

TurboPOWER

TCATBZ-TCATTZ

1300÷31100 / TCATQZ

1300÷3990

Cooling capacity: 267.0÷1101 kW



- √ **Efficient, quiet and low start-up current oil-free compressor**
- √ **High energy efficiency chillers.**
- √ **Wide range of accessories**
- √ **Integrated MASTER/SLAVE control**



Web code: TP011

Air cooled water chillers with axial fans. Range with oil-free centrifugal compressors and R134a refrigerant gas.

Construction features

- Compressor: high energy efficiency, oil free, centrifugal compressor with limited start, equipped with magnetic levitation bearings and complete with integral protection and intake and delivery shut-off valves.
- Water side heat exchanger: flooded type shell and tube, complete with closed cell polyurethane foam rubber insulation, water flow differential pressure switch and Victaulic fittings.
- Air side heat exchanger: with micro-channels.
- Fan: external rotor axial type electric fans with internal thermal protection, accident protection grilles. Version B is equipped with a proportional electronic device for continuous fan rotation speed regulation, while versions T-Q are equipped with EC motor fans.
- Control: microprocessor electronic control.
- Structure: made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:
 - display of cooling circuit high/low pressure;
 - electronic expansion valve;
 - double safety valve;
 - clock board;
 - Master/Slave control up to 4 units in parallel;
 - control of Variable Primary Flow (VPF_R).

Versions

- B - Basic version, soundproofed technical compressor compartment (TCATBZ).
- T - High-efficiency version, soundproofed technical compressor

compartment (TCATTZ).

- Q - Super silenced version, super-soundproofed technical compartment, reduced speed fans (TCATQZ).

Models

- TCATBZ: standard unit designed for cooling only.
- TCATTZ: high efficiency unit designed for cooling only.
- TCATQZ: super silenced unit designed for cooling only.

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.
- Inverter pump control for unit start-up.
- Condensing control with fans with EC motor (standard in T-Q versions).
- Condensing control with over-pressure fans.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Compressor circuit breaker switches.
- Electro-mechanical flow switch.
- Forced limit of power consumption.
- Forced noise limit.
- Energy parameter measuring device.
- Soundproofed compressor box.
- Refrigerant leak detector.
- Cooling circuit high and low pressure gauges.

- Coil protection nets.
- Micro-channel coils with E-coating treatment.
- 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, electric pumps, if applicable.
- Interfaces for serial communication with other devices.
- Anti-vibration mounts.

