

EasyPACK-I ECO

TCAII-THAI 270÷2130

Cooling capacity 67÷127.7 kW
Heating capacity 70.3÷127.3 kW



Features

Efficient and eco-friendly range in R32

Chillers and heat pumps with inverter compressors

Precise and efficient power modulation

Plug&Play unit with integrated hydronic module and heat recovery

Integrated MASTER/SLAVE control

Tax incentives*



Water chillers and packaged reversible air-cooled heat pumps with axial fans. Range with hermetic scroll compressors, DC Inverter and R32 refrigerant.

Construction features

- Compressor: scroll type, rotary, hermetic and with Inverter actuation (1+i) complete with thermal protection and casing heater.
- Continuous regulation with high efficiency at partial loads.
- Water side heat exchanger: with stainless steel plates, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch.
- Air side heat exchanger: featuring micro-channels (TCAEI) or finned coil with copper pipes and aluminium fins (THAEI).
- 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: load-bearing structure made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:

- compressor and fan circuit breaker switches;
- electronic expansion valve;
- display of cooling circuit high and low pressure;
- Master/Slave control up to 4 units in parallel;
- clock board;
- control of Variable Primary Flow (VPF_R).

Versions

- T - High efficiency version with oversized condensing section (TCAITI-THAITI).
- Q - Super-silenced version complete with compressor technical compartment soundproofing, reduced speed fans and oversized condensing section (TCAIQI-THAIQI).

Models

- TCAITI: high efficiency unit designed for cooling only.

- TCAIQI: super silenced unit designed for cooling only.
- THAITI: high efficiency heat pump unit.
- THAIQI: super silenced heat pump unit.
- Rhoss supervisors for unit monitoring and remote management.
- Rhoss sequencer for integrated management of multiple chillers.

Factory fitted accessories

- PUMP with single or double electric pump, one of which automatic in standby. The electric pumps are available in the low or high head versions.
- TANK&PUMP with 230 - 440 litre integrated buffer tank (depending on the sizes) and single or double electric pump, complete with expansion tank, air vent valves, safety valve and water side pressure gauge.
- Inverter pump control for unit start-up.
- Desuperheater.
- Desuperheater with pump and mixing valve
- 100% heat recovery unit (TCAII)
- Condensing control with fans with EC motor (fitted as standard in TCAIQI-THAIQI 270-280).
- Condensing control with over-pressure fans (T version only)
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Forced limit of power consumption.
- Forced noise limit.
- Energy parameter measuring device.
- Soft starter.
- Technical compressor compartment soundproofing.
- Compressor soundproof enclosures.
- Cooling circuit outlet and inlet valves
- Refrigerant leak detector.
- Gas control and refrigerant leak detector (leak detector plus).
- Cooling circuit high and low pressure gauges.
- Double safety valves.
- Metal filters or coil protection nets.
- Microchannel coils with E-coating treatment, copper/copper, copper/aluminium, pre-painted copper/aluminium or with hydrophilic treatment depending on versions.
- Control of min/max power supply voltage and backup battery
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Evaporator antifreeze heater, electrical panel, buffer tank, electric pumps and heat exchangers for heat recovery, if applicable, and base.
- Low temperature water production.
- Interfaces for serial communication with other devices.
- Colour touch user keypad (fitted on the machine or remotely) with 7" display.
- Rubber anti-vibration mounts.

Separately supplied accessories

- Remote keypad with display.
- Thermostat with display.

