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POLAR AIR

Hydronic Fan Coil Units

Quick Reference Guide

POLAR AIR QUICK REFERENCE GUIDE

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This Quick Reference Guide is designed to provide professionals with the support they need. It is your go-to resource for our hydronic fan coil range, providing essential capacities at a glance. Designed for engineers, contractors, and specifiers, it ensures you have the right information in a simple to follow format. Whether you're planning a new installation or retrofitting existing systems, this guide is your essential companion.

WHY CHOOSE HYDRONIC SYSTEMS?

Water is a better medium for energy transfer, delivering unparalleled efficiency, lower operational costs, and a dramatically reduced carbon footprint compared to refrigerant-based (VRF) systems. It's a technology that not only optimises climate control, but also aligns with modern sustainability goals.

Energy-efficient

Water is a better medium for transporting energy compared to VRF systems. It carries significantly more thermal energy per unit volume than air, so less energy is needed to heat or cool, reducing operational costs and energy consumption.

Flexible

Water-based fan coils offer exceptional flexibility, as HVAC system components can be sourced from different manufacturers, making design and replacement easier. This means greater customisation and adaptability, across all types of applications.

Easy to install & maintain

No specialised labour is needed, making installation easier and cheaper. This simplicity is perfect for large projects, new builds, and installations in remote where specialised VRF installers may not be available. Plus, it's easy to replace, repair or maintain.

Sustainable

Using water eliminates the need for refrigerants, and therefore reduces greenhouse gas emissions. Water is a renewable, non-toxic and non-flammable resource with no environmental regulations, making it safer and more sustainable.

Reliable

Water-based systems have fewer moving parts, resulting in less wear and tear, extended equipment lifespan and reduced maintenance costs. Water is infinite and it never changes, ensuring long-lasting, reliable solutions.

Indoor air quality

Water-based systems improve indoor air quality by minimising the circulation of dust and allergens. This results in a healthier and cleaner environment. Water-based systems help maintain consistent humidity levels, further enhancing comfort and air quality.

These hydronic fan coils shall comply with ISO9001, CB, ETL and CE requirements.
All models are also certified by Eurovent and AHRI to ensure reliable performance and quality.

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DECORATIVE RANGE
WITH 0-10V DC EC MOTORS

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PHW Highwall
2 & 4 pipe · 6 sizes

Standard package:

- Internal drain pan
- 5mm NBR insulation
- G2 filter

Optional accessories:

- Integrated valves (2/3 way on-off / modulating)
- Sauermann condensate pump
- Electric heater up to 1.5 kW

	Motor Voltage	Cooling Capacity	Heating Capacity	Air	Sound Pressure Level*
	Limits V	Total kW	Total kW	Flow m³/h	Total dB(A)
Min-Max	208 - 240	1.1 - 6.6	1.2 - 6.6	200 - 1250	25 - 56

PCGH-3R 4-Way Cassette
2 & 4 pipe · 5 sizes

Standard package:

- Integrated Sauermann condensate pump
- Internal drain pan
- 5mm NBR insulation
- G2 filter

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- G4 filter
- ABS fresh air intake flange (up to 30%)
- ABS branch duct
- Electric heater up to 4 kW

	Motor Voltage	Cooling Capacity	Heating Capacity	Air	Sound Pressure Level*
	Limits V	Total kW	Total kW	Flow m³/h	Total dB(A)
Min-Max	208 - 240	1.1 - 15.0	1.3 - 14.8	190 - 2750	26 - 64

Tested under Eurovent Certita standard conditions.
(*) Sound pressure level measured at 1m distance.
(**) HYDRO+ VALVE KIT includes 2/3-way body valve, on-off/modulating actuator, strainer, connection pipe, 2x shut-off valve and BSP/NPT connectors.

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FLOOR STANDING/ CONSOLE RANGE

WITH 0-10V DC EC MOTORS

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PFWB(C) Universal
2 & 4 pipe · 9 sizes

Standard package:

- V-shape internal drain pan (for horizontal or vertical installation)
- 5mm NBR insulation
- G2 filter
- Interchangeable coil connections

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Stainless steel drain pan
- G4 filter
- Supporting feet for floor installation
- Elbow kit for built-in wall installation
- Electric heater up to 3 kW

	Motor Voltage	Cooling Capacity	Heating Capacity	Air	Sound Pressure Level*
	Limits V	Total kW	Total kW	Flow m³/h	Total dB(A)
Min-Max	208 - 240	1.2 - 13.3	1.1 - 13.9	210 - 2266	29 - 60

PFWSL(U) Slim
2 & 4 pipe · 5 sizes

Standard package:

- V-shape internal drain pan (for horizontal or vertical installation)
- 5mm NBR insulation
- G2 filter

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Stainless steel drain pan
- Supporting feet for floor installation
- Electric heater up to 1.5 kW
- Integrated Wired Wallpad

	Motor Voltage	Cooling Capacity	Heating Capacity	Air	Sound Pressure Level*
	Limits V	Total kW	Total kW	Flow m³/h	Total dB(A)
Min-Max	208 - 240	0.6 - 4.2	0.7 - 3.9	100 - 600	29 - 47

Tested under Eurovent Certita standard conditions.
(*) Sound pressure level measured at 1m distance.
(**) HYDRO+ VALVE KIT includes 2/3-way body valve, on-off/modulating actuator, strainer, connection pipe, 2x shut-off valve and BSP/NPT connectors.

