PROCESS COOLING SOLUTIONS

PRODUCT GUIDE

Industrial Process Cooling

Cooling your industry,
optimising your process.

MTA®

Cooling, conditioning, purifying.

ENERGY FOR THE FUTURE

Modern industry's increasing levels of sophistication and capital investment imply that highest precision with zero downtime are an absolute must for an economically viable process. MTA's cooling solutions, developed specifically for industrial Users, perfectly answer industry's need for precise temperature control and absolute reliability, 24 hours a day, 365 days a year.
The cost of not implementing the optimised solution far exceeds the cost of an optimised MTA industrial cooling solution.

MTA®

Cooling, conditioning, purifying.

THE PHILOSOPHY BEHIND "COOLING, CONDITIONING, PURIFYING"

A company built on solid foundations

Founded over 35 years ago with the aim of providing innovative energy solutions, today MTA covers a role of Global leader within the fields of the conditioning of commercial, public or residential ambients, industrial process cooling and compressed air & gas purification. MTA's energy solutions offer unique answers to individual Customer needs. MTA's mission is to maximize Customer satisfaction by means of expert support, implementing optimized solutions with a minimal environmental impact.

Pioneering innovation

MTA's future is founded upon the principals of innovation and excellence. Unique Customer solutions are born from a notable and continuous investment in R&D. Numerous patented products and state-of-the-art testing facilities ensure MTA products are not only highly advanced, but also extremely reliable. MTA's production facilities offer flexible manufacturing processes with extensive individual testing of each and every product leaving the factory. MTA is ISO9001:2008 certified.

Expert consultancy and service

MTA's energy lies within its people, with a dedicated team of experts focused to a single aim, that of satisfying and exceeding the needs and requests of its Customers. Continuous Business Process updates, coupled with advanced operating procedures, ensure MTA remains at the forefront of corporate development. MTA's worldwide network of expert personnel receive continuous and extensive training, to ensure that everybody representing MTA assumes the role of expert consultant towards its Customers.

Environmental commitment

MTA's very first product, a patented refrigeration dryer offering a new dimension in energy savings, set the path which has been followed ever since. Today MTA boasts novel products ensuring a minimal environmental impact and offers expert consultancy concerning energy savings within Customer applications.

The power of a global team

MTA boasts 3 production facilities, Sales Companies covering 4 continents and a network of Partners in over 80 countries worldwide. The expert international service network, is backed up by a comprehensive worldwide spare parts coverage. MTA products, designed for operation worldwide, comply to local legislations. Advanced supervision technology, including web browser and GPRS connectivity, ensures peace of mind wherever you may be.

Application driven Customer solutions

MTA's success is based upon understanding Customer applications. At MTA the aim is not to merely supply products, rather to fully maximize Customer potential. Whether it be office buildings, hotels, hospitals, shopping centres, cultural institutions, leisure facilities, telecommunications, public buildings or residential applications, MTA has the answers to each specific air conditioning need. Add to that MTA's extensive knowledge of industrial air conditioning and process cooling, within a vast array of individual applications.

A partner you can trust

MTA's success has been built upon its reputation within the marketplace, with endless renowned companies worldwide placing their trust in MTA to supply them with the optimum solution to their needs. MTA's flexibility towards special Customer solutions ensures each and every need can be satisfied. Continuous communication and cooperation with its Partners and Customers ensures MTA creates a team spirit with an aim towards excellence and long-term collaboration.

MTA®

Cooling, conditioning, purifying.

200 distributors,
80 countries,
35 years of experience,
4 continents...
all add up to make us
your ideal partner

SINCE
1982
OVER 30 YEARS OF INNOVATION

OVER
400
EMPLOYEES WORLDWIDE

3
PRODUCTION PLANTS

80
COUNTRIES

1,7 – 1.900 kW
CHILLERS RANGE

0,3 – 760 m³/min
DRYERS RANGE

13.500
UNITS BUILT PER YEAR

70.000 m²
PRODUCTIVE AREA

Tribano (Padua)

Conselve (Padua)

Bagnoli di Sopra (Padua)

CERTIFICATIONS

Eurovent

EAC

UL

ISO 9001:2008

ASME U Stamp

National Board

European Conformity Marking

MTA PROCESS COOLING APPLICATIONS

Automotive

Food

Beverage

Chemical

Pharmaceutical

Plastics

Laser

Diagnostic

Machine Tools

Wineries

Rent

PROCESS COOLING SOLUTIONS

PRODUCT GUIDE

Industrial Process Cooling

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Cooling, conditioning, purifying.

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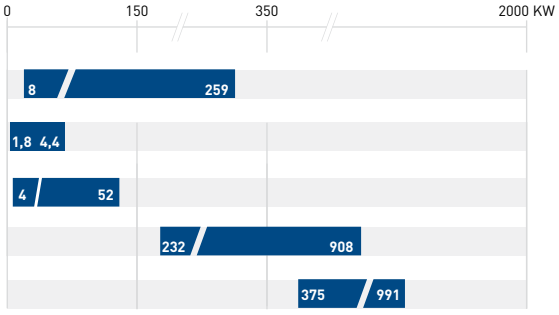

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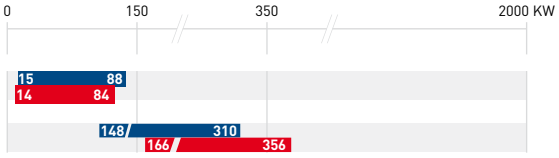

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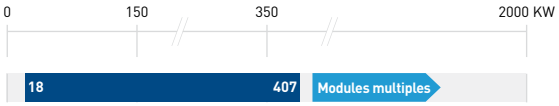
THE MODULAR FREE-COOLER



