

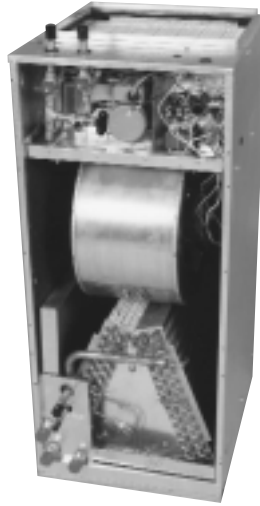
# HEAT CONTROLLER

## MULTI-POSITION AIR HANDLERS

1½ Thru 5 Tons



**AH**



**AHW/AHB**



**FC**

### FOUR BASIC MODELS

**AH-** Multi-position for heat pump or cooling w/ optional electric heat

**FC-** Multi-position cooling only 24,000-60,000 btuh

**AHW-** Multi-position cooling with hydronic coil and circulating pump

**AHB-** Multi-position 18,000-60,000 btuh cooling with hydronic coil

### STANDARD FEATURES (ALL MODELS)

- Fully insulated cabinet
- Direct slide-out blower assemblies
- Air Filters
- Strong unitized galvanized steel construction
- Sweat fittings standard on all models with cooling coils
- All units copper tube/aluminum fin coils
- 115 and 230 volt units available
- Multi-position

### AHW FEATURES

- Hot water circulating pump controls and check valve
- ¾" Water Connections
- Hydronic Freeze Protection
- Evaporator Freeze Protection

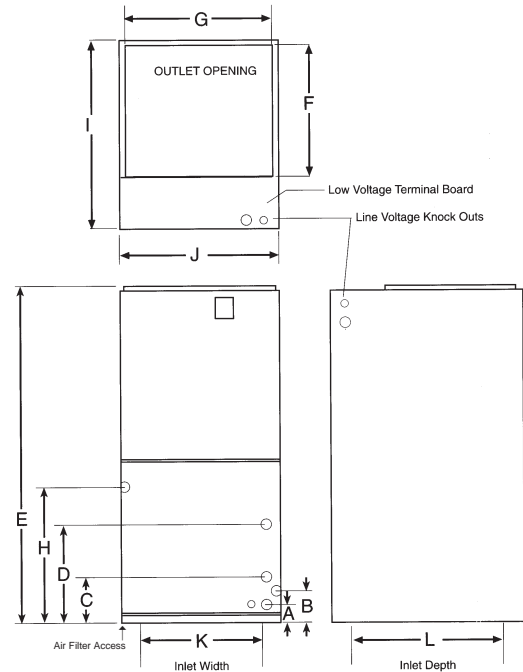
### AHB FEATURES

- Heating blower time delay
- ¾" Water Connections
- Hydronic Freeze Protection
- Evaporator Freeze Protection

# FC SERIES FAN COIL UNITS (115V) 2.0-5.0 TON. - Multi-position with cooling coil and horizontal drain pan.

## FAN COIL AIR FLOW DATA

MODEL	BLOWER SPEED	CFM @ E.S.P. W.C.				
		.1	.2	.3	.4	.5
FC24-0	Med	900	810	750	660	540
FC30-0	Med	1210	1150	990	830	750
FC36-0	High	1300	1250	1025	825	775
FC42-0	Med	1540	1450	1410	1390	1360
FC48-0	High	1750	1720	1685	1645	1590
FC60-0	High	1875	1840	1800	1775	1440



