

PDWB Built-In Pan

High ESP Ducted

Sizes: **3 sizes**
 Models: **2-pipe · 4-pipe**
 Rows: **3R · 3R+1 · 3R+2 · 4R · 4R+2 · 6R**
 Cooling: **4.9 - 25.3 kW**
 Heating: **2.4 - 27.0 kW**
 Air Flow: **612 - 4359 m3/h**



Download IOMs & Revits
SCAN QR CODE



Model shown: PDWB High ESP · size 1200

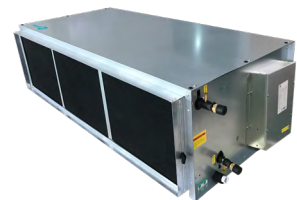
Designed for efficient heating and cooling with **reliable condensate management** and enhanced dehumidification, **ideal for industrial, commercial and healthcare applications.**



BACK



FRONT + TOP



BACK + TOP

Project Applications & References



Business: Offices · Data Server Rooms · Banks · Call Centers · Showrooms



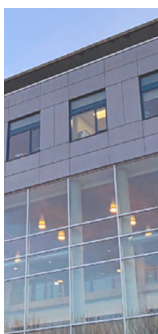
Healthcare: Hospitals · Clinics · Nursing Homes · Treatment Centers · Laboratories · Morgues



Commercial: Supermarkets · Stores · Shopping Malls · Gyms/Sports Facilities · Museums/Theaters · Airports



Industrial: Factories · Plants · Data Centers · Warehouses/Distribution Centers · Agricultural



Community College

2026 · Canada (British Columbia)
Educational (Campus Buildings)

Retrofit
EC motor
4-pipe model



Office HQ

2025 · Costa Rica
Business (Large Office Headquarters)

Retrofit
EC motor
2-pipe model



Key Features & Components



Draw-through design that keeps coil under negative pressure for more efficient dehumidification.



Sealed internal drain pan that maintains airtightness and **prevents condensate leakage**.



Ideal for low temperature heat sources like **solar thermal collectors and heat pumps**.



Multiple rows available (2- and 4-pipe): More rows and coil surface area **improves heat exchange and latent capacity** for better efficiency and humidity control.



For high external static pressures up to 200 Pa / 0.8 in.wg. **Recommended: 150 Pa / 0.6 in.wg.**



Energy-efficient 0-10 VDC EC motor (**up to 30% energy savings** compared to AC motors).



Copper tubes/headers, mechanically expanded into corrugated aluminum fins tested up to 35-bar ².



Ready to install package:

Internal painted steel drain pan, 5 mm (0.2") NBR insulation, manual air vent + water purge valve, G2 (MERV 4) filter & 25.4 mm (1") toolless filter rack.

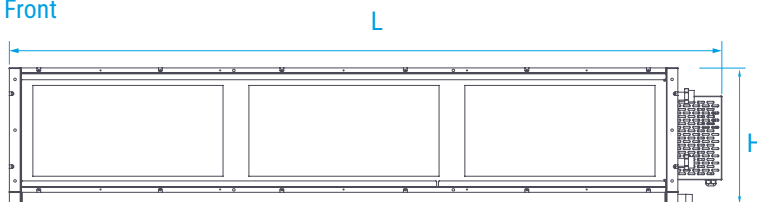
Optional Accessories

- **I-Type Controllers:** Wired Wallpad
- **Valves:** pre-assembled **HYDR-C+VALVE KIT** ³
- **Condensate pump:** integrated Sauermann with float switch
- **Drain pan:** stainless steel
- **Insulation:** 10mm (0.3") or 15 mm (0.6") NBR
- **Electric heater:** up to 9kW
- **Air:** Supply/return plenum, damper, diffuser & manual louver
- **Filter:** G4 (MERV 8) or F8 (MERV 14)
- **Integrated transformer:** converts from 230V-115V to 24V for valve and thermostat compatibility
- **Disconnect switch:** integrated in control box
- **Customization:** available upon request ¹

