

TAURUS *tech*

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Air cooled water chillers and heat pumps featuring scroll compressors.



pure energy



The integrated solution for hydronic air conditioning

Taurus tech chillers and heat pumps, featuring environmentally friendly refrigerant R410A, constitute the optimum solution for the centralised hydronic air conditioning of medium-sized areas. The generous range of configurations and accessories allows the most diverse application requirements to be satisfied, whilst simultaneously facilitating installation, start up and operation of the plant. The microprocessor controller, with dual display and icon-based interface, allows even inexperienced users to adjust the main operating parameters with ease. The Frost Detecting System (FDS) logic provides fully independent management of heat pump defrost cycles which, unlike conventional systems, only intervenes when effectively required, thereby optimising duration and frequency, with consequent benefits in terms of lower environmental impact and reduced running costs. Self-adapting temperature control (SAC) in dual compressor models helps limit the on-off cycling frequency in systems with reduced water contents.



Cooling, conditioning, purifying.

BENEFITS

- Reduced sound pressure levels, with three different acoustic versions available;
- High EER/COP values, particularly at partial loads, and high seasonal performance indices;
- Optimised performance in heat pump mode thanks to hot gas injection and the innovative FDS Frost Detecting System;
- SAC self-adapting temperature control for efficient operation in installations with low water contents (dual-compressor models);
- Start-up and operation in even the most adverse conditions;
- Reduced overall dimensions;
- Easy installation and simple access to all chiller components;
- Easy to use, thanks to an intuitive controller with dual icon-based display;
- Compatible with the very latest supervisor and interface systems (BMS).

VERSIONS

- Chiller;
- Heat pump;
- Low ambient air temperature in cooling mode (down to -20 °C);
- Version with recovery desuperheaters;
- Version with total recovery condenser;
- Acoustic configurations:
 - N standard;
 - SN low noise;
 - SSN super-silent.



Microprocessor with dual display and icon-based interface.



Add-on pumping module with or without tank.



Ease of installation and fast access to all internal parts.



STANDARD CHARACTERISTICS

- 2 or 4 hermetic Scroll compressors connected in pairs and in parallel;
- Single stainless steel brazed plate evaporator;
- Heat pumps equipped with 2nd thermostatic valve, for performance optimisation in all operating conditions;
- Condensate tray with hose connection;
- Solenoid valve on the liquid line of each refrigeration circuit;
- Hydraulic connections directly accessible from the unit exterior;
- Axial fans with sickle-shaped blades, with progressive starting for condensing pressure control;
- Self-adapting temperature control logic (dual-compressor models);
- -10°C minimum ambient air temperature in heat pump mode;
- Refrigerant charge, antifreeze oil, factory tested;
- R410A environmentally friendly refrigerant with zero ozone depletion potential.

MAIN OPTIONS

- Add-on external pumping unit with 1 or 2 pumps and / or a chilled water storage tank;
- Shut-off valves on compressor suction and discharge lines;
- Electronic fan speed control;
- Condensing coils for use in aggressive atmospheres;
- Antivibration dampers;
- Anti-freeze heater;
- Metal mesh protective filters or grilles for condensing coils;
- Remote control interface;
- RS485 ModBus interface kit for connection to supervisor systems;
- X-WEB300 kit for local or remote (GSM mobile phone) monitoring and control, plus data filing based on WEB server technology;
- 460/3/60 power supply.

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TECHNICAL DATA

Model TAT-HTAT		030	035	040	050	055	060
TAT	Cooling capacity	kW	73.0	82.7	100	115	129
	Absorbed power	kW	22.5	23.5	30.4	34.7	38.7
	ESEER	-	3.80	4.10	4.23	3.68	3.81
	IPLV	-	4.03	4.32	4.36	3.87	4.01
	Max external air temperature	°C	47	47	46	46	46
HTAT	Heating capacity	kW	77.6	85.0	109	120	136
	Absorbed power	kW	22.5	24.2	30.5	35.4	41.1
	Min. external air temperature	°C	-8	-9	-8	-8	-8
	Power supply	V/Ph/Hz	400±10%/3/50				
	Sound pressure level	dB(A)	58.5	58.5	58.3	60.2	59.3
	Depth	mm	1110	1110	1110	1110	1110
	Width	mm	2507	2507	2507	3407	3407
	Height	mm	2120	2120	2120	2120	2120
	Installed weight	Kg	767	801	950	1137	1186

All data refers to standard units at the following nominal conditions:

- Chiller: evaporator water inlet-outlet 12-7 °C, external air temperature 35 °C;
- Heat pump: condenser water inlet-outlet 40-45 °C, external air temperature 7 °C dry bulb, 6 °C wet bulb.

ESEER: European Seasonal Energy Efficiency Ratio adopted by EECAC. - IPLV calculated in accordance with ARI Standard 550/590-2003.

Sound pressure level in hemispherical field at 10 m from condenser side and 1.6 m from ground. Values with tolerance ± 2 dB.

Sound levels refer to unit operating at full load and with circulation pump.

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