HORIZONTAL	
MINI AIR	HAHU-EC
HANDLING	[ EC MOTOR ]
UNIT	
VERTICAL	
MINI AIR	VAHU-EC
HANDLING	[ EC MOTOR ]
UNIT	

# MINI AHU DUCTED **FAN COILS**





#### HAHU - HORIZONTAL MINI AIR HANDLING UNIT



#### **FEATURES**



#### **CONTROL FLEXIBILITY**

Two types of control system: <u>Intelligent control board</u> (I-Control) controlled via Infra-red handset and/or Intelligent wired wall pad or <u>Flexible control</u> (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**

ſ		
	25	
	s U	
Ľ		

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.

	-		
•		וכ	
		51	
		1	
•	-	21	

#### 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.

5	3
א[	25

#### **READY TO INSTALL**

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

CE

#### **KEY POINTS**

- Auto Dynamic Balancing with I-Control
- External Static Pressure up to 350 Pa.
- Compact dimension with Cooling capacity more than 60 kW and 9000 m3/h of airflow available.
- 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
- Integrated Condensate Pump
- Supply/Return air Plenum
- Stainless Steel Drain Pan

\*Please refer to page 80 for further information and accesories.



#### **TECHNICAL SPECIFICATIONS**

#### Hydronic Horizontal Mini Air Handling Unit, 5R, 2 Pipe with EC Motor

	HAHU-5R-[Size]	-V-EC	:M	200	300	400	600	800	
UNIT	Configurat	ion		2-pipe					
GENERAL SPECS	Number of Fan	Blowe	rs	1 2				2	
	Power Supply (V	/Ph/H	lz)		220	0 - 240/1/50 -	60		
	ŀ			2222	3160	4093	6321	8186	
	Total Air Flow	М	m3/h	1912	2703	3495	5407	6990	
AIR		L		1361	1916	2475	3833	4950	
	External Static Pressure	H M L	Pa			120			
	Total	н		14.67	20.89	26.13	40.34	50.83	
	Cooling	Μ		13.06	18.51	23.07	35.74	44.88	
COOLING	Capacity	L	kW	10.09	14.13	17.62	27.28	34.27	
COOLING		н		10.27	14.50	18.40	28.29	35.80	
	Sensible Cooling Capacity	М		9.09	12.72	16.06	24.81	31.25	
		L		6.91	9.59	12.13	18.70	23.60	
		н		13.66	19.36	24.70	37.81	48.10	
	Heating Capacity	М	kW	12.16	17.15	21.81	33.49	42.47	
HEATING		L		9.40	13.09	16.65	25.57	32.43	
	Max. Electric Heate Capacity		kW	4.5	6	7.5	ç	9	
	Pressure Level (Outl	Pressure Level (Outlet)		73/68/64	78/73/69	80/75/71	81/76/72	83/78/73	
	Pressure Level (Inlet + Radiated)		dB(A)	70/65/61	75/70/66	77/72/68	78/73/69	80/75/70	
SOUND	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	
ĺ	Power Input	н		412	850	1015	1700	2030	
		м	w	375	650	850	1,300	1,530	
ELECTRICAL		L		320	350	500	700	1000	
	Running Current (H	)	A	3.58	7.39	8.83	14.78	17.65	
		н		2514	3582	4480	6916	8714	
	Cooling Water Flow Rate	М	L/h	2239	3173	3955	6126	7694	
		L		1730	2422	3020	4677	5874	
		н		29.9	64.2	30.1	48.5	43.5	
	Cooling Pressure Drop	М	kPa	24.3	51.6	24.0	39.0	34.7	
HYDRONIC		L		15.3	31.7	14.8	24.0	21.4	
		н		2342	3318	4234	6482	8246	
	Heating Water Flow Rate	М	L/h	2085	2939	3739	5741	7281	
		L		1611	2244	2854	4383	5559	
		н		22.1	47.1	22.8	36.3	33.2	
	Heating Pressure Drop	М	kPa	17.9	37.9	18.2	29.2	26.5	
		L		11.3	23.3	11.2	17.9	16.3	

#### **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 Horizontal Mini AHU, 5R+2 (Auxiliary Heating Coil), 4 Pipe with EC Motor