## FC SERIES DIMENSIONS (Inches)

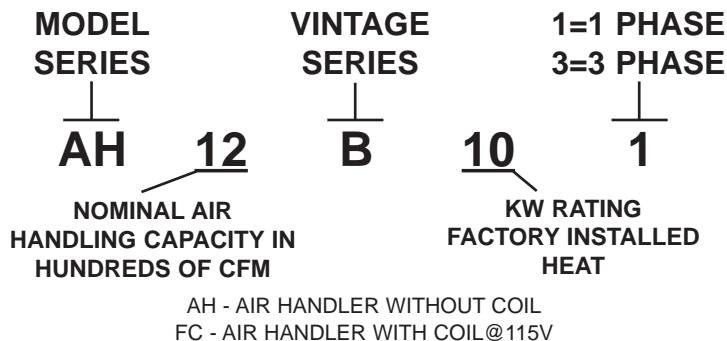
MODEL	A	B	C	D	E	F	G	H	I	J	K	L
FC24-0	2-1/4	3-5/8	9-5/8	15-1/4	42-1/4	17	17	15-1/2	24	18	14	18-1/4
FC30-0	2-1/4	3-5/8	9-5/8	15-1/4	42-1/4	17	17	15-1/2	24	18	14	18-1/4
FC36-0	2-1/4	3-5/8	9-5/8	15-1/4	42-1/4	17	17	15-1/2	24	18	14	18-1/4
FC42-0	2-1/4	6-1/4	9-5/8	15	47-5/8	19-7/8	21	25-5/8	26	22	16-3/8	22-1/4
FC48-0	2-1/4	6-1/4	9-5/8	15	47-5/8	19-7/8	21	25-5/8	26	22	16-3/8	22-1/4
FC60-0	2-1/4	6-1/4	9-5/8	15	47-5/8	19-7/8	21	25-5/8	26	22	16-3/8	22-1/4

# AH SERIES AIR HANDLERS FOR HEATPUMP AND ELECTRIC HEAT APPLICATIONS

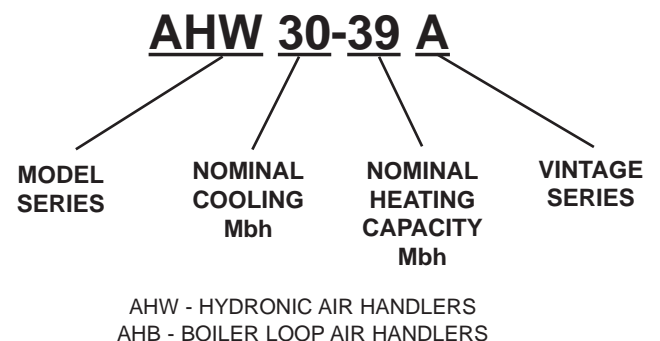
## AH SERIES AIR HANDLER DIMENSIONS (Inches)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
AH08-B	2-1/4	3-5/8	9-5/8	15-1/4	42-1/4	17	17	15-1/2	24	18	14	18-1/4
AH12-B	2-1/4	3-5/8	9-5/8	15-1/4	42-1/4	17	17	15-1/2	24	18	14	18-1/4
AH16-B	2-1/4	6-1/4	9-5/8	15	47-5/8	19-1/8	21	25-5/8	26	22	16-3/8	22-1/4
AH21-B	2-1/4	6-1/4	9-5/8	15	47-5/8	19-1/8	21	25-5/8	26	22	16-3/8	22-1/4

