

FullFLOW DX TCHVTL 1200÷21450



Cooling capacity: 201.7÷1.455.2 kW

- √ **Non-flammable reduced GWP gas**
- √ **Various soundproofing options**
- √ **Touch interface (optional)**
- √ **Free-Cooling management**
- √ **Integrated MASTER/SLAVE control**



Web code: FFD03

Water-cooled water chillers. Range with stepless semi-hermetic screw compressors and R513A ecological refrigerant gas.

Construction features

- Compressor: high energy efficiency semi-hermetic screw compressor with control of linear capacity, with star-delta or part-winding start up (depending on models) and complete with integral protection, casing heater and refrigerant gas outlet piping shut-off valve.
- Water side heat exchanger (evaporator): 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. Antifreeze heater sizes 1200-1230.
- Water side heat exchanger (condenser): tube and shell complete with differential pressure switch, safety valve, service valve on the high-pressure refrigerant gas circuit.
- Control: microprocessor electronic control.
- Structure: made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:
 - clock board;
 - display of cooling circuit high/low pressure;
 - electronic expansion valve;
 - Master/Slave control up to 4 units in parallel;
 - 0-10V analogue signal for condensing control from external device;
 - control of Variable Primary Flow (VPF_R).

Versions

- T - High efficiency version

Models

- TCHVTL: unit designed for cooling only.

Factory fitted accessories

- 100% heat recovery unit.
- Free-Cooling Management.
- Dry-Cooler Management.
- Set up for heat pump operation.
- Condenser Victaulic fittings.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Circuit breaker switches.
- Forced limit of power consumption.
- Soft starter.
- Inlet compressor shut-off valves.
- Energy parameter measuring device.
- Electro-mechanical flow switch.
- Digital input for double set-point.
- Compressor soundproof enclosures.
- Refrigerant leak detector.
- Full acoustic casing.
- Compressor oil level sensor.
- Double safety valves.
- Control of min/max power supply voltage.
- 4-20 mA analogue signal for shifting set-point.
- Evaporator antifreeze heater (sizes 1290-21450).
- Interfaces for serial communication with other devices.
- Colour touch user keypad (fitted on the machine or remotely) with 7" display.
- Anti-vibration mountings supplied loose.
- Protective packaging

Separately supplied accessories

- Remote keypad with display.
- Outdoor air temperature probe for set-point compensation
- Thermostat with display.
- Rhoss supervisors for unit monitoring and remote management.
- Rhoss sequencer for integrated management of multiple chillers.

Technical Data

TCHVTL MODEL		1200	1230	1290	1320	1380	2430	2490	2540	
① Nominal cooling capacity	kW	201,7	229,7	289,7	315,6	374,5	433,6	487,5	543,5	
① E.E.R.		4,66	4,65	4,73	4,65	4,74	4,9	4,77	4,8	
① Absorbed power	kW	43,3	49,4	61,2	67,9	79	88,5	102,2	113,2	
② Sound power	dB(A)	94	94	96	96	96	97	97	97	
Screw/step compressor	no.	1/ CONTINUOUS LINEAR REGULATION (50-100%)					2/ CONTINUOUS LINEAR REGULATION (25-100%)			
Circuits	no.	1	1	1	1	1	2	2	2	
Electrical supply	V-ph-Hz	400-3-50								

DIMENSIONS AND WEIGHT		1200	1230	1290	1320	1380	2430	2490	2540
L - Width	mm	2860	2860	3460	3460	3460	4060	4060	4060
H - Height	mm	1670	1670	1670	1670	1670	1850	1850	1850
P - Depth	mm	1000	1000	1000	1000	1000	1320	1320	1320
③ TCHVTL weight	kg	1300	1320	1720	1730	1740	2400	2400	2750

SEASONAL ENERGY PERFORMANCE		1200	1230	1290	1320	1380	2430	2490	2540
TCHVTL MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW	201,7	229,7	289,7	315,6	374,5	433,6	487,5	543,5
① SEER (EN 14825)		5,82	5,82	5,62	5,73	5,82	6,58	6,46	6,43
② ηs,c	%	230	230	222	226	230	260	255	254

TCHVTL MODEL		2620	2690	2770	2860	2950	21030	21100	21180	
① Nominal cooling capacity	kW	618,4	691,4	774,4	859,4	950,4	1025,4	1098,3	1173,2	
① E.E.R.		4,77	4,81	4,9	4,9	4,92	4,9	4,86	4,86	
① Absorbed power	kW	129,6	143,7	158	175,4	193,2	209,3	226	241,4	
② Sound power	dB(A)	97	97	98	98	99	99	99	99	
Screw/step compressor	no.									
Circuits	no.	2	2	2	2	2	2	2	2	
Electrical supply	V-ph-Hz									

DIMENSIONS AND WEIGHT		2620	2690	2770	2860	2950	21030	21100	21180
L - Width	mm	4210	4240	4670	4710	4850	4850	4850	4850
H - Height	mm	1900	1900	1980	1980	2130	2130	2230	2230
P - Depth	mm	1320	1320	1320	1320	1320	1320	1320	1320
③ TCHVTL weight	kg	3140	3260	3510	3630	4640	4680	4830	4940

SEASONAL ENERGY PERFORMANCE		2620	2690	2770	2860	2950	21030	21100	21180
TCHVTL MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW	618,4	691,4	774,4	859,4	950,4	1025,4	1.098,3	1.173,2
① SEER (EN 14825)		6,39	6,39	6,54	6,45	6,39	6,38	6,38	6,41
② ηs,c	%	253	252	259	255	253	252	252	253

TCHVTL MODEL			21250	21310	21390	21450
① Nominal cooling capacity	kW		1250,2	1310,3	1391,2	1455,2
① E.E.R.			4,87	4,85	4,85	4,83
① Absorbed power	kW		256,7	270,2	286,8	301,3
② Sound power	dB(A)		99	99	100	100
Screw/step compressor	no.					
Circuits	no.		2	2	2	2
Electrical supply	V-ph-Hz					

DIMENSIONS AND WEIGHT			21250	21310	21390	21450
L - Width	mm		5150	5160	5130	5140
H - Height	mm		2230	2250	2350	2350
P - Depth	mm		1320	1320	1320	1320
③ TCHVTL weight	kg		5030	5220	5590	5820

SEASONAL ENERGY PERFORMANCE			21250	21310	21390	21450
TCHVTL MODEL SEASONAL PERFORMANCE IN COOLING MODE						
① Pdesignc (EN 14825)	kW		1.250,2	1.310,3	1.391,2	1.455,2
① SEER (EN 14825)			6,41	6,43	6,39	6,38
② ηs,c	%		253	254	253	252

Data at the following conditions:

- ① Chilled water: 7/12°C. - Condenser inlet water: 30/35°C.
 - ② Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
 - ③ Empty weight.
- 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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