	HAHU-5R+2-[Siz	e]-P-E	СМ	200	300	400	600	800
UNIT	Configuration		4-pipe					
GENERAL SPECS	Number of Fan Blowers				1		:	2
	Power Supply (\	//Ph/ŀ	łz)		220	0 - 240/1/50 -	60	
		н		1999	3000	3942	6000	7884
	Total Air Flow	м	m3/h	1773	2603	3400	5206	6801
AIR		L		1286	1862	2424	3724	4847
-	External Static Pressure	H M L	Pa			120		
	Total	н		13.46	20.00	25.37	38.62	49.35
	Cooling	м		12.36	18.05	22.67	34.86	44.10
COOLUNE	Capacity	L	kW	9.63	13.78	17.40	26.61	33.84
COOLING		н	RVV	9.39	13.86	17.84	27.02	34.71
	Sensible Cooling Capacity	М		8.54	12.38	15.76	24.14	30.67
		L		6.58	9.35	11.97	18.23	23.29
		н	kW	13.28	19.15	24.65	37.25	47.26
HEATING	Heating Capacity	м		12.19	17.28	22.03	33.62	42.23
		L		9.50	13.20	16.90	25.67	32.40
	Pressure Level (Outl	et)		73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
	Pressure Level (Inlet + Radiated) Power Level (Outlet) Power Level (Inlet + Radiated)		dB(A)	70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
SOUND				82/77/73	87/82/78	89/84/80	90/85/81	92/87/82
				79/74/70	84/79/75	86/81/77	87/82/78	89/84/79
		н		412	850	1015	1700	2030
ELECTRICAL	Power Input	м	w	375	650	850	1,300	1,530
ELECTRICAL		L		320	350	500	700	1000
	Running Current (F	I)	A	3.58	7.39	8.83	14.78	17.65
		н		2308	3428	4349	6620	8460
	Cooling Water Flow Rate	м	L/h	2118	3095	3887	5976	7560
		L		1650	2363	2982	4562	5801
		н		25.7	59.3	28.5	44.8	41.2
	Cooling Pressure Drop	м	kPa	22.0	49.3	23.3	37.3	33.7
HYDRONIC		L		14.0	30.4	14.5	22.9	20.9
mente		н		1138	1641	2113	3193	4051
	Heating Water Flow Rate	М	L/h	1045	1481	1888	2882	3620
		L		814	1131	1448	2200	2778
		н		15.0	34.4	16.6	48.8	26.7
	Heating Pressure Drop	М	kPa	12.9	28.6	13.6	40.6	21.8
		L		8.2	17.6	8.4	25.0	13.5

#### **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



#### LOOKING FOR DIFFERENT CONFIGURATIONS?

While the most common configurations are specified in the previous sections, we have many more available with over +2,500 product configurations in our portfolio. **Here is a sneak peak of different configurations available for this range.** Further information can be accessed through:

PASelect Selection software Polar Air CS website By contacting your sales representative

#### +2 PIPE CONFIGURATIONS AVAILABLE



**6 Row Coil** configurations are available for applications requiring higher capacity. Other advantages include:

**Enhanced Heat Transfer Efficiency:** Larger surface area ensures better heat exchange and allows for operating with warmer chilled water temperatures typical with air to water heat pumps. **Improved Latent Capacity:** Increasing the coil surface area allows the air to flow across the coil longer and increase the amount of moisture removed from the air.

#### +4 PIPE CONFIGURATIONS AVAILABLE



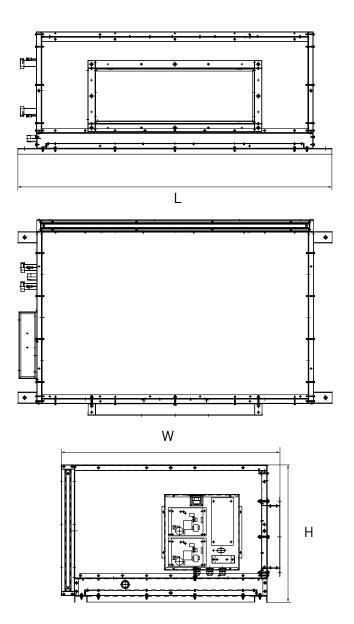
**6 Rows Cooling +2 Row Heating Coil** configurations are available for 4 pipe systems where more heating is required. Other advantages include:

**Enhanced Heat Transfer Efficiency:** Larger surface area ensures better heat exchange and allows for operating with lower hot water temperatures typical with air to water heat pumps.

