

**J.01**Air to Water Heat
Pumps**CAIROX tip R-
AQUA-CGW-IU
M1**— Cairox R-Aqua
— Air/Water
— 16kW**A+++****A++**

A2W heat pumps R32 hydromodule 3Ph. type CAIROX tip R-AQUA-CGW-IU M1

Air/water inverter controlled heat pump with R32 refrigerant. Thanks to the advanced heat pump technology, the energy from the outside air is absorbed and transferred to the water for heating and cooling of the home and the domestic hot water.

The intelligent control of the compressor and expansion valve ensures a precise and fast control of the water temperature, thus reducing the energy consumption.

Application

- Heating of new or existing houses
- Heating by means of radiators, convectors and floor or wall heating
- Heating of domestic water

Brand

- Cairox R-Aqua

Composition

- A+++ at 35°C water temperature
- Communication cable included
- High efficiency plate heat exchanger
- Wilo circulation pump
- Wired controller
- Expansion vessel (10 liters)
- Safety valve (3 bar)
- Electrical backup heater
- Outside temperature sensor
- Water pressure sensor

Refrigerant

- R32

Specifications

- Split system
- 1 appliance for heating and domestic hot water
- Cooling is possible
- Standard equipped with WIFI
- Standard equipped with Modbus interface

- Power supply: 400V/3PH+N
- Heating assured down to -20°C outside temperature
- Water temperature up to 60°C even at negative outside temperatures thanks to the patented two-stage compressor
- Easy installation
- EUROVENT EN 14511 and EN 14825 certification

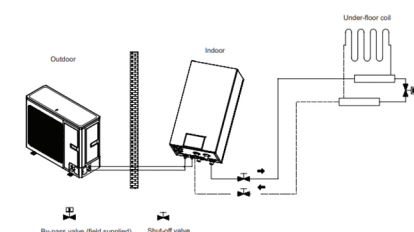
Applicable outdoor units

- Outdoor unit, Type R-AQUA-CGW-OU M1

Applicable boiler

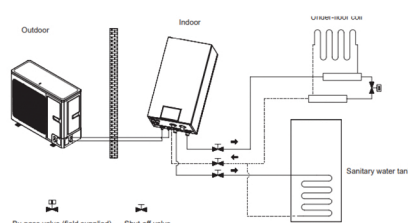
- Hot water heater 300 liters, **type R-AQUA-CGDHW 300 B A1**
- Hot water heater 300 liters, **type R-AQUA SANI 300**
- Hot water heater 500 liters, **type R-AQUA SANI 500**

Case 1 : connecting under-floor Coil for Heating and Cooling



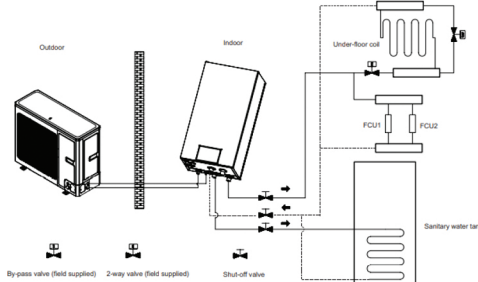
Note: the bypass valve must be installed to secure enough water flow rate, and should be installed at the reactor.

Case 2 : connecting Sanitary Water Tank and under floor coil



Note: sanitary water tank should be equipped with internal electric heater to secure enough heat energy in the very cold days.

Case 3 : connecting Sanitary Water Tank, under floor coil and FCU



R-AQUA®

Technical data			
Indoor unit		R-AQUA-CGW-IU 16 M1	
Corresponding outdoor unit		R-AQUA-CGW-OU 16 M1	
Heating capacity A7/W35*	kW	15.54	
COP A7/W35		4.82	
Heating capacity A7/W45*	kW	16.13	
COP A7/W45		3.88	
Heating capacity A2/W35*	kW	13.16	
COP A2/W35		4.01	
Heating capacity A2/W45*	kW	13.16	
COP A2/W45		3.36	
Heating capacity A-7/W35*	kW	10.84	
COP A-7/W35		2.94	
Heating capacity A-7/W45*	kW	10.84	
COP A-7/W45		2.37	
Heating capacity A-10/W35*	kW	10.07	
Heating capacity A-10/W45*	kW	10.07	
Refrigerant (GWP)		R32 (675)	
Voltage	V / Ph / Hz	400/3/50	
Seasonal efficiency η_s heat pump (%)	(35°/55°C)	175/132	
Annual consumption heat pump	kWh	6027/7958	
Energy class	(35°/55°C)	A+++/A++	
Rated power (indoor unit only)	kW	6.1	
Refrigerant pipes (liquid - gas)	"	1/4 - 5/8	
Hydraulic connections (supply - return)	"	1	
Outgoing water temperatures	Heating (fan coil)	°C	45
	Heating (floor)	°C	35
	Domestic hot water	°C	40 ~ 80
	Type	-	water cooling
	Number of steps	-	variable speed
	Power (min-max)	W	3-87
	Flow rate (min)	l/h	720
	Flow rate (nom)	l/h	1634
	Volume***	L	10
	Pressure (max)	Bar	3
	Pressure (pre)	Bar	1
	Type	-	dry
	Material	-	stainless steel
	Control	-	automatic
	Number of steps	-	2
	Capacity	kW	6
	Combination	kW	3 + 3
	Type	-	plate heat exchanger
	Number	-	1
Sound pressure @ 1m		dB (A)	29
Power cable section indoor unit		mm²	5G 2,5
Automatic fuse (slow)		A	20
Dimensions	Unit (LxWxH)	mm	460 x 320 x 860
	Weight	kg	62

* Specifications and design can change without notice for further improvements

** Capacities measured according to EN14511 measurement method

*** The size of the expansion tank should be determined in relation to the total water content of the system