

FullFLOW VFD (1+i) TCHITL 1390÷21700



Cooling capacity: 389.5-1701.1 kW

- ✓ **Non-flammable reduced GWP gas**
- ✓ **High efficiency levels**
- ✓ **Continuous power regulation**
- ✓ **Various soundproofing options**
- ✓ **Touch interface (optional)**
- ✓ **Free-Cooling management**
- ✓ **Integrated MASTER/SLAVE control**



Web code: FFE03

Water-cooled water chillers. Range with semi-hermetic screw compressors with variable Vi, inverter regulation and R513A 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.

Versions

- T - High efficiency version

Models

- TCHITL: unit designed for cooling only.

Factory fitted accessories

- VPF control.
- 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.
- 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

TCHITL MODEL		1390	1490	1600	2720	2810	2900	21000	21110
① Nominal cooling capacity	kW	389.5	486.5	610.4	727.4	816.3	920.3	1001.3	1117.2
① E.E.R.		5.18	5.16	5.11	5.5	5.41	5.5	5.45	5.32
① Absorbed power	kW	75,2	94,3	119,5	132,3	150,9	167,3	183,7	210,0
② Sound power	dB(A)	97	99	101	98	98	100	100	102
② Sound power with enclosure accessory	dB(A)	93	95	97	94	94	96	96	98
Screw/step compressor	no.	1/ CONTINUOUS REGULATION	1/ CONTINUOUS REGULATION	1/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION
Circuits	no.	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 WEIGHT									
L - Width	mm	3859	3859	3859	3990	3990	3990	4329	4407
H - Height	mm	1830	1830	1830	2040	2040	2040	2040	2040
P - Depth	mm	1531	1531	1591	1676	1676	1676	1676	1814
③ TCHITL weight	kg	2460	2530	2605	4700	4830	4915	5385	5600
SEASONAL ENERGY PERFORMANCE									
TCHITL MODEL SEASONAL PERFORMANCE IN COOLING MODE									
① Pdesignc (EN 14825)	kW	389.5	486.5	610.4	727.4	816.3	920.3	1001.3	1117.2
① SEER (EN 14825)		7.75	7.68	7.66	7.57	7.69	7.68	7.48	7.4
② ηs,c	%	302	299	298	295	300	299	291	288

TCHITL MODEL		21260	21360	21520	21700
① Nominal cooling capacity	kW	1260.2	1361.1	1524.2	1701.1
① E.E.R.		5.36	5.4	5.57	5.55
① Absorbed power	kW	235,1	252,1	273,6	306,5
② Sound power	dB(A)	103	103	102	103
② Sound power with enclosure accessory	dB(A)	99	99	98	99
Screw/step compressor	no.	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION	2/ CONTINUOUS REGULATION
Circuits	no.	2	2	2	2
Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHT					
L - Width	mm	4407	4407	4501	4586
H - Height	mm	2080	2080	2090	2090
P - Depth	mm	1844	1844	1979	2024
③ TCHITL weight	kg	6325	6455	7765	8115
SEASONAL ENERGY PERFORMANCE					
TCHITL MODEL SEASONAL PERFORMANCE IN COOLING MODE					
① Pdesignc (EN 14825)	kW	1260.2	1361.1	1524.2	1701.1
① SEER (EN 14825)		7.38	7.35	7.5	7.46
② ηs,c	%	287	286	292	290

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 14511:2018.
- ① Low temperature application (7°C)
- ② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)



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