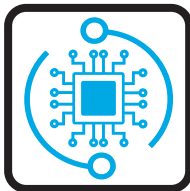


VAHU - VERTICAL MINI AIR HANDLING UNIT



FEATURES

CONTROL FLEXIBILITY



Two types of control system: Intelligent control board (I-Control) controlled via Infra-red handset and/or Intelligent wired wall pad or Flexible control (W-Control) permitting operation with external thermostat applications both controls allows configuration for 2 or 4-pipe settings.

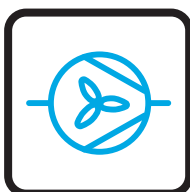
Please refer to page 14 for further information on controls.

ENERGY EFFICIENT MOTORS



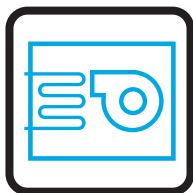
EC motors allow the centrifugal fans to operate at optimum airflow performance, energy efficiency and quiet operation. EC motors include driven control PCB, constant torque, permanent magnet and 3 speeds pre-set or modulating with a 0-10 VDC signal for precise air balancing control.

FAN BLOWER



Galvanized steel housing center plate fixed impeller, with riveting compression on the end ring and galvanized steel sheet mounting feet to ensure adequate strength, All impellers and motors are fully balanced according to ANSI/AMCA-204 standard for smooth and quiet operation.

STRUCTURE



Made from frameless integrated folded steel structure, it uses a sandwich panel consisting of two walls with high-pressure PU foam inner insulation. It has couplings for the connection of ducting and gravity drain pan with insulation for condensation. The unit has an easy access to fans, motors and filters.

WATER COILS



Built with seamless copper tubes and headers, mechanically expanded into corrugated aluminium fin material for a permanent primary to secondary surface bond. Tested at 35 bar, with maximum operating limits at 20 bar.

READY TO INSTALL



The Vertical Mini Air Handling unit range is offered as a complete package including standard items such as the internal drain pan, double sandwich panel insulation of 10mm + 25mm, and a G2 (MERV 4) filter. Furthermore, we offer multiple optional accessories.

KEY POINTS

- Auto Dynamic Balancing with I-Control
- External Static Pressure up to 350 Pa
- Suitable for special applications with Cooling capacity up to 55 kW and 9000 m³/h of airflow available
- Upflow or downflow discharge
- Internal Drain Pan



ACCESSORIES

- IR Handset or Wired Wall Pad (Available with I-Control)
- Thermostat Controller (Available with W-Control)
- G4 (Merv 8) or F8 (MERV 14) Filters
- Electric heater up to 9kW
- 2 or 3 Way On/Off & Modulating Valves
- Belimo Valve Kit
- Stainless Steel Drain Pan

*Please refer to page 80 for further information and accessories.

TECHNICAL SPECIFICATIONS

Hydronic Vertical Mini Air Handling Unit, 5R, 2 pipe with **EC Motor**

UNIT GENERAL SPECS	VAHU-5R-[Size]-V-ECM			200	300	400	600	800
	Configuration			2-pipe				
	Number of Fan Blowers			1			2	
	Power Supply (V/Ph/Hz)			220 - 240/1/50 - 60				
AIR	Total Air Flow	H	m3/h	2222	3160	4093	6321	8186
		M		1912	2703	3495	5407	6990
		L		1361	1916	2475	3833	4950
	External Static Pressure	H	Pa	120				
		M						
		L						
COOLING	Total Cooling Capacity	H	kW	14.62	20.68	26.34	38.46	50.52
		M		13.02	18.32	23.26	34.06	44.61
		L		10.06	13.98	17.76	26.00	34.06
	Sensible Cooling Capacity	H		10.20	14.46	18.44	27.16	35.49
		M		9.02	12.68	16.10	23.82	30.98
		L		6.86	9.56	12.16	17.95	23.39
HEATING	Heating Capacity	H	kW	13.55	19.20	24.70	36.64	47.64
		M		12.07	17.00	21.81	32.46	42.06
		L		9.32	12.98	16.65	24.78	32.11
	Max. Electric Heater Capacity			4.5	6	7.5	9	
SOUND	Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
	Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
	Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
	Power Level (Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
ELECTRICAL	Power Input	H	W	412	850	1015	1700	2030
		M		375	650	850	1300	1530
		L		320	350	500	700	1000
	Running Current (H)		A	3.58	7.39	8.83	14.78	17.65
HYDRONIC	Cooling Water Flow Rate	H	L/h	2506	3545	4516	6592	8661
		M		2232	3140	3987	5840	7647
		L		1725	2397	3044	4458	5838
	Cooling Pressure Drop	H	kPa	54.0	64.8	38.0	38.3	73.6
		M		43.8	52.1	30.4	30.8	58.8
		L		27.5	32.1	18.7	18.9	36.2
	Heating Water Flow Rate	H	L/h	2323	3291	4234	6282	8166
		M		2068	2915	3739	5564	7210
		L		1598	2225	2854	4247	5505
	Heating Pressure Drop	H	kPa	39.8	47.9	28.5	29.5	56.1
		M		32.3	38.5	22.8	23.7	44.9
		L		20.3	23.7	14.0	14.6	27.6

EUROVENT TESTING CONDITIONS:

a. Cooling mode (2-pipe):

