

Air Cooled Chillers & Heat Pumps

FullPower SE

TCAVBZ-TCAVSZ 2335-21275



ÜNTES®

52
years

FullPOWER SE

TCAVBZ-TCAVSZ 2335-21275

Cooling capacity: 319-1.271 kW



TCAVTZ 2515
with FIAP accessory and BCI

TCAVSZ 2865

- Efficient range in R134a
- Operation up to 50°C
- Linear capacity control (25-100%)
- Wide range of accessories
- Integrated MASTER/SLAVE control



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 linear capacity control (25-100%). Star-delta limited start and complete with integral protection, casing heater and refrigerant gas outlet piping shut-off valve.
- 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: with micro-channels.
- Fan: external rotor axial type electric fans with internal thermal protection, accident protection grilles.
- 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;
 - Clock board;
 - Master/Slave control up to 4 units in parallel.

Versions

- B - Standard version (TCAVBZ).
- S - Silenced version complete with compressor technical compartment soundproofing and reduced speed fans (TCAVSZ).

Models

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

Factory fitted accessories

- PUMP with single or double electric pump, including an automatic pump in standby. The pumps are available in the low or high head versions.
- VPF control.
- Desuperheater.
- 100% heat recovery unit
- -10°C condensing control (standard in S versions).
- -15°C condensing control with fans with EC motor.
- Condensing control with over-pressure fans.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Compressor circuit breaker switches.
- Electro-mechanical flow switch.
- Oil level sensor.
- Forced limit of power consumption.
- Forced noise limit.
- Energy parameter measuring device.
- Optimised energy efficiency.
- Soft starter.
- Soundproofed compressor box.
- Inlet compressor shut-off valves.
- Refrigerant leak detector.
- Cooling circuit high and low pressure gauges.
- Double safety valves.
- Coil protection grilles.
- 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 and heat exchangers for heat recovery if applicable.
- Low temperature water production.
- Interfaces for serial communication with other devices.
- Anti-vibration mounts.

Separately supplied accessories

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

TCAVBZ-TCAVSZ MODEL		2335	2365	2405	2465	2515	2565	2645	2705	
①	Nominal cooling capacity	kW	328,8	364,5	400,4	460,0	512,8	559,6	641,3	701,6
①	Nominal cooling capacity	kW	318,9	353,6	388,5	450,1	494,0	536,8	618,5	679,7
①	E.E.R.		3,01	2,90	2,85	3,01	2,91	2,85	2,94	2,91
①	E.E.R.		2,92	2,80	2,77	2,91	2,76	2,72	2,80	2,74
①	Absorbed power	kW	109,2	125,7	140,5	152,8	176,2	196,4	218,1	241,1
①	Absorbed power	kW	109,2	126,3	140,3	154,7	179,0	197,4	220,9	248,1
TCAVBZ-TCAVSZ MODEL		2335	2365	2405	2465	2515	2565	2645	2705	
②	Sound pressure	dB(A)	65	65	66	66	66	66	67	67
②	Sound pressure	dB(A)	59	59	60	60	60	60	61	61
③	Sound power	dB(A)	97	97	98	98	98	98	99	99
③	Sound power	dB(A)	91	91	92	92	92	92	93	93
	Screw/step compressor	no.	2/ CONTINUOUS LINEAR REGULATION (25-100%)							
	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		2335	2365	2405	2465	2515	2565	2645	2705	
	L - Width	mm	3.740	3.740	3.740	4.840	4.840	4.840	5.990	5.990
	H - Height	mm	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
	P - Depth	mm	2.260	2.260	2.260	2.260	2.260	2.260	2.260	2.260
④	TCAVBZ weight	kg	2.700	2.710	2.730	3.140	3.700	3.910	4.230	4.260
④	TCAVSZ weight	kg	2.930	2.940	2.960	3.370	4.010	4.220	4.540	4.570

Data at the following conditions:

- ① Air: 35°C - Water: 12/7°C.
- ② In open field (Q = 2) at 10 m from the unit.
- ③ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ④ Weight referred to the unit without load and not accessorised.

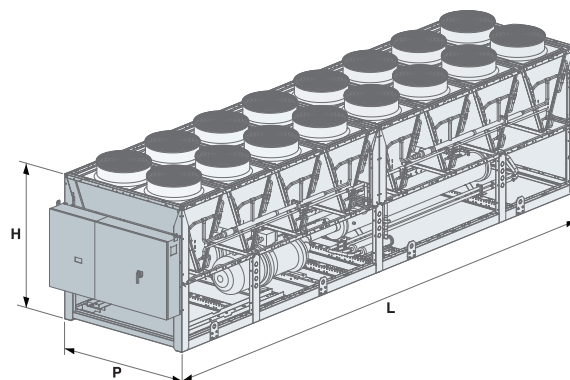
■ TCAVSZ silenced versions

Performance according to EN 14511:2013.