Active Humidity Control: The higher capacity 2-row heating coil provides more reheating of the air which allows the cooling coil to achieve lower dewpoint temperatures and lower space humidity without sacrificing comfort.



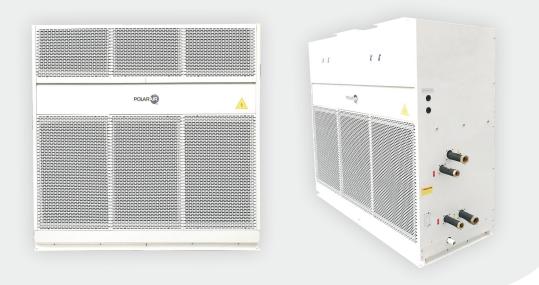
#### DIMENSIONAL DRAWINGS, DATA & WEIGHTS



НАНИ			200	300	400	600	800			
	Water T		/pe		PT (Threaded Female)					
	Connections	In Out	mm			31.75 (1 1/4)				
	Condensate Drainage Connectior	LIII		25.4 (1)						
AND PACKING DATA	Heating Water Connections (4P Only)	In Out	mm [in]			25.4 (1)				
		L		1280	1480	1680	1930	2130		
	Dimensions	w	mm		112	20		1190		
		н			640		75	54		
WEIGHT	Net	k	g	From 150 to 165	From 175 to 185	From 186 to 210	From 223 to 250	From 225 to 283		



#### **VAHU -** VERTICAL MINI AIR HANDLING UNIT



#### **FEATURES**



#### **CONTROL FLEXIBILITY**

Two types of control system: <u>Intelligent control board</u> (I-Control) controlled via Infra-red handset and/or Intelligent wired wall pad or <u>Flexible control</u> (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

	20	
U		

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.

	-		
•		וכ	
		51	
		1	
•	-	21	

#### 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.

5	3
ל	

#### **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 sándwich 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 accesories.





#### **TECHNICAL SPECIFICATIONS**

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

	VAHU-5R-[Size]	I-V-EC	СМ	200	300	400	600	800	
UNIT	Configuration			2-pipe					
GENERAL SPECS	Number of Fan Blowers			1 2			2		
	Power Supply (V	Power Supply (V/Ph/Hz)			220	0 - 240/1/50 -	60		
		н	m3/h	2222	3160	4093	6321	8186	
415	Total Air Flow	М		1912	2703	3495	5407	6990	
AIR		L		1361	1916	2475	3833	4950	
	External Static Pressure	H M L	Pa			120			
	Total	н		14.62	20.68	26.34	38.46	50.52	
	Cooling	М		13.02	18.32	23.26	34.06	44.61	
COOLING	Capacity	L	kW	10.06	13.98	17.76	26.00	34.06	
COOLING	Sensible	н		10.20	14.46	18.44	27.16	35.49	
	Cooling	М		9.02	12.68	16.10	23.82	30.98	
	Capacity	L		6.86	9.56	12.16	17.95	23.39	
		н		13.55	19.20	24.70	36.64	47.64	
HEATING	Heating Capacity	м	kW	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	9	
	Pressure Level (Outl	et)		73/68/64	78/73/69	80/75/71	81/76/72	83/78/73	
	Pressure Level (Inlet + Radiated)	Pressure Level (Inlet + Radiated)		70/65/61	75/70/66	77/72/68	78/73/69	80/75/70	
SOUND	Power Level (Outlet)		dB(A)	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	
		н		412	850	1015	1700	2030	
	Power Input	м	w	375	650	850	1300	1530	
ELECTRICAL		L		320	350	500	700	1000	
	Running Current (H	D	A	3.58	7.39	8.83	14.78	17.65	
		н		2506	3545	4516	6592	8661	
	Cooling Water Flow Rate	м	L/h	2232	3140	3987	5840	7647	
		L		1725	2397	3044	4458	5838	
		н		54.0	64.8	38.0	38.3	73.6	
	Cooling Pressure Drop	м	kPa	43.8	52.1	30.4	30.8	58.8	
HYDRONIC		L		27.5	32.1	18.7	18.9	36.2	
Indiconic		н		2323	3291	4234	6282	8166	
	Heating Water Flow Rate	м	L/h	2068	2915	3739	5564	7210	
		L		1598	2225	2854	4247	5505	
		н		39.8	47.9	28.5	29.5	56.1	
	Heating Pressure Drop	м	kPa	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

