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AQUAREA

R32
NEW REFRIGERANT GAS
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Aquarea High Performance
Monobloc J generation

heating & cooling solutions

Aquarea High Performance range

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Aquarea High Perfomance is the perfect solution for **new installations** and **low consumption homes**, to produce **heating**, **cooling** and **domestic hot water**.

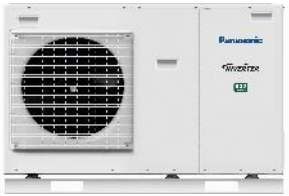
All-in-One

Ideal for small spaces, this system produces hot/cold water and stores 200L of Domestic hot water in built in stainless steel tank

Bibloc

A two-part system of an outdoor and indoor unit to supply cooling, heating and/ or for storing domestic hot water with a wide range that adapts to suit any home.

Monobloc



A single outdoor unit that supplies water for cooling, heating and/or for storing domestic hot water.

Overview

A single compact outdoor unit that supplies water for cooling, heating and/or for domestic hot water.
Available in 1 fan unit from 5 to 9 kW.

Capacity	5 kW	7 kW	9 kW
Outdoor model	WH-MDC05J3E5	WH-MDC07J3E5	WH-MDC09J3E5
Smart Cloud adapter	CZ-TAW1		

Aquarea High Performance range

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Key points of Aquarea High Performance J generation Monobloc

Energy efficiency

- **High COP,** even at low temperatures (up to 5,08 for 5kW)
- Energy efficiency class **A+++**
- "A" rated energy class water circulation pump with variable speed

Flexibility

- **High** heating and cooling **capacities**
- **Space saving:**
  - 1 fan outdoor unit
  - No indoor unit
- Cooling mode down to **+10 °C outdoor**
- In installation**:**
  - **No refrigerant connections** (sealed refrigerant circuit)
  - **Magnet filter** built-in
  - **6L expansion vessel** built-in

Comfort

- Heating curve **down to -20 ºC**
- **Operation range down to -20 ºC outdoor**
- **60 ºC** water outlet temperature
- **Low noise** levels
- **Efficient or comfort mode for DHW**: Part load for better efficiency or full load to reduce the heat up time

Control & Connectivity

- Optional **Aquarea Smart and Service Cloud**
- Optional **integration into BMS** projects
- New **smart functions:**
  - SG ready for heating, cooling and DHW modes
  - Utility remote bivalent control: By dry contacts
  - Stop external device when defrost by Dry contact (for fan coil fan stop)*

Aquarea Monobloc J generation

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What's new? Monobloc J generation vs H generation

	H generation		J generation
Energy efficiency	• High COP	→	• Even **higher COP!!**
Flexibility	• High capacity, even at low temperatures	→	• **Higher capacity**!
	• 55ºC water outlet		• **60ºC** water outlet
	• Operation range in cooling mode down to +16ºC		• Operation range in cooling mode down to **+10 ºC**
	• Mesh filter		• **Magnet** mesh filter
Comfort	• Heating curve down to -15ºC	→	• Heating curve down **to -20ºC**
Refrigerant	• Refrigerant R410a	→	• Refrigerant **R32**

Monobloc J generation vs H generation

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Higher capacity and higher COP

In general, capacity (even at low temperatures) and COP have been increased, compared to H generation

	5 kW						7 kW						9 kW					
	Capacity			COP			Capacity			COP			Capacity			COP		
	J gen	H gen	Δ	J gen	H gen	Δ	J gen	H gen	Δ	J gen	H gen	Δ	J gen	H gen	Δ	J gen	H gen	Δ
Heating (+7 °C / 35 °C)	5,00	5,00		5,08	5,08		7,00	7,00		4,76	4,52	+5%	9,00	9,00		4,48	4,29	+4%
Heating (+7 °C / 35 °C)	5,00	5,00		3,01	2,84	+6%	7,00	7,00		2,82	2,83		8,95	9,00	-1%	2,78	2,72	+2%
Heating (+2 °C / 35 °C)	5,00	4,80	+4%	3,57	3,36	+6%	7,00	6,60	+6%	3,40	3,30	+3%	7,45	6,80	+10%	3,13	3,18	-2%
Heating (+2 °C / 55 °C)	5,00	4,00	+25%	2,27	2,33	-3%	6,30	6,30		2,16	2,22	-3%	7,00	6,30	+11%	2,12	2,13	
Heating (-7 °C / 35 °C)	5,00	4,70	+6%	2,78	2,85	-2%	6,80	5,50	+24%	2,81	2,70	+4%	7,50	6,40	+17%	2,63	2,60	+1%
Heating (-7 °C / 35 °C)	5,00	4,30	+16%	1,85	1,89	-2%	6,30	5,00	+26%	1,86	1,82	+2%	7,00	5,80	+21%	1,80	1,78	+1%
Cooling (35 °C / 7 °C)	5,00	4,50	+11%	3,31	3,28	+1%	7,00	6,00	+17%	3,06	2,78	+10%	9,00	7,00	+29%	2,71	2,60	+4%
Cooling (35 °C / 18 °C)	5,00	5,10	-2%	5,05	5,10	-1%	7,00	6,00	+17%	4,73	3,87	+22%	9,00	7,00	+29%	4,25	3,59	+18%

