

EasyPACK TCAEY-THAEY 269÷2146



Cooling capacity: 63.7÷144.4 kW - Heating capacity:
70.3÷151.7 kW

✓ **Complete and flexible range of accessories and set-ups**

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

✓ **Integrated MASTER/SLAVE control**

✓ **HT65 version for 65°C water production (°)**



Web code: EAS01

Water chillers and packaged reversible air-cooled heat pumps with axial fans. Range with scroll hermetic compressors and R410A 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 or finned coil with copper pipes and aluminium fins depending on models/sizes.
- Fan: external rotor axial type electric fans equipped with internal thermal protection and accident protection grilles. The electric fans, based on the versions, are fitted with a proportional electronic device for continuous regulation of the rotation speed of the fans.
- 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:
 - fan and compressor circuit breaker switches;
 - 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

- B - Standard version (TCAEBY).
- T - High efficiency version with oversized condensing section (TCAETY-THAETY).

- S - Silenced version complete with compressor compartment soundproofing, reduced speed fans, and oversized condensing section (TCAESY-THAESY).
- Q - Super-silenced version complete with compressor technical compartment soundproofing, super-reduced speed fans and oversized condensing section (TCAEQY-THAEQY).

Models

- TCAEBY: standard unit designed for cooling only.
- TCAETY: high efficiency unit designed for cooling only.
- TCAESY: silenced unit designed for cooling only.
- TCAEQY: super silenced unit designed for cooling only.
- THAETY: heat pump unit.
- THAESY: silenced heat pump unit.
- THAEQY: super silenced heat pump unit.

Factory fitted accessories

- Shell and tube evaporator.
- 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 to 440 litre integrated buffer tank (depending on models) 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.
- 100% heat recovery unit
- Electronic expansion valve.
- Condensing control (standard in B-S-Q versions).
- Condensing control with fans with EC motor.
- Condensing control with over-pressure fans (B-T version only)
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Forced limit of power consumption.
- Forced noise limit.
- Energy parameter measuring device.
- Optimised energy efficiency.
- Soft starter.
- Technical compartment soundproofing.
- Compressor soundproof enclosures.
- Cooling circuit outlet and inlet valves.
- 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 or pre-painted copper/aluminium depending on the versions.
- Control of min/max power supply voltage.
- 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.
- Buffer tank integrative heaters.
- 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