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LEGEND

Mode

- ❄ Cooling
- ❄ Cooling / Heating

Compressors

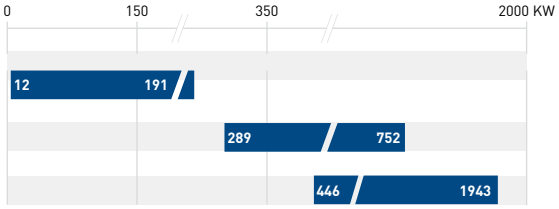
- Rotary
- Screw
- Scroll

Heat Exchangers

- Plates
- Immersed Finned Coil
- Shell &Tubes
- Finned Coil
- Sigle Pass Shell & Tube

PROCESS COOLING SOLUTIONS

WATER-COOLED WATER CHILLERS



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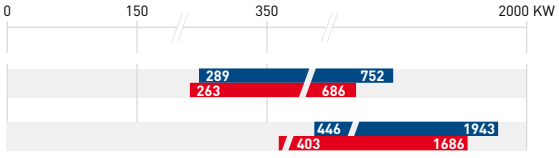
WATER-COOLED HEAT PUMPS



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TAEevo TECH

R410A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

Air-cooled process chillers with scroll compressors - R410A.

Nominal cooling capacity 8 – 259 kW

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

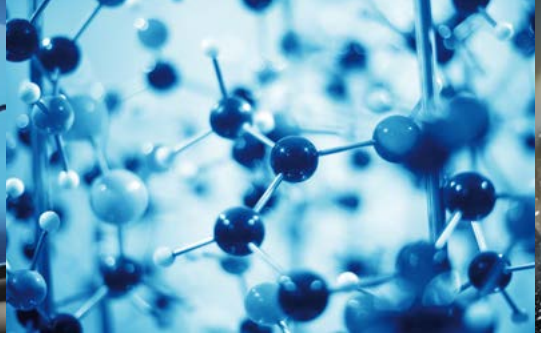
- Refrigerant R410A;
- Hermetic Scroll compressors;
- Electronic expansion valve (mod. 031-1002);
- High-efficiency finned coil evaporator with copper tubes and aluminum fins, installed inside the water storage tank;
- Axial fans with galvanized steel blades (mod. 020) and die cast aluminum/plastic crescent-shaped 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).


	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.

IC208CX microprocessor controller.

External supervisor systems: RS485 ModBus, xWEB300D EVO.

Standard Pump P3 (3 barg); optional P5 pump (5 barg). Available version with P3 pump and hydraulic circuit suitable for open storage tank systems.

The standard hydraulic storage tank also assures optimum precision in the control of temperature even in the presence of highly variable thermal loads from the user and simplifies installation.

TAEevo TECH MINI

R134a | R410A

Air-cooled industrial chillers.

Nominal cooling capacity 1,8 – 4,4 kW

Benefits

- The unique evaporator-in-tank configuration has been specifically designed for process cooling applications. It allows high water flow rates with low pressure drops and ensures a reliable operation even in demanding applications;
- Hydraulic circuit Non Ferrous: it allows to treat even fluids aggressive to carbon steel, maintaining maximum quality and cleanliness of the process fluid;
- All the TAEevo TECH MINI models already meet the limits set by the ErP for SEPR HT (Tier 2 01/01/2021);
- Easy installation thanks to their compact dimensions. The robust structure with eyebolts allows lifting the unit by means of straps with hooks;
- Easy maintenance: the rational layout of the hydraulic components, the simplicity of the refrigerant circuit and the numbering of electric cables simplify the operations of checking and maintenance, which can also be performed with running unit;
- The disassembly of the condenser air filter for the periodic cleaning operations is facilitated thanks to the fastening system interlocking;
- Thanks to the dual frequency design, the M03 model is ready for 50 Hz and 60 Hz applications;
- Extended operating limits: temperature range of the fluid from 0 °C up to + 30 °C. Max ambient temperature up to + 45 °C; ambient temperature min. of +5 °C.

Options

- Close temperature control version (mod. M08-M10): this version offers extremely precise regulation of the outlet water temperature (hysteresis ± 0,5 °C);
- LWT brine version: suitable for low outlet water temperature (mod. M08-M10): (Tw out min=-5 °C);
- P5 Pump (mod. M08-M10): peripheral non ferrous pump (5 barg head pressure);
- Tank level switch (mod. M08-M10);
- Multipole industrial connector (mod. M08-M10);
- Hydraulik disconnect system (mod. M08-M10);
- Stainless steel frame.

Standard features

- Refrigerant fluids (ODP=0) R134a (mod. M03) R410A (mod. M05–10);
- Hermetic rotary compressors;
- High efficiency finned coil evaporator Installed inside the storage tank and featuring copper tubes and aluminum fins;
- Water buffer tank in polyethylene equipped with a drain valve, a water filling and overflow connections and a visual level indicator;
- P3 Pump (mod. M03-M10): peripheral non ferrous pump (3 barg head pressure);
- Axial fans equipped with sickle-shaped galvanized steel sheet blades equipped with thermal protection and safety guard;
- Air-cooled condenser with copper tubes and aluminum fins with high efficiency. The heat exchanger is protected by metal air filters;
- Atmospheric pressure hydraulic circuit built with non-ferrous materials equipped with a pressure gauge 0–6 bar;
- Calibrated hydraulic bypass;
- All units can be used with mixtures of water and ethylene glycol /propylene up to 30%;
- High pressure switch with manual reset (mod. M05–M10);
- Pressure connections for checks and maintenance;
- Digital microprocessor XR60CX;
- Green/red light on the frontal panel to signal the existence/absence of alarms (mod. M08-10);
- Lamination device: capillary or calibrated orifice;
- Thermostatic expansion valve (Close temperature control version / Brine version);
- Power supply: 230/1/50-60Hz (M03); 230/1/50Hz (M05–10);
- Protection grade IP33.

