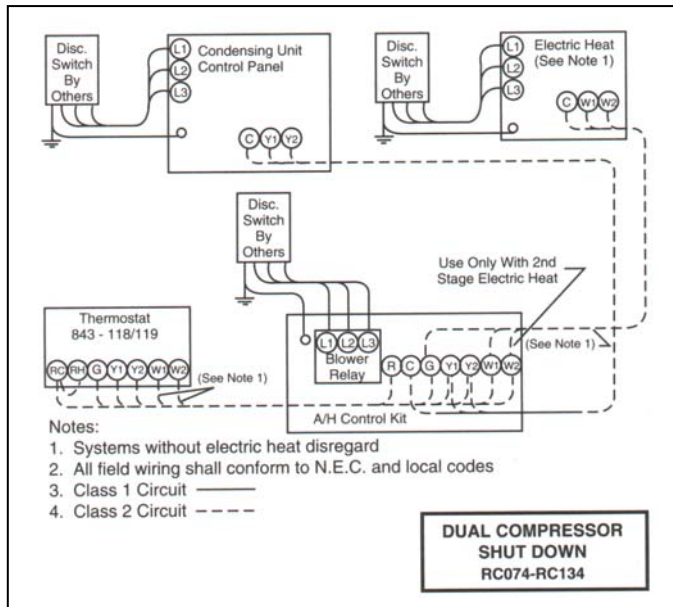
Saturated Suction Temp. at Compressor	85°F		90°F		95°F		100°F		105°F		110°F		115°F		
	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW	
36°F	Lead	54.6	4.90	53.0	5.11	51.4	5.33	49.8	5.58	48.3	5.83	46.7	6.11	45.1	6.39
	Lag	54.6	4.52	53.0	4.73	51.4	4.96	49.8	5.20	48.3	5.46	46.7	5.73	45.1	6.02
38°F	Lead	56.6	4.96	55.0	5.17	53.4	5.39	51.8	5.64	50.2	5.89	48.6	6.17	47.0	6.46
	Lag	56.6	4.57	55.0	4.78	53.4	5.01	51.8	5.26	50.2	5.52	48.6	5.79	47.0	6.09
40°F	Lead	58.6	5.01	57.0	5.22	55.4	5.45	53.8	5.70	52.1	5.96	50.5	6.24	48.8	6.53
	Lag	58.6	4.63	57.0	4.84	55.4	5.07	53.8	5.32	52.1	5.58	50.5	5.86	48.8	6.16
42°F	Lead	60.7	5.07	59.1	5.28	57.4	5.51	55.8	5.76	54.1	6.02	52.5	6.31	50.8	6.60
	Lag	60.7	4.68	59.1	4.90	57.4	5.13	55.8	5.38	54.1	5.65	52.5	5.93	50.8	6.23
44°F	Lead	62.9	5.12	61.2	5.34	59.5	5.58	57.8	5.83	56.1	6.09	54.5	6.38	52.8	6.67
	Lag	62.9	4.74	61.2	4.96	59.5	5.19	57.8	5.45	56.1	5.71	54.5	6.00	52.8	6.30
46°F	Lead	65.0	5.18	63.3	5.40	61.6	5.64	59.9	5.89	58.2	6.16	56.5	6.45	54.8	6.75
	Lag	65.0	4.80	63.3	5.02	61.6	5.26	59.9	5.51	58.2	5.78	56.5	6.07	54.8	6.48
48°F	Lead	67.2	5.25	65.5	5.47	63.8	5.70	62.1	5.96	60.3	6.23	58.6	6.52	56.9	6.83
	Lag	67.2	4.86	65.5	5.08	63.8	5.32	62.1	5.58	60.3	5.85	58.6	6.14	56.9	6.46
50°F	Lead	69.5	5.31	67.7	5.53	66.0	5.78	64.3	6.03	62.5	6.30	60.8	6.60	59.0	6.91
	Lag	69.5	4.92	67.7	5.15	66.0	5.39	64.3	5.65	62.5	5.92	60.8	6.22	59.0	6.54

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* Bypass										Hot Gas* Bypass	
Suction	Liquid	Hot Gas* Bypass	S	R	Suction	Liquid	Hot Gas* Bypass	S	R	Suction	Liquid	Hot Gas* Bypass	S	R		
Two 1 1/8	Two 3/8	1/2	1/2	3/8	Two 1 1/8	Two 1/2	5/8	1/2	3/8	Two 1 1/8	Two 1/2	5/8	1/2	3/8		

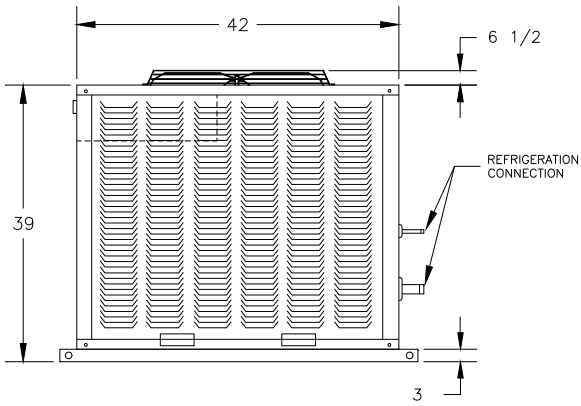
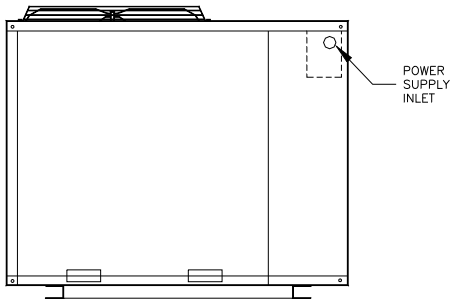
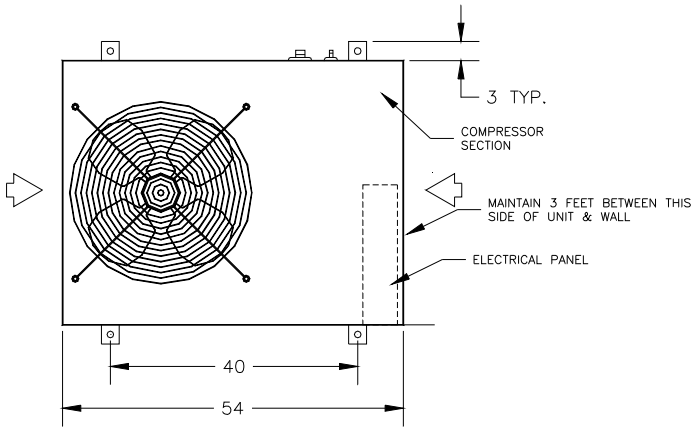
- Notes:
1. Line lengths are equivalent, including all fittings. Use long radius ells only.
 2. Line sizes are for both vertical and horizontal runs.
 3. Over 75 equivalent feet, **consult factory** for sizing recommendations.
 4. Liquid line sizes and hot gas reheat return line sizes are designed to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

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



INDICATES AIR INLET TO CONDENSER
(LEAVE MINIMUM 2 FEET FREE CLEARANCE)

RC134



ALL DIMENSIONS ARE IN INCHES

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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