### MODEL NUMBER IDENTIFICATION GUIDE



### AHW/AHB MODEL NUMBER IDENTIFICATION

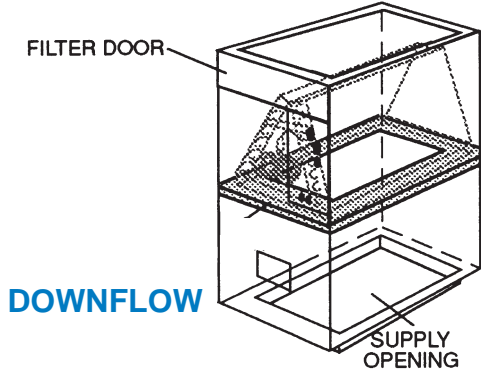


# AH SERIES AIR HANDLER SPECIFICATIONS

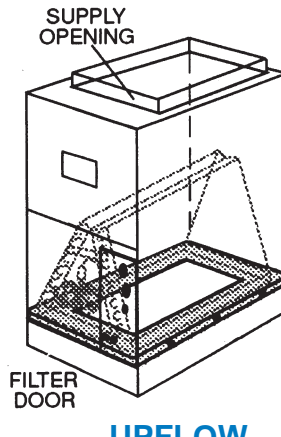
MODEL	MAX KW AT VOLTAGE 240/208	CFM @ .5" WC/60HZ HI/MED/LOW	COOLING RANGE (IN TONS)	BLOWER DIRECT DRIVE	MOTOR H.P.	FILTER SIZE IN.	SHIPPING DIMENSIONS H x W x D	WEIGHT SHIPPING /NET
AH08-B00-1	15/11.2	815/720/615	1.5 - 2	9 - 7	1/6	16x20x1	45-3/8x19x25	102/90
AH12-B00-1	20/15	1230/1115/870	2.5 - 3	9 - 10	1/3	16x20x1	45-3/8x19x25	106/94
AH16-B00-1	25/18.7	1740/1420/1130	3.5 - 4	10 - 8	1/2	20x25x1	50-3/4x23x27	117/102
AH21-B00-1	25/18.7	2105/1930/1350	3.5 - 5	10 - 10	3/4	20x25x1	50-3/4x23x27	121/106

## AH Series - AIRFLOW DIRECTIONS

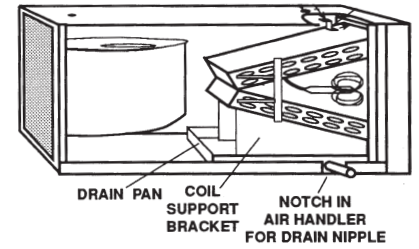
AH- Depicted with optional A-coil installed



DOWNFLOW



UPFLOW



HORIZONTAL LEFT

## HORIZONTAL LEFT DRAIN PAN INSTALLATION

Horizontal units use the same indoor coil as upflow and downflow units with addition of the appropriate drain pan kit.

**KIT NUMBER works with AH**

7603-719 — 8, 12      7603-702 — 16,21

# AH SERIES HEATER KIT SPECIFICATIONS

KW 240 VAC	PHASE	NO. OF SUPPLY CIRCUITS	MBTUH 208/230	HEAT LOAD AMPS	SINGLE CIRCUIT SUPPLY					DUAL CIRCUIT SUPPLY																			
					MIN. WIRE <sup>1</sup> AMPACITY	MAX. FUSE <sup>2</sup> SIZE	WIRE SIZE <sup>3</sup>		GROUND SIZE <sup>3</sup>	MIN. WIRE AMPACITY <sup>1</sup>			Max. Fuse SIZE <sup>2</sup>			WIRE SIZE <sup>3</sup>			GROUND SIZE <sup>3</sup>										
							AWG	MM2	AWG	MM2	Ckt1	Ckt2	Ckt3	Ckt1	Ckt2	Ckt3	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>	AWG MM <sup>2</sup>					
0	1	1	—	—	5.0	15	14	2.1	14	2.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
5	1	1	12.6/17.1	20.9	30	30	10	5.3	10	5.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
7.5	1	1	19.1/25.6	31.3	43	50	8	8.4	10	5.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
10	1	1	25.6/34.1	41.7	57	60	6	13.3	10	5.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
11	3	1	28.6/38.3	27.1	38	40	8	8.4	10	5.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
15	1	1 or 2	38.4/51.2	62.5	83	90	4	21.2	8	8.4	57	26	—	60	30	—	6	13.3	10	5.3	—	—	10	5.3	10	5.3	—	—	
15	3	1	38.4/51.2	36.1	50	50	8	8.4	10	5.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20	1	1 or 2	51.2/68.2	83.4	109	110	2	33.6	6	13.3	57	53	—	60	60	—	6	13.3	6	13.3	—	—	—	10	5.3	10	5.3	—	—
25	1	3	85.3/63.7	104.2	—	—	—	—	—	—	57	53	26	60	60	30	6	13.3	6	13.3	10	5.3	—	10	5.3	10	5.3	10	5.3

<sup>1</sup> Ampacities and over current protection based on largest air handler motor load. Refer to specific name plate for exact ampacity and overcurrent protection size. Minimum wire ampacity values are used for sizing field power conductors. Refer to the National Electric Code (latest version), Article 310, for sizing conductors.