	VAHU-5R+2-[Siz	e]-P-E	СМ	200	300	400	600	800
UNIT	Configuration		4 pipe					
GENERAL SPECS	Number of Fan	Blowe	ers		1		:	2
	Power Supply (\	//Ph/H	lz)		220	0 - 240/1/50 -	60	
	Total Air Flow	н		1999	3000	3942	6000	7884
		м	m3/h	1773	2603	3400	5206	6801
AIR		L		1286	1862	2424	3724	4847
	External Static Pressure	H M L	Pa			120		
	Total	н		13.42	19.80	25.57	36.81	49.05
	Cooling	М		12.32	17.87	22.85	33.23	43.83
	Capacity	L	1347	9.60	13.64	17.53	25.37	33.63
COOLING		н	kW	9.32	13.82	17.88	25.95	34.41
	Sensible Cooling Capacity	М		8.48	12.34	15.80	23.18	30.41
		L		6.53	9.32	12.00	17.50	23.09
		н		12.87	21.38	24.78	35.47	46.45
HEATING	Heating Capacity	м	kW	11.82	19.30	22.15	32.02	41.51
		L		9.20	14.73	16.99	24.45	31.85
	Pressure Level (Outl	et)		73/68/64	78/73/69	80/75/71	81/76/72	83/78/73
SOUND	Pressure Level (Inlet + Radiated)			70/65/61	75/70/66	77/72/68	78/73/69	80/75/70
	Power Level (Outle		dB(A)	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
		н		412	850	1015	1700	2030
	Power Input	м	w	375	650	850	1300	1530
ELECTRICAL		L		320	350	500	700	1000
	Running Current (H	I)	Α	3.58	7.39	8.83	14.78	17.65
		н		2301	3393	4384	6310	8408
	Cooling Water Flow Rate	м	L/h	2112	3063	3918	5696	7514
		L		1645	2339	3006	4349	5765
		н		46.3	59.9	36.1	35.4	69.7
	Cooling Pressure Drop	м	kPa	39.7	49.8	29.5	29.4	57.0
HYDRONIC		L		25.3	30.7	18.3	18.1	35.4
IT DRONIC		н		1103	1832	2124	3041	3981
	Heating Water Flow Rate	М	L/h	1013	1654	1898	2745	3558
		L		789	1263	1456	2095	2730
		н		8.6	21.3	39.1	38.6	74.8
	Heating Pressure Drop	м	kPa	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

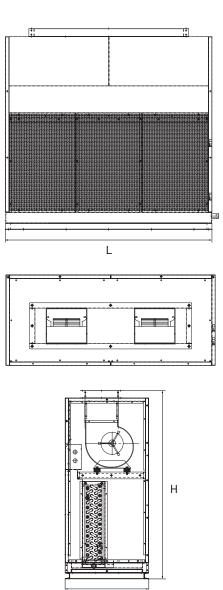
#### b. Heating mode (4-pipe):

• Return air temperature: 20°C

• Inlet water temperature: 65°C/55°C



#### DIMENSIONAL DRAWINGS, DATA & WEIGHTS



W

VAHU			200	300	400	600	800	
	Cooling Water Connections	Ту	pe	PT (Threaded Female)				
		In Out	mm	31.75 1 [1/4]				
CONSTRUCTION	Condensate Drainage UCTION Connection CKING Heating In		25.4 [1]					
AND PACKING DATA				25.4 [1]				
Dime		L		850	1050	1250	1550	1880
		w	mm			670		
		н				1510		

# OUR FAN COILS



All Polar Air fan coil units offer maximum levels of control flexibility, by selecting from two types of controllers depending on application needs.





