



TAEvoTECH



Air-cooled process chillers with scroll compressors - R410A.
Cooling capacity 7 – 210 kW



The evolution of perfection.

Technological innovation, absolute reliability and customer satisfaction have been MTA's hallmarks in over 30 years in the industrial cooling market. The TAEvo Tech air cooled process chillers, specifically designed for use in industrial applications.

TAEvo Tech are compact units equipped, as standard, with an internal storage tank and pump, offering a tried and tested solution that has received worldwide acclaim.

The innovative evaporator-intank configuration ensures reduced ambient heat gain and a steady temperature of the process fluids. The use of components sourced from premium manufacturers and extensive factory testing of all units make for highest reliability levels, minimising the risks of unplanned stoppages and increasing productivity levels. An extensive range of accessories, coupled with operating limits among the most generous available on the market, allow TAEvo Tech to be personalised to a variety of industrial applications.



Cooling, conditioning, purifying.

Benefits

- The unique evaporator-in-tank configuration has been specifically designed for process cooling applications. It allows high flow rates with low pressure drops and it is furthermore compatible with the presence of contaminated process fluids;
- Scroll compressors ensure high efficiency, excellent performance and elevated energy savings;
- Extended operating limits: Tw in max = +35 °C; Tw out min = -10 °C; Tamb max = +46 °C; Tamb min = -5 °C;
- All the TAEvo TECH models already meet the limits set by the ErP 2018;
- R410A non ozone depleting refrigerant increase the performance thanks its outstanding heat conductivity;
- The oversized hydraulic tank is standard and is able to compensate for the imbalances caused by sudden changes in load demand from the user;
- IP54 / IP44 electrical protection rate makes TAEvo Tech suitable for outdoor installation;
- Extensive range of accessories and kits, allow each unit to match the specific customer requirements;
- Cooling circuit suitable both for atmospheric and pressurized hydraulic circuits (up to 6 barg);
- Comprehensive safety equipment, including phase monitor pressure switches, antifreeze sensors, level sensors, crankcase heaters and an internal hydraulic bypass circuit.

Versions

- Non Ferrous Version (015-351);
- Version for low environmental temperature -20 °C (mod. 031 - 802);
- Dual frequency version: power supply 400V/3/50 Hz - 460V/3/60 Hz (mod. 015-161);
- UL version (015-802): power supply 460/3/60Hz;
- Close temperature control version (mod. 015-351): extremely precise regulation of the outlet water temperature (hysteresis ± 0,5 °C).

Standard features

- Refrigerant R410A;
- Hermetic Scroll compressors;
- High-efficiency finned coil evaporator with copper tubes and aluminum fins, installed inside the water storage tank;
- Axial fans with with galvanized steel (mod. 015-020) or die-cast aluminum/ plastic crescent-shaped blades (mod. 031-802);
- Oversized air-cooled condensers (copper tubes /aluminium fins) fitted on one side of the chiller. Air filter standard from mod. 031;
- Storage tank (design pressure 6 barg) complete with pump, filling/drain valve, pressure gauge;
- Internal hydraulic bypass between the inlet and outlet connections;
- Electronic level sensor with water conductivity function;
- High and low refrigerant pressure switches;
- Refrigerant pressure gauges (mod. 031-802);
- Parametric microprocessor control IC208CX;
- Protection rating: IP54 (mod. 031-802); IP44 (mod. 015-020);
- Phase monitor;
- Compressor crankcase heater.

Main options and kit

- P3, P5 pumps, double pumps in stand-by P3+P3 or P5+P5 (mod. 201- 802); SP (without pump);
- Version with painted fins against corrosion;
- Axial fans electronic fan speed control by phase cut; centrifugal fans (mod.031-161); EC brushless axial fans with high head pressure (mod.201-802);
- Anti-freezing heaters (on tank and pumps);
- Soft starter option: factory fitted (mod.381-802);
- Electronic expansion valve (mod.081-802);
- Automatic hydraulic bypass option factory fitted (mod.031-602);
- Manual filling tank kit: suitable for hydraulic circuits at atmospheric pressure;
- Automatic filling kit: suitable for pressurized hydraulic circuits (up to 6 barg);
- Remote ON/OFF kit and remote control kit (max 150 m);
- Remote control kit VICX620 display LED, VGI890 display LCD (max 150 m);
- Adapter kit for remote control display VICX620 and VGI890 (necessary for mod.381-802);
- Supervisor kits: RS485 ModBus, xWEB300D;
- Automatic hydraulic bypass kit external (mod.015-602);
- Modularity kit: up to 5 units in MASTER/SLAVE.



IC208CX sophisticated microprocessor connectable to supervisor systems through RS485 or xWEB300D kits.



TAEvo Tech can be integrated with supervision system using the kit RS485 and the kit xWEB300D operating via Internet.



Standard Pump P3 (3 barg); optional P5 pump (5 barg). Also available double pumps P3+P3, P5+P5 in stand-by.