- Return air temperature: 27°C DB/19°C WB
- Inlet/ outlet water temperature: 7°C/ 12°C

b. Heating mode (2-pipe):

- Return air temperature: 20°C
- Inlet water temperature: 45°C/40°C

TECHNICAL SPECIFICATIONS

Hydronic Vertical Air Handling Unit, 5R+2 (Auxiliary Heating Coil), 4 Pipe with **EC Motor**

UNIT GENERAL SPECS	VAHU-5R+2-[Size]-P-ECM			200	300	400	600	800
	Configuration			4 pipe				
	Number of Fan Blowers			1			2	
	Power Supply (V/Ph/Hz)			220 - 240/1/50 - 60				
AIR	Total Air Flow	H	m3/h	1999	3000	3942	6000	7884
		M		1773	2603	3400	5206	6801
		L		1286	1862	2424	3724	4847
	External Static Pressure	H	Pa	120				
		M						
		L						
COOLING	Total Cooling Capacity	H	kW	13.42	19.80	25.57	36.81	49.05
		M		12.32	17.87	22.85	33.23	43.83
		L		9.60	13.64	17.53	25.37	33.63
	Sensible Cooling Capacity	H		9.32	13.82	17.88	25.95	34.41
		M		8.48	12.34	15.80	23.18	30.41
		L		6.53	9.32	12.00	17.50	23.09
HEATING	Heating Capacity	H	kW	12.87	21.38	24.78	35.47	46.45
		M		11.82	19.30	22.15	32.02	41.51
		L		9.20	14.73	16.99	24.45	31.85
SOUND	Pressure Level (Outlet)		dB(A)	73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
	Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
	Power Level (Outlet)			82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
	Power Level (Inlet + Radiated)			79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
ELECTRICAL	Power Input	H	W	412	850	1015	1700	2030
		M		375	650	850	1300	1530
		L		320	350	500	700	1000
	Running Current (H)		A	3.58	7.39	8.83	14.78	17.65
HYDRONIC	Cooling Water Flow Rate	H	L/h	2301	3393	4384	6310	8408
		M		2112	3063	3918	5696	7514
		L		1645	2339	3006	4349	5765
	Cooling Pressure Drop	H	kPa	46.3	59.9	36.1	35.4	69.7
		M		39.7	49.8	29.5	29.4	57.0
		L		25.3	30.7	18.3	18.1	35.4
	Heating Water Flow Rate	H	L/h	1103	1832	2124	3041	3981
		M		1013	1654	1898	2745	3558
		L		789	1263	1456	2095	2730
	Heating Pressure Drop	H	kPa	8.6	21.3	39.1	38.6	74.8
		M		7.3	17.7	32.0	32.1	61.1
		L		4.7	10.9	19.8	19.8	37.9

EUROVENT TESTING CONDITIONS:

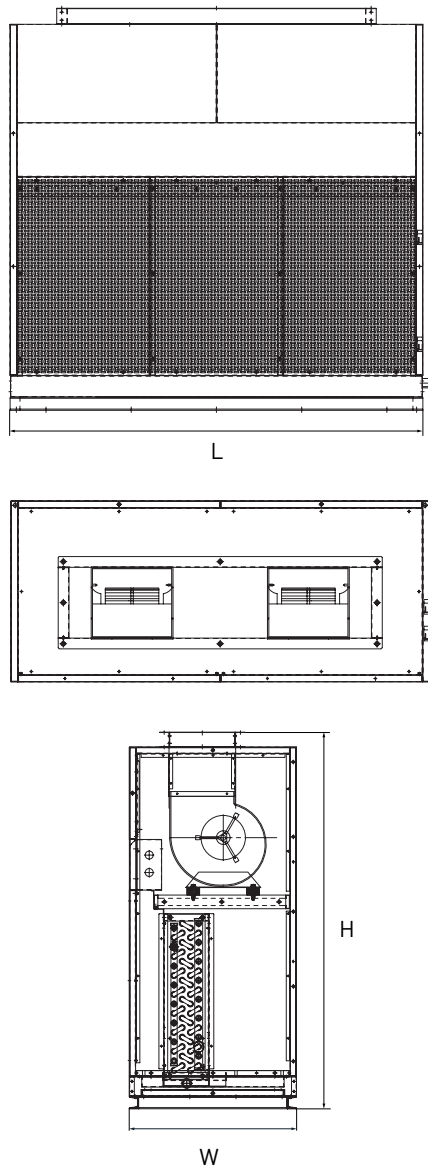
a. Cooling mode (4-pipe):

- Return air temperature: 27°C DB/19°C WB.
- Inlet/ outlet water temperature: 7°C/ 12°C

b. Heating mode (4-pipe):

- Return air temperature: 20°C
- Inlet water temperature: 65°C/55°C

DIMENSIONAL DRAWINGS, DATA & WEIGHTS



VAHU				200	300	400	600	800
CONSTRUCTION AND PACKING DATA	Cooling Water Connections	Type		PT (Threaded Female)				
		In	Out	31.75 1 [1/4]				
	Condensate Drainage Connection		mm [in]	25.4 [1]				
	Heating Water Connections (4P Only)	In	Out	25.4 [1]				
		L	W	850	1050	1250	1550	1880
	Dimensions	H	mm	670				
				1510				