



VCH/HCH AIR HANDLER

SPECIFICATIONS – Performance per ARI Std. 210/240						Model 134		
PERFORMANCE	Applied with	EER	COP	CFM	Cooling Sensible BTUH	Cooling Total BTUH	Heating Total BTUH	
	RC084E	9.3	—	4,000	82,500	99,900	—	
	RC104E	9.8	—	4,000	85,800	110,700	—	
	RC114E	9.3	—	4,000	89,300	119,900	—	
	RC134E	9.0	—	4,000	92,800	129,100	—	
	RH114E	9.0	3.2	4,000	87,600	115,000	114,600	
	RH134E	8.9	3.1	4,000	90,800	124,300	122,600	
—	—	—	—	—	—	—	—	
ELECTRICAL DATA	SERVICE		Voltage-Phase-Hz		208/230-1-60	208/230-3-60	460-3-60	380/415-3-50
	2 HP MOTOR		FLA		13.0	6.2	3.1	3.5
			Unit Minimum Circuit Ampacity		17	8	4	5
			Max. Time Delay Fuse or HACR Breaker		25	15	15	15
	3 HP MOTOR		FLA		—	8.0	4.0	4.7
			Unit Minimum Circuit Ampacity		—	10	5	6
			Max. Time Delay Fuse or HACR Breaker		—	15	15	15
			FLA		—	—	—	—
			Unit Minimum Circuit Ampacity		—	—	—	—
			Max. Time Delay Fuse or HACR Breaker		—	—	—	—
MECHANICAL DATA	EVAPORATOR BLOWER		DWDI, Dia." x Width" (Qty.)		15 x 15 (1)			
	DX Coil		Face Area – Sq. Ft.		8.0			
			Rows Deep — Fins per Inch		4 — 13			
	Hot Gas Reheat Coil		Face Area – Sq. Ft.		8.0			
			Rows Deep — Fins per Inch		1 / 10			
	Liquid Sub Cooling Coil		Face Area – Sq. Ft.		8.0			
			Rows Deep — Fins per Inch		1 / 10			
	Chill Water Coil		Face Area – Sq. Ft.		7.6			
			Rows Deep — Fins per Inch		4/12			
	Hydronic Heat Coil		Face Area – Sq. Ft.		8.0			
			Rows Deep — Fins per Inch		1/8			
	Steam Coil		Face Area – Sq. Ft.		7.3			
			Rows Deep — Fins per Inch		1/8			
	Refrigerant Connections		Suction Line (Number) Size		(2) 1 1/8"			
Liquid Line (Number) Size			(2) 3/8"					
Condensate Drain		(Number) Size		(2) 3/4"				
Filters		(Number) Size		(2) 16 x 15 x 2 — (1) 20 x 25 x 2				
WEIGHTS		Unit (lbs)		465				
		Shipping Weight(lbs)		505				

Blower Performance

External Static Pressure - Inches H ₂ O														
	0.4		0.6		0.8		1.0		1.2		1.4		1.6	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3500	735	1.2	790	1.4	850	1.5	910	1.7	955	1.8	1005	2.0	1055	2.3
3750	755	1.3	810	1.5	865	1.6	920	1.9	965	2.1	1020	2.3	1070	2.6
4000	780	1.5	835	1.7	885	1.8	940	2.1	980	2.3	1030	2.5	1080	2.8
4250	800	1.7	850	1.9	900	2.0	955	2.3	1000	2.6	1045	2.8	1095	3.0
4500	830	1.9	880	2.1	930	2.3	970	2.6	1020	2.8	1060	3.0	—	—

- Notes: 1. For units with electric heat, add 0.20 inches External Static Pressure prior to making R.P.M and B.H.P. selection.
 2. For units with discharge plenum, add 0.02 inches to External Static Pressure prior to making R.P.M and B.H.P selection.
 2. Tables can be interpolated but not extrapolated.

Heating Coil Capacities

CFM	Steam Coil		Hot Water Coil			
	Heating Capacity BTUH*	°F Lvg. Air Temp.	Heating Capacity BTUH**	°F Lvg. Air Temp.	GPM	W.P.D. Ft. Head
3500			120,500	101.4	12.4	2.1
3750	189,500	116.4	125,000	100.4	12.9	2.2
4000	196,090	115.0	129,300	99.5	13.3	2.4
4250	202,390	113.7	133,400	98.7	13.7	2.5
4500	208,440	112.5	137,400	97.9	14.1	2.7

Note: Leaving air temperatures are based on 70°F entering air.

