tehnogama
CREATIVE SOLUTIONS

TAEevo TECH

ErP Tier 2 COMPLIANT

Air-cooled process chillers with scroll compressors - R410A.
Nominal cooling capacity 8 – 259 kW

The evolution of perfection.

Technological innovation, absolute reliability and customer satisfaction have been MTA's hallmarks in over 35 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 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 TAEevo Tech to be personalised to a variety of industrial applications.

MTA®
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 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.

Options

- P3, P5 pumps, open circuit single P3 pump (mod.031-1002), double pumps in stand-by P3+P3 or P5+P5 (mod. 201- 1002); SP (without pump);
- Version with painted fins against corrosion;
- Axial fans with electronic speed control by phase cut-off (mod. 031-802); centrifugal fans (mod. 031-161); EC brushless axial fans with high head pressure (mod. 201-802); EC brushless axial fans (mod. 902-1002);
- Anti-freezing heaters (on tank and pumps);
- Soft starter option: factory fitted (mod. 381-1002);
- Automatic hydraulic bypass option factory fitted (mod. 031-602);
- Non Ferrous option (mod. 020-802).

Standard features

- Refrigerant R410A;
- Hermetic Scroll compressors;
- Electronic expansion valve (mod. 031-1002);
- 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);
- Adapter kit for remote control VICX620 and VGI890 (necessary for mod. 381-1002);
- Supervisor kits: RS485 ModBus, xWEB300D EVO;
- Automatic hydraulic bypass kit external (mod.020-602 and 902-1002);
- Modularity kit: up to 5 units in MASTER/SLAVE.

Versions

- Version for low environmental temperature -20 °C (mod. 031-1002);
- Dual frequency version: power supply 400V/3/50 Hz - 460V/3/60 Hz (mod. 020-161);
- UL version (020-1002): power supply 460/3/60Hz;
- Close temperature control version (mod. 020-351): extremely precise regulation of the outlet water temperature (hysteresis ± 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
50 Hz	Nominal cooling capacity (1)	kW	5,66	9,01	13,06	21,97	26,73	34,54	37,83	43,32	48,56	57,74	65,13	78,87	87,66	87,65	102,27	112,97	132,70	154,66	173,71	195,21
	Total absorbed power (1)	kW	2,26	3,45	5,00	8,04	9,67	12,73	14,60	16,44	19,99	21,67	27,64	27,86	32,00	33,21	38,26	43,96	49,27	57,13	65,13	70,59
	EER (1)		2,51	2,62	2,61	2,73	2,77	2,71	2,59	2,63	2,43	2,66	2,36	2,83	2,74	2,64	2,67	2,57	2,69	2,71	2,67	2,77
	SEPR HT (2)		5,00	5,06	5,20	5,06	5,01	5,00	5,01	5,37	5,33	5,10	5,11	5,25	5,17	5,31	5,52	5,37	5,30	5,58	5,37	5,45
	SEPR MT (3)		2,74	2,95	3,17	3,45	3,37	3,27	3,30	3,43	3,67	3,46	3,31	3,30	3,29	3,60	3,99	3,76	3,62	3,73	3,69	3,90
	Nominal cooling capacity (4)	kW	8,10	12,82	18,38	30,05	36,36	47,25	51,58	59,20	66,82	79,38	89,11	109,86	122,00	120,91	141,99	157,05	179,46	207,88	231,81	259,06
	Total absorbed power (4)	kW	1,90	2,96	4,34	7,23	8,58	11,38	12,95	14,84	17,92	19,11	24,45	24,44	28,89	30,16	34,41	39,19	43,05	50,43	57,62	62,73
	EER (4)		4,26	4,33	4,24	4,15	4,23	4,15	3,98	3,99	3,73	4,15	3,64	4,50	4,22	4,01	4,13	4,01	4,17	4,12	4,02	4,13
	Power supply	V/Ph/Hz	400±10% / 3-PE / 50																			
Dual-Frequency	Nominal cooling capacity 60 Hz (1)	kW	6,53	10,27	14,43	24,43	30,45	39,94	43,61	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total absorbed power 60 Hz (1)	kW	2,91	4,41	6,44	10,45	12,08	15,37	17,73	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER 60 Hz (1)		2,24	2,33	2,24	2,34	2,52	2,60	2,46	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nominal cooling capacity 60 Hz (4)	kW	9,32	14,59	20,27	33,42	41,62	54,48	59,19	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total absorbed power 60 Hz (4)	kW	2,50	3,82	5,64	9,45	10,79	13,85	15,85	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER 60 Hz (4)		3,73	3,81	3,60	3,54	3,86	3,93	3,73	-	-	-	-	-	-	-	-	-	-	-	-	-
	Power supply	V/Ph/Hz	400±10% / 3-PE / 50 (460±10% / 3-PE / 60)							-	-	-	-	-	-	-	-	-	-	-	-	-
	Noise level 50 Hz (5)	db(A)	52,4	53,1	53,1	53,6	54,1	54,1	55	56,3	56,3	58	58	60,3	61,7	61,5	61,5	61,5	62,2	62,6	78,7	79,8
	Width	mm	560	660	660	761	761	761	761	866	866	866	866	1150	1150	1255	1255	1255	1250	1250	1250	1250
	Depth	mm	1284	1315	1315	1862	1862	1862	1862	2250	2250	2250	2250	2790	2790	3298	3298	3298	3535	3535	4655	4655
	Height	mm	795	1373	1373	1437	1437	1437	1437	2054	2054	2054	2054	2090	2090	2119	2119	2119	2151	2151	2155	2155
	Working weight (6)	Kg	199	314	324	462	624	635	649	924	966	1018	1028	1366	1419	1666	1682	1726	2077	2114	2839	2936
	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"	DN100	DN100

Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/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) 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;
(6) The weight refers to the 50 Hz version, without accessories/options.
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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