



CYGNUS TECH



Air-cooled water chillers featuring hermetic scroll compressors with R410A.
Nominal cooling capacity 44 – 58 kW



Intended for residential and commercial air conditioning.

Low noise operation of technical systems is essential for continuously occupied premises such as homes, offices and light-commercial buildings, where air conditioning units are usually placed in close proximity to the users. In order to satisfy the specific comfort requirements of these type of premises, without compromising performance in all operating conditions, MTA recommends the CYGNUS TECH series of chillers with environmentally friendly refrigerant R410A. The already very low noise levels have been further reduced by installing electronic fan speed controls, which run at lower speeds as cooling demands decrease. Consequently the seasonal efficiency levels are higher, with clear benefits in terms of climatic comfort too.



Cooling, conditioning, purifying.

Benefits

- Extremely low noise levels;
- High EER values and seasonal performance indices;
- Ideally suited to commercial and domestic chilled water air-conditioning applications;
- Extended operating limits;
- Self-adaptive temperature control (SAC) for efficient operation with installations having low water contents;
- Designed for installation in confined spaces;
- Easy to use thanks to a controller with icon-based dual display;
- Easy installation and simple access to all chiller components.

Main Options

- Configuration without storage tank;
- High/low head pressure pump (depending on model);
- Double pump with one in stand-by (depending on model);
- Anti-freeze heaters on evaporator, pump and tank;
- Remote user interface;
- RS485 ModBus interface for connection to supervisor systems;
- xWEB300D for local or remote (GPRS) monitoring plus data filing based on WEB server technology;
- Antivibration mountings;
- Condenser filters;
- Soft starter.

Standard Features

- Double hermetic scroll compressor in tandem;
- Integral hydronic kit complete with pump, tank, expansion vessel, filling/drain valve, pressure gauge, and automatic bleed valve;
- Hydraulic threaded connections directly accessible from the exterior of the unit;
- Brazed stainless steel plate evaporator;
- Axial fans with sickle shaped blades and electronic speed control;
- Factory charged with refrigerant and non-freezing oil;
- Protection grade IPX4;
- Inspections and tests performed in factory as per all MTA products and components;
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- Phase monitor against phase reversal;
- Compressor crankcase heater.



Microprocessor controller with dual icon-based display.



Higher energy efficiency and quieter operation thanks to the use of scroll compressors.



Built-in pumping module with or without storage tank.



Remote control.

Models CYT		211	251	301
Nominal cooling capacity (1)	kW	44,09	51,61	57,64
Total absorbed power (1)	kW	16,80	18,37	21,51
EER (2)		2,62	2,81	2,68
SEER (3)		3,88	4,04	4,05
Max external air temperature (4)	°C	46	46	46
Power supply	V/Ph/Hz	400 ± 10% / 3+N-PE / 50		
Circuits / Compressors	N°	1/2		
Sound power (5)	dB(A)	76,6	77,4	77,0
Sound pressure (6)	dB(A)	48,6	49,4	49,0
Depth	mm	1112	1112	1112
Width	mm	2470	2470	2470
Height	mm	1595	1595	1595
Installed weight (7)	kg	708	739	750

Data declared according to UNI EN 14511:2013.

- (1) **Nominal cooling capacity and Nominal absorbed power:** data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
 - (2) **EER:** data referred to the full load functioning and nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
 - (3) **SEER:** data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers;
 - (4) **Maximum external air temperature:** data declared referred to cooling mode and outlet water temperature 7 °C;
 - (5) **Sound power:** determined on the basis of measurements taken in accordance with the standard ISO 3744;
 - (6) **Sound pressure at 10 m:** average value obtained in free field on a reflective surface at a distance of 10 m from the external side of the electrical panel of machine and at a height of 1,6 m from the unit support base. Values with tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump;
 - (7) **Installed weight:** data referred to the version with storage tank and P1 pump.
- The listed noise levels, weights and dimensions refer to base units with no options fitted.



MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.



MTA products comply with European safety directives, as recognised by the CE symbol.



MTA participates in the E.C.C. programme for LCP-HP. Certified products are listed on: www.eurovent-certification.com. Certification applied to the units:
- Air/Water up to 600 kW
- Water/Water up to 1500 kW



EAC Declaration

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