

MidiPACK-I TCAITY-THAITY 120÷130



Cooling capacity: 18.8-29.3 kW - Heating capacity:
20-30.4 kW

- √ **Hot water up to -15°C outdoor air**
- √ **Temperature of the produced water up to 60°C**
- √ **Version with pump or with pump and storage tank**
- √ **Integrated MASTER/SLAVE control**



Web code: CY102

Water chillers and packaged reversible air-cooled heat pumps with axial fans. Range with scroll hermetic compressors, DC Inverter and R410A refrigerant gas.

Construction features

- Compressor: scroll type, rotary, hermetic with Inverter actuation, complete with 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: featuring finned coil with copper pipes and aluminium fins for TCAITY with hydrophilic treatment for THAITY, complete with protection grilles.
- Fan: external rotor axial type electric fans equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous fan rotation speed regulation.
- Control: microprocessor electronic control with Adaptive Function Plus logic.
- Structure: made of galvanised and painted steel plate, complete with condensate drain pan and unit base antifreeze heater for THAITY.
- The unit is also complete with:
 - outdoor air temperature probe for set-point compensation;
 - electronic expansion valve;
 - display of cooling circuit high and low pressure;
 - Master/Slave control up to 4 units in parallel;
 - clock board.

Version

T - High efficiency.

Models

TCAITY: unit designed for cooling only.
THAITY: heat pump unit.

PUMP set-up

- Pump unit complete with: EC circulator with 3 speed selector or continuous speed regulation or electric pump, membrane expansion tank, manual air vent valve, safety valve and pressure gauge.

TANK&PUMP set up

- Pump unit complete with: inertial buffer tank, circulator or electric circulation pump, membrane expansion tank, manual air vent valve, safety valve, and pressure gauge.

Factory fitted accessories

- Forced Download. Compressor partialisation or switch-off to limit power and current consumption (digital input).
- Condensing control with fans with EC motor.
- Silenced set up.
- Antifreeze heater on the tank.
- Circulator/electric pump antifreeze heater.
- Pre-painted copper/coils or copper/copper coils.
- Digital input for double set-point.

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

Separately supplied accessories

- 3-way valve for the production of domestic hot water, managed by regulation.
- Additional electrical resistance for heat pump, managed by regulation.
- Remotely controllable outdoor air temperature probe for set-point compensation.
- Water filter.
- Rubber anti-vibration mounts.
- Remote keypad with display.
- Interfaces for serial communication with other devices.
- RS485/USB serial converter.
- Rhoss supervisors for unit monitoring and remote management.

Technical Data

| TCAITY MODEL | | 120 | 125 | 130 |
|---|---------|------------|------------|------------|
| ❶ Cooling capacity | kW | 18,8 | 25,2 | 29,3 |
| ❶ Absorbed power | kW | 6,53 | 8,72 | 10,17 |
| ❶ E.E.R. | | 2,88 | 2,89 | 2,88 |
| THAITY MODEL | | 120 | 125 | 130 |
| ❷ Heating capacity | kW | 20 | 25,6 | 30,4 |
| ❷ Absorbed power | kW | 6,15 | 7,83 | 9,5 |
| ❷ C.O.P. NOM | | 3,25 | 3,27 | 3,2 |
| ❸ Heating capacity | kW | 21,1 | 26,1 | 30,7 |
| ❸ Absorbed power | kW | 5,2 | 6,41 | 7,62 |
| ❸ C.O.P. | | 4,06 | 4,07 | 4,03 |
| ❹ Heating capacity | kW | 14,8 | 18,1 | 21,3 |
| ❹ Absorbed power | kW | 4,92 | 6,51 | 7,61 |
| ❹ C.O.P. | | 3,01 | 2,78 | 2,8 |
| ❺ Cooling capacity | kW | 18,5 | 24,1 | 28,3 |
| ❺ E.E.R. | | 2,7 | 2,75 | 2,71 |
| TCAITY-THAITY MODEL | | 120 | 125 | 130 |
| ❻ Sound pressure | dB(A) | 47 | 50 | 51 |
| ❼ PO circulator available head | kPa | 77 | 80 | 67 |
| Buffer tank water content | l | 110 | 110 | 110 |
| Electrical supply | V-ph-Hz | 400-3+N-50 | 400-3+N-50 | 400-3+N-50 |
| DIMENSIONS AND WEIGHT | | 120 | 125 | 130 |
| L - PUMP width | mm | 1522 | 1522 | 1522 |
| L - TANK&PUMP width | mm | 1625 | 1625 | 1625 |
| H - PUMP height | mm | 1280 | 1280 | 1280 |
| H - TANK&PUMP height | mm | 1590 | 1590 | 1590 |
| P - PUMP Depth | mm | 600 | 600 | 600 |
| P - TANK&PUMP Depth | mm | 600 | 600 | 600 |
| ❶ PUMP Weight | kg | 245 | 265 | 275 |
| ❶ TANK&PUMP Weight | kg | 445 | 465 | 475 |
| SEASONAL ENERGY PERFORMANCE | | 120 | 125 | 130 |
| TCAITY MODEL SEASONAL PERFORMANCE IN COOLING MODE | | | | |
| ❶ Pdesignc (EN 14825) | kW | 18,8 | 25,2 | 29,3 |
| ❶ SEER (EN 14825) | | 4,31 | 4,36 | 4,32 |
| ❷ ηs,c | % | 169 | 171 | 170 |
| THAITY MODEL SEASONAL PERFORMANCE IN HEATING MODE | | | | |
| ❸ Pdesignh (EN 14825) | kW | 21 | 26 | 30 |
| ❸ SCOP (EN 14825) | | 4,17 | 3,63 | 3,88 |
| ❹ ηs | % | 164 | 142 | 152 |
| ❹ Energy class | | A++ | A+ | A++ |

Data at the following conditions:

- ❶ Air: 35°C D.B. - Water: 12/7°C.
- ❷ Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
- ❸ Air: 7°C D.B. - 6°C W.B. - Water: 30/35°C.
- ❹ Air: -7°C D.B. - Water: 30/35°C.
- ❺ In open field (Q = 2) at 5 m from the unit.
- ❻ Weight refers to the most complete setup.
Performance according to EN 14511. PO setup.
- ❼ Low temperature application (7°C)
- ❸ Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)
- ❹ In Average climatic conditions, low temperature application (35°C)
- ❹ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013)

RHOSS S.P.A. declines all responsibility for possible mistakes in this document and reserves the right to alter the features of their products without notice.

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