Kits

- Water filter kit;
- Automatic hydraulic by-pass kit;
- Antivibration mountings kit;
- Dynamic set point kit;
- Wheels kit.



TAEevo Tech MINI		03 50 Hz / 60 Hz	05	08	10
Nominal Cooling capacity (1)	kW	1,22 / 1,23	1,84	2,33	2,98
Total absorbed power (1)	kW	0,46 / 0,55	0,70	0,89	1,17
Nominal power P3 pump optional (3 barg)	kW	0,18	0,37	0,37	0,37
EER (1)		2,67 / 2,23	2,65	2,61	2,55
Nominal Cooling capacity (2)	kW	1,76 / 1,80	2,70	3,43	4,43
Total absorbed power (2)	kW	0,40 / 0,50	0,60	0,77	1,01
EER (2)		4,38 / 3,59	4,47	4,47	4,38
SEPR HT (3)		5,00	5,09	5,15	5,00
Power supply	V/Ph/Hz	230 ± 10% / 1 - PE / 50-60	230 ± 10% / 1 - PE / 50		
Noise level (4)	db(A)	46 / 47	47	47	47
Width	mm	486	486	486	486
Depth	mm	660	660	660	660
Height	mm	623	623	876	876
Working weight without pump	kg	63	65	91	94
Working weight with P3 pump optional (3 barg)	kg	68	71	97	100
Tank volume	l	15	15	22	22
Evaporator water connections	Rp	1/2"	1/2"	1/2"	1/2"

Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source, without pump and in nominal working conditions.

(1) Evaporator water inlet/outlet temperature 12/7 °C, external air temperature 35 °C, total absorbed power of the compressor and fan;

(2) Evaporator water inlet/outlet temperature 20/15 °C, external air temperature 25 °C, total absorbed power of the compressor and fan;

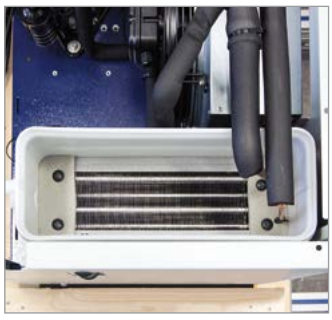
(3) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers;

(4) Sound pressure level in free field at 10 m from unit condenser side and 1,6 m from ground.

The listed noise levels, weights and dimensions refer to base units with P3 pump.

Hydraulic circuit Non Ferrous maintains maximum cleanliness of the process fluid.

Innovative finned coil evaporator with high efficiency.



TAEevo Tech MINI mod. 03 dual frequency 50/60 Hz.

XR60CX microprocessor controller features an integrated display with icons.

TAEevo LWT

R449A | ErP Tier 2 COMPLIANT

Air-cooled process chillers with scroll compressors - R449A.

Nominal cooling capacity 4,5 - 52,5 kW

Benefits

- The unique evaporator-in-tank configuration has been specifically designed for process cooling applications. It allows to optimize the heat exchange and minimize the pressure drops also with contaminated process fluids;
- Extended operating limits: Tw in max = 0 °C; Tw out min = -24 °C; Tamb max = +42 °C; Tamb min = -5 °C;
- All the TAEevo LWT models already meet the limits set by the Tier 2 of ErP regulation for medium temperature process chillers (SEPR MT - 07/2018);
- 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 electrical protection rate makes TAEevo LWT 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).

Options

- Hydraulic circuit configurations: SP (without pump) and P3 pump (3 barg - optional);
- Version with painted fins against corrosion;
- Non Ferrous option.

Kits

- Manual filling tank kit: suitable for hydraulic circuits at atmospheric pressure;
- 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. 381-802);
- Supervisor kits: RS485 ModBus, xWEB 300D EVO;
- Modularity kit: up to 5 units in MASTER/SLAVE.

Standard features

- Refrigerant R449A;
- 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 die-cast aluminum/plastic crescent-shaped blades. The fans speed is electronically regulated (phase cut-off regulation);
- Air-cooled condensers (copper tubes /aluminium fins). Air filter standard;
- Storage tank (design pressure 6 barg) complete with filling/drain valves;
- 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;
- Parametric microprocessor control IC208CX;
- Electrical board protection rating: IP54;
- Phase monitor;
- Compressor crankcase heater.

Versions

- Version for low environmental temperature -20 °C.



TAEevo LWT		081	121	251	351	381	401	502	602	802
Nominal cooling capacity (1)	kW	4,54	9,30	14,11	17,99	21,17	25,26	35,23	41,31	52,50
Total absorbed power (1)	kW	4,15	7,95	11,01	15,11	19,40	22,25	29,54	36,41	43,90
EER (1)		1,09	1,17	1,28	1,19	1,09	1,14	1,19	1,13	1,20
SEPR MT (2)		2,59	2,63	3,00	2,87	2,63	2,81	3,00	2,86	2,99
Power supply	V/Ph/Hz	400±10% / 3-PE / 50								
Noise level 50 Hz (3)	db(A)	53,6	54,1	56,3	58,0	60,3	61,7	61,5	61,5	62,6
Width	mm	761	761	866	866	1150	1150	1255	1255	1250
Depth	mm	1862	1862	2250	2250	2790	2790	3298	3298	3535
Height	mm	1437	1437	2054	2054	2090	2090	2119	2119	2151
Working weight (4)	Kg	455	641	951	1028	1390	1414	1760	1772	2255
Tank volume	l	140	255	350	350	410	410	500	500	678
Evaporator water connections	Rp	1 1/2"	1 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	3"

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 -15/-20 °C with 50% ethylene glycol, external air temperature 35 °C;

(2) Data declared in compliance with the European Regulation (EU) 2015/1095 with regard to ecodesign requirements for cooling products and medium temperature process chillers;

(3) 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;

(4) 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.

