

MidiPACK-I TCAITY-THAITY 138÷262



Cooling capacity: 37.4÷62.6 kW - Heating capacity:
40.2÷71 kW

✓ **Hot water up to -15°C outdoor air**

✓ **Temperature of the produced water up to 60°C**

✓ **Plug&Play unit with integrated hydraulic module**

✓ **Optional EC fans and inverter-based circulation pump**

✓ **Multi-purpose for systems with 2 pipes + DHW (with optional RC100)**

✓ **Integrated MASTER/SLAVE control**



Web code: CY112

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: finned coil with copper pipes and aluminium fins, 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
- The unit is also complete with:
 - outdoor air temperature probe for set-point compensation;
 - display of cooling circuit high and low pressure;
 - electronic expansion valve;
 - 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 with single or double electric pump, including an automatic actuation pump in standby, complete with expansion tank, air vent valves, safety valve and water side pressure gauge. The pumps are available in low or high pressure head versions, and with INVERTER operation.

TANK&PUMP set up

- Pump unit complete with inertial buffer tank and single or double electric pump, including an automatic actuation pump in standby, complete with expansion tank, air vent valves, safety valve and water side pressure gauge. The pumps are available in low or high pressure head versions, and with INVERTER operation.

Factory fitted accessories

- Pre-painted copper/aluminium coils with hydrophilic treatment or copper/copper.
- Desuperheater.
- 100% heat recovery unit.
- 3-way diverter valve for the production of domestic hot water, managed by regulation.

- Condensing control with fans with EC motor.
- Base antifreeze heater
- Antifreeze heater for buffer tank and electric pumps
- Forced Download. Compressor partialisation or switch-off to limit power and current consumption (digital input).
- Refrigerant leak detector
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Energy parameters measurement.
- Silenced set up.
- Cooling circuit high and low pressure gauges.

Separately supplied accessories

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

Technical Data

TCAITY MODEL		138	146	154	262
❶ Cooling capacity	kW	37,4	47,7	55,1	62,6
❶ Absorbed power	kW	13,6	16,1	18,4	22,8
❶ E.E.R.		2,76	2,97	2,99	2,75
THAITY MODEL		138	146	154	262
❷ Heating capacity	kW	40,2	52,1	58,7	71
❷ Absorbed power	kW	12,5	16,2	18,2	22,2
❷ C.O.P.		3,21	3,22	3,23	3,2
❸ Heating capacity	kW	40,2	54,2	60,4	74
❸ Absorbed power	kW	10,3	14,3	15,9	20,2
❸ C.O.P.		3,91	3,8	3,81	3,67
❹ Heating capacity	kW	28,3	38,6	42,3	51
❹ Absorbed power	kW	9,7	13,4	14,9	19,5
❹ C.O.P.		2,92	2,89	2,83	2,62
❶ Cooling capacity	kW	36,7	46,1	54	61,4
❶ E.E.R.		2,69	2,9	2,92	2,7
TCAITY-THAITY MODEL		138	146	154	262
❺ Sound pressure	dB(A)	54	55	55	57
Scroll compressor	n.	1-inverter	1-inverter	1-inverter	1-inverter + 1
Circuits	no.	1	1	1	1
Buffer tank water content (TANK&PUMP)	l	80	150	150	150
❶ Standard head pump nominal available head (TCAITY)	kPa	124	98	107	111
Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
DIMENSIONS AND WEIGHTS		138	146	154	262
L - Width	mm	1660	2315	2315	2315
H - Height	mm	1570	1570	1570	1570
P - Depth	mm	1000	1000	1000	1000
❶ TCAITY weight	kg	540	635	695	825
❶ THAITY weight	kg	550	655	725	845
SEASONAL ENERGY PERFORMANCE		138	146	154	262
TCAITY MODEL SEASONAL PERFORMANCE IN COOLING MODE					
❶ Pdesignc (EN 14825)	kW	37,4	47,7	55,1	62,6
❶ SEER (EN 14825)		4,33	4,31	4,27	4,31
❷ ηs,c	%	170	169	168	169
THAITY MODEL SEASONAL PERFORMANCE IN HEATING MODE					
❸ Pdesignh (EN 14825)	kW	40	54	60	70
❸ SCOP (EN 14825)		3,9	3,85	3,84	4,08
❹ ηs	%	153	151	150	160
❹ Energy class		A++	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.
- ❶ Low temperature application (7°C)
 - ❷ Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)
 - ❸ 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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