

# TAURUS

TAURUS - HTAURUS - MC/TAURUS

Air-cooled chillers, heat pumps and condensing units with scroll compressors



## The integrated hydronic solution for your air conditioning

Taurus chillers and heat pumps represent the optimal solution for centralised hydronic conditioning of medium sized applications. The wide range of accessories satisfies the most diverse installation requirements, whilst facilitating installation, start-up and operation. The microprocessor control, with dual display and icon interface, enables Users to modify the system operating parameters with the utmost of ease. The intelligent FDS (Frost Detecting System) logic automatically and continuously manages heat pump defrosting cycles; unlike commonly adopted solutions, FDS operates only when effectively necessary, optimising defrosting duration and frequency, to the benefit of ambient comfort and operating economy. The self-adapting temperature control, standard on twin compressor models, optimises on-off cycle frequencies in systems with low water contents.



Cooling, conditioning, purifying.

## BENEFITS

- High EER/COP levels, especially at partial loads;
- Reduced noise levels, thanks also to the availability of three differing acoustic versions;
- Optimized and guaranteed heat pump operation thanks to hot gas injection and innovative FDS defrosting system (minimum external air temperature  $-10\text{ }^{\circ}\text{C}$ );
- Self-adaptive temperature control for operation in systems with reduced water contents;
- Allows start-up and operation in even the most severe conditions thanks to the unloading function;
- Reduced overall dimensions;
- Simplified installation and easy access to all components;
- Easy to use thanks to an intuitive controller with dual icon display;
- Compatible with the latest BMS supervision and interface systems.

## STANDARD CHARACTERISTICS

- 2 or 4 scroll compressors in parallel;
- Single welded-brazed stainless steel plate evaporator;
- Heat pumps equipped with 2<sup>nd</sup> thermostatic valve (for optimised performance in all operating conditions) and condensate collection tray with hose clamp connections;
- Axial fans with progressive activation for optimised condensing pressure control;
- Designed for outdoor operation (IP54 protection rating);
- Individually factory tested, charged with refrigerant and antifreeze oil, ready for operation;
- Refrigerant R407C.

## MAIN OPTIONS

- Internally mounted single or twin pumps;
- Internal chilled water storage tank;
- Compressor shut-off valves on suction and discharge lines;
- Electronic fan speed control;
- Condenser coils designed for aggressive atmospheres;
- Antivibration dampers;
- Anti-freeze heater;
- Metal mesh filters or grilles for condenser coil protection;
- Remote control kit;
- RS485 MODBUS interface kit for connection to supervisor systems;
- X-WEB300 remote supervision, allowing local or remote monitoring via a web server or a GSM cell phone;
- Refrigerant R22, R134a or R410A;
- 460/3/60 power supply.

## VERSIONS

- Chiller;
- Heat pump;
- Condensing unit;
- Acoustic configurations:
  - N standard;
  - SN low noise;
  - SSN very low noise.
- Version with desuperheaters;
- Low external air temperature version (up to  $-20\text{ }^{\circ}\text{C}$ );
- Versions with either partial or total heat recovery.



Microprocessor with double display and icon control.



Pump section with or without storage tank.



Simplified installation and easy access to all internal components.



## TECHNICAL DATA

Model TA-HTA-/MC		070	079	094	106	118	133	
TA	Cooling capacity	kW	70.0	78.3	93.1	105.7	117.6	131.2
	Absorbed power	kW	23.8	24.9	32.9	37.0	40.9	45.8
	Max external air temperature	$^{\circ}\text{C}$	46	46	45	46	46	46
HTA	Heating capacity	kW	70.8	78.0	107	114.2	123.5	140.7
	Absorbed power	kW	22.1	24.2	31.7	33.9	38.9	42.9
	Min external air temp. (water $5\text{ }^{\circ}\text{C}$ )	$^{\circ}\text{C}$	-8	-8	-8	-8	-8	-8
MCTA	Cooling capacity	kW	68.9	75.6	91.0	101.4	118.2	127.7
	Absorbed power	kW	24.1	25.2	33.5	37.2	41.0	45.9
	Max external air temperature	$^{\circ}\text{C}$	45	46	45	46	46	45
Power supply	V/Ph/Hz	400 $\pm$ 10%/3/50						
Sound pressure level	dB(A)	58.5	58.5	58.3	60.2	59.3	59.3	
Depth	mm	2507	2507	2507	3407	3407	3407	
Width	mm	1110	1110	1110	1110	1110	1110	
Height	mm	2120	2120	2120	2120	2120	2120	
Installed weight	Kg	767	801	950	1137	1186	1211	

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

- Chiller: evaporator water inlet-outlet temperature  $12-7\text{ }^{\circ}\text{C}$ , external air temperature  $35\text{ }^{\circ}\text{C}$ .
- Heat pump: condenser inlet-outlet temperature  $40-45\text{ }^{\circ}\text{C}$ , external air temperature  $7\text{ }^{\circ}\text{C D.B.}$ ,  $6\text{ }^{\circ}\text{C W.B.}$
- Condensing unit: evaporation temperature  $5\text{ }^{\circ}\text{C}$  (dew), external air temperature  $35\text{ }^{\circ}\text{C}$ .

Sound pressure level in hemispheric field at a distance of 10 m from condenser side and 1.6 m from ground.

[www.mta-it.com](http://www.mta-it.com)

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