CONTROLLED WITH EXTERNAL THERMOSTAT APPLICATIONS OR EXTERNAL CONTROLLER

[W-CONTROL]



### **[I-CONTROL]** PCB WITH INTELLIGENT FUNCTIONALITY

The PCB microprocessor intelligent control board controls the operation of the indoor fan motor, ON/OFF or modulating water valves, and electric heaters (if fitted) to maintain room conditions at a user-defined set point.

- Full control logic connectivity via Modbus RTU or using a gateway with other communication protocols.
- Auto Fan Speed control for EC.
- Modulating Valve Control to adjust the water flow 100% according to the room temperature and set temperature.
- Auto Restart function.
- Drain Pump control (If installed)
- Autodynamic balancing function for Variable Water Flow system installations.

#### [W-CONTROL] FLEXIBLE CONTROL PCB

This control option features flexible functionality for external thermostat applications, allowing the independent control of drain pumps and limited LED diagnostics.

- Independent control of drain pumps (if installed)
- Zone control operations
- Limited LED Diagnostics
- Louver control (when applicable).



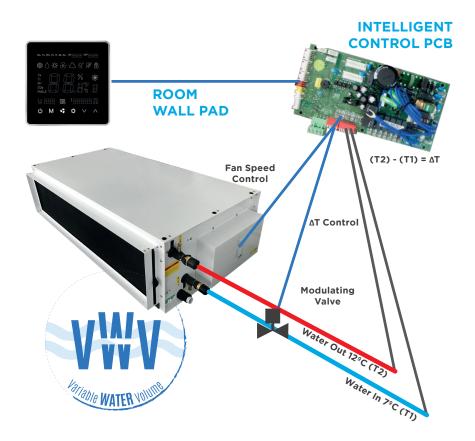
#### WHAT DO WE CALL INTELLIGENT FUNCTIONALITY? EXPLAINING THE AUTODYNAMIC BALANCING FUNCTION

The I-Control, also known as the Intelligent control, goes a step further than your typical control PCB.

There is a certain calculated load for every space that a fan coil will serve, but this of course, is not constant. Occupancy, lighting, even an open window, can affect the required load for a space. The typical solution for this is a PICV (pressure independent control valve), but that comes at quite a cost premium.

With our Intelligent control, we do away with the PICV and simply install temperature sensors within the water inlet and outlet, air inlet, and in the space from our own Wired Wall Pad, to monitor those points.

With that data, the "intelligence" of the unit is able to modulate the valve and fan speed to maintain the delta T setpoint this is what we call "Auto Dynamic Balancing" providing optimal cooling to the space at all times. All of this coming in one package at a much lower cost than going with a 3rd party PICV.







# OUR ACCESSORIES





#### **01. CONTROLLERS**

#### [WWP-V3] WIRED WALL PAD CONTROL (AVAILABLE WITH I-CONTROL)

Features: 7 days ON/OFF timer program | Addressable Main and Secondary units allowing control of up to 32 Secondary units via a single Main Unit with set or check of each unit parameters individually | Error display with addressable error diagnostic (Main unit Wall Pad displays Secondary unit address and error type) | One-Touch Global Control (Global Control Main Unit Wall Pad controls all units in the group) | Onboard Room Air Temperature Sensor.



#### [IRHS-V1] REMOTE INFRARED HANDSET (AVAILABLE WITH I-CONTROL)

With Global Control functionality for Main and Secondary Unit groups.

#### **02. CONTROL OPTIONS**

#### **ABS LED RECEIVER**

IR receiver in ABS housing with up to 180cm (70in) length prewiring, which can be connected with TOTAL controls only. LED lights show working mode or error mode.



# **DUR ACCESSORIES**

82

#### DIFERENTIAL PRESSURE TRANSDUCER

This device converts the air pressure difference to a proportional electrical output (0-10 VDC/0-5 VDC/4-20 mA). It is suitable for detecting abnormal airflow at the fan coil unit for safety (cutting off electric heater) or maintenance (air filter cleaning) purposes.





#### **03. VALVE KITS**

#### **2 OR 3 WAY BYPASS THERMOELECTRIC VALVES**

2-way or 3-way valve bodies with ON/OFF or modulating actuators integrated with copper piping connection kits.