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Listed

Steam Coil Correction Factors

Steam Pressure		2 PSIG	5 PSIG
Entering Air Temp. °F	40°	1.12	1.25
	50°	1.13	1.18
	60°	1.06	1.11
	70°	1.00	1.05

Hot Water Coil Correction Factors

Entering Water Temp. °F	Entering Air Temp.			
	40°	50°	60°	70°
160°	0.96	0.90	0.82	0.74
180°	1.08	1.02	0.95	0.87
200°	1.23	1.16	1.08	1.00

4 Row Chilled Water Coil Performance with 45° entering water

CFM	Capacity	Entering Air to Coil								
		75° F DB			80° F DB			85° F DB		
		63°F WB	67°F WB	71°F WB	63°F WB	67°F WB	71°F WB	63°F WB	67°F WB	71°F WB
3500	Total	91,900	114,200	148,900	102,800	120,800	151,800	113,300	129,900	155,500
	Sensible	76,700	68,700	63,500	98,100	89,300	82,800	113,300	110,800	102,400
	LAT	55.1/54.0	57.2/56.6	58.6/58.4	54.6/52.7	56.8/55.9	58.6/58.1	55.1/51.5	56.3/54.9	58.5/57.6
	GPM	18.3	22.7	29.6	20.4	24.0	30.2	22.6	25.9	30.9
	Δ P	9.3	14.0	23.1	11.4	15.5	24.0	13.8	17.9	25.1
4000	Total	101,100	124,100	161,100	112,100	132,000	164,700	125,400	142,400	169,200
	Sensible	85,300	75,700	69,000	108,400	99,000	90,900	125,400	123,100	113,100
	LAT	55.7/54.3	57.8/57.2	59.3/59.2	55.4/53.2	57.5/56.4	59.4/58.8	56.1/51.9	57.1/55.5	59.3/58.4
	GPM	20.1	24.7	32.0	22.3	26.2	32.8	25.0	28.3	33.6
	Δ P	11.1	16.4	26.8	13.5	18.4	28.1	16.7	21.3	29.5
4500	Total	109,300	133,300	172,400	120,400	142,600	176,600	136,700	153,900	182,100
	Sensible	93,300	82,200	74,200	118,100	108,300	98,600	136,700	134,800	123,400
	LAT	56.2/54.7	58.4/57.7	60.0/59.8	56.2/53.7	58.2/56.9	60.1/59.5	57.0/52.3	57.8/56.0	60.1/59.0
	GPM	21.8	26.5	34.2	24.0	28.3	35.1	27.2	30.6	36.2
	Δ P	12.9	18.8	30.5	15.5	21.2	32.0	19.7	24.7	33.8

6 Row Chilled Water Coil Performance with 45° entering water

CFM	Capacity	Entering Air to Coil								
		75° F DB			80° F DB			85° F DB		
		63°F WB	67°F WB	71°F WB	63°F WB	67°F WB	71°F WB	63°F WB	67°F WB	71°F WB
3500	Total	101,700	125,900	172,400	119,800	138,900	177,100	125,400	153,200	184,000
	Sensible	83,300	74,400	72,700	110,200	98,700	93,600	125,400	123,900	115,500
	LAT	53.4/52.9	55.7/55.5	56.2/56.1	51.4/50.8	54.4/54.0	55.7/55.5	52.0/50.1	52.9/52.4	55.1/54.8
	GPM	20.2	25.0	34.3	23.8	27.6	35.2	24.9	30.5	36.6
	Δ P	5.1	7.8	14.4	7.1	9.4	15.2	7.7	11.4	16.3
4000	Total	114,000	140,400	190,800	133,000	154,900	195,500	140,900	171,000	202,700
	Sensible	93,800	83,500	80,600	123,600	110,900	104,100	140,900	139,300	128,700
	LAT	53.7/53.1	56.1/55.8	56.7/56.6	52.0/51.2	54.8/54.4	56.4/56.2	52.5/50.4	53.4/52.8	55.8/55.4
	GPM	22.6	27.9	38.0	26.4	30.8	38.8	28.0	34.0	40.3
	Δ P	6.4	9.6	17.5	8.7	11.7	18.3	9.7	14.2	19.7
4500	Total	125,600	154,200	205,600	145,000	169,900	211,300	155,900	187,700	219,600
	Sensible	104,000	92,200	87,100	136,500	122,600	113,500	155,900	154,300	141,100
	LAT	54.0/53.3	56.4/56.1	57.4/57.3	52.5/51.6	55.3/54.7	57.1/56.8	53.1/50.6	53.9/53.2	56.6/56.1
	GPM	25.0	30.6	40.9	28.8	33.7	42.0	31.0	37.4	43.7
	Δ P	7.7	11.5	20.2	10.2	13.9	21.3	11.8	17.0	23.1

