

Air Cooled Chillers & Heat Pumps

Z-Power SE

TCAVZ 2710-21600



ÜNTES®

Z-POWER SE

TCAVZ 2710-21600

 Cooling capacity: 687,0-1.609,7 kW

- Efficient range in R134a
- Installation flexibility up to 1,600 kW
- Standard electronic expansion valve
- Integrated MASTER/SLAVE control



TCAVSZ 21600 with DS accessory and pump unit



Packaged air-cooled water chillers with axial fans.
Range with semi-hermetic screw and R134a refrigerant gas compressors.

Construction features

- Compressor: high energy efficiency semi-hermetic screw compressor, with star-delta limited start and complete with integral protection, casing heater and refrigerant gas outlet piping shut-off valve.
- Electronic expansion valve: as standard on all models.
- Water side heat exchanger: dry expansion shell and tube exchanger with counterflow heat exchange, complete with closed cell polyurethane foam rubber insulation, water flow differential pressure switch and Victaulic fittings.
- Air side heat exchanger: finned coil with copper pipes and aluminium fins.
- 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 (S version only).
- 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;
 - Master/Slave control up to 4 units in parallel;
 - clock board.

Versions

- B - Standard version (TCAVBZ).
- S - Silenced version with reduced speed fans and soundproofing compressor lining (TCAVSZ).
- I - Soundproofed version with soundproofing compressor lining (TCAVIZ).

Models

- TCAVBZ: unit designed for cooling only.
- TCAVSZ: silenced unit intended for cooling only.
- TCAVIZ: soundproofed unit designed for cooling only.

Factory fitted accessories

- VPF control.
- Desuperheater.
- 100% heat recovery unit
- Thermostat with display for heat recovery unit/desuperheater.
- -10°C condensing control (standard with S version).
- -15°C condensing control with fans with EC motor.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Fan and compressor circuit breaker switches.
- Forced limit of power consumption.
- Soft starter.
- Inlet compressor shut-off valves.
- Low and high pressure gauges for each cooling circuit.
- Bottom compartment protection nets.
- Coil protection grilles.
- Linear compressor capacity control (25-100 %).
- Evaporator antifreeze heater and heat recovery exchangers if applicable.
- Digital input for double set-point
- Compressor oil level sensor.
- Control of min/max power supply voltage.
- 4-20 mA analogue signal for shifting set-point.
- Low temperature water production.
- Copper/pre-painted aluminium or copper/copper coils.
- Interfaces for serial communication with other devices.
- Spring anti-vibration mounts.

Separately supplied accessories

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

TCAVBZ-TCAVSZ-TCAVIZ MODEL		2710	2750	2810	2870	2940	2990	21020
❶ Nominal cooling capacity	kW	706,7	747,7	806,5	860,1	932,7	981,2	1.011,4
❶ Nominal cooling capacity	kW	687,0	728,8	783,3	835,0	906,1	950,9	980,8
❶ E.E.R.		2,91	2,93	2,92	2,87	2,98	2,94	3,00
❶ E.E.R.		2,77	2,80	2,79	2,73	2,83	2,77	2,83
● E.S.E.E.R.		3,80	3,57	3,54	3,39	3,65	3,59	3,65
● E.S.E.E.R.		3,65	3,42	3,39	3,22	3,46	3,36	3,45
❷ IPLV		4,10	4,12	4,09	4,03	4,17	4,14	4,21
❷ IPLV		3,92	3,94	3,91	3,83	3,95	3,89	3,97
❶ Absorbed power	kW	242,85	255,19	276,20	299,69	312,99	333,74	337,13
❶ Absorbed power	kW	248,01	260,29	280,75	305,86	320,18	343,29	346,57
TCAVBZ-TCAVSZ MODEL		2710	2750	2810	2870	2940	2990	21020
③ Sound pressure	dB(A)	67	67	67	70	68	68	68
③ Sound pressure	dB(A)	61	61	61	64	62	62	62
④ Sound power	dB(A)	100	100	100	103	101	101	101
④ Sound power	dB(A)	94	94	94	97	95	95	95
Screw/step compressor	no.	2/6	2/6	2/6	2/6	2/6	2/6	2/6
Circuits	no.	2	2	2	2	2	2	2
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
DIMENSIONS AND WEIGHTS		2710	2750	2810	2870	2940	2990	21020
L - Width	mm	6.680	6.680	7.680	7.680	7.680	7.680	7.680
H - Height	mm	2.430	2.430	2.430	2.430	2.430	2.430	2.430
P - Depth	mm	2.260	2.260	2.260	2.260	2.260	2.260	2.260
⑤ TCAVBZ weight	kg	5.590	5.600	6.490	6.990	7.020	7.040	7.220
⑤ TCAVIZ-TCAVSZ weight	kg	5.910	5.920	6.840	7.340	7.370	7.390	7.570

TCAVBZ-TCAVSZ-TCAVIZ MODEL		21060	21110	21180	21250	21330	21400	21500	21600
❶ Nominal cooling capacity	kW	1.048,6	1.104,0	1.175,6	1.249,7	1.327,7	1.404,4	1.497,6	1.609,7
❶ Nominal cooling capacity	kW	1016,9	1.068,7	1.138,9	1.207,3	1.283,5	1.347,9	1.441,7	1.542,3
❶ E.E.R.		3,10	2,90	3,00	3,10	3,10	3,10	3,10	3,10
❶ E.E.R.		2,92	2,75	2,81	2,86	2,87	2,87	2,84	2,76
● E.S.E.E.R.		3,81	3,63	3,69	3,77	3,80	3,85	3,90	4,02
● E.S.E.E.R.		3,58	3,37	3,40	3,48	3,50	3,67	3,66	3,67
❷ IPLV		4,34	4,14	4,25	4,35	4,36	4,30	4,33	4,39
❷ IPLV		4,09	3,85	3,93	4,02	4,02	4,01	4,00	3,87
❶ Absorbed power	kW	338,26	374,24	387,99	403,13	428,29	453,03	483,10	519,26
❶ Absorbed power	kW	348,25	388,62	405,30	422,13	447,21	469,65	507,64	558,80
TCAVBZ-TCAVSZ MODEL		21060	21110	21180	21250	21330	21400	21500	21600
③ Sound pressure	dB(A)	69	69	69	69	69	70	71	71
③ Sound pressure	dB(A)	63	63	63	63	63	64	65	65
④ Sound power	dB(A)	102	102	102	102	102	103	104	104
④ Sound power	dB(A)	96	96	96	96	96	97	98	98
Screw/step compressor	no.	2/6	2/6	2/6	2/6	2/6	2/6	2/6	2/6
Circuits	no.	2	2	2	2	2	2	2	2
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 WEIGHTS		21060	21110	21180	21250	21330	21400	21500	21600
L - Width	mm	7.680	8.980	8.980	8.980	9.980	10.980	12.980	12.980
H - Height	mm	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430
P - Depth	mm	2.260	2.260	2.260	2.260	2.260	2.260	2.260	2.260
⑤ TCAVBZ weight	kg	7.383	7.760	8.170	8.190	8.820	9.310	10.220	10.460
⑤ TCAVIZ-TCAVSZ weight	kg	7.733	8.110	8.520	8.540	9.170	9.660	10.540	10.780

Data at the following conditions:

- ❶ Air: 35°C - Water: 12/7°C.
- ❷ IPLV (Integrated Part Load Value) - ARI standard 550/590.
- 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 refers to the accessorised unit with RPE - KRP when empty.
- ESEER = (European seasonal EER) - Average European seasonal efficiency.
- TCAVSZ silenced versions.

Performance according to EN 14511:2013