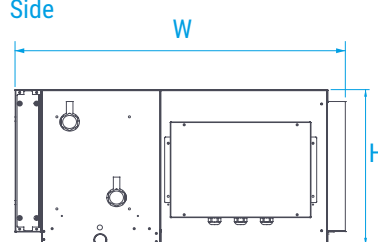
Dimensions, Weights & Drawings

PDWB SIZES*			1200	1600	2400
Unit Dimensions	L	mm ["]	1100 [43 11/16]	1461 [57 1/2]	1761 [69 5/16]
	W		630 [24 13/16]	650 [25 9/16]	750 [29 1/2]
	H		300 [11 13/16]	380 [14 15/16]	430 [16 15/16]
Net Weight		kg [lbs]	55 [120]	64 [140]	79 [175]

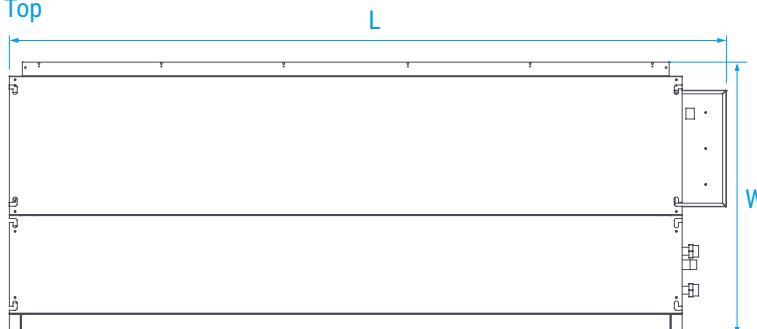
Front



Side



Top



(1) Minimum order quantities apply. (2) Tested between 25-35 bar with a max operating limit of 16-bar. (3) HYDR-C+ VALVE KIT includes 2/3-way body valve, on-off/modulating actuator (24V or 110-240V), BSPT or NPT connectors, connection piping kit, 2x shut-off valves, strainer and manual balancing valve. (*) Indicated dimensions approximate within 5 mm or 1/16". Weights approximate within 1 kg (2.2 lbs). Based on 3R configuration. For other row configuration dimensions/weights, please contact us.

PDWB Built-in Pan High ESP Ducted

Technical Specifications

Hydronic High ESP Ducted, 3R, 2-pipe with EC Motor

For other row configuration technical data, please contact us at hello@polaraircs.com.

UNIT GENERAL SPECS	PDWB-3R-[SIZE]-V-EC			1200	1600	2400
	Configuration			2-pipe		
	Number of Fan Blowers			2		4
	Power Supply (V/Ph/Hz)			208-240/1/50-60		
	Water Connections	Type		BSPT (Threaded Male)		
		In/Out	mm ["]	19.05 [3/4]		25.4 [1]
	Condensate Drainage		mm ["]	19.05 [3/4]		
AIR	Total Air Flow	H	m3/h	2379	2879	4359
		M		1992	2272	3824
		L		1048	1546	2438
	External Static Pressure	H	Pa	120	120	120
		M		120	120	120
		L		70	70	70
COOLING	Total Cooling Capacity	H	kW	10.8	13.6	20.5
		M		9.5	11.3	18.6
		L		5.7	8.4	13.1
	Sensible Cooling Capacity	H	kW	7.8	9.7	14.6
		M		6.8	8.0	13.1
		L		4.0	5.9	9.1
HEATING	Total Heating Capacity	H	kW	11.6	14.5	21.7
		M		10.2	12.0	19.6
		L		6.1	9.0	13.8
	Recommended Electric Heater Capacity		kW	5.0	6.0	6.0
SOUND *	Pressure Level (Outlet)		dBA	65/63/53	67/64/56	71/69/60
	Pressure Level (Inlet + Radiated)			62/60/50	64/61/53	68/66/57
	Power Level (Outlet)			74/72/62	76/73/65	80/78/69
	Power Level (Inlet + Radiated)			71/69/59	73/70/62	77/75/66
ELECTRICAL	Power Input ¹	H	W	360	480	780
		M		260	350	650
		L		66	120	160
	Running Current ² (H)		A	3.3	4.4	7.1
HYDRONIC	Cooling Water Flow Rate	H	L/h	1857	2327	3510
		M		1630	1936	3181
		L		982	1446	2244
	Cooling Pressure Drop	H	kPa	59.8	53.6	60.3
		M		47.3	38.5	50.5
		L		19.0	22.8	26.9
	Heating Water Flow Rate	H	L/h	1986	2482	3714
		M		1743	2065	3366
		L		1050	1542	2374
	Heating Pressure Drop	H	kPa	48.9	43.3	48.7
		M		38.7	31.1	40.8
		L		15.6	18.4	21.8
	Water Content		L	2.8	3.8	5.4