Optional Factory Installed Electric Heat

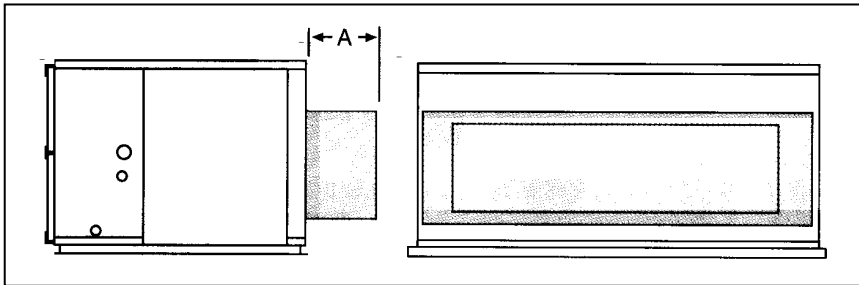
CFM	KW-->	15	20	25	30	35	40	45	50	55	60
	MBH	51.2	68.3	85.3	102.4	119.5	136.5	153.6	170.7	187.7	204.8
3500	Rise	13.5	18.0	22.5	27.0	31.5	35.9	40.4	44.9	49.4	53.9
3750		12.6	16.8	21.0	25.2	29.4	33.6	37.7	41.9	46.1	50.3
4000		11.8	15.7	19.7	23.6	27.5	31.5	35.4	39.3	43.3	47.2
4250		11.1	14.8	18.5	22.2	25.9	29.6	33.3	37.0	40.7	44.4
4500		10.5	14.0	17.5	21.0	24.5	28.0	31.5	35.0	38.4	41.9
208v 1 phase		Amps	72.1	96.2	120.2	144.2	168.3	NA	NA	NA	NA
208v 3 phase	41.6		55.5	69.4	83.3	97.2	111.0	124.9	138.8	152.7	166.5
240v 1 phase	62.5		83.3	104.2	125.0	145.8	166.7	187.5	NA	NA	NA
240v 3 phase	36.1		48.1	60.1	72.2	84.2	96.2	108.3	120.3	132.3	144.3
480v 3 phase	18.0		24.1	30.1	36.1	42.1	48.1	54.1	60.1	66.2	72.2

Recommended Refrigerant Line Sizes – O.D.

Equivalent Line Length — Feet

0 to 25					26 to 50					51 to 75				
Suction	Liquid	Hot Gas Bypass	Hot Gas Reheat		Suction	Liquid	Hot Gas Bypass	Hot Gas Reheat		Suction	Liquid	Hot Gas Bypass	Hot Gas Reheat	
			S	R				S	R				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. Liquid line sizes and hot gas reheat return line sizes are designed to minimize system refrigerant charge.
 4. Over 75 equivalent feet, consult factory for sizing recommendations.
 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. *Hot gas bypass and hot gas reheat only on lead circuit of dual circuit units. Hot gas bypass and hog gas reheat normally not available for heat pump use.

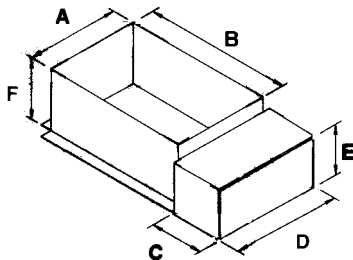
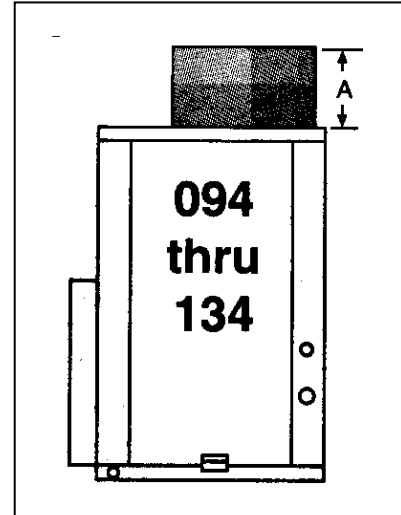


