AIR HANDLERS AFM SERIES

HIGH-EFFICIENCY
MULTI-POSITION HYDRONIC HEAT

Unit shown with service panels removed. Representative drawing only. Some models may vary in appearance. Due to continuous product improvement, specifications are subject to change without notice.

FEATURES AND BENEFITS:

APPLICATION VERSATILITY

Upflow or horizontal right as shipped (field-convertible for downflow or horizontal left applications). Can be AHRI certified with most brands of air conditioners or heat pumps.

- ETL listed for use with R-22, R-410A, R-454B, and R-32 when a proper metering device is used.
- In accordance to UL 60335 Refrigerant Detection Systems are factory-installed on A2L refrigerant ready air handlers.

MOTOR

Constant torque ECM speeds and torques are controlled by software embedded in the motor to maintain constant torque. Motors are pre-programmed at the factory.

LOW LEAKAGE CABINET

Less than 2% air leakage from cabinet when tested in accordance with ASHRAE standard 193. Unit must be installed according to Aspen installation instructions. Sturdy, fully insulated galvanized steel cabinet with knockout for duct return.

BLOWER

Direct drive blowers circulate air quietly and efficiently. Motor speeds and torques programmed in the motor. Blowers mounted on rails so they can be easily removed for service.

ELECTRONIC CONTROL BOARD

An electronic board controls the functioning of the system reducing moving parts. The board provides for various hot water supply source connections and the blower time delay to maximize heat/cool extraction. As an enhanced feature the pump circulates hot water every 6 hours to prevent coil freeze during off cycle.

MODULAR HYDRONIC HEAT KITS

Air Handlers are available with either factory-installed circuit breakers or terminal blocks with choice of 2, 3 and 4 rows of hot water coil. Freeze stat is standard, wired into circulating pump control circuit. Controls are accessible from the front for easy service. Electrical connections can be made from the top or left. Disconnect protrudes through the front panel for easy access. Fan time delay relay standard for increased efficiency. Heat kits are available with or without circulating pump and check valve. Units are provided with auxiliary relay for remote pump. Schrader ports are standard on water-out manifold, hose bib available as an option.

DX COIL

High efficiency rifled copper tubes/enhanced aluminum fins provide maximum heat transfer. All coils immersion tested at 500 psi, then Nitrogen-pressurized and factory sealed for maximum reliability. Liquid-line Schrader allows pre-installation pressure testing. Available with either orifice or TXV metering device. Field-installable bolt-on TXVs are also available. Rugged, UV safe, GLP drain pan holds minimal condensate while eliminating the possibility of corrosion. Galvanized metal drain pan with bottom primary and secondary drain connections or alternate right side primary. All connections 3/4” FPT. Access door allows for coil cleaning.

WARRANTY

Five-year limited parts warranty

OPTIONS

See options menu.

WANT MORE INFORMATION ON ASPEN’S AFM SERIES AIR HANDLERS?
SCAN QR CODE TO VISIT THIS PRODUCT ON OUR WEBSITE

5-YEAR LIMITED WARRANTY

For complete warranty details, please visit our Warranty Information tab when you visit Aspen’s website.
To view this coil’s product information online for the most up-to-date information scan the QR Code.

P 800-423-9007
www.aspenmfg.com

SPECIFICATIONS & PERFORMANCE:

HEATING AND COOLING PERFORMANCE AND ELECTRICAL DATA

MODEL	PERFORMANCE DATA								ELECTRICAL DATA	
	NOM. COOLING	HYDRONIC HEAT KIT MODEL	ROWS	COIL P.D.	HEATING CAPACITY BTU/HR STANDARD PUMP AT 3.5 GPM NOMINAL AIRFLOW				MIN. CIRCUIT AMPACITY (MCA)	MAX. BREAKER OR FUSE SIZE
				3.5 GPM	ENTERING WATER TEMP.					
					120º	140º	160º	180º		
AFM18/19	18,000	W*2SP	2	2.7	17770	24900	32250	39600		
		W*3SP	3	2.1	21600	30500	39450	48400	6.78	
AFM23/24/25	24,000	W*2SP	2	2.7	20200	28500	36950	45400		
		W*3SP	3	2.1	25000	35300	45800	56300		
AFM30/31	30,000	W*2SP	2	2.5	22100	31300	40645	49990		
		W*3SP	3	1.9	27700	39100	50750	62400		
		W*4SP	4	1.1	31000	43900	57000	70100		15
AFM36/37	36,000	W*2SP	2	2.5	23700	33500	43550	53600		
		W*3SP	3	1.9	29800	42100	54700	67300	9.28	
		W*4SP	4	1.1	33500	47400	61600	75800		
AFM35		W*2MP	2	2.5	27040	38215	49610	61005		
		W*3MP	3	1.9	33185	46900	59540	72180		
		W*4MP	4	1.1	38750	54805	69815	84820		
AFM42/43	42,000	W*2LP	2	2.5	30200	42600	55300	68000		
		W*3LP	3	1.9	36300	51400	65000	78600		
		W*4LP	4	1.1	43600	61600	77250	92900		
AFM47	48,000	W*3XP	3	1.3	38195	54020	65095	76170		
		W*4XP	4	0.8	48200	68125	83380	98640		
AFM48/49		W*2LP	2	2.1	31700	44800	58100	71400		
		W*3LP	3	1.6	38200	54000	67300	80600	15.16	25
		W*4LP	4	0.9	45900	64900	81450	98000		
AFM59	60,000	W*3XP	3	1.3	38195	54020	65095	76170		
		W*4XP	4	0.8	48200	68125	83380	98640		
AFM60/61		W*2LP	2	1.7	32900	46600	60500	74400		
		W*3LP	3	1.3	39700	56200	70100	84000		
		W*4LP	4	0.8	47800	67600	84900	102200		