IC208CX microprocessor controller.

External supervisor systems: RS485 ModBus, xWEB300D EVO.

Electronic expansion valve.

The standard hydraulic storage tank also assures optimum precision in the control of temperature even in the presence of highly variable thermal loads from the user and simplifies installation.

TWEevo TECH

R410A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

Water-cooled process chillers with scroll compressors - R410A.

Nominal cooling capacity 12,4 – 191,7 kW

Benefits

- Heat exchangers with low water side pressure drops in order to save pumping costs;
- Reduced sound pressure level;
- 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 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 electrical protection rate makes TWEevo 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.

Kits

- Manual filling tank kit: suitable for hydraulic circuits at atmospheric pressure;
- Automatic filling kit: suitable for pressurized hydraulic circuits (up to 6 barg);
- Remote control kit VICX620 display LED; VGI890 display LCD (max 150 m) mod. 031-351;
- Supervisor kits: RS485 ModBus, xWEB300D EVO;
- Automatic hydraulic bypass kit external (mod. 031-602);
- Modularity kit: up to 5 units in MASTER/SLAVE.

Standard features

- Refrigerant R410A;
- Hermetic Scroll compressors;
- High-efficiency finned coil evaporator with copper tubes and aluminum fins, installed inside the water storage tank;
- Electronic expansion valve (mod. 031-802);
- High efficiency plate condenser (mod. 031-161) and shell & tube condenser (mod. 201-802) optimized for R410A refrigerant gas;
- 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.

Options

- P3, P5 pumps, double pumps in stand-by P3+P3 or P5+P5 (mod. 201-802); SP (without pump);
- Condensing control option with servo-driven modulating valves or pressure control valves (TOWER/WELL);
- Differential hydraulic by-pass valve - evaporator side (Mod. 031-602);
- Anti-freezing heaters (on tank and pumps);
- Soft starter option: factory fitted (mod. 381-802).

Versions

- Non Ferrous Version (mod. 031-351);
- UL version: power supply 460/3/60Hz.



TWEevo Tech		031	051	081	101	121	161	201	251	301	351	381	401	402	502	602	702	802
Nominal cooling capacity (1)	kW	10,27	15,21	26,77	30,20	38,39	44,19	51,62	57,37	65,54	75,77	82,61	94,93	101,60	113,06	127,25	150,64	167,75
Total absorbed power (1)	kW	2,37	3,53	6,24	7,05	9,12	10,46	12,98	14,75	17,25	20,49	21,73	25,69	25,74	29,30	34,18	39,18	43,65
EER (1)		4,33	4,31	4,29	4,28	4,21	4,22	3,98	3,89	3,80	3,70	3,80	3,70	3,95	3,86	3,72	3,84	3,84
SEPR HT (2)		7,39	7,65	7,43	7,42	7,12	7,09	7,54	7,43	7,09	7,01	7,05	7,05	7,45	7,38	7,04	7,45	7,23
SEPR MT (3)		3,84	4,18	4,12	4,13	4,06	4,19	4,31	4,34	4,26	4,22	4,29	4,22	4,26	4,33	4,19	4,57	4,53
Nominal cooling capacity (4)	kW	12,39	18,28	31,71	35,30	44,16	51,57	60,94	67,56	76,93	88,84	97,87	112,82	118,39	132,21	147,83	172,06	191,69
Total absorbed power (4)	kW	2,66	4,09	6,99	7,91	10,29	11,84	14,68	16,70	19,60	23,24	24,71	29,31	29,20	33,22	38,89	44,19	49,27
EER (4)		4,66	4,47	4,54	4,46	4,29	4,36	4,15	4,05	3,93	3,82	3,96	3,85	4,05	3,98	3,80	3,89	3,89
Power supply	V/Ph/Hz	400±10% / 3-PE / 50																
Sound pressure level (5)	dB(A)	40,0	48,3	42,4	48,0	49,5	50,2	50,0	51,0	52,6	54,2	55,0	58,0	53,6	55,1	56,4	57,5	58,5
Width	mm	660	660	760	760	760	760	865	865	865	865	1150	1150	1255	1255	1255	1251	1251
Depth	mm	1310	1310	1865	1865	1865	1865	2255	2255	2255	2255	2790	2790	3295	3295	3295	3550	3550
Height	mm	1265	1265	1310	1310	1310	1310	1930	1930	1930	1930	2020	2020	2050	2050	2050	1870	1870
Working weight	Kg	303	323	466	633	632	653	968	1050	1062	1066	1407	1481	1697	1744	1783	2260	2285
Tank volume	l	115	115	140	255	255	255	350	350	350	350	410	410	500	500	500	678	678
Condenser water connections	Rp	1 1/4"	1 1/4"	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"
Evaporator water connections	Rp	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"

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, condenser water inlet/outlet temperature 30/35 °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, condenser water inlet/outlet temperature 35/40 °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;

The listed noise levels, weights and dimensions refer to base units with no options fitted.

IC208CX microprocessor controller.

High efficiency shell & tubes condensers optimized for R410A refrigerant gas. (mod. 201-802).

Standard Pump P3 (3 barg); optional P5 pump (5 barg). Also available double pumps P3+P3, P5+P5 (1 run/ 1 stand-by.

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



HAEevo TECH

R410A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

High efficiency air-cooled reversible process heat pumps with scroll compressors and refrigerant R410A.

