Air cooled water chillers, heat pumps, condensing units and reversible condensing units with R410A, with rotary or hermetic scroll compressors.

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 has developed the Cygnus tech series of minichillers and reversible heat pumps 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 or heating demands decrease. Seasonal efficiency levels are even more evident in heat pump operation, with clear benefits in terms of climatic comfort, thanks to the integral storage tank and Frost Detecting System (FDS), designed to detect the quantity of ice accumulating on the external coil, so that defrost cycles are performed only when appropriate, thereby minimising the power consumption.
Benefits

- Extremely low noise levels;
- High EER/COP values and seasonal performance indices;
- Ideally suited to commercial and domestic chilled water air-conditioning applications;
- Extended operating limits;
- Optimisation of heat pump defrosting cycles thanks to the exclusive Frost Detecting System (FDS) / Minimum ambient temperature in heat pump mode = -10 °C;
- Self-adaptive temperature control (SAC) for efficient operation heat pump mode = -10 °C);
- Optimisation of heat pump defrosting cycles thanks to the exclusive conditioning applications;
- Ideal suited to commercial and domestic chilled water air-
- Extremely low noise levels;
- Compressors soft starter.

Main options

- Configuration without storage tank;
- Condenser filters;
- High/low head pressure pump;
- Double pump with one in stand-by (depending on model);
- Condensate collection tray with hose connection (models 013-071);
- Anti-freeze heaters on evaporator, pump and tank;
- Remote user interface: Thermostat (MCCY e MCHCY);
- xWEB300D for local or remote (GPRS) monitoring plus data filing based on WEB server technology;
- Antivibration mountings;
- Compressors soft starter.

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

Built-in pumping module with or without storage tank.

Remote control.

MCHCY

MCCY

HCY

CY

Version with integral hydronic kit complete with pump, tank, expansion vessel, filling/drain valve, pressure gauge, and automatic bleed valve;

Heat pumps with 2nd thermostatic valve for performance optimisation in all operating conditions (models 131 to 301);

Factory charged with refrigerant and non-freezing oil (MC versions excluded);

Protection grade IPX4;

Inspections and tests performed in factory as per all MTA products and components;

Environmentally friendly refrigerant R410A with zero ozone depletions potential;

Phase monitor against phase reversal (for all three-phase models); Compressor crankcase heater.

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

<table>
<thead>
<tr>
<th>Model CY</th>
<th>HCY</th>
<th>MCCY</th>
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<td>CY</td>
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- Chiller (CY);
- Heat pump (HCY);
- Condensing unit (MCCY);
- Reversible condensing unit (MCHCY).

Standard features

- Hermetic Rotary compressors (013-020) Scroll compressors (031-171) tandem Scroll compressors (211-301);
- Version with 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;
- Heat pumps with 2nd thermostatic valve for performance optimisation in all operating conditions (models 131 to 301);
- Factory charged with refrigerant and non-freezing oil (MC versions excluded);
- Protection grade IPX4;
- Inspections and tests performed in factory as per all MTA products and components;
- Environmentally friendly refrigerant R410A with zero ozone depletions potential;
- Phase monitor against phase reversal (for all three-phase models); Compressor crankcase heater.

Versions

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