HCH and VCH Discharge electric Heaters
Standard Depth in Direction of Airflow

KW Range	Dim. A (In.)
1 – 60	12

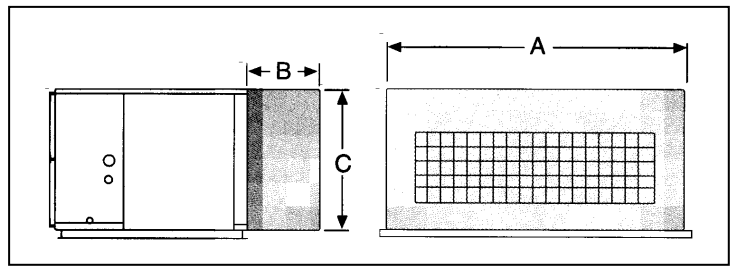
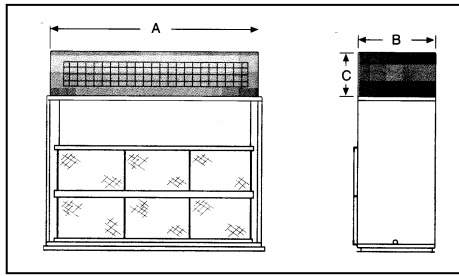
Note: Above values for Dim. A are for standard heaters, with or without air pressure switch, staging relay and non-fused disconnect. Addition of more options may require longer Dim. A. If space considerations are critical, contact factory for exact information.

Note: electric heat sections are designed for mounting directly to air handler cabinet. Electrical box is on the same end as air handler fan motor. Sub-circuit fusing is included when required. Disconnect to be furnished and filed installed by contractor.



	Electric Heaters						
	kW Range	A	B	C*	D*	E	F
VCH	1 – 30	16 1/4	18 7/8	12	18 1/4	11	12
	31 – 60	16 1/4	18 7/8	15	18 1/4	11	12
HCH	1 – 30	18 1/4	20 7/8	12	20 1/4	11	12
	31 – 60	18 1/4	20 7/8	15	20 1/4	11	12

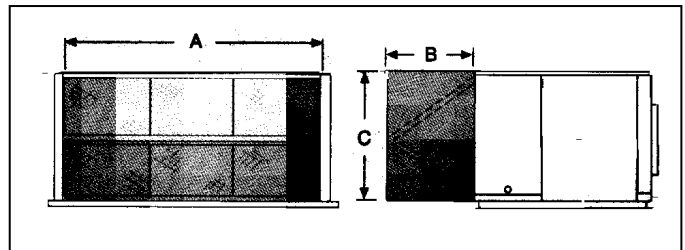
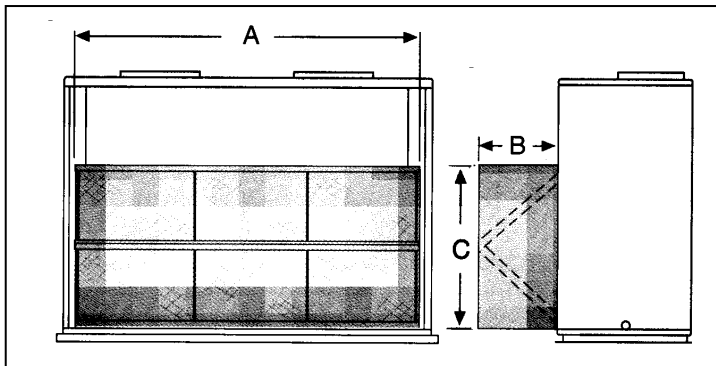
* These dimensions may vary with added heater options. Contact factory if space considerations are critical.



Discharge Plenum with 4 way Adjustable Grill

	A	B	C
HCH Model	54	24	28 1/4
VCH Model	56	29	24

Plenums are fully insulated and shipped separate for field assembly to the air handler and can be installed 180 degrees from the view shown on the drawing.