The integral yet removable high capacity water tank ensures very precise water temperature control.

| TAEvo Tech | | 015 | 020 | 031 | 051 | 081 | 101 | 121 | 161 | 201 | 251 | 301 | 351 | 381 | 401 | 402 | 502 | 602 | 702 | 802 | |
|------------|------------------------------------|---------|---|------|------|------|--------|--------|--------|--------|------|------|------|------|--------|--------|--------|--------|--------|------|------|
| 50 Hz | Nominal cooling capacity [1] | kW | 7,15 | 8,15 | 12,9 | 18,5 | 29,7 | 36,6 | 45,0 | 52,9 | 59,2 | 68,1 | 78,7 | 90,5 | 110 | 126 | 117 | 138 | 152 | 181 | 210 |
| | Total absorbed power [1] | kW | 1,79 | 2,02 | 3,19 | 4,56 | 7,87 | 9,01 | 11,0 | 13,3 | 15,3 | 17,8 | 20,1 | 24,4 | 25,5 | 28,2 | 29,8 | 33,8 | 38,7 | 44,1 | 50,7 |
| | EER [1] | | 4,00 | 4,03 | 4,03 | 4,06 | 3,77 | 4,07 | 4,11 | 3,97 | 3,87 | 3,83 | 3,92 | 3,71 | 4,31 | 4,48 | 3,93 | 4,07 | 3,92 | 4,11 | 4,14 |
| | Power supply | V/Ph/Hz | 400±10% / 3-PE / 50 | | | | | | | | | | | | | | | | | | |
| Dual-Freq. | Nominal cooling capacity 60 Hz [1] | kW | 8,39 | 9,56 | 15,0 | 21,5 | 34,9 | 42,7 | 52,3 | 61,3 | - | - | - | - | - | - | - | - | - | - | - |
| | Total absorbed power 60 Hz [1] | kW | 2,38 | 2,65 | 3,92 | 5,63 | 9,50 | 11,0 | 13,3 | 16,2 | - | - | - | - | - | - | - | - | - | - | - |
| | EER 60 Hz [1] | | 3,52 | 3,61 | 3,82 | 3,81 | 3,68 | 3,89 | 3,93 | 3,78 | - | - | - | - | - | - | - | - | - | - | - |
| | Power supply | V/Ph/Hz | 400±10% / 3-PE / 50 [460±10% / 3-PE / 60] | | | | | | | | | | | | | | | | | | |
| | SEPR HT [2] | | 4,78 | 4,63 | 4,52 | 4,52 | 4,50 | 4,62 | 4,62 | 4,57 | 5,05 | 5,12 | 4,75 | 4,85 | 4,92 | 5,04 | 5,11 | 5,30 | 5,08 | 5,07 | 5,31 |
| | Noise level 50 Hz [3] | db(A) | 52,4 | 52,4 | 53,1 | 53,1 | 53,6 | 54,1 | 54,1 | 55,0 | 56,3 | 56,3 | 58,0 | 58,0 | 60,3 | 61,7 | 61,5 | 61,5 | 62,2 | 62,6 | |
| | Width | mm | 560 | 560 | 660 | 660 | 761 | 761 | 761 | 761 | 866 | 866 | 866 | 866 | 1150 | 1150 | 1255 | 1255 | 1255 | 1250 | |
| | Depth | mm | 1284 | 1284 | 1315 | 1315 | 1862 | 1862 | 1862 | 1862 | 2250 | 2250 | 2250 | 2250 | 2790 | 2790 | 3298 | 3298 | 3298 | 3535 | |
| | Height | mm | 795 | 795 | 1373 | 1373 | 1437 | 1437 | 1437 | 1437 | 2054 | 2054 | 2054 | 2054 | 2090 | 2090 | 2119 | 2119 | 2119 | 2151 | |
| | Working weight [4] | Kg | 206 | 210 | 324 | 346 | 483 | 642 | 656 | 672 | 1006 | 1023 | 1057 | 1065 | 1408 | 1513 | 1701 | 1750 | 1786 | 2267 | |
| | Tank volume | l | 60 | 60 | 115 | 115 | 140 | 255 | 255 | 255 | 350 | 350 | 350 | 350 | 410 | 410 | 500 | 500 | 500 | 678 | |
| | Evaporator water connections | Rp | 3/4" | 3/4" | 1" | 1" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 2" | 2" | 2" | 2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 3" | |

Data declared according to UNI EN 14511:2013. All data refers to standard units at the following nominal conditions:

- (1) Evaporator water inlet/outlet temperature 20/15 °C, external air temperature 25 °C.
 - (2) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers.
 - (3) **Sound pressure at 10 m:** average value obtained in free field on a reflective surface at a distance of 10 m from the condensate side of the 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.
 - (4) **Installed weight:** the weight refers to the 50 Hz version, with P3 pump and with axial fans.
- 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 Eurovent Certification applied to the units:
- Air/Water up to 600 kW
- Water/Water up to 1500 kW



EAC Declaration

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