Technical data

TCAITI-TCAIQI MODEL		270	280	290	2100	2115	2130
① Nominal cooling capacity	kW	71,3	81,1	90,3	100,8	114,8	127,7
① Nominal cooling capacity	kW	69,3	78,6	88,5	98,4	112,6	124,7
① E.E.R.		3,37	3,26	3,37	3,24	3,32	3,12
① E.E.R.		3,23	3,11	3,25	3,11	3,19	2,99
① Absorbed power	kW	21,2	24,9	26,8	31,1	34,6	40,9
① Absorbed power	kW	21,5	25,3	27,2	31,6	35,3	41,7
THAITI-THAIQI MODEL		270	280	290	2100	2115	2130
② Nominal heating capacity	kW	72,3	80,2	89,6	98,5	116,2	127,3
② Nominal heating capacity	kW	70,3	77,7	87,8	96,6	113,2	124,3
② C.O.P.		3,24	3,22	3,26	3,22	3,2	3,18
② C.O.P.		3,29	3,25	3,28	3,23	3,17	3,17
① Nominal cooling capacity	kW	69	76,5	87	96,7	110,8	119,7
① Nominal cooling capacity	kW	67	73,8	84,9	94,1	108,8	117,8
② Absorbed power	kW	22,3	24,9	27,5	30,6	36,3	40
② Absorbed power	kW	21,4	23,9	26,8	29,9	35,7	39,2
TCAII-THAII MODEL		270	280	290	2100	2115	2130
③ TCAITI-THAITI sound pressure	dB(A)	50	52	54	54	55	56
③ TCAIQI-THAIQI sound pressure	dB(A)	44	46	47	47	49	50
④ TCAITI-THAITI sound power	dB(A)	83	85	85	86,5	87	87,5
④ TCAIQI-THAIQI sound power	dB(A)	77	79	80	81,5	81,5	82
Scroll compressors/steps	n.	1 inverter + 1	1 inverter + 1	1 inverter + 1	1 inverter + 1	1 inverter + 1	1 inverter + 1
Circuits	n.	1	1	1	1	1	1
Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
DIMENSIONS AND WEIGHTS		270	280	290	2100	2115	2130
L – Width	mm	3560	3560	3560	3560	3450	3450
TCAITI-THAITI H – Height	mm	1700	1700	1800	1800	2000	2000
TCAIQI-THAIQI H – Height	mm	1540	1540	1800	1800	2000	2000
P – Depth	mm	1210	1210	1210	1210	1520	1520
⑤ TCAITI weight	kg	865	870	920	925	1065	1070
⑤ THAITI weight	kg	950	955	1005	1010	1170	1175
SEASONAL ENERGY PERFORMANCE		270	280	290	2100	2115	2130
TCAITI MODEL SEASONAL PERFORMANCE IN COOLING MODE							
① Pdesignc (EN 14825)	kW	71,3	81,1	90,3	100,8	114,8	127,7
① SEER (EN 14825)		4,82	4,85	4,99	5,04	4,88	4,9
② ηs,c	%	190	191	197	199	192	193
TCAIQI MODEL SEASONAL PERFORMANCE IN COOLING MODE							
① Pdesignc (EN 14825)	kW	69,3	78,6	88,5	98,4	112,6	124,7
① SEER (EN 14825)		4,89	4,92	4,96	5,01	4,84	4,86
② ηs,c	%	193	194	195	197	191	192
THAITI MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE – Low temperature application 35°C							
③ Pdesignh (EN 14825)	kW	54	60	67	79	93	102
③ SCOP (EN 14825)		4,02	4,08	4,16	4,23	4,09	4,17
④ ηs	%	158	160	164	166	161	164
④ Energy class		A++	A++	A++	-	-	-
THAIQI MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE – Low temperature application 35°C							
③ Pdesignh (EN 14825)	kW	53	58	66	77	91	99
③ SCOP (EN 14825)		4,06	4,12	4,18	4,27	4,12	4,21
④ ηs	%	159	162	164	168	162	165
④ Energy class		A++	A++	A++	-	-	-
THAITI MODEL SEASONAL PERFORMANCE IN HEATING MODE – Medium temperature application 55°C							
③ Pdesignh (EN 14825)	kW	74	81	91	100	118	130
③ SCOP (EN 14825)		3,14	3,18	3,23	3,26	3,18	3,21
④ ηs	%	123	124	126	127	124	125
④ Energy class		-	-	-	-	-	-
THAIQI MODEL SEASONAL PERFORMANCE IN HEATING MODE – Medium temperature application 55°C							

③ Pdesignh (EN 14825)	kW	72	79	90	99	116	127
③ SCOP (EN 14825)		3,17	3,2	3,26	3,29	3,18	3,22
④ ηs	%	124	125	127	129	124	126
④ Energy class		-	-	-	-	-	-

Data at the following conditions:

- ① Air: 35°C – Water: 12/7°C
 - ② Air: 7°C, D.B. – 6°C W.B.- Water: 40/45°C.
 - ③ In open field (Q = 2) at 10 m from the unit.
 - ④ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
 - ⑤ Weight referred to the unit without load and not accessorised.
 - TCAIQI-THAIQI super-silenced versions.
- 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
 - ④ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013)



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