HEATING AND COOLING PERFORMANCE AND ELECTRICAL DATA

MODEL	PERFORMANCE DATA								ELECTRICAL DATA	
	NOM. COOLING	HYDRONIC HEAT KIT MODEL	ROWS	COIL P.D.	HEATING CAPACITY BTU/HR HIGH PRESSURE PUMP AT 5 GPM NOMINAL AIRFLOW				MIN. CIRCUIT AMPACITY (MCA)	MAX. BREAKER OR FUSE SIZE
					ENTERING WATER TEMP.					
				5 GPM	120º	140º	160º	180º		
AFM18/19	18,000	W*2S8	2	3.9	18700	26400	34150	41900		
		W*3S8	3	2.9	22900	32300	41750	51200	6.84	
AFM23/24/25	24,000	W*2S8	2	3.9	22600	31600	40550	49500		
		W*3S8	3	2.9	26900	38000	49150	60300		
AFM30/31	30,000	W*2S8	2	3.5	23900	33800	43800	53800		
		W*3S8	3	2.6	30100	42500	55100	67700		
		W*4S8	4	1.5	34000	48000	62300	76600		15
AFM35	36,000	W*2M8	2	3.5	29625	41875	54295	66715		
		W*3M8	3	2.6	36870	52095	65800	79505	9.34	
		W*4M8	4	1.5	43535	61545	78050	94560		
AFM36/37		W*2S8	2	3.5	25800	36500	47350	58200		
		W*3S8	3	2.6	32800	46300	60000	73700		
		W*4S8	4	1.5	37200	52600	68200	83800		
AFM42/43	42,000	W*2L8	2	3.5	33200	46800	60650	74500		
		W*3L8	3	2.6	40500	57300	70850	84400		
		W*4L8	4	1.5	49000	69300	86450	103600		
AFM47	48,000	W*3X8	3	1.9	43295	61300	73190	85075		
		W*4X8	4	1.1	55360	78230	95070	111900		
AFM48/49		W*2L8	2	3	34900	49300	63900	78500		
		W*3L8	3	2.2	42750	60450	74825	89200	15.22	25
		W*4L8	4	1.3	52000	73500	91725	109950		
AFM59	60,000	W*3X8	3	1.9	43295	61300	73190	85075		
		W*4X8	4	1.1	55360	78230	95070	111900		
AFM60/61		W*2L8	2	2.5	36600	51800	67150	82500		
		W*3L8	3	1.9	45000	63600	78800	94000		
		W*4L8	4	1.1	55000	77700	97000	116300		

BLOWER DATA

MODEL	MOTOR				CFM VS. EXTERNAL STATIC (DRY COIL)								
	SPEED TAP	HP	FLA	VOLT.	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
AFM18/19/24/25	TAP 5	1/3	4.8A	120	870	840	810	790	770	740	720	700	660
	TAP 4				700	670	640	620	590	570	540	510	480
	TAP 3				610	580	550	530	510	480	440	400	370
	TAP 2				500	480	460	430	400	370	340	300	260
	TAP 1				870	840	810	790	770	740	720	700	660
AFM23	TAP 5				870	840	810	790	760	730	710	670	640
	TAP 4				810	790	760	740	710	670	640	620	590
	TAP 3				760	730	700	660	630	600	570	550	510
	TAP 2				710	690	650	620	590	550	530	500	460
	TAP 1				650	630	590	570	540	510	460	430	390
AFM310/31/36/37	TAP 5	1/2	6.8A		1090	1060	1040	1010	980	970	930	920	880
	TAP 4				1070	1040	1010	980	950	930	920	880	850
	TAP 3				890	870	830	800	780	750	720	690	650
	TAP 2				710	670	640	600	580	550	520	490	460
	TAP 1				550	510	470	440	400	370	340	300	270
AFM35	TAP 5				1220	1190	1170	1140	1110	1090	1060	1030	1000
	TAP 4				1140	1110	1090	1060	1030	1000	970	930	900
	TAP 3				930	900	880	840	810	780	750	710	670
	TAP 2				810	790	760	730	690	650	620	590	560
	TAP 1				700	650	620	580	540	510	480	440	400
AFM42/43/48/60/61	TAP 5	1	11.5A		1810	1800	1760	1720	1690	1670	-	-	-
	TAP 4				1690	1650	1630	1590	1570	1550	1500	1460	1420
	TAP 3				1460	1440	1420	1400	1350	1300	1280	1230	1170
	TAP 2				1370	1320	1280	1250	1230	1200	1170	1120	1060
	TAP 1				750	700	630	590	550	500	450	400	350
AFM47/59	TAP 5				1920	1880	1850	1810	1780	1740	1700	-	-
	TAP 4				1810	1780	1740	1700	1670	1630	1590	1550	1500
	TAP 3				1530	1480	1440	1400	1350	1300	1250	1200	1140
	TAP 2				1290	1260	1210	1150	1100	1040	1000	930	870
	TAP 1				930	880	810	740	650	570	520	480	420

