



Cascade high temperature air/water heatpump 70°C type HRC CASCADE Z1

HRC⁷⁰ air/water heat pumps in cascade are suitable for high water temperatures. Monoblock with natural refrigerant propane (R290) for water heating up to 70°C. The unit guarantees proper operation down to -20°C outside temperature. The HRC⁷⁰ is a single heating unit that uses 2 scroll compressors with different capacities and with a soft starter as standard. This ensures 3 power stages and low power consumption. Due to the special construction, the unit will have to defrost less often and the defrost cycle will be completed as efficiently as possible. The unit maintains its high COP values even at negative outside temperatures. Possibility to link 3 HRC⁷⁰ units with a total power of 96kW.

Brand

- Auer - Intuis

Application

- Production of domestic hot water
- Floor heating
- Fan coils
- Radiators

Appropriate for:

- Production of domestic hot water for showers in fitness centers, factories, sporting facilities,...
- Heating of halls and large rooms
- Retail, public buildings, offices,...

Composition

Outdoor: Two or three monoblock heat pumps HRC⁷⁰ 25 or 32 for cascade installation.

Included with each outdoor unit:

- 10 m long bus cable for communication between the HRC⁷⁰ and the Pilote Z1 (3 core and already connected to each HRC⁷⁰) (do not place in parallel with power cable).
- Flexible pipes (Durite) of 1.5 m long and rigid insulated pipe to indoor module (diameter according to distance between the two, see table at the bottom of this page).
- Filter 1"1/4 for placement on the return connection.

- 2.5 bar pressure relief valve mounted in the HRC70.

Indoor module Pilote Z1:

- As many primary pumps as there are HRC70 outdoor units
- Buffertank/hydraulic separator 78L with air vent and release valve
- Pressure sensor
- Flow meter
- Electronic regulation
- Shut-off valve 1 "1/4
- Filter tap 1 "1/4
- Outdoor sensor for weather dependent control

Installation

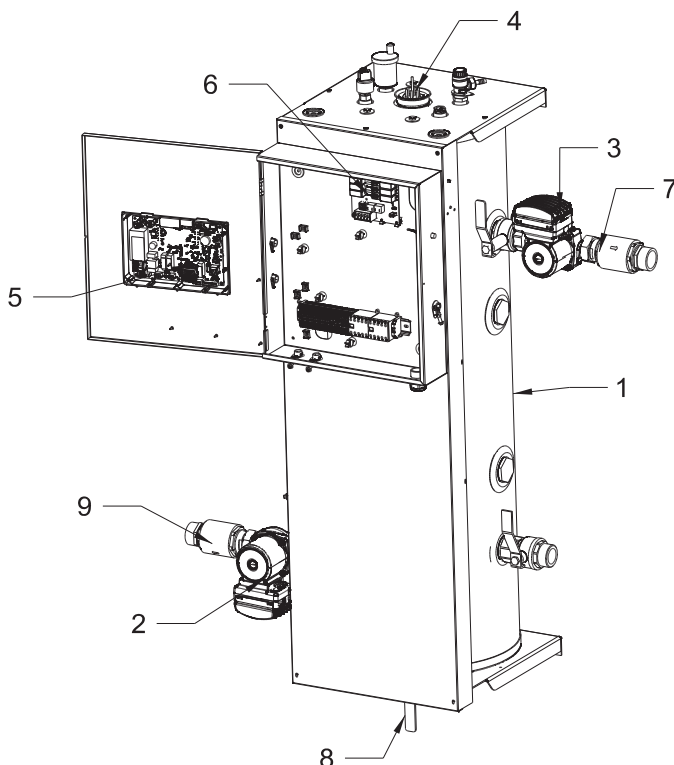
- The addition of an anti-corrosion agent or a glycol/anti-corrosion mixture is mandatory.

Accessories

- Adjustable resistance 0-6kW (build-in the Z1) on demand
- Room thermostat **RAM 812**
- Room sensor with display **TH HRC70**
- Domestic hot water sensor **DHW S HRC70**
- Aquastat DHS **AQ HRC70**
- Secondary pump **HRC PK CASCADE**
- Startup (MANDATORY), type **XSTARTUPJ** quotation on request

Applicable boiler

- Warm water tank 300 liters, type **SANI+ 300 R-AQUA**
- Warm water tank 500 liters, type **SANI+ 300 R-AQUA**



Notes

1. Buffer tank 78L
2. Heat pump circulation pump
3. Heating or DHW circuit circulation pump
4. Immersion heater 6kW (Optional)
5. Electronic card
6. Power card
7. Heating / DHW circuit
8. Drain
9. Heat pump circuit

