

## MidiPACK-I ECO

# TCAITI-THAITI 131÷155



Cooling capacity: 29.5÷55.2 kW - Heating capacity: 32.4÷58.8 kW

√ **Efficient and eco-friendly unit in R32**

√ **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**

√ **Integrated MASTER/SLAVE control**



Web code: MDI12

**Water chillers and packaged reversible air-cooled heat pumps with axial fans. Series with scroll hermetic compressors, DC Inverter and R32 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 adjustment.
- 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 compensation of the Set-point;
  - 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

TCAITI: unit designed for cooling only.  
THAITI: 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 (only TCAITI)
- 3-way diverter valve for domestic hot water production, managed by the adjustment.
- 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).
- Double safety valves.
- 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.
- Low water set-point temperature.

### **Separately supplied accessories**

- 3-way valve for the production of domestic hot water, managed by the adjustment.
- Remotely controllable outdoor air temperature probe for compensation of the Set-point.
- Additional electrical resistance for heat pump, managed by the adjustment.
- 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

TCAITI MODEL		131	140	148	155
① Cooling capacity	kW	30,1	38,7	48	55,2
① Absorbed power	kW	10,13	13,07	15,84	18,46
① E.E.R.		2,97	2,96	3,03	2,99
THAITI MODEL		131	140	148	155
② Heating capacity	kW	32,4	42	53,2	58,8
② Absorbed power	kW	9,67	12,61	15,88	18,32
② C.O.P.		3,35	3,33	3,35	3,21
③ Heating capacity	kW	32,9	42,9	53,8	59,5
③ Absorbed power	kW	7,99	10,51	13,03	15,14
③ C.O.P.		4,12	4,08	4,13	3,93
④ Heating capacity	kW	22,8	29,1	36,9	40,9
④ Absorbed power	kW	7,65	10	12,42	14,4
④ C.O.P.		2,98	2,91	2,97	2,84
① Cooling capacity	kW	29,5	38,3	47,1	54
① E.E.R.		2,88	2,91	2,96	2,91
TCAITI-THAITI MODELS		131	140	148	155
⑥ Sound pressure	dB(A)	51,5	53,5	54,5	55,5
Scroll compressor	no.	1-inverter	1-inverter	1-inverter	1-inverter
Circuits	no.	1	1	1	1
Buffer tank water content (TANK&PUMP)	l	150	150	150	150
① Standard head pump nominal available head (TCAITI)	kPa	129	122	116	110
Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
DIMENSIONS AND WEIGHT		131	140	148	155
L - Width	mm	2315	2315	2315	2315
H - Height	mm	1580	1580	1580	1580
P - Depth	mm	1000	1000	1000	1000
⑥ TCAITI weight	kg	450	470	480	490
⑥ THAITI weight	kg	470	490	500	510
SEASONAL ENERGY PERFORMANCE		131	140	148	155
TCAITI MODEL SEASONAL PERFORMANCE IN COOLING MODE					
① Pdesignc (EN 14825)	kW	30,1	38,7	48	55,2
① SEER (EN 14825)		4,65	4,82	4,91	4,7
② ηs,c	%	183	190	193	185
THAITI MODEL SEASONAL PERFORMANCE IN HEATING MODE					
③ Pdesignh (EN 14825)	kW	30	38	48	54
③ SCOP (EN 14825)		3,9	3,91	3,95	3,9
④ ηs	%	153	154	155	153
④ Energy class		A++	A++	A++	A++

Data at the following conditions:

- ① Air: 35°C D.B. - Water: 12/7°C.
  - ② Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
  - ③ Air: 7°C D.B. - 6°C W.B. - Water: 30/35°C.
  - ④ Air: -7°C D.B. - Water: 30/35°C.
  - ⑤ In open field (Q = 2) at 5 m from the unit.
  - ⑥ Weight referred to the unit without load and not accessorised.
- Performance according to EN 14511.
- ① Low temperature application (7°C)
  - ② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)
  - 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)

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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