FullFLOW DX

TCHVTL 1200÷21450

Cooling capacity 201,7÷1.455,2 kW

Features

Non-flammable reduced GWP gas

Various soundproofing options

Touch interface (optional)

Free-Cooling management

Integrated MASTER/SLAVE control

Tax incentives*

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 (cosϕ > 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
❶ Nominal cooling capacity	kW	201,7	229,7	289,7	315,6	374,5	433,6	487,5	543,5
❶ E.E.R.		4,66	4,65	4,73	4,65	4,74	4,9	4,77	4,8
❶ Absorbed power	kW	43,3	49,4	61,2	67,9	79	88,5	102,2	113,2
❷ Sound power	dB(A)	94	94	96	96	96	97	97	97
Screw compressors	no.	1	1	1	1	1	2	2	2
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
❸ 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
❶ Nominal cooling capacity	kW	618,4	691,4	774,4	859,4	950,4	1025,4	1098,3	1173,2
❶ E.E.R.		4,77	4,81	4,9	4,9	4,92	4,9	4,86	4,86
❶ Absorbed power	kW	129,6	143,7	158	175,4	193,2	209,3	226	241,4
❷ Sound power	dB(A)	97	97	98	98	99	99	99	99
Screw compressors	no.	2	2	2	2	2	2	2	2
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
❸ 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
❶ Nominal cooling capacity		kW	1250,2	1310,3	1391,2	1455,2
❶ E.E.R.			4,87	4,85	4,85	4,83
❶ Absorbed power		kW	256,7	270,2	286,8	301,3
❷ Sound power		dB(A)	99	99	100	100
Screw compressors		no.	2	2	2	2
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
❸ 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:

❶ Chilled water: 7/12°C. – Condenser inlet water: 30/35°C.

❷ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.

❸ 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.
Via Oltre Ferrovia, 32
33033 Codroipo (UD) - ITALY
tel. +39 0432 911611
rhoss@rhoss.com

rhoss.com