

POKER

THAETY 234 H.T.



Cooling capacity: 28.8÷115.2 kW - Heating capacity: 33.8÷135.2 kW

✓ **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 60°C**



Web code: PK001

Modular reversible heat pumps for high temperature water production, air cooled with axial fans. Range with hermetic scroll compressors and R410A refrigerant gas.

Construction features

- Compressors: hermetic scroll type rotary compressors with steam injection, thermal protection and casing heater.
- Water side heat exchanger: adequately insulated stainless steel plates, complete with antifreeze heater and 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.
- The unit is also complete with:
 - outdoor air temperature probe for set-point compensation;
 - display of cooling circuit high and low pressure;
 - clock board.

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.
- PUMP P1 DS - Unit complete with: electric circulation pump to the main heat exchanger, manual air vent valve and desuperheater complete with antifreeze heater.

Separately sold kits are MANDATORY

- Remote keypad with back-lit LCD display, which can be wall-mounted or installed on the machine.
- Side buffer panels.

Separately sold kits are MANDATORY when multiple modules are installed in parallel

- Connection hoses between modules.
- Panels and telephone cables for module connection.

Factory fitted accessories

- Forced Download. Compressor partialisation or switch-off to limit power and current consumption (digital input). When multiple modules are connected in parallel, a KCSC accessory must be purchased in order to enable this signal.
- Set up with oversized head pump.
- 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).
- Cooling circuit high and low pressure gauges.
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.

Separately supplied accessories

- Digital input and output concentrator (KCSC).
- Rubber anti-vibration mounts.
- Water filter.
- Right-hand connection kit.
- 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.

Technical Data

| THAETY H.T. MODEL | | 234 | | | |
|--|---------|--------------------------|-----------|-----------|-----------|
| ① Heating capacity | kW | 33,8 | 67,6 | 101,4 | 135,2 |
| ① Absorbed power | kW | 9,85 | 19,71 | 29,56 | 39,42 |
| ① C.O.P. | | 3,42 | 3,42 | 3,42 | 3,42 |
| ② Heating capacity | kW | 23,49 | 46,98 | 70,47 | 93,96 |
| ② Absorbed power | kW | 9,83 | 19,66 | 29,48 | 39,31 |
| ② C.O.P. | | 2,39 | 2,39 | 2,39 | 2,39 |
| ③ Heating capacity | kW | 33,9 | 67,88 | 101,82 | 135,76 |
| ③ Absorbed power | kW | 8,11 | 16,24 | 24,36 | 32,48 |
| ③ C.O.P. | | 4,18 | 4,18 | 4,18 | 4,18 |
| ④ Cooling capacity | kW | 28,8 | 57,6 | 86,4 | 115,2 |
| ④ E.E.R. | | 2,93 | 2,93 | 2,93 | 2,93 |
| ⑤ Sound pressure | dB(A) | 43 | 46 | 47 | 48 |
| ⑤ Silenced set up sound pressure | dB(A) | 41 | 44 | 45 | 46 |
| Scroll/step compressor | no. | 2/2 | 4/4 | 6/6 | 8/8 |
| ⑥ Electric pump nominal available head | kPa | 137 | 137 | 137 | 137 |
| Electrical supply | V-ph-Hz | 400-3-50 | 400-3-50 | 400-3-50 | 400-3-50 |
| DIMENSIONS AND WEIGHTS | | 1 module | 2 modules | 3 modules | 4 modules |
| L - Width | mm | 1297 | 2541 | 3785 | 5029 |
| H - Height | mm | 2152 | 2152 | 2152 | 2152 |
| P - Depth | mm | 1224 | 1224 | 1224 | 1224 |
| ⑥ Weight | kg | 510 (with single module) | | | |
| SEASONAL ENERGY PERFORMANCE | | 234 | | | |
| THAETY H.T. MODEL SEASONAL PERFORMANCE IN HEATING MODE | | | | | |
| ③ Pdesignh (EN 14825) | kW | 32 | 65 | 98 | 131 |
| ③ SCOP (EN 14825) | | 3,94 | 4,00 | 4,07 | 4,12 |
| ④ ηs | % | 155 | 157 | 160 | 165 |
| ④ Energy class | | A++ | A++ | - | - |

Data at the following conditions:

- ① Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
- ② Air: -7°C D.B. - Water: 40/45°C.
- ③ Air: 7°C D.B. - 6°C W.B. - Water: 30/35°C.
- ④ Air: 35° D.B. - Water: 12/7°C.
- ⑤ In open field (Q = 2) at 10 m from the unit.
- ⑥ Weight refers to P1 DS set up.

Performance according to EN 14511:2018.

- ③ In Average climatic conditions, low temperature application (35°C)
- ④ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013)



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