

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

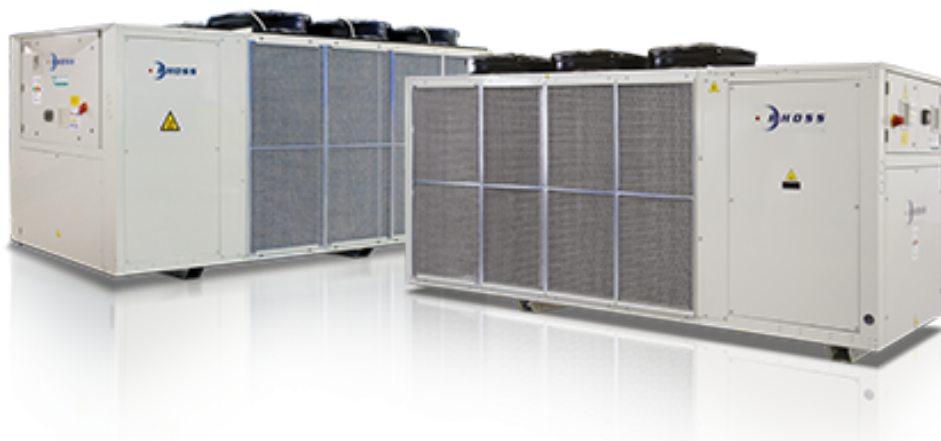


✓ **Efficient and eco-friendly range in R32**

✓ **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 (TCAEI-THAEI).
- 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
❶ Nominal cooling capacity	kW	74,1	88,6	101	110,5	121,7	140,8	153,7
❶ Nominal cooling capacity	kW	72,5	85,8	98,5	108	119,3	137,6	149,5
❶ E.E.R.		3,15	3,11	3,26	3,18	3,27	3,18	3,13
❶ E.E.R.		3,04	2,95	3,14	3,06	3,15	3,06	2,97
❶ Absorbed power	kW	23,5	28,5	30,98	34,75	37,22	44,28	49,11
❶ 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
❷ Nominal heating capacity	kW	76,1	89,4	100,3	109,1	123	139,4	152,3
❷ Nominal heating capacity	kW	75,2	88	98,2	106,6	121,2	138,9	150,1
❷ C.O.P.		3,23	3,25	3,31	3,25	3,28	3,25	3,26
❷ C.O.P.		3,27	3,25	3,32	3,25	3,33	3,32	3,29
❶ Nominal cooling capacity	kW	71	83,8	96,1	105,6	117	133,7	146,1
❶ Nominal cooling capacity	kW	69,4	81,9	93,5	101,1	113,8	130,6	141,7
❷ Absorbed power	kW	23,56	27,51	30,3	33,57	37,5	42,89	46,72
❷ 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
❸ TCAETI-THAETI sound pressure	dB(A)	50	52	54	54	55	56	56
❸ TCAEQI-THAEQI sound pressure	dB(A)	44	46	47	47	49	50	50
❸ TCAETI-THAETI sound power	dB(A)	82	84	85,5	86	87	88	88
❸ 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
❸ TCAETI weight	kg	795	825	875	880	1065	1165	1170
❸ 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								
❶ Pdesignc (EN 14825)	kW	74,1	88,6	101	110,5	121,7	140,8	153,7
❶ SEER (EN 14825)		4,5	4,47	4,63	4,62	4,55	4,58	4,49
❷ ηs,c	%	177	176	182	182	179	180	177
TCAEQI MODEL SEASONAL PERFORMANCE IN COOLING MODE								
❶ Pdesignc (EN 14825)	kW	72,5	85,8	98,5	108	119,3	137,6	149,5
❶ SEER (EN 14825)		4,45	4,39	4,46	4,45	4,4	4,4	4,29
❷ ηs,c	%	175	173	175	175	173	173	169
THAETI MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
❸ Pdesignh (EN 14825)	kW	56	66	80	87	98	112	122
❸ SCOP (EN 14825)		4,08	4,14	4,11	4,12	4	4,12	4,07
❹ ηs	%	160	163	161	162	157	162	160
❹ Energy class		A++	A++	-	-	-	-	-
THAEQI MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
❸ Pdesignh (EN 14825)	kW	60	70	78	85	96	111	120
❸ SCOP (EN 14825)		4,13	4,19	4,09	4,03	3,99	4,08	4,04
❹ ηs	%	162	164	161	158	156	160	159
❹ Energy class		A++	A++	-	-	-	-	-

Data at the following conditions:

- ❶ Air: 35°C - Water: 12/7°C
- ❷ Air: 7°C, D.B. - 6°C W.B. - Water: 40/45°C.
- ❸ In open field (Q = 2) at 10 m from the unit.
- ❹ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ❺ Weight referred to the unit without load and not accessorised.
- TCAEQI-THAEQI super-silenced versions.
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.

Rhoss S.p.A.
Via Oltre Ferrovia, 32
33033 Codroipo (UD) - Italy
tel. +39 0432 911611 - rhoss@rhoss.it
www.rhoss.it www.rhoss.com



RhossOfficial



RhossOfficialChannel



Rhoss