TAEevo TECH

Air-cooled process chillers with in-tank evaporator.
Nominal cooling capacity 9 – 256 kW

The benchmark process chiller.

Technological innovation, absolute reliability and customer satisfaction have been MTA's hallmarks in over 40 years in the industrial cooling market. The TAEevo Tech air cooled process chillers, specifically designed for use in industrial applications.
TAEevo 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 in-tank evaporator 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 TAEevo Tech to be personalised to a variety of industrial applications.

Benefits

- The unique in-tank evaporator 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 TAEevo Tech models already meet the limits set by the ErP, for the indexes SEPR HT (Tier 2 01/01/2021) and SEPR MT (Tier 2 02/07/2018);
- R410A 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 TAEevo 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.

Main options

- P3, P5 pumps, open circuit single P3 pump, double pumps in standby P3+P3 or P5+P5; SP (without pump);
- Version with painted fins against corrosion;
- Axial fans with electronic speed control by phase cut-off; centrifugal fans; EC brushless axial fans with high head pressure; EC brushless axial fans;
- Anti-freezing heaters (on tank and pumps);
- Soft starter option: factory fitted;
- Automatic hydraulic bypass option factory fitted;
- Non Ferrous option.

Standard features

- Refrigerant R410A;
- Hermetic Scroll compressors;
- Electronic expansion valve;
- High-efficiency finned coil evaporator with copper tubes and aluminum fins, installed inside the water storage tank;
- Axial fans with galvanized steel blades (mod. 020) and die cast aluminum/plastic crescent-shaped blades (mod. 031-1002);
- Oversized air-cooled condensers (copper tubes /aluminium fins). Air filter standard from mod. 031;
- Storage tank (design pressure 6 barg) complete with 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. 031-1002);
- Parametric microprocessor control IC208CX;
- Protection rating: IP54 (mod. 031-1002); IP44 (mod. 020);
- Phase monitor;
- Compressor crankcase heater.

Kits

- Flow rate regulation kit;
- 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);
- Supervisor kits: RS485 ModBus, xWEB300D PRO;
- Automatic hydraulic bypass kit external;
- Modularity kit: up to 5 units in MASTER/SLAVE.

Versions

- Version for low environmental temperature -20 °C;
- Dual frequency version: power supply 400V/3/50 Hz - 460V/3/60 Hz;
- Close Temperature Control version: outlet water temperature accuracy ±0,5 °C.

IC208CX microprocessor controller.

Supervisor kits.


P3 (3 barg) and P5 (5 barg) pump, as optional.


Integrated high capacity water tank.

TAEevo Tech		020	031	051	081	101	121	161	201	251	301	351	381	401	402	502	602	702	802	902	1002
Nominal cooling capacity (1) ▼	kW	6,22	8,73	12,35	21,82	26,93	34,32	37,01	43,60	47,74	57,82	64,21	77,49	85,73	88,09	98,64	112,90	131,54	151,32	171,92	194,90
EER (1) ▼	-	2,27	2,41	2,34	2,52	2,67	2,57	2,57	2,38	2,26	2,57	2,45	2,80	2,69	2,39	2,38	2,44	2,74	2,71	2,51	2,49
SEPR HT (2) ▼	-	5,02	5,04	5,00	5,03	5,07	5,03	5,01	5,12	5,05	5,15	5,02	5,03	5,04	5,05	5,08	5,12	5,03	5,10	5,16	5,17
SEPR MT (3)	-	2,99	3,04	3,35	3,42	3,13	3,45	3,51	3,02	3,01	3,08	3,30	3,18	3,29	3,25	3,27	3,31	3,53	3,51	3,40	3,52
Nominal cooling capacity (4)	kW	8,79	12,22	17,20	30,54	36,39	48,03	51,37	59,39	64,34	78,26	88,19	109,69	119,20	122,11	134,63	153,65	175,49	198,91	227,11	256,23
EER (4)	-	4,30	4,35	3,99	4,09	4,25	4,13	4,08	3,66	3,43	3,93	3,67	4,43	4,23	3,72	3,68	3,75	4,09	3,95	3,73	3,67
Power supply	V/ph/Hz	400 ± 10% / 3-PE / 50																			
Circuits / Compressors	n°	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4
Refrigerant	-	R410A																			
Sound Power (5) ▼	dB(A)	80	81	81	82	82	82	83	84	84	86	86	88	90	90	89	89	90	91	92	93
Length	mm	1290	1320	1320	1867	1867	1867	1867	2250	2250	2250	2250	2793	2793	3298	3298	3298	3545	3545	4655	4655
Width	mm	560	661	661	761	761	761	761	866	866	866	866	1150	1150	1255	1255	1255	1250	1250	1250	1250
Height	mm	952	1464	1464	1511	1511	1511	1511	2128	2128	2128	2128	2090	2090	2119	2119	2119	2150	2150	2155	2155
Operating weight (6)	kg	272	408	418	583	727	742	748	1034	1034	1085	1076	1389	1434	1712	1741	1755	2176	2219	2891	2966
Tank volume	l	60	115	115	140	255	255	255	350	350	350	350	410	410	500	500	500	678	678	950	950
Evaporator water connections	Rp-DN	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"	3"	100	100

Data declared according to UNI EN 14511, and they refer to units without options which require an electrical feeding source and in nominal working conditions.
(1) Evaporator water inlet/outlet temperature 12/7 °C, external air temperature 35 °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) Data declared in compliance with the European Regulation (EU) 2015/1095 with regard to ecodesign requirements for cooling products and medium temperature process chillers;
(4) Evaporator water inlet/outlet temperature 20/15 °C, external air temperature 25 °C;
(5) Sound power is determined on the basis of measurements taken in accordance with the standard ISO 3744;
(6) Operating weight refers to the unit without options but is considering a P3 pump.
▼ Eurovent certified data.

ISO 9001 BUREAU VERITAS Certification
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.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com
MTA partecipates 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

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