Nominal cooling capacity 15,4 - 88,5 kW | Nominal heating capacity 13,6 - 83,8 kW

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 die-cast aluminum/plastic crescent-shaped blades;
- Oversized air-cooled condensers with copper tubes and aluminium fins protected by hydrophilic treatment;
- Condenser air filter standard;
- Double mechanical thermostatic expansion valve with external equalization;
- 4-way refrigerant cycle reversing valve;
- 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 high pressure transducer;
- Parametric microprocessor control IC208CX;
- Protection rating: IP54;
- Phase monitor against phase reversal;
- Compressor crankcase heater;
- Free contacts available to the customer.

Versions

- Version with hydraulic circuit suitable for open storage tank systems (mod. 031-351): the pump sucks from the tank the process fluid to be cooled, making it circulate through the evaporator of the unit;
- Non Ferrous Version: suitable for operation with aggressive process fluids (evaporator in copper protected by a brass frame, storage tank in AISI 304).

Options

- P3, open-circuit P3 and P5 pumps: with nominal head pressure 3 barg or 5 barg;
- EC brushless axial fans with inverter technology;
- Anti-freezing heaters (on tank and pumps);
- Electronic expansion valve.

Benefits

- All the HAEevo Tech models meet the limits set by the directive ErP - Ecodesign;
- 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;
- R410A non ozone depleting refrigerant increase the performance thanks its outstanding heat conductivity;
- Scroll compressors ensure high efficiency, excellent performance and elevated energy savings;
- Extended operating limits (chiller mode): Tw in max = +35 °C; Tw out min = -10 °C; Tamb max = +46 °C; Tamb min = -10 °C;
- Extended operating limits (HP mode): Tw out max = +55 °C; Tw out min = +30 °C; Tamb max = +20 °C; Tamb min = -10 °C;
- The condenser aluminium fins are protected by hydrophilic treatment;
- The oversized hydraulic tank is standard useful to compensate the imbalances caused by sudden changes in load demand from the user;
- IP54 electrical protection rate makes HAEevo Tech suitable for outdoor installation;
- Free contacts available to the customer: ON/OFF remote control, chiller/heat pump remote working change, double set point;
- 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.

Kits

- Manual filling tank kit: suitable for hydraulic circuits at atmospheric pressure;
- Automatic filling kit: suitable for pressurized hydraulic circuits (up to 6 barg);
- Automatic hydraulic bypass kit: includes adjustable pressure relief valve;
- Remote control kit VICX620 display LED, VGI890 display LCD (max distance 150 m);
- Supervisor kits: RS485 ModBus, xWEB300D EVO;
- Automatic hydraulic bypass kit external.



HAEevo Tech		031	051	081	101	121	161	201	251	301	351
Nominal cooling capacity (1)	kW	15,48	18,30	26,85	33,71	43,65	51,43	58,47	65,98	74,66	88,50
Total absorbed power (1)	kW	3,92	4,46	6,39	8,92	10,68	13,10	14,70	17,81	19,90	23,94
EER (1)		3,95	4,10	4,20	3,78	4,09	3,93	3,98	3,70	3,75	3,70
SEPR HT (2)		4,69	4,98	4,83	4,51	4,64	4,51	5,46	5,40	5,31	4,88
Nominal heating capacity (3)	kW	13,64	18,35	23,63	30,34	40,00	46,01	53,02	60,65	69,26	83,83
Total absorbed power (3)	kW	4,55	5,85	7,24	9,37	12,39	13,95	16,08	18,64	21,28	25,78
COP (3)		3,00	3,13	3,26	3,24	3,23	3,30	3,30	3,25	3,26	3,25
SCOP (4)		3,278	3,512	3,486	3,553	3,434	3,463	3,843	3,951	4,045	3,784
ErP efficiency class (4)		A+	A+	A+	A+	A+	A+	A+	A++	A++	A+
Nominal cooling capacity (5)	kW	10,85	12,98	19,46	24,51	32,25	37,96	42,70	47,76	54,06	65,33
Total absorbed power (5)	kW	4,46	5,11	7,05	9,99	11,84	14,31	16,36	19,96	22,53	26,27
EER (5)		2,43	2,54	2,76	2,45	2,72	2,65	2,61	2,39	2,40	2,49
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50									
Noise level (6)	dB(A)	48,8	49,9	50	50	54	54,5	55,6	55,6	55,9	57,5
Width	mm	662	662	761	761	761	761	865	865	865	865
Depth	mm	1315	1315	1864	1864	1864	1864	2251	2251	2251	2251
Height	mm	1416	1416	1470	1470	1470	1470	2085	2085	2085	2085
Working weight (P3 pump)	Kg	329	351	495	643	665	681	968	1051	1091	1113
Tank volume	l	115	115	140	255	255	255	350	350	350	350
Evaporator water connections	Rp	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"

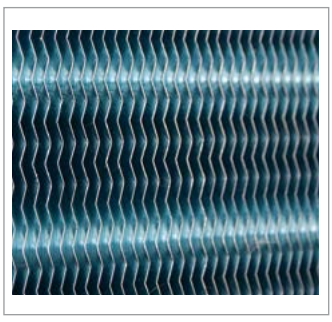
Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions.

(1) Evaporator water inlet/outlet temperature 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) Condenser water inlet/outlet temperature 40/45 °C, external air temperature 7 °C;
(4) Data declared according to the European Regulation 813/2013 for heat pumps at low temperature (BT) in average climate conditions (Strasbourg) and variable outlet water temperature;
(5) Evaporator water inlet/outlet temperature 12/7 °C, external air temperature 35 °C;
(6) Average value obtained in free field on a reflective surface at a distance of 10 m from the side of the condenser coils 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.

The listed noise levels, weights and dimensions refer to base units with no options fitted.

IC208CX microprocessor controller.

