POKER-P

THAETP 250

Cooling capacity 44,8÷178,3 kW
Heating capacity 47,4÷190,5 kW

Features

Efficient and eco-friendly range in R290

Modular range: up to 4 units may be combined

Total system redundancy with multiple modules installed

Cascade management including DHW with multiple modules installed

Hot water production from -20°C to 40°C outdoor air

Temperature of the produced water up to 75°C

Tax incentives*

Modular reversible heat pumps for high temperature water production, air cooled with axial fans. Range with scroll hermetic compressors and R290 refrigerant gas.

Construction features

• Compressor: hermetic rotary, scroll type, complete with thermal protection and casing heater.

• Water side heat exchanger: adequately insulated stainless steel plates, complete with water flow differential pressure switch.

• Air side heat exchanger: finned coil heat exchanger, with copper pipes and aluminium fins with hydrophilic treatment.

• Fan: external rotor helical type electric fan and permanent magnet motor (EC brushless) for electronic speed control, equipped with internal thermal protection and accident protection grilles.

• Control: microprocessor electronic control with Adaptive Function Plus logic.

• Structure: suitably sound-proofed, galvanised and painted steel plate, complete with antifreeze heater on the condensate drain pan.

• Refrigerant leak detector.

• Metal filters or coil protection nets.

• The unit is also complete with:

– compressor and fan circuit breaker switches;

– electronic expansion valve;

– outdoor air temperature probe for set-point compensation;

– display of cooling circuit high and low pressure;

– clock board;

– automatic management of anti-legionella cycles.

Version

T - High efficiency/temperature version.

Set ups

• PUMP P1 - Unit complete with: electric circulation pump and manual air vent valve.
• PUMP P1 V3V - Unit complete with: electric circulation pump, manual air vent valve, 3-way diverter valve for the production of domestic hot water.

Factory fitted accessories

• Forced Download. Compressor partialisation or switch-off to limit power and current consumption (digital input).

• Desuperheater.

• Set up with oversized head pump.

• Condensing control with over-pressure fans

• Power factor correction capacitors ($\cos\phi > 0.94$).

• Forced limit of power consumption.

• Soft-Start device.

• Unit with copper/pre-painted aluminium or copper/copper condensation coils.

• Flow switch and hot wire heaters protecting pump and piping down to -20°C outdoor air.

• Silenced set up (muffled compressors).

• Digital input for double set-point.

• 4-20 mA analogue signal for shifting set-point.

• Contacts for Smart Grid integration and photovoltaic system.

• Energy parameter measuring device.

• Double safety valves.

• Control of min/max power supply voltage.

• Low temperature water production.

• Interfaces for serial communication with other devices.

• Rubber anti-vibration mounts.

Separately supplied accessories

• Rubber anti-vibration mounts.

• Water filter and valves.

• 3-way diverter valve to manage the production of domestic hot water complete with protective casing and hoses for machine connection. For downstream installation of the group of machines. Not compatible with PUMP V3V set up.

• Additional electrical resistance for heat pump managed by regulation.

• Interfaces for serial communication with other devices.

• Serial converter (RS485/USB).

• Rhoss supervisors for unit monitoring and remote management.

• Rhoss sequencer for integrated management of multiple chillers.

• Remote keypad with display.

• Thermostat with display.

Technical data

THAETP MODEL		250			
		1 mod.	2 mod.	3 mod.	4 mod.
❷ Nominal heating capacity	kW	47,4	95,1	142,8	190,5
❷ C.O.P.		3,2	3,2	3,2	3,2
❶ Nominal cooling capacity	kW	44,8	89,3	133,8	178,3
❶ E.E.R.		2,82	2,82	2,82	2,82
❷ Absorbed power	kW	14,8	29,7	44,6	59,5
❸ Sound pressure	dB(A)	44,5	47	48,5	50
❹ Sound power	dB(A)	76	79	81	82
Scroll compressors/steps	n.	2/2	4/4	6/6	8/8
Circuits	n.	1	2	3	4
❶ Standard electric pump nominal available head	kPa	118	118	118	118
Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHTS		**1 mod.**	**2 mod.**	**3 mod.**	**4 mod.**
L – Width	mm	1224	2458	3692	4926
H – Height	mm	2335	2335	2335	2335
P – Depth	mm	1320	1320	1320	1320
❺ Weight	kg	685	1370	2055	2740

SEASONAL ENERGY PERFORMANCE		250			
		1 mod.	2 mod.	3 mod.	4 mod.
THAETP MODEL SEASONAL PERFORMANCE IN HEATING MODE – Low temperature application 35°C					
① Pdesignh (EN 14825)	kW	48	97	146	195
① SCOP (EN 14825)		3,83	3,94	4,12	4,20
② ηs	%	150	154	162	165
② Energy class		A++	-	-	-
THAETP MODEL SEASONAL PERFORMANCE IN HEATING MODE – Medium temperature application 55°C					
① Pdesignh (EN 14825)	kW	38	77	116	154
① SCOP (EN 14825)		3,2	3,3	3,5	3,57
② ηs	%	125	129	137	140
② Energy class		A++	-	-	-

Data at the following conditions:

❶ Air: 35°C – Water: 12/7°C

❷ Air: 7°C, D.B. – 6°C W.B.- Water: 40/45°C.

❸ In open field (Q = 2) at 10 m from the unit.

❹ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.

❺ Weight refers to P1 setup.

Performance according to EN 14511. P1 setup.

① In Average climatic conditions

② Seasonal energy efficiency: heating in Average climate (EU Regulations No.811/2013 and No.813/2013)

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