AIR HANDLER CHASSIS NOMENCLATURE (HYDRONIC MULTI-POSITION)

AFM	18	4	-000
120V / ECM MOTOR (CONSTANT TORQUE) HYDRONIC MULTI-POSITION AIR HANDLER	NOMINAL TONNAGE (MBTUH)	**A1 - METERING DEVICE** 4 = R410A (TXV NON-BLEED A/C or H/P) X = R22 (TXV NON-BLEED A/C or H/P) B = R22 (TXV 20% BLEED A/C or H/P) G = R410A (PISTON) F = R22 (PISTON) **A2L - METERING DEVICE** J = R454B (TXV NON-BLEED A/C or H/P) K = R454B (TXV 20% BLEED A/C or H/P) D = R32 (TXV NON-BLEED A/C or H/P) M = R32 (PISTON) N = R454B (PISTON)	OPTION CODE

HYDRONIC HEAT NOMENCLATURE

W	C	2	S	P
WATER HEAT (HYDRONIC)	INTERRUPTION C = CIRCUIT BREAKER T = TERMINAL BLOCK	# OF ROWS 2 3 4	S = AFM18,19,23,24,25,30,31,36,37 M = AFM35 L = AFM42,43,48,49,60,61 X = AFM47,59	L = Less Pump P = Standard Pump (006) with Check Valve 8 = High Pressure Drop Pump (008) with Check Valve R = High Pressure Drop Pump (009) with Check Valve

AFM DIMENSIONS (In.) - Figure 1

Model	A	B	C	D	E	F	G	J	K	FILTER SIZE	SHIP. WEIGHT	SKID QTY
AFM18+W*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	5-3/4 [146]	9-3/4 [248]	18-1/2 [470]	18-1/2 [470]	16X20	99	
AFM19/24/25+W*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	7-3/4 [197]	11-3/4 [298]	18-1/2 [470]	18-1/2 [470]	16X20	100	
AFM30+W*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	10-1/2 [267]	14-1/2 [368]	18-1/2 [470]	18-1/2 [470]	16X20	118	
AFM36+W*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	12-1/2 [317]	16-1/2 [419]	18-1/2 [470]	18-1/2 [470]	16X20	118	
AFM31/37+W*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	14-3/4 [374]	18-3/4 [476]	18-1/2 [470]	18-1/2 [470]	16X20	147	
AFM42+W*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	14-3/4 [374]	18-3/4 [476]	22 [559]	18-1/2 [470]	20X20	153	4
AFM48+W*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	16 [406]	20 [533]	22 [559]	18-1/2 [470]	20X20	180	
AFM43/49/60+W*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	18 [457]	22 [559]	22 [559]	18-1/2 [470]	20X20	180	
AFM61+W*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	20 [533]	24 [610]	22 [559]	18-1/2 [470]	20X20	200	
AFM23+W*	21 [533]	40 [1016]	20-1/2 [521]	18 [457]	16 [406]	7 [178]	11 [279]	18-1/2 [470]	18-1/2 [470]	16X20	100	
AFM35+W*	21 [533]	42 [1067]	23 [584]	18 [457]	19 [483]	8-3/4 [222]	12-3/4 [324]	18 [457]	20 [533]	20X20	170	
AFM47/59+W*	21 [533]	48 [1219]	28 [711]	18 [457]	24 [610]	11-3/4 [298]	15-3/4 [400]	18 [457]	25 [660]	20X25	200	

Figure 1

1. **SUCTION LINE:**
   1.5T to 3.0T = 3/4”
   3.5T to 5.0T = 7/8”
2. **LIQUID LINE:** 3/8”