Hydrophilic coating of the fins.



Standard Pump P3 (3 barg); optional P5 pump (5 barg). Available version with P3 pump and hydraulic circuit suitable for open storage tank systems.

The standard hydraulic storage tank also assures optimum precision in the control of temperature even in the presence of highly variable thermal loads from the user and simplifies installation.

ARIES TECH 2

R410A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

Air cooled water chillers featuring hermetic scroll compressors with R410A.

Nominal cooling capacity 232 – 908 kW

Benefits

- The ARIES Tech 2 range meet the efficiency parameters required by the ErP regulation for SEPR HT (Tier 2 01/01/2021 - base version) and SEPR MT (Tier 2 02/07/2018 - low water temperature version, up to -10 °C);
- Wide operating limits for starting up and functioning even in the worst conditions;
- Wide range of options and kits for easy installation;
- Easy access to all components;
- Advanced electronic control with integrated web server.

Options

- Low water temperature configuration (up to -10 °C outlet water temperature);
- Stainless steel shell and tube evaporator;
- Single or twin water pump with low or medium head pressure;
- Water accumulation tank;
- IN/OUT compressors valves;
- High efficiency EC brushless fans (base equipment for SSN version);
- Total heat recovery;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Microchannels condenser coils;
- Antifreeze heaters for evaporator pump/s and tank;
- Metallic mesh filters for condenser coil protection;
- Soft starters to reduce by 20% the unit's starting current.

Standard Features

- Refrigerant R410A;
- 4 or 6 scroll compressors on two independent refrigerant circuits;
- Crankcase heater compressor and phase-monitor;
- Shell & tube evaporator;
- Electronic expansion valve;
- Axial fans, developed on the basis of bionic principles that allow to achieve high performance with low noise emissions;
- Electrical panel protection rating IP54;
- Electronic microprocessor controller with high computing capacity and an easy to use graphical interface;
- Refrigerant charge, non-freezing oil and tests performed in the factory;
- Modbus RS485 serial output for connection to supervision systems;
- Serial connection to supervision systems;
- Master/slave configuration manageable between 2 units.

Kits

- Antivibration mountings kit;
- Replicated remote user terminal kit;
- Supervision system xWEB300D EVO;
- Modularity kit for xDRIVE (master/slave from 3 to 8 units).

Versions

- HE - basic acoustic configuration;
- SHE - low noise acoustic configuration;
- SSN - very low noise acoustic configuration.



Models AST2		065			075			090			105			115			140		
Versions		**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**
Nominal cooling capacity (1)	kW	232,13	223,42	211,80	264,88	251,37	240,94	307,87	289,13	274,62	384,44	365,84	351,55	435,30	409,15	390,50	508,42	469,05	447,39
Total absorbed power (1)	kW	60,20	61,46	65,58	62,37	64,67	67,60	76,28	80,91	85,79	85,65	87,56	90,77	103,04	108,18	113,50	129,21	141,03	148,67
EER (2)		3,86	3,63	3,23	4,25	3,89	3,56	4,04	3,57	3,20	4,49	4,18	3,87	4,22	3,78	3,44	3,93	3,33	3,01
SEPR HT (3)		5,16	5,25	5,42	5,33	5,32	5,55	5,22	5,09	5,23	5,46	5,51	5,51	5,38	5,32	5,57	5,28	5,26	5,35
Max external air temp. (4)	°C	44	42	42	45	43	44	46	40	41	46	45	46	45	42	43	46	39	42
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																	
Circuits / Compressors	N°	2/4			2/4			2/4			2/4			2/4			2/4		
Sound power (5)	dB(A)	91,3	83,7	79,3	92,9	85,3	80,6	94,4	86,8	80,7	95,3	87,8	80,7	96,1	88,6	82,5	96,1	88,8	80,6
Sound pressure (6)	dB(A)	63,3	55,7	51,3	64,9	57,3	52,6	66,4	58,8	52,7	67,3	59,8	52,7	68,1	60,6	54,5	68,1	60,8	52,6
Width	mm	2191			2191			2191			2191			2191			2191		
Depth	mm	3091			3091			3091			3439			3439			3465		
Height	mm	2424			2424			2424			2424			2424			2424		
Installed weight	kg	1779			1875			1972			2474			2566			2875		

Models AST2		150			160			170			190			210			240		
Versions		**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**
Nominal cooling capacity (1)	kW	559,86	527,91	505,14	605,82	570,41	546,41	676,36	641,56	616,87	745,47	700,25	668,40	829,92	785,24	753,25	908,23	852,14	814,55
Total absorbed power (1)	kW	130,42	136,67	143,29	134,67	141,89	148,53	146,17	150,61	156,17	170,82	179,64	188,69	182,09	188,72	196,54	206,38	218,71	229,92
EER (2)		4,29	3,86	3,53	4,50	4,02	3,68	4,63	4,26	3,95	4,36	3,90	3,54	4,56	4,16	3,83	4,40	3,90	3,54
SEPR HT (3)		5,42	5,42	5,63	5,66	5,57	5,94	5,67	5,70	6,07	5,52	5,73	5,74	5,67	5,67	6,03	5,59	5,80	5,81
Max external air temp. (4)	°C	46	43	44	46	44	44	47	44	46	47	42	44	46	44	46	47	43	44
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																	
Circuits / Compressors	N°	2/4			2/6			2/6			2/6			2/6			2/6		
Sound power (5)	dB(A)	97,1	89,8	81,9	94,8	87,5	81,8	95,6	88,2	82,8	96,8	89,4	82,8	98,1	90,8	83,7	99,5	92,2	83,7
Sound pressure (6)	dB(A)	69,1	61,8	53,9	66,8	59,5	53,8	67,6	60,2	54,8	68,8	61,4	54,8	70,1	62,8	55,7	71,5	64,2	55,7
Width	mm	2191			2191			2191			2191			2191			2191		
Depth	mm	4455			4455			5445			5445			6435			6435		
Height	mm	2424			2424			2424			2424			2424			2424		
Installed weight	kg	3420			3371			3934			4136			4861			4923		