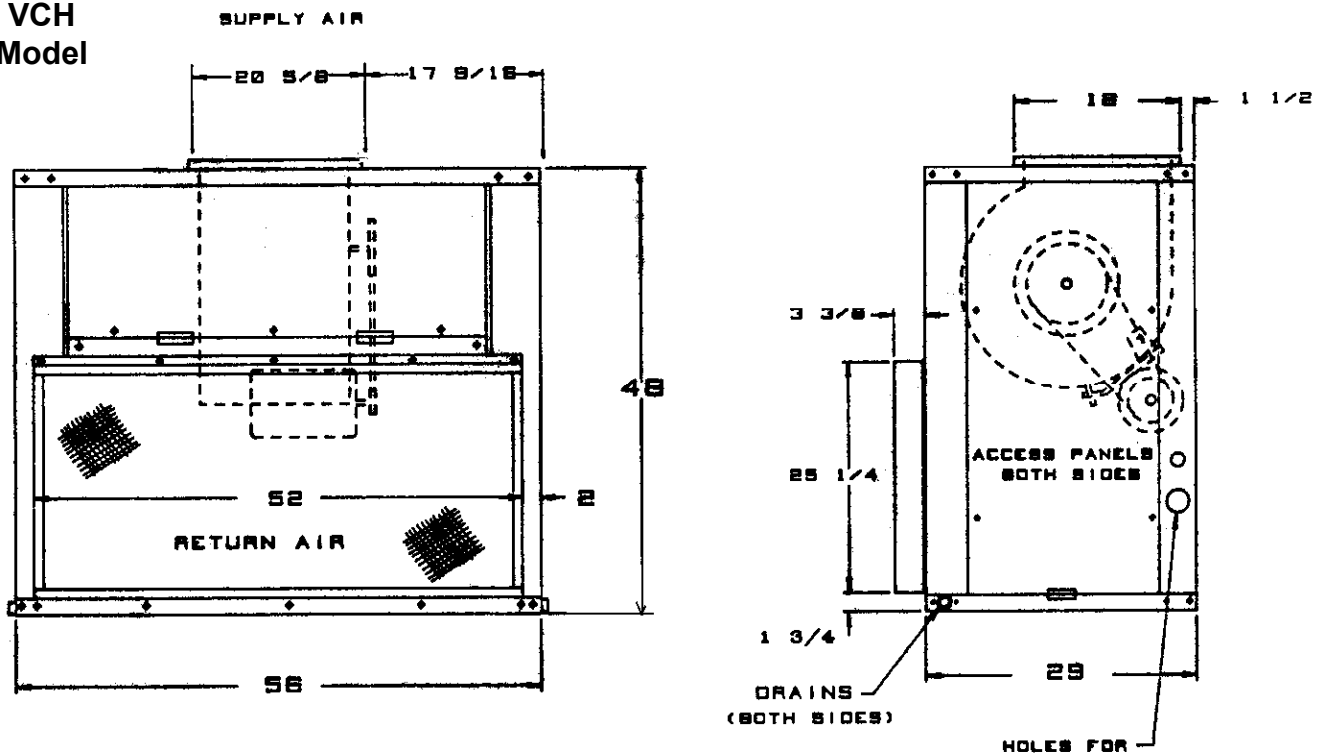


Angle Filter Section

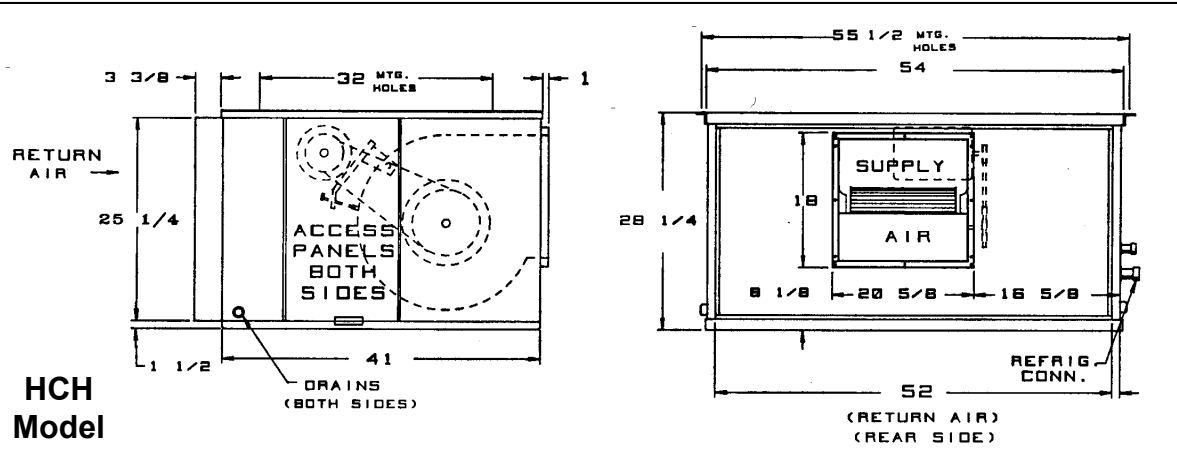
	A	B	C	Filters, Qty. - Size
HCH	50	24	25 1/4	6 - 16 x 20
VCH	50	29	25 1/4	6 - 16 x 20

Filter sections are fully insulated and shipped separate for field assembly to the air handler. 2-inch glass fiber media filters standard.

**VCH
Model**



**HCH
Model**



Specifications subject to change without notice

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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