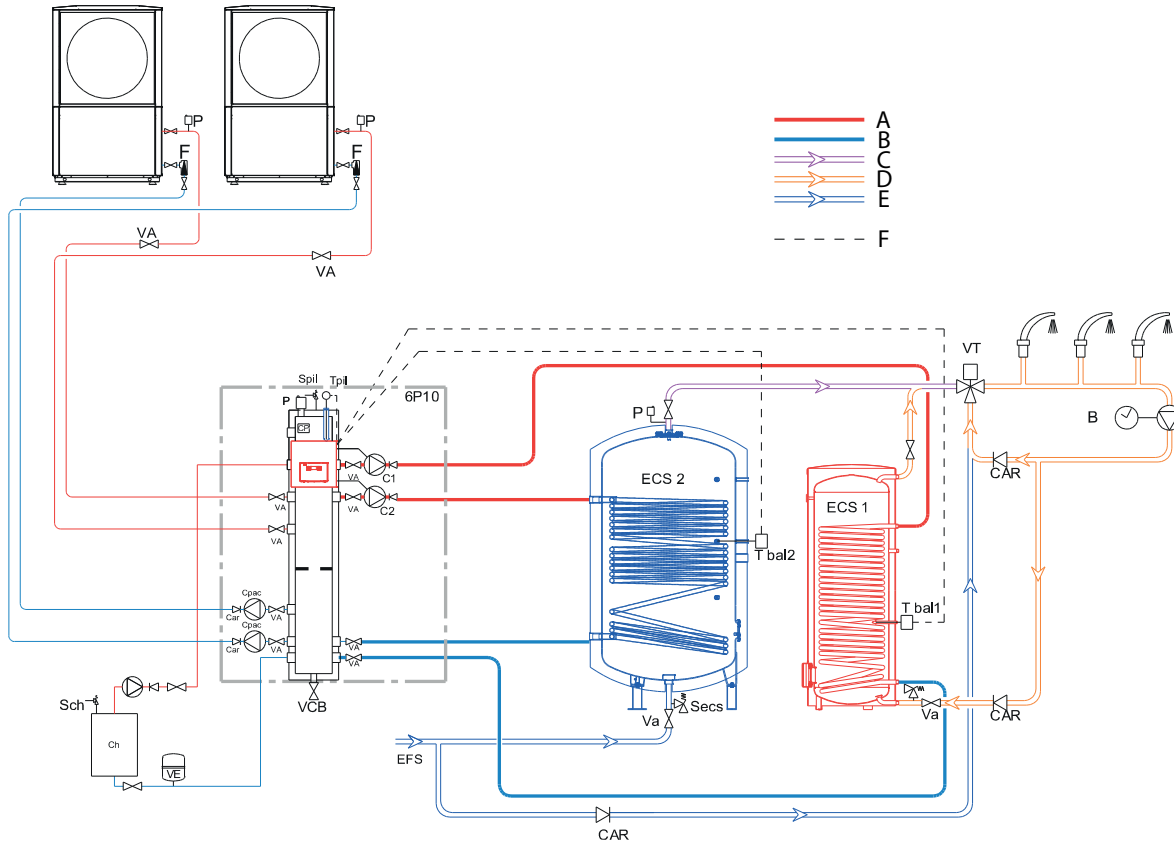
Air to Water Heat Pumps

Technical data				
Technical specifications		HRC 50 cascade	HRC 64 cascade	HRC 96 cascade
Number of outdoor units		2 x HRC 25	2 x HRC 32	3 x HRC 32
Maximum water temperature	°C	70	70	70
Maximum heating capacity	kW	60	72	108
Rated heating capacity +7°C/+35°C	kW	48	60.2	90.3
Absorbed power +7°C/+35°C	kW	10.4	15.04	22.56
COP +7°C/+35°C		4.6	4	4
Rated heating capacity +7°C/+45°C	kW	24.2	57.62	86.43
Rated heating capacity +7°C/+55°C	kW	23.8	54	81
Rated heating capacity -7°C/+35°C	kW	17.2	42	63
Rated heating capacity -7°C/+45°C	kW	16.6	41.8	62.7
Rated heating capacity -7°C/+65°C	kW	15.9	38.8	58.2
Energy class 35°C/55°C		A++	A++	A++
Annual energy consumption	kWh/year	16172	48153	32102
Operating range	°C	-20°C ~ +40°C		
Outdoor unit dimensions HxLxW	mm	1662 x 1035 x 523	1713 x 1235 x 561	1713 x 1235 x 561
Pumping station dimensions HxLxW	mm	1217 x 1134 x 536	1217 x 1134 x 536	1217 x 1134 x 536
Total weight outdoor units	kg	265	540	810
Air flow rate per outdoor unit	m³/h	3000 to 7000	5000 to 9000	5000 to 9000
Rated water flow rate per unit	m³/h	3.5	3.5	3.5
Condensate drain connection	mm	20/25		
Hydraulic diameter connection	mm	33/42 male		
Sound level according to EN 12102	dB(A)	61	66	66
Refrigerant (GWP)		R290 (3)		
Total amount of refrigerant R290	kg	0.9	2.8	4.2
Power supply outdoor unit		3 x 400V + N		
Fuse outdoor unit	A	25	32	32
Cable section outdoor unit		5G4	5G6	5G6
Maximum absorbed power	A	18	25	25
Maximum starting current per unit	A	60	42	42
Power supply pumping station		230v / 3x400V+N		
Fuse pumping station	A	20		
Cable section pumping station		3G2.5		
Power position OFF (POFF) per unit	kW	0.023	0.005	0.005
Power thermostat OFF (PTO) per unit	kW	0.008	0.008	0.008
Power standby (PSB) per unit	kW	0.005	0.008	0.008
Power carter heating (PCK) per unit	kW	0.005	0.012	0.012

* Width including primary and secondary circulation pump.