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) Nominal cooling capacity and nominal absorbed power: data referred to nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;

(2) EER: data referred to the full load functioning and nominal conditions , external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;

(3) SEPR HT: 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 15 °C;

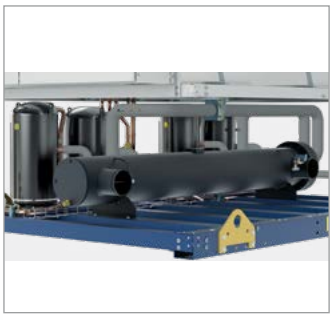
(5) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744;

(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 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.

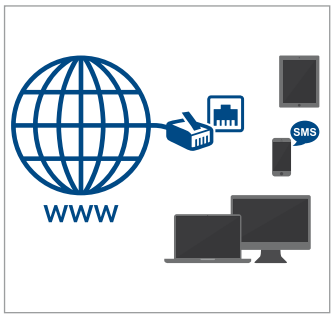
The listed noise levels, weights and dimensions refer to base units with no options fitted.

Latest-generation touch screen user terminal.

Shell and tube evaporator.



External supervisor systems.



High efficiency EC inverter fans.

HARIES TECH

R410A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

Hydronic heat pumps with R410A refrigerant and hermetic scroll comressors.

Nominal cooling capacity 148 - 310 kW | Nominal heating capacity 166 - 356 kW

Benefits

- Low noise configurations, silent SHE and super silent SSN;
- High efficiency performances at full load (EER);
- High value of SEPR HT efficiency, compliant with requirements of Regulation ERP EcoDesign;
- Wide operating limits for staring up and functioning even in the worst conditions;
- Wide range of options and kits for easy installation;
- Easy access to all components;
- Advanced electronic control with integrated web server.

Options

- Plates or shell and tube evaporator;
- Single or double water pump with low or medium head pressure;
- Water accumulation tank;
- IN/OUT compressors' valves;
- High efficiency Brushless EC condenser fans;
- Antifreeze heaters for evaporator pump/s and tank;
- Metallic mesh filters for condenser coil protection;
- Soft starters to reduce by 20% the unit's starting current.

Kits

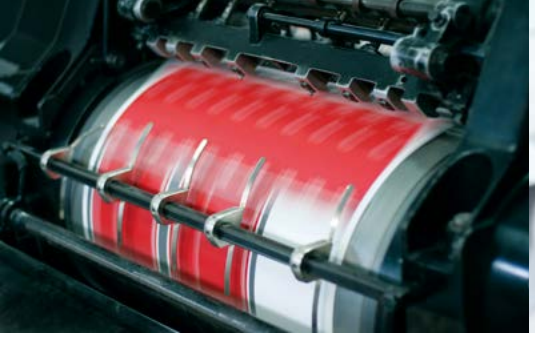
- Antivibration mountings kit;
- Replicated remote user terminal kit;
- Simple remote control;
- Modularity Hub / web interconnection.

Standard features

- Refrigerant R410A;
- 4 scroll compressors in parallel on two independent refrigerant circuits;
- Crankcase heater and phase-monitor;
- Plates stainless steel evaporator with 2 refrigerant circuits;
- Double electronic expansion valve;
- Axial fans, developed on the basis of bionic principles that allow to achieve high performance with low noise emissions;
- Electrical panel protection rating IP54;
- xDRIVE electronic microprocessor controller with high computing capacity and an easy to use graphical interface;
- Refrigerant charge, non-freezing oil and tests performed in the factory;
- Touch screen display for the microprocessor controller;
- Modbus RS485 serial output for connection to supervision systems;
- Ethernet port with HTML supervision pages preloaded for viewing and modifying the machine parameters to corporate or internet network.

Versions

- HE - High energy efficiency and basic acoustic configuration;
- SHE - High energy efficiency and low noise acoustic configuration;
- SSN - Standard energy efficiency and very low noise acoustic configuration.