**NOTE:** when more than three current-carrying conductors are in the same conduit, the conductor's ampacity must be derated. See Note 8 of Table 310 for ampacity adjustment factors.

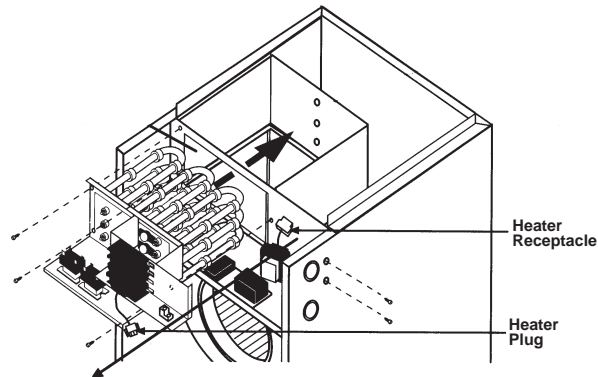
<sup>2</sup> Maximum size fuse or HACR-type circuit breaker for field wiring protection.

<sup>3</sup> Wire size based on 75°C copper wire with no more than three current-carrying conductors in the same conduit. All wiring must conform to the National Electrical Code and all local codes.

**NOTE:** 25KW factory installed only. Special order AH16 and 21 only.

## AH SERIES FIELD INSTALLED HEATER KITS

MODEL	PHASE	K.W. @ 240 V.	MBTUH @208/240 V.
7603-707	1	5	12.6 / 17.1
7603-708	1	7.5	19.1 / 25.6
7603-709	1	10	25.6 / 34.1
7603-710	1	15	38.4 / 51.2
7603-711	1	20	51.2 / 68.2
7603-712	3	11	28.6 / 38.3
7603-713	3	15	38.4 / 51.2



**AIR HANDLER DEPICTED WITH OPTIONAL ELECTRIC HEAT INSTALLED.**

## AH SERIES AIR FLOW DATA

MODEL	MOTOR SPEED	CFM @ EXTERNAL DUCT STATIC (INCHES W.C.)				
		.4	.5	.6	.7	.8
AH08	HIGH	870	815	745	640	440
	MED	765	720	650	400	N/A
	LOW	670	615	515	N/A	N/A
AH12	HIGH	1310	1220	1045	850	600
	MED	1225	1115	945	740	595
	LOW	965	870	755	620	480
AH16	HIGH	1790	1740	1690	1630	1540
	MED	1435	1420	1380	1335	1290
	LOW	1140	1130	1120	1100	1085
AH21	HIGH	2230	2105	1990	1895	1725
	MED	1950	1930	1840	1770	1590
	LOW	1360	1350	1340	1185	1080

Air flow shown at the following conditions:

1. No coil in air handler. See coil specifications for indoor coil pressure drop. This must be subtracted from the available static pressure to obtain air volume with coil in place.
2. No heat elements in Air Handler, decrease CFM 1% for each element installed in the Air Handler.
3. 230 volts, decrease CFM 6% for 208 volt operation
4. Standard Air Handler filter.



# HYDRONIC AIR HANDLERS

## AHW/AHB Features



### AHB Features Blower Time Delay

### AHW Series Features Circulating Pump with Relay for Hot Water Connection on the Top

- Upflow/downflow/horizontal right to left (optional drain pan kit)
- Hot water coil compatible with most water heaters and boilers
- Includes disposable filter
- Includes installed isolation check and manual purge valves
- Low voltage terminal strip
- Cooling post- purge
- Slide-out blower for easy maintenance
- 115V / 40VA transformer
- Hydronic coil freeze protection (standard)
- Condensing Unit Lockout (standard)
- 3/4" water connections

