

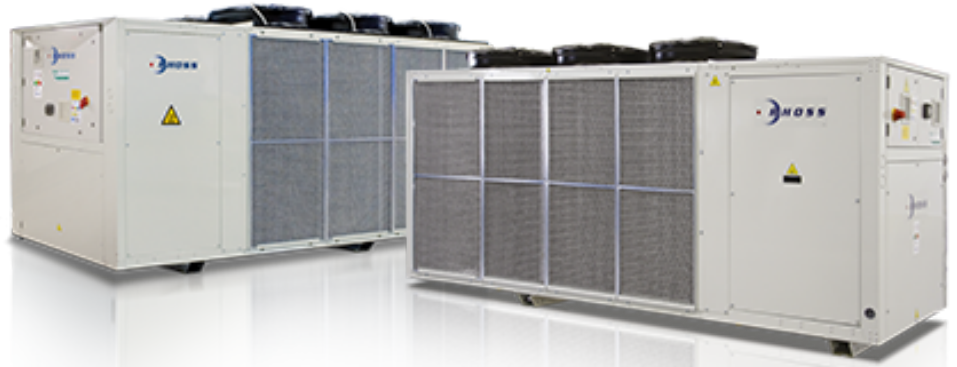
EasyPACK ECO

TCAEI-THAEI 270÷2150



Cooling capacity: 69.4-153.7 kW - Heating capacity:
75.2-152.3 kW

- √ **Efficient and eco-friendly range in R32**
- √ **Full optional unit**
- √ **Integrated MASTER/SLAVE control**
- √ **Partial heat recovery with pump and mixing valve**



Web code: EAS02

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

Construction features

- Compressor: scroll type, rotary, hermetic complete with thermal protection and casing heater.
- 3 capacity steps 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 (TCAETI-THAETI).
- Q - Super-silenced version complete with compressor technical compartment soundproofing, reduced speed fans and oversized condensing section (TCAEQI-THAEQI).

Models

- TCAETI: high efficiency unit designed for cooling only.
- TCAEQI: super silenced unit designed for cooling only.
- THAETI: heat pump unit.
- THAEQI: super silenced heat pump unit.

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 (TCAEI)
- Condensing control with fans with EC motor (fitted as standard in TCAEQI-THAEQI 270-285).
- 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 (TCAETI-TCAEQI).
- Cooling circuit outlet valves (THAETI-THAEQI).

- Refrigerant leak detector.
- 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.
- Rubber anti-vibration mounts.

Separately supplied accessories

- Remote keypad with display.
- Thermostat with display.
- Rhoss supervisors for unit monitoring and remote management.
- Rhoss sequencer for integrated management of multiple chillers.

Technical Data

TCAETI-TCAEQI MODEL		270	285	2100	2110	2120	2140	2150
① Nominal cooling capacity	kW	74,1	88,6	101	110,5	121,7	140,8	153,7
① Nominal cooling capacity	kW	72,5	85,8	98,5	108	119,3	137,6	149,5
① E.E.R.		3,15	3,11	3,26	3,18	3,27	3,18	3,13
① E.E.R.		3,04	2,95	3,14	3,06	3,15	3,06	2,97
① Absorbed power	kW	23,5	28,5	30,98	34,75	37,22	44,28	49,11
① Absorbed power	kW	23,85	29,08	31,37	35,29	37,87	44,97	50,34
THAETI-THAEQI MODEL		270	285	2100	2110	2120	2140	2150
② Nominal heating capacity	kW	76,1	89,4	100,3	109,1	123	139,4	152,3
② Nominal heating capacity	kW	75,2	88	98,2	106,6	121,2	138,9	150,1
② C.O.P.		3,23	3,25	3,31	3,25	3,28	3,25	3,26
② C.O.P.		3,27	3,25	3,32	3,25	3,33	3,32	3,29
① Nominal cooling capacity	kW	71	83,8	96,1	105,6	117	133,7	146,1
① Nominal cooling capacity	kW	69,4	81,9	93,5	101,1	113,8	130,6	141,7
② Absorbed power	kW	23,56	27,51	30,3	33,57	37,5	42,89	46,72
② Absorbed power	kW	23	27,08	29,58	32,8	36,4	41,84	45,62
TCAEI-THAEI MODEL		270	285	2100	2110	2120	2140	2150
③ TCAETI-THAETI sound pressure	dB(A)	50	52	54	54	55	56	56
③ TCAEQI-THAEQI sound pressure	dB(A)	44	46	47	47	49	50	50
④ TCAETI-THAETI sound power	dB(A)	82	84	85,5	86	87	88	88
④ TCAEQI-THAEQI sound power	dB(A)	76	78	79	79	81	82	82
Scroll/step compressor	n.	2/3	2/3	2/3	2/3	2/3	2/3	2/3
Circuits	n.	1	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	400-3+N-50
DIMENSIONS AND WEIGHTS		270	285	2100	2110	2120	2140	2150
L - Width	mm	3250	3250	3250	3250	3450	3450	3450
TCAETI-THAETI H - Height	mm	1700	1700	1800	1800	2000	2000	2000
TCAEQI-THAEQI H - Height	mm	1540	1540	1800	1800	2000	2000	2000
P - Depth	mm	1210	1210	1210	1210	1520	1520	1520
⑤ TCAETI weight	kg	795	825	875	880	1065	1165	1170
⑤ THAETI weight	kg	885	915	965	970	1170	1270	1275
SEASONAL ENERGY PERFORMANCE		270	285	2100	2110	2120	2140	2150
TCAETI MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	74,1	88,6	101	110,5	121,7	140,8	153,7
① SEER (EN 14825)		4,5	4,47	4,63	4,62	4,55	4,58	4,49
② ηs,c	%	177	176	182	182	179	180	177
TCAEQI MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	72,5	85,8	98,5	108	119,3	137,6	149,5
① SEER (EN 14825)		4,45	4,39	4,46	4,45	4,4	4,4	4,29
② ηs,c	%	175	173	175	175	173	173	169
THAETI MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
③ Pdesignh (EN 14825)	kW	56	66	80	87	98	112	122
③ SCOP (EN 14825)		4,08	4,14	4,11	4,12	4	4,12	4,07
④ ηs	%	160	163	161	162	157	162	160
④ Energy class		A++	A++	-	-	-	-	-
THAEQI MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
③ Pdesignh (EN 14825)	kW	60	70	78	85	96	111	120
③ SCOP (EN 14825)		4,13	4,19	4,09	4,03	3,99	4,08	4,04
④ ηs	%	162	164	161	158	156	160	159
④ Energy class		A++	A++	-	-	-	-	-

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.
- TCAEQI-THAEQI 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, 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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