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DUCTED RANGE
WITH 0-10V DC EC MOTORS

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PDWA Medium ESP
2 & 4 pipe · 10 sizes · 3R/3R+1/3R+2/4R/4R+2/6R

Standard package:

- Exposed drain pan
- 5mm NBR insulation
- G2 filter
- Interchangeable coil connections

Recommended conditions: 75 Pa

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Integrated condensate pump with float switch
- G4 filter
- Additional 25mm NBR insulation
- Electric heater up to 6 kW

	Motor Voltage	Cooling Capacity	Heating Capacity	Air		Sound Pressure Level*	
	Limits V	Total kW	Total kW	Flow m³/h	ESP Pa	Outlet dB(A)	Inlet + Rad.dB(A)
Min-Max	208 - 240	1.6 - 23.6	1.2 - 23.2	225 - 3877	15 - 130	39 - 59	42 - 61

PDWC High ESP
2 & 4 pipe · 8 sizes · 3R/3R+1/4R/4R+1

Standard package:

- Exposed drain pan
- 5mm NBR insulation
- G2 filter

Recommended conditions: 120 Pa

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Integrated condensate pump with float switch
- G4 filter
- Additional 25mm NBR insulation
- Electric heater up to 6 kW

	Motor Voltage	Cooling Capacity	Heating Capacity	Air		Sound Pressure Level*	
	Limits V	Total kW	Total kW	Flow m³/h	ESP Pa	Outlet dB(A)	Inlet + Rad.dB(A)
Min-Max	208 - 240	1.9 - 26.5	1.4 - 24.5	259 - 4534	50 - 180	43 - 64	46 - 67

PDWSL Slim
2 & 4 pipe · 3 sizes · 3R/3R+1

Standard package:

- Integrated Sauermann condensate pump
- 5mm NBR insulation
- G2 filter

Recommended conditions: 120 Pa

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Stainless steel drain pan
- G4 filter
- Additional 10mm NBR insulation
- Electric heater up to 3 kW

	Motor Voltage	Cooling Capacity	Heating Capacity	Air		Sound Pressure Level*	
	Limits V	Total kW	Total kW	Flow m³/h	ESP Pa	Outlet dB(A)	Inlet + Rad.dB(A)
Min-Max	208 - 240	1.1 - 6.4	0.9 - 6.5	175 - 1255	0 - 30	22 - 46	25 - 49

Tested under Eurovent Certita standard conditions.
(*) Sound pressure level measured at 1m distance.
(**) HYDRO+ VALVE KIT includes 2/3-way body valve, on-off/modulating actuator, strainer, connection pipe, 2x shut-off valve and BSP/NPT connectors.

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SPECIALTY RANGE

WITH 0-10V DC EC MOTORS

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PDWD Double Skin Ducted
2 & 4 pipe · 5 sizes · 3R/3R+1/4R/4R+2/6R

Standard package:

- Internal drain pan
- Double insulation 15mm + 25mm
- G2 filter

Recommended conditions: 150 Pa

Optional accessories:

- Stainless steel drain pan
- G4 or F8 filter
- Electric heater up to 9 kW
- Supply/Return air plenum

	Motor Voltage	Cooling Capacity	Heating Capacity	Air		Sound Pressure Level*	
	Limits V	Total kW	Total kW	Flow m³/h	ESP Pa	Outlet dB(A)	Inlet + Rad.dB(A)
Min-Max	208 - 240	2.2 - 37.1	1.8 - 35.1	305 - 6125	50 - 200	43 - 65	46 - 65

HAHU-B Horizontal Mini AHU
2 & 4 pipe · 5 sizes · 5R/5R+2/6R/6R+2

Standard package:

- Internal drain pan
- Double insulation 15mm + 25mm
- G2 filter

Recommended conditions: 250 Pa

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Stainless steel drain pan
- G4 or F8 filter
- Electric heater up to 9 kW
- Supply/Return air plenum

	Motor Voltage	Cooling Capacity	Heating Capacity	Air		Sound Pressure Level*	
	Limits V	Total kW	Total kW	Flow m³/h	ESP Pa	Outlet dB(A)	Inlet + Rad.dB(A)
Min-Max	208 - 240 440 - 480	6.9 - 47.1	7.1 - 48.3	1319 - 8257	100 - 400	64 - 83	61 - 80

VAHU Vertical Mini AHU
2 & 4 pipe · 5 sizes · 5R/5R+2

Standard package:

- Internal drain pan
- Double insulation 15mm + 25mm
- G2 filter
- Top + down flow distribution

Recommended conditions: 120 Pa

Optional accessories:

- Pre-assembled Hydro+Valve Kit**
- Stainless steel drain pan
- G4 or F8 filter
- Electric heater up to 9 kW
- Supply/Return air plenum

	Motor Voltage	Cooling Capacity	Heating Capacity	Air		Sound Pressure Level*	
	Limits V	Total kW	Total kW	Flow m³/h	ESP Pa	Outlet dB(A)	Inlet + Rad.dB(A)
Min-Max	208 - 240	9.6 - 50.5	9.2 - 47.6	1286 - 8186	50 - 200	64 - 87	61 - 84

Tested under Eurovent Certita standard conditions.
(*) Sound pressure level measured at 1m distance.
(**) HYDRO+ VALVE KIT includes 2/3-way body valve, on-off/modulating actuator, strainer, connection pipe, 2x shut-off valve and BSP/NPT connectors.

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Since 1979, Idealair Group has been a trusted partner for all ventilation needs.

At Idealair Group, we specialise in ventilation, heating, ducting, energy recovery product, and more. Every product in our extensive range is tested and approved to ensure it meets the specified design requirements. Plus, with a complete range of stock readily available at all our branches, we ensure that order collection and delivery are both reliable and convenient.

We pride ourselves on providing tailored, engineered solutions for each customer. Our team of highly trained professionals are committed to offering practical help & advice, while meeting the diverse needs of your projects, from standard to complex applications.

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