## AHW SERIES MATCHED SYSTEM PERFORMANCE

MODEL	COOLING TONS	ARI MATCHED COND. UNIT	NOMINAL HEATING @140- deg. F	NOMINAL COOLING SCFM @.2esp w/coil	SHIP WEIGHT	FILTER SIZE	HORIZONTAL DRAIN KIT <sup>†</sup>
AHW24-33*	1.5-2.0	RSA1018-1	33,000	600	135	16x20x1	7603-715
AHW24-33	2.0	RSA1024-1	33,000	800	135	16x20-1	
AHW30-39	2.5	RSA1030-1	39,000	1,000	135	16x20x1	
AHW36-50	3.0	RSA1036-1	50,000	1,330	185	20x25x1	7603-716
AHW48-67*	3.5	RSA1042-1	67,000	1,450	185	20x25x1	
AHW48-67	4.0	RS1048-1	67,000	1,740	185	20x25x1	
AHW60-80	5.0	RS1060-1	80,000	2,000	185	20x25x1	

\*- Piston change required, piston supplied with air handler. † Option ordered separately.

## AHB SERIES MATCHED SYSTEM PERFORMANCE

MODEL	COOLING TONS	ARI MATCHED COND. UNIT	NOMINAL HEATING @180- deg. F	NOMINAL COOLING SCFM @.2esp w/coil	SHIP WEIGHT	FILTER SIZE	HORIZONTAL DRAIN KIT <sup>†</sup>
AHB24-52*	1.5	RSA1018-1	52,000	600	135	16x20x1	7603-715
AHB24-52	2.0	RSA1024-1	52,000	800	135	16x20x1	
AHB30-63	2.5	RSA1030-1	63,000	1,000	135	16x20x1	
AHB36-82	3.0	RSA1036-1	82,000	1,330	185	20x25x1	7603-716
AHB48-107*	3.5	RSA1042-1	107,000	1,450	185	20x25x1	
AHB48-107	4.0	RS1048-1	107,000	1,740	185	20x25x1	
AHB60-125	5.0	RS1060-1	125,000	2,000	185	20x25x1	

\*- Piston change required, piston supplied with air handler. † Option ordered separately.

## AHW/AHB SERIES BLOWER PERFORMANCE

MODEL	MOTOR @115 V. 60 HZ		BLOWER WHEEL	MOTOR SPEEDS	SCFM VS. ESP (1)				
	HP.	FLA			0.1	0.2	0.3	0.4	0.5
AHW24-33	1/4	3.2	10x6	H	840	790	750	700	660
				M	820	760	755	680	630
AHB24-52	1/3	6.2	10x7	L	770	700	630	600	—
AHW30-39				H	1010	980	930	865	830
	AHB30-63	M	975	935	895	845	800		
AHW36-50		1/3	6.2	10x8	L	950	900	860	810
	H				1360	1310	1270	1230	1190
AHB36-82	3/4	9.5	11x9	M	1340	1250	1170	1090	1060
				L	1280	1170	1040	970	—
AHW48-67	3/4	9.7	11x11	H	1860	1740	1640	1530	1480
				M	1780	1620	1510	1390	1280
AHB48-107	3/4	9.7	11x11	L	1680	1500	1320	1250	—
AHW60-80				H	1950	1900	1845	1770	1720
	AHB60-125	M	1820	1750	1620	1470	1440		
L		1750	1640	1390	1270	—			

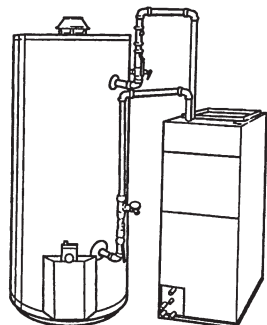
(1)-Based on unit w/nominal tonnage dry coil and filter installed

Use .96 as appropriate correction factor for wet coil.

