

FullFLOW ECO VFD (1+i) TCHITE 1280÷21220

Cooling capacity 285,6÷1217,2 kW



Features

HFO R1234ze ecological gas

High efficiency levels

Continuous power regulation

Various soundproofing options

Touch interface (optional)

Free-Cooling management

Integrated MASTER/SLAVE control

Tax incentives*



Water-cooled water chillers. Range with semi-hermetic screw compressors with variable Vi, inverter regulation and R1234ze refrigerant gas.

Construction features

- Compressor: high energy efficiency semi-hermetic screw driven by fixed speed motor with linear capacity control and/or variable Vi regulated by inverter (25-100% single-compressor sizes, 12.5-100% bi-compressor sizes), limited start, complete with integral protection, casing heater, oil level sensor and shut-off valves on delivery and intake piping.
- Water side heat exchanger (evaporator): low refrigerant charge spray flooded type shell and tube exchanger, complete with closed cell polyurethane foam rubber insulation, water flow differential pressure switch and Victaulic fittings.
- Water side heat exchanger (condenser): tube and shell complete with safety valve, service valve on the high-pressure refrigerant gas circuit, and a water flow differential pressure switch and Victaulic fittings.
- Control: microprocessor electronic control.
- Structure: made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:
 - clock board;
 - electronic expansion valve;
 - display of cooling circuit high/low pressure;
 - 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

- TCHITE: unit designed for cooling only.

Factory fitted accessories

- Free-Cooling management
- Dry-Cooler management
- 100% heat recovery unit.
- Set up for heat pump operation.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Circuit breaker switches.
- Forced limit of power consumption.
- Soft starter.
- Electro-mechanical flow switch.
- EMC anti-disturbance filters.
- Energy parameter measuring device.
- Compressor soundproof enclosures.
- Full acoustic casing.

- Refrigerant leak detector.
- Double safety valves.
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Evaporator antifreeze heater.
- Control of min/max power supply voltage.
- Interfaces for serial communication with other devices.
- Colour touch user keypad (fitted on the machine or remotely) with 7" display.
- Anti-vibration mounts.

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

TCHITE MODEL		1280	1340	1430	2520	2580	2650	2710	2800
❶ Nominal cooling capacity	kW	285,6	346,6	434,5	524,4	584,4	648,4	719,4	800,4
❶ E.E.R.		5,2	5,19	5,05	5,47	5,44	5,43	5,5	5,33
❶ Absorbed power	kW	54,9	66,8	86	95,9	107,4	119,4	130,8	150,2
❷ Sound power	dB(A)	97	99	101	98	98	100	100	102
❷ Sound power with enclosure accessory	dB(A)	93	95	97	94	94	96	96	98
Screw compressors	n.	1	1	1	2	2	2	2	2
Circuits	n.	1	1	1	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		1280	1340	1430	2520	2580	2650	2710	2800
L – Width	mm	3859	3859	3859	4008	4008	3990	4329	4407
H – Height	mm	1830	1830	1830	1910	1910	2040	2040	2040
P – Depth	mm	1531	1531	1591	1676	1676	1676	1676	1814
❸ TCHITE weight	kg	2335	2440	2535	4095	4190	4735	5205	5355
SEASONAL ENERGY PERFORMANCE		1280	1340	1430	2520	2580	2650	2710	2800
TCHITE MODEL SEASONAL PERFORMANCE IN COOLING MODE									
❶ Pdesignc (EN 14825)	kW	285,6	346,6	434,5	524,4	584,4	648,4	719,4	800,4
❶ SEER (EN 14825)		8,41	8,18	8,09	8,11	8,34	8,23	7,84	8,02
❷ ηs,c	%	333	324	321	321	331	326	311	318
TCHITE MODEL				2890	2970	21090	21220		
❶ Nominal cooling capacity	kW			897,3	974,3	1091,2	1217,2		
❶ E.E.R.				5,32	5,39	5,54	5,54		
❶ Absorbed power	kW			168,7	180,8	197	219,7		
❷ Sound power	dB(A)			103	103	102	103		
❷ Sound power with enclosure accessory	dB(A)			99	99	98	99		
Screw compressors	n.			2	2	2	2		
Circuits	n.			2	2	2	2		
Electrical supply	V-ph-Hz			400-3-50	400-3-50	400-3-50	400-3-50		
DIMENSIONS AND WEIGHTS				2890	2970	21090	21220		
L – Width	mm			4407	4407	4501	4586		
H – Height	mm			2040	2040	2080	2080		
P – Depth	mm			1844	1844	1964	2009		
❸ TCHITE weight	kg			5620	5765	6790	7135		
SEASONAL ENERGY PERFORMANCE				2890	2970	21090	21220		
TCHITE MODEL SEASONAL PERFORMANCE IN COOLING MODE									
❶ Pdesignc (EN 14825)	kW			897,3	974,3	1091,2	1217,2		
❶ SEER (EN 14825)				7,88	7,94	7,97	7,96		
❷ ηs,c	%			312	315	316	315		

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.
- ❶ Low temperature application (7°C)
 - ❷ 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

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