Separately supplied accessories

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

Technical Data

TCATBZ-TCATTZ-TCATQZ MODEL		1300	1400	2500	2590	2680	2760	2820	2880
① TCATBZ nominal cooling capacity	kW	284,9	376,6	489,2	577,8	675,1	749,2	808,9	874,4
① TCATTZ nominal cooling capacity	kW	298,8	402,3	498,1	593,6	685	760	820,8	882,3
① TCATQZ nominal cooling capacity	kW	267,1	369,7	463,4	541,2	639,5	721,5	792,1	871,6
① E.E.R. TCATBZ		3,2	3,18	3,26	3,22	3,2	3,2	3,22	3,14
① E.E.R. TCATTZ		3,46	3,42	3,46	3,48	3,37	3,52	3,5	3,33
① E.E.R. TCATQZ		3,22	3,32	3,25	3,28	3,21	3,24	3,36	3,31
① TCATBZ absorbed power	kW	89	118,4	150,1	179,4	211	234,1	251,2	278,5
① TCATTZ absorbed power	kW	86,4	117,6	144	170,6	203,3	215,9	234,5	265
① TCATQZ absorbed power	kW	83	111,4	142,6	165	199,2	222,7	235,7	263,3
TCATBZ-TCATTZ-TCATQZ MODEL		1300	1400	2500	2590	2680	2760	2820	2880
② TCATBZ sound pressure	dB(A)	60	62	62,5	62,5	63	64	64	64
② TCATTZ sound pressure	dB(A)	60	62	62,5	62,5	63	64	64	64
② TCATQZ sound pressure	dB(A)	55	56	56,5	57	58	58	58	59
③ TCATBZ sound power	dB(A)	92	94	95	95	96	97	97	97
③ TCATTZ sound power	dB(A)	92	94	95	95	96	97	97	97
③ TCATQZ sound power	dB(A)	87	88	89	90	91	91	91	92
Compressor/steps	n.	1/	1/	2/	2/	2/	2/	2/	2/
Circuits	n.	1	1	1	1	1	1	1	1
Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHT		1300	1400	2500	2590	2680	2760	2820	2880
W - Width of version B	mm	3840	4940	6090	7250	8350	9450	9450	10550
W - Width of version T	mm	3840	4940	6090	7250	8350	9450	10550	11650
W - Width of version Q	mm	3840	4940	6090	7250	8350	9450	10550	11650
H - Height	mm	2450	2450	2450	2450	2450	2450	2450	2450
P - Depth	mm	2260	2260	2260	2260	2260	2260	2260	2260
① TCATBZ weight	kg	2390	2740	3490	3950	4350	4800	4910	5210
① TCATTZ weight	kg	2410	2760	3470	3980	4320	4840	5140	5440
① TCATQZ weight	kg	2390	2730	3500	3960	4350	4800	5160	5460
SEASONAL ENERGY PERFORMANCE		1300	1400	2500	2590	2680	2760	2820	2880
TCATBZ MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW	284,9	376,6	489,2	577,8	675,1	749,2	808,8	874,4
① SEER (EN 14825)		5,3	5,18	5,34	5,26	5,35	5,21	5,26	5,21
② ηs,c	%	209	204	211	207	211	205	207	205
TCATTZ MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW	298,8	402,3	498,1	593,6	685	760,1	820,8	882,3
① SEER (EN 14825)		5,63	5,75	5,85	5,83	5,91	6,03	5,97	5,94
② ηs,c	%	222	227	231	230	234	238	236	235
TCATQZ MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW	267,1	369,7	463,4	541,2	639,5	721,5	792,1	871,6
① SEER (EN 14825)		5,65	5,76	5,88	5,81	5,9	5,96	5,98	5,98
② ηs,c	%	223	227	232	230	233	235	236	236
TCATBZ-TCATTZ-TCATQZ MODEL							3990	31100	
① TCATBZ nominal cooling capacity	kW						982,2	1089,1	
① TCATTZ nominal cooling capacity	kW						993,1	1101	
① TCATQZ nominal cooling capacity	kW						970,4	-	
① E.E.R. TCATBZ							3,25	3,22	
① E.E.R. TCATTZ							3,47	3,45	
① E.E.R. TCATQZ							3,27	-	
① TCATBZ absorbed power	kW						302,2	338,2	
① TCATTZ absorbed power	kW						286,2	319,1	
① TCATQZ absorbed power	kW						296,8	-	
TCATBZ-TCATTZ-TCATQZ MODEL							3990	31100	
② TCATBZ sound pressure	dB(A)						64	65	
② TCATTZ sound pressure	dB(A)						64	65	
② TCATQZ sound pressure	dB(A)						59	-	
③ TCATBZ sound power	dB(A)						97	98	
③ TCATTZ sound power	dB(A)						97	98	
③ TCATQZ sound power	dB(A)						92	-	
Compressor/steps	n.						3/ CONTINUOUS REGULATION	3/ CONTINUOUS REGULATION	
Circuits	n.						2	2	
Electrical supply	V-ph-Hz						400-3-50	400-3-50	
DIMENSIONS AND WEIGHT							3990	31100	
W - Width of version B	mm						11650	12810	
W - Width of version T	mm						11650	12810	
W - Width of version Q	mm						12810	-	
H - Height	mm						2450	2450	
P - Depth	mm						2260	2260	
① TCATBZ weight	kg						6040	6560	
① TCATTZ weight	kg						6000	6520	
① TCATQZ weight	kg						6500	-	
SEASONAL ENERGY PERFORMANCE							3990	31100	
TCATBZ MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW						982,1	1088,9	
① SEER (EN 14825)							5,35	5,31	
② ηs,c	%						211	210	

TCATTZ MODEL SEASONAL PERFORMANCE IN COOLING MODE			
① Pdesignc (EN 14825)	kW	993,1	1100,9
① SEER (EN 14825)		5,99	5,94
② $\eta_{s,c}$	%	237	234
TCATQZ MODEL SEASONAL PERFORMANCE IN COOLING MODE			
① Pdesignc (EN 14825)	kW	970,3	-
① SEER (EN 14825)		6,02	-
② $\eta_{s,c}$	%	238	-

Data at the following conditions:

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

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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