TCAEY MODEL		269	279	289	296	2112	2125	2146
① Nominal cooling capacity	kW	65,6	72,1	77,6	86,5	105,5	-	-
① E.E.R.		2,74	2,81	2,81	2,62	2,79	-	-
① Absorbed power	kW	23,94	25,66	27,62	33,02	37,81	-	-
TCAETY-TCAESY-TCAEQY MODEL		269	279	289	296	2112	2125	2146
① Nominal cooling capacity	kW	69,2	79,1	90,1	96,1	112	125,5	144,4
① Nominal cooling capacity	kW	67,7	76,7	87,6	92,1	108	122	138,9
① Nominal cooling capacity	kW	64,7	71,2	84,6	89,6	101,1	116,5	131
① E.E.R.		3,12	3,18	3,12	3,11	3,1	3,12	3,12
① E.E.R.		2,92	3,05	2,95	2,92	2,94	2,99	2,94
① E.E.R.		2,82	2,72	2,8	2,72	2,53	2,72	2,59
① Absorbed power	kW	22,18	24,87	28,88	30,9	36,13	40,22	46,28
① Absorbed power	kW	23,18	25,15	29,69	31,54	36,73	40,8	47,24
① Absorbed power	kW	22,94	26,18	30,21	32,94	39,96	42,83	50,58
THAETY-THAESY-THAEQY MODEL		269	279	289	296	2112	2125	2146
② Nominal heating capacity	kW	73,4	82,4	92,4	100,5	118,5	133,1	151,7
② Nominal heating capacity	kW	70,8	80,4	90,4	98	115	129,1	147,6
② Nominal heating capacity	kW	70,3	77,3	88,4	95,4	111	125,5	143,6
② C.O.P.		3,35	3,36	3,31	3,28	3,31	3,25	3,23
② C.O.P.		3,32	3,36	3,31	3,29	3,3	3,27	3,27
② C.O.P.		3,31	3,3	3,27	3,26	3,21	3,23	3,22
① Nominal cooling capacity	kW	67,2	76,7	86,6	93,6	107,5	121,5	139,4
① Nominal cooling capacity	kW	66,2	74,7	85,7	89,6	104,6	119	136,9
① Nominal cooling capacity	kW	63,7	69,7	82,7	86,6	99,1	112,1	128,5
② Absorbed power	kW	21,91	24,52	27,92	30,64	35,8	40,95	46,97
② Absorbed power	kW	21,33	23,93	27,31	29,79	34,85	39,48	45,14
② Absorbed power	kW	21,24	23,42	27,03	29,26	34,58	38,85	44,6
TCAEY-THAEY MODEL		269	279	289	296	2112	2125	2146
⑤ TCAEY sound pressure	dB(A)	50	50	50	50	52	-	-
⑤ TCAETY-THAETY sound pressure	dB(A)	50	51	51	51	53	54	54
⑤ TCAESY-THAESY sound pressure	dB(A)	46	47	47	47	49	50	50
⑤ TCAEQY-THAEQY sound pressure	dB(A)	42	42	43	43	46	47	47
① TCAEY sound power	dB(A)	82	82	82	82	84	-	-
① TCAETY-THAETY sound power	dB(A)	82	83	83	83	85	86	86
① TCAESY-THAESY sound power	dB(A)	78	79	79	79	81	82	82
① TCAEQY-THAEQY sound power	dB(A)	74	74	75	75	78	79	79
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 WEIGHT		269	279	289	296	2112	2125	2146
W - Width of version B	mm	2650	2650	2650	2650	3250	-	-
W - Width of version T - S - Q	mm	3250	3250	3250	3250	3450	3450	3450
H - Height of version B	mm	1700	1700	1700	1700	1700	-	-
H - Height of version T - S	mm	1700	1700	1700	1700	2000	2000	2000
H - Height of version Q	mm	1520	1520	1520	1520	2000	2000	2000
D - Depth of version B	mm	1210	1210	1210	1210	1210	-	-
D - Depth of version T - S - Q	mm	1210	1210	1210	1210	1520	1520	1520
⑤ TCAEY weight	kg	755	760	795	800	980	-	-
⑤ TCAETY weight	kg	850	865	870	905	1160	1195	1255
⑤ THAETY weight	kg	915	930	935	980	1240	1280	1355
SEASONAL ENERGY PERFORMANCE		269	279	289	296	2112	2125	2146
TCAEY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	65,6	72,1	77,6	86,5	105,5	-	-
① SEER (EN 14825)		4,35	4,19	4,2	4,14	4,34	-	-
② $\eta_{s,c}$	%	171	164	165	163	170	-	-
TCAETY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	69,2	79,1	90,1	96,1	112	125,5	144,4
① SEER (EN 14825)		4,43	4,35	4,45	4,48	4,46	4,41	4,44
② $\eta_{s,c}$	%	174	171	175	176	175	173	175
TCAESY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	67,7	76,7	87,6	92,1	108	122	138,9
① SEER (EN 14825)		4,34	4,35	4,35	4,37	4,4	4,42	4,4
② $\eta_{s,c}$	%	170	171	171	172	173	174	173
TCAEQY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	64,7	71,2	84,6	89,6	101,1	116,5	131
① SEER (EN 14825)		4,27	4,17	4,3	4,23	4,16	4,17	4,11
② $\eta_{s,c}$	%	168	164	169	166	163	164	161
THAETY MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
③ Pdesignh (EN 14825)	kW	53	60	67	91	108	121	138
③ SCOP (EN 14825)		4,07	4,04	3,99	3,9	4,03	3,9	3,87
④ η_s	%	160	159	156	153	158	153	152
④ Energy class		A++	A++	A++	-	-	-	-
THAESY MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
③ Pdesignh (EN 14825)	kW	51	58	66	89	104	117	134
③ SCOP (EN 14825)		4,05	4,08	4	3,93	4,02	3,96	3,93
④ η_s	%	159	160	157	154	158	155	154
④ Energy class		A++	A++	A++	-	-	-	-

THAEQY MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
③ Pdesignh (EN 14825)	kW	51	56	65	69	100	114	130
③ SCOP (EN 14825)		4,06	4,04	3,99	3,99	3,93	3,92	3,88
④ η_s	%	159	159	157	157	154	154	152
④ Energy class		A++	A++	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.
 - TCAESY-THAESY silenced versions.
 - TCAEQY-THAEQY 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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