Eurovent Certita Testing Conditions:

Cooling mode: Return Air Temperature 27°C DB/19°C WB Inlet/Outlet water temperature: 7°C/12°C

Heating mode (2-pipe): Return Air Temperature 20°C Inlet/Outlet water temperature: 45°C/40°C

For non-standard conditions (i.e. high ΔT) please refer to PASELECT Software. (E) Specifications follow Eurovent test data (according to EN 1397:2021) for the year of publication. Please visit www.eurovent-certification.com for further information.

(1) Rated power input includes fan motor and PCB. (2) Data on apparent electrical current. (*) Sound pressure level measured at 1m distance in a reverberation test room with a minimum volume at 200m³. Sound power level performed and tested according to EN 16583:2022. Range: H=High, M=Medium, L=Low.

Technical Specifications

Hydronic High ESP Ducted, 3R+1, 4-pipe with EC Motor

For other row configuration technical data, please contact us at hello@polarairs.com.

UNIT GENERAL SPECS	PDWB-3R+1-[SIZE]-P-EC			1200	1600	2400
	Configuration			4-pipe		
	Number of Fan Blowers			2		4
	Power Supply (V/Ph/Hz)			208-240/1/50-60		
	Water Connections	Type		BSPT (Threaded Male)		
		In/Out	mm ["]	19.05 [3/4]		Cooling: 25.4 [1] Heating: 19.05 [3/4]
	Condensate Drainage			mm ["]	19.05 [3/4]	
AIR	Total Air Flow	H	m3/h	2267	2769	4232
		M		1866	2150	3678
		L		854	1382	2225
	External Static Pressure	H	Pa	120	120	120
		M		120	120	120
		L		70	70	70
	COOLING	Total Cooling Capacity	H	kW	10.4	13.2
M			9.0		10.8	18.1
L			4.9		7.7	12.2
Sensible Cooling Capacity		H	kW	7.5	9.4	14.2
		M		6.4	7.6	12.7
		L		3.4	5.3	8.4
HEATING	Total Heating Capacity	H	kW	5.1	6.4	9.7
		M		4.4	5.3	8.8
		L		2.4	3.7	5.9
SOUND *	Pressure Level (Outlet)		dBA	65/63/53	67/64/56	71/69/60
	Pressure Level (Inlet + Radiated)			62/60/50	64/61/53	68/66/57
	Power Level (Outlet)			74/72/62	76/73/65	80/78/69
	Power Level (Inlet + Radiated)			71/69/59	73/70/62	77/75/66
ELECTRICAL	Power Input ¹	H	W	360	480	780
		M		260	350	650
		L		66	120	160
	Running Current ² (H)		A	3.3	4.4	7.1
HYDRONIC	Cooling Water Flow Rate	H	L/h	1790	2255	3429
		M		1545	1857	3096
		L		845	1316	2087
	Cooling Pressure Drop	H	kPa	55.9	50.6	57.8
		M		43	35.7	48.1
		L		14.5	19.2	23.7
	Heating Water Flow Rate	H	L/h	868	1096	1667
		M		750	902	1505
		L		410	639	1015
	Heating Pressure Drop	H	kPa	20.7	18.8	53.3
		M		15.9	13.2	44.3
		L		5.4	7.1	21.8
	Water Content (Cooling)		L	2.8	3.8	5.4
	Water Content (Heating)			0.9	1.3	1.8

Eurovent Certita Testing Conditions:

Cooling mode: Return Air Temperature 27°C DB/19°C WB Inlet/Outlet water temperature: 7°C/12°C

Heating mode (4-pipe): Return Air Temperature 20°C Inlet/Outlet water temperature: 65°C/55°C

For non-standard conditions (i.e. high ΔT) please refer to PASELECT Software. (E) Specifications follow Eurovent test data (according to EN 1397:2021) for the year of publication. Please visit www.eurovent-certification.com for further information.

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