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Accessories to Aquarea Monobloc High Performance J generation

heating & cooling solutions

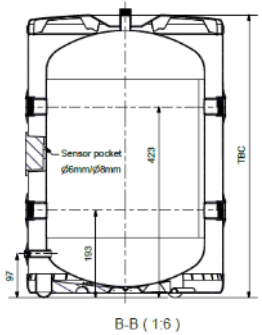
Stainless Steel DHW tanks

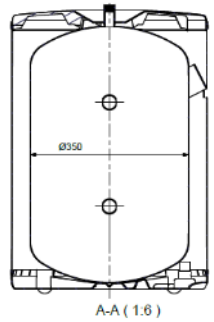
- Available in 200 and 300 liters
- High efficiency (A class)

Model		PAW-TD20C1E5-UK	PAW-TD30C1E5-UK
Water volume	L	192	280
Dimensions (Height / Diameter)	mm	1270 / 595	1750 / 595
Exchange surface	m	1,8	1,8
Energy loss at 65 °C [1)]	kWh/24h	0,99	1,13
3 way valve		Optional PAW-3WYVLV-HW	Optional PAW-3WYVLV-HW
20 m temperature sensor cable included		Yes	Yes
Energy Efficiency Class (from A+ to F)		**A**	**A**

Buffer tank

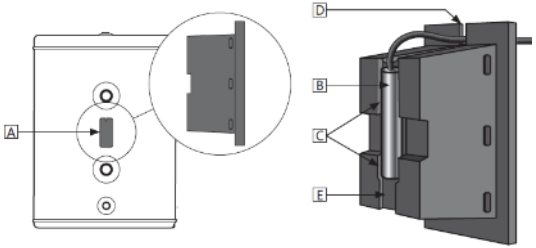
- 50 liters
- Stainless Steel
- Pocket for buffer sensor (sensor not included)





Model		PAW-BTANK50L-2
Capacity	L	48
Energy Efficiency Class (from A+ to F)		**B**
Material		Stainless Steel
Dimensions (Height / Diameter)	mm	636 / 430

Pocket for buffer sensor:



Accessories for tanks

PAW-3WYVLV-HW
3-way valve

PAW-TS1
Tank sensor with 6 m cable lenght

PAW-TS2
Tank sensor with 20 m cable lenght

PAW-TS4
Tank sensor with 6 m cable length and Ø6 mm

CZ-TK1
Temperature sensor kit for third party tank (with copper pocket and 6 m length sensor cable).

PAW-A2W-TSBU
Buffer tank sensor

Smart Fan coils

- High heating capacity, with 3 fan speeds
- Exclusive design
- Extremely compact (only 12,9cm deep)
- Cooling and dehumidification functions possible (drain is needed)
- 3-way valve included
- Touch screen thermostat

PAW-AAIR-200-2 / PAW-AAIR-700-2 / PAW-AAIR-900-2

Accessories (optional)

PAW-AAIR-LEGS-1
Kit of 2 legs to support the Smart fan coil on the floor and to protect the water pipes

PAW-AAIR-RHCABLE
Motor connection cable for units with hydraulic connections on the right

Ducted Fan coils

- Ideal for residential and commercial use.
- All units are certified by Eurovent
- Drain pan and filter included
- Low consumption fan motor.
- L-shaped drain pan for installation in horizontal or vertical position.

