

Cooling units and heat pumps



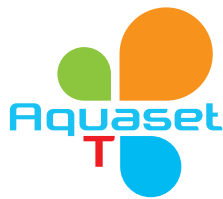
Air/Water Heat Pumps

New products

AQUASET-T range



PHRF



PHRF 23/27



PHRF 32 à 46



PHRF 60 à 85



Applications

- Air conditioning



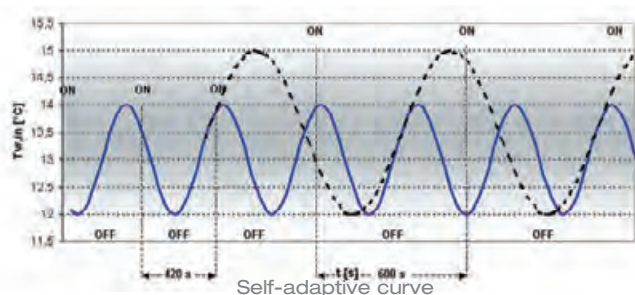
Benefits

- 23 kW to 85 kW
- Low running noise
- High energy efficiency
- Integrated hydronic module
- Water delivery/return temperature control

- Low water volume due to optimised self-adaptive operation
- Dual pump (option) from size 32 (32 kW)
- Operation with ambient air temperature +47°C to -10°C

High level standard equipment:

- External master switch
- Soft starter
- Phase control
- Condensation pressure regulator
- Low temperature kit
- Storage tank



MODELS	PHRF				
	23	27	32	40	46
Single pump codes	PHR237F	PHR277F	PHR327F	PHR407F	PHR467F
Dual pump codes	-	-	PHR327FB	PHR407FB	PHR467FB
▼ Heating capacity					
Power 45°C/40°C (kW) / +7°C ext.	22.96	27.15	31.37	39.28	45.17
COP +7°C/+45°C (kW)	3.21	3.35	3.43	3.39	3.44
Power 45°C/40°C (kW) / -5°C ext.	18.02	20.27	22.77	29.45	33.31
COP -5°C/+45°C (kW)	2.5	2.55	2.56	2.6	2.5
▼ Cooling capacity					
Power +7°C/+12°C (kW) / 35°C ext.	19.22	23.32	27.54	34.30	38.88
EER	2.70	2.88	3.18	2.98	3.04
Number of compressors	1				
R410A refrigerant charge (kg)	4.23	5.80	7.50	7.80	10.80
▼ Circuit specifications and connections					
Expansion tank capacity (l)	5		8		
Nominal water flow rate in cooling (+7°C/35°C) (m³/h)	3.37	4.10	4.83	5.42	6.82
Available head for pump (kPa)	123	116	143	130	119
Storage tank capacity (l)	50		125		
Hydraulic connections	1" 1/4 F				
▼ Circuit specifications and connections					
Power 50 Hz with GND	400V+N				
Startup current with soft start (A)	68	103	86	105	106
Max current draw with heating element (A)	26.2	27.6	35.5	41.5	42.5
Thermal cutout rating (A)	32	32	40	50	50
Power cord cross section (1)	5G 10 mm²	5G 10 mm²	5G 16 mm²	5G 25 mm²	5G 25 mm²
▼ Running noise					
Sound power per EN12102 (dBA)	71	72	73	73	75
Sound pressure level at 10 m (dBA) (2)	43	44	45	45	47
▼ Operating range					
Air temperature range	+47°C / -10°C				
Water delivery temperature, max/min, in cooling mode	+16°C / +5°C				
Water delivery temperature, max/min, in heating mode	+53°C / +25°C				
Δ water temperature, min/max	+3°C / +8°C				
▼ General specifications					
Dimensions H x L x D (mm)	1 300 x 1 565 x 600		1 485 x 1 990 x 950		
Net weight (kg)	263	285	380	400	400

(1) Indicative data, must be checked against the installation conditions and legal requirements (2) Sound pressure: unit outdoors on a reflective surface at a distance of 10m.

MODELS	PHRF		
	60	77	85
Single pump codes	PHR607F	PHR777F	PHR857F
Dual pump codes	PHR607FB	PHR777FB	PHR857FB
▼ Heating capacity			
Power 45°C/40°C (kW) / +7°C ext.	59.91	77.02	84.76
COP +7°C/+45°C (kW)	3.24	3.29	3.14
Power 45°C/40°C (kW) / -5°C ext.	43.87	57.6	63.6
COP -5°C/+45°C (kW)	2.5	2.57	2.5
▼ Cooling capacity			
Power +7°C/+12°C (kW) / 35°C ext.	54.60	69.80	76.10
EER	2.98	2.96	2.77
Number of compressors	2		
R410A refrigerant charge (kg)	13.20	19.50	19.50
▼ Circuit specifications and connections			
Expansion tank capacity (l)	8		
Nominal water flow rate in cooling (+7°C/35°C) (m³/h)	9.4	12.0	13.1
Available head for pump (kPa)	135	129	115
Storage tank capacity (l)	125	125	125
Hydraulic connections	2" F		
▼ Circuit specifications and connections			
Power 50 Hz with GND	400V+N		
Startup current with soft start (A)	117	136	154
Max current draw with heating element (A)	48	57	69
Thermal cutout rating (A)	63	63	80
Power cord cross section (1)	5G 25 mm²	5G 35 mm²	5G 35 mm²
▼ Running noise			
Sound power per EN12102 (dBA)	81	81	81
Sound pressure level at 10 m (dBA) (2)	53	53	53
▼ Operating range			
Air temperature range	+47°C /-10°C		
Water delivery temperature, max/min, in cooling mode	+16°C /+5°C		
Water delivery temperature, max/min, in heating mode	+53°C/+25°C		
Δ water temperature, min/max	+3°C/+8°C		
▼ General specifications			
Dimensions H x L x D (mm)	1 735 x 2 091 x 1 183		
Net weight (kg)	662	767	847

(1) Indicative data, must be checked against the installation conditions and legal requirements (2) Sound pressure: unit outdoors on a reflective surface at a distance of 10m.

Accessories

Description	Code	Notes
Simplified remote control	70250078	On/Off, mode change, alarm indicator
Remote display	70250079	Keypad included, 3 m cable, power supply and RS 485 card
RS 485 communication interface - MODBUS protocol	70250080	For applications without keypad
RS 485 communication interface - MODBUS protocol	70250081	For applications with keypad and screen code 70250079
HP/LP pressure gauges	70970008	All models
Battery protection grille	70600041	Sizes 23 and 27
Battery protection grille	70600042	Sizes 32 - 46
Battery protection grille	70600043	Sizes 60 - 85
Set of vibration damping mounts	70600035	All models - Thickness 25 mm - 100 x 100 mm



Remote display