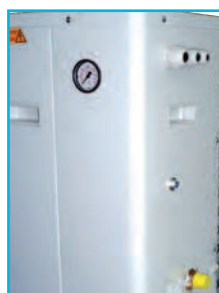


Air/Water Heat Pumps
Single-unit ON/OFF
Medium temperature

AQUASET range



AQUASET-PHRT



PHRT 12/16/18



PHRT 7/9



Applications

Refer to the circuit diagrams on pages 30 to 34

- **Heating and cooling**
- **To -16°C outdoors temperature and + 43°C in cooling**
- **Max T delivery water: 55°C**

- **Refrigerant: R 410 A**
- **The best COP values on the market**
- **The lowest sound levels on the market**
- **Limited size:**

1 190 x 340 x 735 mm
 1 190 x 340 x 1 235 mm

- **Quality components:**
 Scroll compressor with sound insulation - High efficiency air heat exchanger with copper pipes and inorganic hydrophilic aluminium fins - Helicoidal fan - Heat exchanger with AISI 316 stainless steel plates and heat insulation,...

- **Integrated hydronic module:**
 3-speed circulation pump - expansion tank - safety valve - air vent - manometer - hydraulic filter

- **Control system functions:**
 - Reduction of minimum volume of water in the system
 - Regulation of condensation pressure
 - Automatic control of circulation pump (anti-freeze function, anti-seize function)

- Defrosting regulation in accordance with the outdoor temperature
- Alarm management through event logging
- External communication via serial interface (Modbus protocol)

- **Other advantages:**

- Easier access to components
- Keypad / display on front panel
- Dividing panel between the fan and the machinery compartment
- Control panel can be removed for a wider opening
- Stringent manufacturing inspections: cooling circuit waterproofing test, electric/hydraulic test, etc...

- **Standard equipment**

- Single-phase start-up kit (PHRT 7/9/2 mono)
- water flow rate control
- proportional "four seasons" regulation
- LP switch and HP switch
- water filter (to be connected)
- integrated hydronic module

BOILER BACK-UP SOLUTION
 TERMINAL UNIT SOLUTION
 MIXED SOLUTION WITH UNDERFLOOR HEATING/COOLING AND 1 TERMINAL UNIT ZONE

		AQUASET				
Models		PHRT 7	PHRT 9	PHRT 12	PHRT 16	PHRT 18
Code	230/1/50 400/3N/50	PHRT 075 F -	PHRT 095 F PHRT 097 F	PHRT 125 F PHRT 127 F	- PHRT 167 F	- PHRT 187 F
			Mono/Tri	Mono/Tri		
Conditions: temperature of water at inlet/outlet 40/45°C and temperature of air at inlet 7/6°C (DB/WB); net values; NF PAC						
Heating capacity (kW)		7,2	9,17 / 9,2	10,5 / 12,4	15	19,4
Power consumption (kW)		2,65	3,19 / 3,19	3,62 / 4,06	4,92	6,42
COP		2,72	2,87 / 2,88	2,9 / 3,05	3,05	3,02
Conditions: temperature of water at inlet/outlet *45°C and temperature of air at inlet -7/-8°C (DB/WB); net values; NF PAC						
Heating capacity (kW)		4,6	5 / 5,05	5,88 / 6,8	8,51	12
Power consumption (kW)		2,87	3,23 / 3,23	3,77 / 4,25	5,38	6,6
COP		1,6	1,55 / 1,56	1,56 / 1,6	1,58	1,74
Conditions: temperature of water at inlet/outlet *55°C and temperature of air at inlet 7/6°C (DB/WB); net values; NF PAC						
Heating capacity (kW)		6	8,25 / 8,3	9,38 / 11,7	13,6	
Power consumption (kW)		3,04	3,75 / 3,75	4,04 / 4,73	5,96	
COP		1,97	2,17 / 2,21	2,32 / 2,47	2,28	
Conditions: temperature of water at inlet/outlet 40/45°C and temperature of air at inlet 7/6°C (DB/WB); gross values; Eurovent						
Heating capacity (kW)		7,25	9,24 / 9,27	10,65 / 12,5	15,2	19,6
Power consumption (kW)		2,56	3,12 / 3,1	3,48 / 4,1	4,83	6,32
COP		2,83	2,96 / 2,99	3,06 / 3,05	3,15	3,1
Conditions: temperature of water at inlet/outlet 30/35°C and temperature of air at inlet 7/6°C (DB/WB); net values						
COP		3,33	3,41 / 3,44	3,66 / 3,84	3,94	3,7
Water flow rate (m3/h)		1,19	1,58 / 1,55	1,87 / 2,16	2,7	3,38
Available head for pump (kPa)		57	47 / 47	66 / 53	68	59
Conditions: temperature of water at inlet/outlet 12/7°C and temperature of air at inlet 35°C (DB/WB); gross values; Eurovent						
Heating capacity (kW)		5,90	7,10 / 7,10	8,56 / 9,00	11,40	15,9
Power consumption (kW)		2,55	3,14 / 3,09	3,33 / 3,73	4,98	6,97
EER		2,31	2,26 / 2,30	2,57 / 2,41	2,29	2,28
Water flow rate (m3/h)		1,01	1,22 / 1,22	1,48 / 1,51	1,98	2,7
Available head for pump (kPa)		64	59 / 59	82 / 80	84	78
Type of refrigerant		R 410 A	R 410 A	R 410 A	R 410 A	R 410 A
No. of cooling circuits		1	1	1	1	1
No. of compressors		1	1	1	1	1
Expansion tank capacity (l)		2	2	2	2	2
Ø of male hydraulic connection		3/4"	3/4"	1"	1"	1"
Sound power level/Sound pressure* (dBA)		65/37	65/37	67/39	68/40	73/45
Min./max. system water volume (l)		30/60	40/90	50/90	60/90	60/90
Length (mm)		1 190	1 190	1 190	1 190	1 190
Depth (mm)		340	340	340	340	340
Height (mm)		735	735	1 235	1 235	1 235
Weight (kg)		98	98	128	133	138

* Sound pressure: appliance installed outdoors (free sound field), on a reflective surface, at a distance of 10 m.

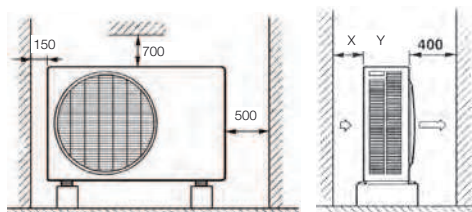
OPERATING LIMITS

HEATING T outdoor air PHRT 7-9-12-16	- 16°C (DB) / + 43°C (DB)	COOLING T outdoor air	+ 10°C (DB) / + 43°C (DB)
T outdoor air PHRT 18	- 10°C (DB) / + 20°C (DB)	Max. T of water generated PHRT 7-9-12-16	+ 20°C
Max. T of water generated PHRT 7-9-12-16	+ 55°C	Max. T of water generated PHRT 18	+ 25°C
Min. T of water generated PHRT 18	+ 50°C	Min. T of water generated	+ 5°C
Min. T of water generated PHRT 18	+ 25°C		



Installation clearances

(Refer to the installation manual for full information)



minimum dimensions

	X	Y
PHRT 7-9	150	1 000
PHRT 12 - 16 - 18	250	1 000