\* Piping connection kits vary among the different ranges.

#### **2 OR 3 WAY BYPASS BALL VALVES**

2-way or 3-way bypass ball valve bodies with motorized or 24VAC modulating actuators integrated with Copper Piping Connection Kits.

\* Piping connection kits vary among the different ranges.



#### **04. UPGRADED FILTERS**

All our fan coils come with a nylon filter installed as standard. If you want an upgrade on those filters, you can choose between:

• G4 (MERV 8)

Available with 3M HAF grade.

• F8 (MERV 14)





Model	Standard	Optional		
Model	G2- MERV 4	G4-MERV8	F8-MERV14	
PHW	1/8″	-	-	
PCGH-3R	1/8″	3/8"	-	
PDWSL	1/4″	1/4″	-	
PDWA	1/4″	1″	-	
PDWC	1/4″	1″	-	
PDWD	1″	1″	-	
НАНИ	1″	1″	2"	
VAHU	1″	1″	2"	
PFWBC-VAR	1/8″	-	-	
PFWBC-HAR	1/4″	1/4″	-	
PFWB	1/4″	-	-	
PFWSLN	1/8″	-	-	



POLAR

#### PTC ELECTRIC HEATER KIT

With 2-stage safety cut-out and can be configured as booster heaters or primary heaters.

#### **TUBE ELECTRIC HEATER KIT**

With 2-stage safety, cut-outs can be configured as booster heaters or primary heaters. It can be easily installed onsite or in stock via plug-and-play wiring and brackets.



#### **MODULE ELECTRIC HEATER KIT**

The electric heater module is supplied for winter heating as an alternative to the auxiliary hot water coil. We offer a complete range of electric heaters kits, easy to connect to control box, with mounting fixture. The electric heater configuration is selectable by the DIP switch on the internal control board.



Model	EH KIT (kW)				
Model	Module	PTC	Tube		
PHW	-	05 to 1.5	-		
PCGH-3R	-	-	0.5 to 4		
PCSL	-	0.5 to 1	-		
PDWSL	0.75 to 3	-	-		
PDWA	1 to 6		-		
PDWC	1.5 to 9		-		
PDWD	3 to 9		-		
HAHU	4.5 to 9		-		
VAHU	4.5 to 9		-		
PFWB(C)	-	0.5 to 3	-		
PFWSLN	-	0.5 to 1.5	-		

\* Non-standard electric heater sizes available under request. Contact us for further information.



#### **06. DRAIN PANS**

#### **STAINLESS STEEL DRAIN PAN**

To choose between left or right side coil connections.

#### PAINTED STEEL DRAIN PAN

**For Horizontal installations:** Painted steel drain pans for built-in horizontal floor standing fixed wall installations with right or left-sided coil connections.

**For Vertical installations:** Painted steel drain pans for suspended ceiling installations with right or left-sided coil connections.



Model	ABS Plastic	Powder-coated Steel	Stainless Steel
PHW	Standard - Integrated	-	-
PCGH-3R	Standard - Integrated	-	-
PCSL	Standard - Integrated		
PDWSL	-	Standard - Integrated	Optional
PDWA	-	Standard - External	Optional
PDWC	-	Standard - External	Optional
PDWD	-	Standard - Integrated	Optional
HAHU	-	Standard - Integrated	Optional
VAHU	-	Standard - Integrated	Optional
PFWB(C)	-	Standard - Integrated	Optional
PFWSLN	-	Standard - Integrated	Optional

#### **07. FLANGES**

#### FOR FRESH AIR

Allows up to 15% of unit airflow up to a maximum of 100m3/h as fresh air intake (per connection).

The PCGH-3R Cassette comes with knock out fresh air connection holes. ABS plastic flanges use only two screws for fixture to unit.

#### FOR BRANCH DUCT

For delivery of treated air to adjacent spaces with 2 connectors per single fan model. Available for PCGH-3R Cassette ranges.







#### **08. NBR INSULATION**

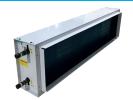
All of our fan coils are equipped with NBR plastic foam standard insulation. We do offer an optional upgrade for projects that require higher levels of insulation , which contributes to maintaining thermal performance and improves sound attenuation.