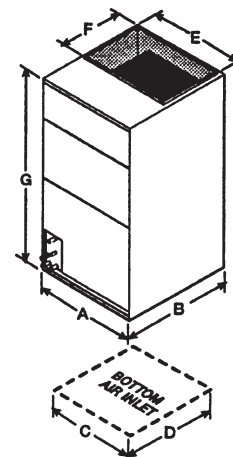
## AHW/AHB SERIES DIMENSIONS (Inches)

DIMENSIONS	A	B	C	D	E	F	G
AHW/AHB24-30	17.5	20	15.25	17	15.75	12.75	39.75
AHW/AHB36-60	21.5	25	19.25	22.25	19.75	17.25	49.75

### Equipment Sizing



- 1.) Calculate heat load of home by ACCA method. Air handler heating capacity should equal or exceed load calculation.
- 2.) Select a hot water heater whose BTUH input /recovery efficiency exceeds heating capacity of the air handler.  
A minimum 40-gallon size is recommended for the AHW24-33 and AHB24-52.  
A fifty-gallon water heater for the AHW30-39 and AHB30-63.  
One seventy-five or two forty gallon AHW-36-50 and AHB36-82.  
Any combination of water heater (excluding electric) to attain 130,000 BTUH input for the AHW48-67, AHW60-80, AHB48-107 and AHB60-125.



**NOTE: THE HEATING CAPACITY OF THE HOT WATER HEATER MUST ALWAYS EXCEED THAT OF THE AIR HANDLER.**  
Call a Heat Controller distributor for assistance in sizing.

## EXTENDED RANGE HEATING DATA AHW SERIES HYDRONIC AIR HANDLERS

Model Number	Heating Nom. SCFM	130	140*	150	160	170	180	GPM	P.D. ft. H2O
AHW24-33	790H	29,000	33,000	38,000	42,800	47,600	52,000	4	2.3
AHW30-39	980H	34,000	39,000	43,000	48,500	56,000	62,500	4	2.3
AHW36-50	1170L	45,000	50,000	60,000	67,000	74,000	82,000	4	1.4
AHW48-67	1740H	59,000	67,000	78,000	88,000	97,000	107,000	4	0.8
AHW60-80	1900H	69,000	80,000	91,000	102,500	113,500	125,000	7	2.5

\*- recommended water temperature range, 65 deg. Entering air.

## AHB SERIES BOILER LOOP AIR HANDLERS

Model Number	Heating Nom. SCFM	130	140*	150	160	170	180	GPM	P.D. ft. H2O
AHB24-52	790H	29,000	33,000	38,000	42,800	47,600	52,000	4	2.3
AHB30-63	980H	34,000	39,000	43,000	48,500	56,000	62,500	4	2.3
AHB36-82	1170L	45,000	50,000	60,000	67,000	74,000	82,000	4	1.4
AHB48-107	1740H	59,000	67,000	78,000	88,000	97,000	107,000	4	0.8
AHB60-125	1900H	69,000	80,000	91,000	102,500	113,500	125,000	7	2.5

## AHB EXTENDED RANGE DATA (BASED ON WATER FLOW)

Model Number	180°F ENTERING WATER							
	2.0 GPM	3.0 GPM	4.0 GPM	5.0 GPM	6.0 GPM	7.0 GPM	8.0 GPM	9.0 GPM
AHB24-52	43,250	48,250	52,000	54,200	55,800	N/A	N/A	N/A
AHB30-63	50,400	58,200	63,000	66,200	68,500	N/A	N/A	N/A
AHB36-82	65,000	74,500	82,000	87,000	90,700	N/A	N/A	N/A
AHB48-107	74,300	93,000	107,000	115,100	122,000	N/A	N/A	N/A
AHB60-125	75,900	95,700	109,500	119,600	123,300	125,000	128,600	133,000

Specifications and performance data subject to change without notice.

## HEAT CONTROLLER, INC.

1900 WELLWORTH AVENUE • JACKSON, MICHIGAN 49203

THE QUALITY LEADER IN CONDITIONING AIR

visit us at [www.heatcontroller.com](http://www.heatcontroller.com)