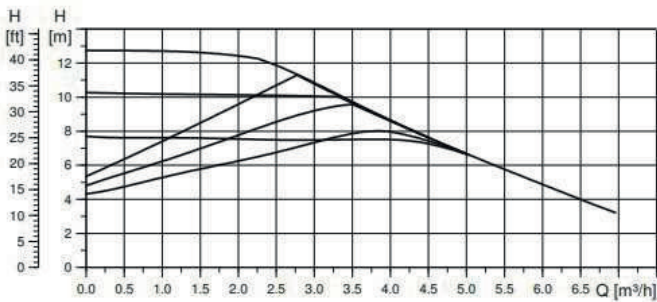
Technical data				
Indoor module PILOTE		Pilote Z1		
Minimum power cable width		mm²	3G6	5G2.5
Circuit breaker		A	32	20
Power supply Pilote 6P10			230V 1 ph	400V 3ph
Multifunctional tank		L	78L	
Dimensions Pilote 6P10 without the pumps		mm	H 1512 x L 410 x D 536	
Weight of the PILOTE without water		kg	49	
Hydraulic connections		inch	1"1/2	
Boiler connection			compatible	
Electrical back-up heater (optional)		kW	0 to 6 kW	
Decoupling of circuits			Yes	

Technical data										
Circuit configuration		1 Circuit		2 Circuits			3 Circuits			
		CH	DHW	CH+CH	CH+DHW	DHW+DHW	CH+CH+CH	CH+CH+DHW	CH+DHW+DHW	DHW+DHW+DHW
32 kW	Order references	HRC 32 + TH HRC70	HRC 32 + AQ HRC70	HRC 32 + HRC PK Cascade + 2 x TH HRC 70	HRC 32 + HRC PK Cascade + AQ HRC 70 + TH HRC 70	HRC 32 + HRC PK Cascade + 2 x AQ HRC 70	HRC 32 + 2 x HRC PK Cascade + XTRA CON HRC70 + 3 x TH HRC 70	NOT POSSIBLE	HRC 32 + 2 x HRC PK Cascade + AQ HRC 70 + DHW S HRC 70 + TH HRC 70	HRC 32 + 2 x HRC PK Cascade + 2 x AQ HRC 70 + DHW S HRC 70
	Hydraulic scheme	1	6	2	3	7	POSSIBLE		5	8
50 kW	Order references	HRC 50 CASCADE + HRC PK Cascade + TH HRC 70	HRC 50 CASCADE + HRC PK Cascade + AQ HRC 70	HRC 50 CASCADE + 2 x HRC PK Cascade + 2 x TH HRC 70	HRC 50 CASCADE + 2 x HRC PK Cascade + AQ HRC 70 + TH HRC 70	HRC 50 CASCADE + 2 x HRC PK Cascade + 2 x AQ HRC 70	HRC 50 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 3 x TH HRC 70	NOT POSSIBLE	HRC 50 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 2 x AQ HRC 70 + TH HRC 70	HRC 50 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 3 x AQ HRC 70
	Hydraulic scheme	9	18	10	13	19	11		16	20
64 kW	Order references	HRC 64 CASCADE + HRC PK Cascade + TH HRC 70	HRC 64 CASCADE + HRC PK Cascade + AQ HRC 70	HRC 64 CASCADE + 2 x HRC PK Cascade + 2 x TH HRC 70	HRC 64 CASCADE + 2 x HRC PK Cascade + AQ HRC 70 + TH HRC 70	HRC 64 CASCADE + 2 x HRC PK Cascade + 2 x AQ HRC 70	HRC 64 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 3 x TH HRC 70	NOT POSSIBLE	HRC 64 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 2 x AQ HRC 70 + TH HRC 70	HRC 64 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 3 x AQ HRC 70
	Hydraulic scheme	9	18	10	13	19	11		16	20
96 kW	Order references	HRC 96 CASCADE + HRC PK Cascade + TH HRC 70	HRC 96 CASCADE + HRC PK Cascade + AQ HRC 70	HRC 96 CASCADE + 2 x HRC PK Cascade + XTRA CON HRC70 + 2 x TH HRC 70	NOT POSSIBLE	HRC 96 CASCADE + 2 x HRC PK Cascade + 2 x AQ HRC 70	HRC 96 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 3 x TH HRC 70	NOT POSSIBLE	NOT POSSIBLE	HRC 96 CASCADE + 3 x HRC PK Cascade + XTRA CON HRC70 + 3 x AQ HRC 70
	Hydraulic scheme	22	25	23		26	24			27



Notes

- A. Primary circuit supply
- B. Primary circuit return
- C. Domestic hot water
- D. Domestic water circulation
- E. Domestic cold water
- F. Electrical control connection



Configuration