Left side connection			PAW-FC-D11-1	PAW-FC-D15-1	PAW-FC-D24-1	PAW-FC-D28-1	PAW-FC-D40-1	PAW-FC-D55-1	PAW-FC-D65-1	PAW-FC-D90-1
Right side connection			PAW-FC-D11-1-R	PAW-FC-D15-1-R	PAW-FC-D24-1-R	PAW-FC-D28-1-R	PAW-FC-D40-1-R	PAW-FC-D55-1-R	PAW-FC-D65-1-R	PAW-FC-D90-1-R
Total cooling capacity	Med / S-Hi	kW	1,0 / 1,5	1,2 / 1,7	2,0 / 2,5	2,4 / 3,2	3,2 / 4,6	4,6 / 5,8	6,1 / 7,3	6,1 / 8,1
Sensible cooling capacity	Med / S-Hi	kW	0,8 / 1,1	0,9 / 1,3	1,5 / 1,9	1,8 / 2,3	2,2 / 3,3	3,3 / 4,5	4,3 / 5,1	4,6 / 6,3
Heating capacity	Med / S-Hi	kW	1,4 / 2,0	1,5 / 2,2	2,4 / 3,1	2,9 / 4,0	4,1 / 5,7	5,3 / 7,1	7,9 / 9,3	8,1 / 11,6
Dimensions	H x W x D	mm	220 x 570 x 430	220 x 570 x 430	220 x 753 x 430	220 x 938 x 430	220 x 1122 x 430	220 x 1307 x 430	220 x 1121 x 530	220 x 1316 x 530
Static pressure	Max	Pa	30	30	50	50	70	70	70	70
Airflow	Med / S-Hi	m/h	190 / 283	179 / 265	274 / 390	357 / 499	486 / 716	640 / 933	893 / 1064	936 / 1397
Water pressure drop	Med / S-Hi	kPa	19,5 / 39,2	3,9 / 6,3	19,3 / 28,8	17,1 / 28	22,8 / 46,9	37,4 / 60,2	15,4 / 21,5	19,3 / 32,5
Fan speeds			3 speeds	3 speeds	3 speeds	3 speeds	3 speeds	3 speeds	3 speeds	3 speeds

Ducted Fan coils - Accessories

Control

PAW-FC-RC1
Advanced wired remote controller for fan coil

PAW-FC-903TC
Wired remote controller for fan coil

Others

PAW-FC-2WY-11/55-1
2 way valve + drain pan (for PAW-FC-D11/15/24/28/40/55-1)

PAW-FC-2WY-65/90-1
2 way valve + drain pan (for PAW-FC-D65/90-1)

PAW-FC-2WY-150
2 way valve + drain pan (for PAW-FC-H150)

PAW-FC-3WY-11/55-1
3 way valve + drain pan (for PAW-FC-D11/15/24/28/40/55-1)

PAW-FC-3WY-65/90-1
3 way valve + drain pan (for PAW-FC-D65/90-1)

PAW-FC-3WY-150
3 way valve + drain pan (for PAW-FC-H150)

Other accessories

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Room thermostats

PAW-A2W-RTWIRED
Wired LCD room thermostat with weekly timer.

PAW-A2W-RTWIRELESS
Wireless LCD room thermostat with weekly timer.

Other sensors

PAW-A2W-TSOD
Outdoor ambient sensor.

PAW-A2W-TSRT
Zone room sensor.

PAW-A2W-TSHC
Zone water sensor.

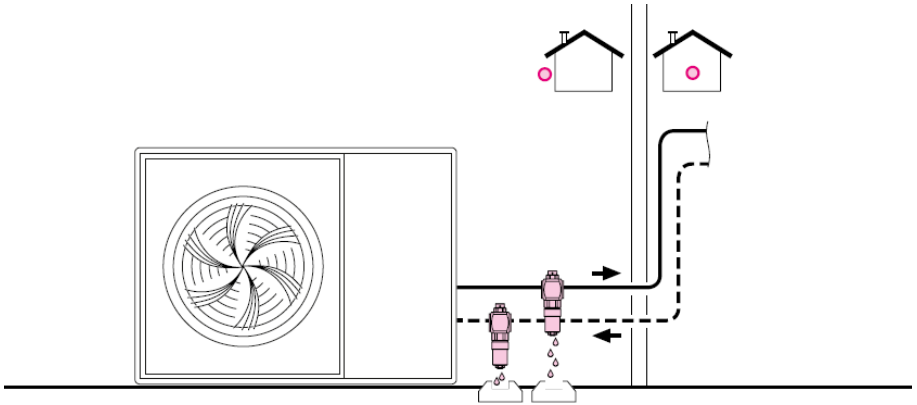
PAW-A2W-TSSO
Solar sensor.

PAW-A2W-TSBU
Buffer tank sensor.

Anti-freeze valve

PAW-A2W-AFVLV
Anti-freeze valve.

The anti-freeze safety valve prevents ice from forming in the circuit of pump system thereby preventing any damage to the machine and pipes.



Connectivity accessories

CZ-TAW1
Aquarea Smart Cloud for remote control and maintenance through wireless or wired LAN.

CZ-TAW1-CBL
10 m extension cable for CZ-TAW1.

PAW-AW-KNX-H
KNX Interface for J and H Generation.

PAW-AW-MBS-H
Modbus Interface for J and H Generation.

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