Model	Standard (mm)	Optional (mm)
PHW	5	-
PCGH-3R	5	-
PCSL	5	-
		10
PDWSL	5	15
		25
	5	10
PDWA		15
		25
		10
PDWC	5	15
		25
PDWD	15+25	-
HAHU	10+25	-
VAHU	10+25	-
PFWB(C)	5	-
PFWSLN	5	-

#### **09. AUXILIARY HEATING COILS**

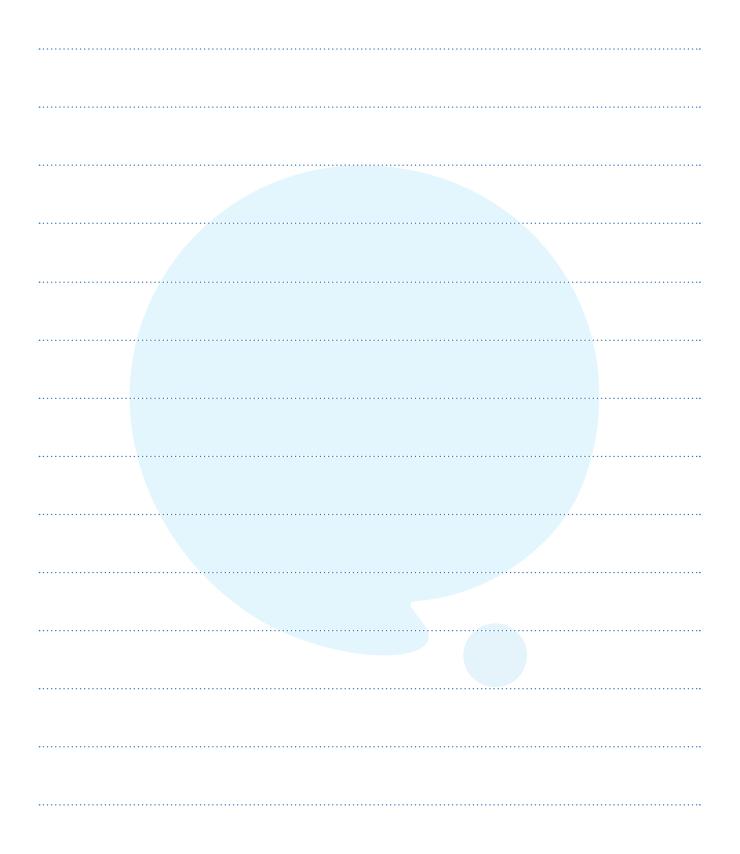
To choose for either one or two rows, depending on your specific heating project requirements.



Model	+ 1 Row	+ 2 Row
PDWSL	√	-
PDWA	~	~
PDWC	~	-
PDWD	$\checkmark$	~
HAHU	-	$\checkmark$
VAHU	-	$\checkmark$



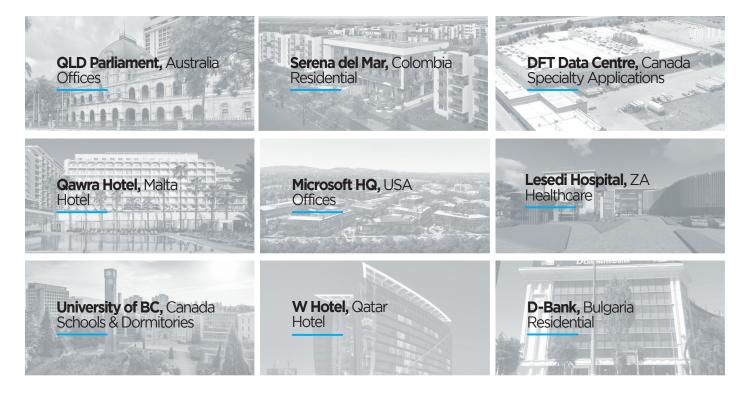
#### NOTES





# All over the **WORLD!**

With over 500 projects installed; we develop Indoor Climate Solutions adapted for all kinds of applications.





#### Find more here: https://polaraircs.com/projects/

# Discover polaraircs.com

**Download Technical Information & Find out more about our Products** 