SEASONAL ENERGY PERFORMANCE		2335	2365	2405	2465	2515	2565	2645	2705	
TCAVBZ MODEL SEASONAL PERFORMANCE IN COOLING MODE										
①	P _{designc} (EN 14825)	kW	328,7	364,4	400,3	459,9	512,7	559,5	641,1	701,4
①	SEER (EN 14825)		4,23	4,20	4,18	4,23	4,25	4,18	4,25	4,27
②	η _{s,c}	%	166	165	164	166	167	164	167	168
TCAVSZ MODEL SEASONAL PERFORMANCE IN COOLING MODE										
①	P _{designc} (EN 14825)	kW	318,8	353,5	388,4	450,0	493,9	536,7	618,4	679,5
①	SEER (EN 14825)		4,23	4,21	4,18	4,19	4,21	4,20	4,21	4,18
②	η _{s,c}	%	166	165	164	164	165	165	165	164

① Low temperature application (7°C)

② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)



TCAVBZ-TCAVSZ MODEL		2755	2805	2865	2935	2995	21075	21115	21275	
①	Nominal cooling capacity	kW	751,1	797,5	857,9	930,2	985,7	1.072,1	1.110,7	1.271,0
①	Nominal cooling capacity	kW	731,3	777,6	822,2	896,6	948,0	1.033,4	1.069,1	1.236,4
①	E.E.R.		2,89	3,00	2,90	2,98	2,92	3,06	2,94	3,06
①	E.E.R.		2,71	2,90	2,73	2,85	2,76	2,94	2,78	2,90
①	Absorbed power	kW	259,9	265,8	295,8	312,1	337,6	350,4	377,8	415,4
①	Absorbed power	kW	269,9	268,1	301,2	314,6	343,5	351,5	384,6	426,3
TCAVBZ-TCAVSZ MODEL		2755	2805	2865	2935	2995	21075	21115	21275	
②	Sound pressure	dB(A)	68	68	68	68	68	69	69	69
②	Sound pressure	dB(A)	62	62	62	62	62	63	63	63
③	Sound power	dB(A)	100	100	101	101	101	102	102	102
③	Sound power	dB(A)	94	94	95	95	95	96	96	96
	Screw/step compressor	no.	2/ CONTINUOUS LINEAR REGULATION (25-100%)							
	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		2755	2805	2865	2935	2995	21075	21115	21275	
	L - Width	mm	5.990	7.150	7.150	8.250	8.250	9.350	9.350	10.450
	H - Height	mm	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
	P - Depth	mm	2.260	2.260	2.260	2.260	2.260	2.260	2.260	2.260
④	TCAVBZ weight	kg	4.290	5.280	5.700	6.070	6.130	6.620	6.640	7.000
④	TCAVSZ weight	kg	4.600	5.590	6.010	6.380	6.440	6.930	6.950	7.310

Data at the following conditions:

- ① Air: 35°C - Water: 12/7°C.
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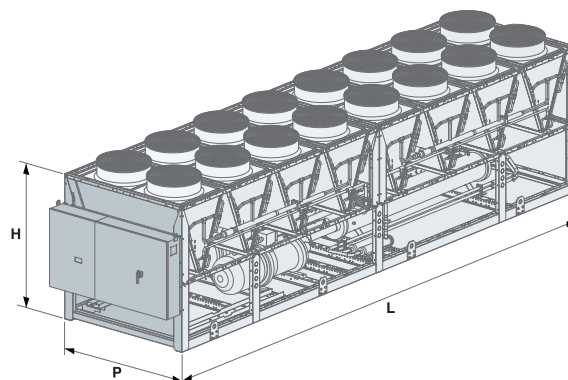
■ TCAVSZ silenced versions

Performance according to EN 14511:2013.

SEASONAL ENERGY PERFORMANCE		2755	2805	2865	2935	2995	21075	21115	21275	
TCAVBZ MODEL SEASONAL PERFORMANCE IN COOLING MODE										
①	P _{designc} (EN 14825)	kW	750,9	797,2	857,6	930,0	985,5	1.071,8	1.110,4	1.270,7
①	SEER (EN 14825)		4,24	4,22	4,21	4,24	4,21	4,24	4,23	4,24
②	η _{s,c}	%	167	166	165	167	165	166	166	166
TCAVSZ MODEL SEASONAL PERFORMANCE IN COOLING MODE										
①	P _{designc} (EN 14825)	kW	731,1	777,4	822,0	896,3	947,8	1.033,1	1.068,8	1.236,1
①	SEER (EN 14825)		4,18	4,24	4,22	4,17	4,18	4,19	4,20	4,17
②	η _{s,c}	%	164	167	166	164	164	165	165	164

① Low temperature application (7°C)

② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)



ÜNTEŞ®

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Export Sales Office

Address: 53. Cadde 1450. Sokak Ulusoy
Plaza No: 9/50 Cukurambar, Ankara, Turkey
Email: export@untes.com.tr
T+90 (312) 287 91 00 F+90 (312) 284 91 00

Manufacturing Plant-1

Air Handling & Ventilations Systems,
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Address: Istanbul Yolu 37.km
Kahramankazan, Ankara, Turkey

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