

FullFLOW VFD (1+i)

TCHITL 1390÷21700

Cooling capacity 389,5÷1701,1 kW



Features

Non-flammable reduced GWP 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 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;
- control of Variable Primary Flow (VPF_R).

Versions

- T - High efficiency version

Models

- TCHITL: 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

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
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 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		1390	1490	1600	2720	2810	2900	21000	21110
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		1390	1490	1600	2720	2810	2900	21000	21110
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TCHITL MODEL SEASONAL PERFORMANCE IN COOLING MODE		1390	1490	1600	2720	2810	2900	21000	21110
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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)		8,52	8,22	8,16	8,18	8,43	8,34	8,1	8,04
② ηs,c	%	338	326	323	324	334	331	321	319

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 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		21260	21360	21520	21700
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		21260	21360	21520 (*)	21700 (*)
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TCHITL MODEL SEASONAL PERFORMANCE IN COOLING MODE		21260	21360	21520 (*)	21700 (*)
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① Pdesignc (EN 14825)	kW	1260,2	1361,1	1524,2	1701,1
① SEER (EN 14825)		8	8,03	8,1	7,96
② ηs,c	%	317	318	321	316

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.
(*) Unit not Eurovent certified.
- ① Low temperature application (7°C)
- ② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)



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