Models HAST		070			080			090			100			110			120			130			140		
Versions		**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**
Nominal cooling capacity (1)	kW	148,8	144,3	140,1	171,4	165,2	160,6	183,4	178,4	180,5	192,5	186,8	189,1	218,7	212,2	214,0	248,4	240,3	233,4	279,8	269,0	259,9	310,5	296,2	280,3
Total absorbed power (1)	kW	56,6	56,5	56,8	63,5	64,4	65,1	67,5	67,8	65,6	72,1	72,8	70,5	83,5	83,4	79,4	90,0	90,5	91,2	104,6	106,7	108,7	118,4	122,6	129,0
EER (2)		2,63	2,55	2,47	2,70	2,57	2,47	2,72	2,63	2,75	2,67	2,56	2,68	2,62	2,55	2,70	2,76	2,65	2,56	2,67	2,52	2,39	2,62	2,42	2,17
SEPR HT (3)		4,50	4,75	4,76	4,78	4,90	4,82	4,90	5,05	5,20	4,83	4,87	5,11	4,61	4,87	5,22	4,72	4,90	5,00	4,95	5,04	4,99	4,84	4,84	4,78
Max external air temp. (4)	°C	48	46	44	49	46	44	49	45	46	49	45	46	49	47	47	49	48	46	48	46	42	46	44	40
Nominal heating capacity (5)	kW	166,8	163,7	159,3	194,0	188,8	183,7	209,4	203,7	205,1	219,4	213,4	214,9	247,1	242,1	245,4	282,7	275,2	269,7	314,7	306,3	298,1	356,7	347,2	335,6
Total absorbed power (5)	kW	57,5	54,8	52,6	65,1	62,4	60,1	68,9	66,1	65,2	72,5	69,7	68,9	84,3	80,3	77,5	91,7	87,6	84,4	103,0	98,9	95,7	114,8	110,9	107,5
COP (6)		2,90	2,99	3,03	2,98	3,03	3,05	3,04	3,08	3,15	3,03	3,06	3,12	2,93	3,01	3,17	3,08	3,14	3,19	3,06	3,10	3,12	3,11	3,13	3,12
Min external air temp. (7)	°C	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-7	-7	-7	-8	-8	-8	-7	-7	-7	-10	-10	-10
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																							
Circuits / Compressors	N°	2/4																							
Sound power (8)	dB(A)	92,1	85,5	79,8	91,2	84,2	79,7	92,1	85,5	80,0	92,1	85,8	80,0	92,8	85,7	79,8	91,8	84,8	80,1	91,8	84,8	80,6	91,8	84,8	80,6
Sound pressure (9)	dB(A)	64,1	57,5	51,8	63,2	56,2	51,7	64,1	57,5	52,0	64,1	57,5	52,0	64,8	57,7	51,8	63,8	56,8	52,1	63,8	56,8	52,6	63,8	56,8	52,6
Depth	mm	3495			3495			4595			4595			4595			4595			4595			4595		
Width	mm	2188			2188			2188			2188			2188			2188			2188			2188		
Height	mm	2150			2150			2150			2150			2150			2150			2150			2150		
Installed weight	kg	1760			2005			2260			2355			2570			2768			3076			3271		

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) Data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
(2) 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) 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) Data declared referred to cooling mode and outlet water temperature 7 °C;
(5) Data referred to nominal conditions external ambient temperature 7 °C, relative humidity 87%, condensing temperature 45 °C;
(6) Data referred to the full load functioning and nominal conditions, external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
(7) Heating mode and outlet water temperature 45 °C;
(8) Determined on the basis of measurements taken in accordance with the standard ISO 3744;
(9) 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 without accessories/options.
The listed noise levels, weights and dimensions refer to base chillers with no options/accessories fitted.

Latest-generation touch screen user terminal.

Also available with shell and tube evaporator.

Pump section with or without storage tank.

High efficiency EC inverter fans.

PHOENIX PLUS 2

R513A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

Air cooled water chillers featuring semi-hermetic screw compressors with R513A.

Nominal cooling capacity 375 - 991 kW

Benefits

- Refrigerant R513A with low GWP (Global Warming potential);
- High seasonal energy efficiency (SEPR HT);
- The controller provides maximum flexibility to adapt to any operating condition, thanks to the Smart Stepless algorithm specifically developed by MTA;
- High reliability and continuity of operation (up to 2 screw compressors and "Smart Stepless" algorithm);
- Wide operating range;
- Complete safety equipment, including phase monitor, pressure switches, differential pressure switch, crankcase heaters, compressors operating envelope and oil level;
- Wide range of accessories and kits for custom solutions.

Options

- Single pump with low or medium head pressure;
- Twin water pump with low head pressure;
- Water accumulation tank;
- Antifreeze heaters for evaporator, pump/s and tank;
- High efficiency EC brushless fans (base equipment for SSN version);
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Soft-starter;
- Metallic mesh filters for condenser coil protection;
- Compressors housing (for HE version);
- Total heat recovery.

Kits

- Antivibration mountings kit;
- Replicated remote user terminal kit;
- Supervision system xWEB300D EVO;
- Modularity kit for xDRIVE (master/slave from 3 to 8 units).

Standard features

- Refrigerant R513A;
- High efficiency screw compressors with stepless regulation optimized for R513A refrigerant gas;
- Compressors crankcase heater;
- Air-cooled condensers (copper tubes/aluminium fins) with transverse "V" shape;
- Axial fans complete with protection grid;
- Electronic expansion valve;
- Shell & tube evaporator optimized for R513A;
- The Electrical panel is made up of IP 54 cabinet with forced ventilation, inside which are installed contactors and circuit breakers; the protection from the phase loss and from the phase reversal is assured by the phase monitor device;
- xDRIVE controller programmed with software specifically developed by MTA; high computing capacity and user friendly graphic interface; connectivity and supervision via Ethernet, USB, RS485 Modbus.

Versions

- HE - basic acoustic configuration;
- SHE - low noise acoustic configuration;
- SSN - very low noise acoustic configuration;
- Low ambient air temperature version, down to -20 °C.



Models PNP2		2501			3201			3601			4302			5002			5602			6002		
Versions		**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**	**HE**	**SHE**	**SSN**
Nominal cooling capacity (1)	kW	375,3	350,8	334,1	505,3	469,2	444,5	619,7	582,0	556,3	671,1	622,4	589,6	792,2	740,6	705,7	895,5	834,4	796,7	991,0	924,1	881,4
Total absorbed power (1)	kW	90,6	93,7	97,2	123,1	129,4	135,2	135,5	139,1	143,4	172,4	182,3	191,0	181,5	187,4	194,4	208,4	216,5	224,2	226,6	235,7	244,2
EER (2)		4,14	3,75	3,44	4,10	3,63	3,29	4,57	4,18	3,88	3,89	3,41	3,09	4,37	3,95	3,63	4,30	3,85	3,55	4,37	3,92	3,61
SEPR HT (3)		5,44	5,36	5,79	5,17	5,39	5,33	5,69	5,57	6,00	5,50	5,28	5,67	5,74	5,65	6,09	5,77	5,93	6,03	5,63	5,75	5,81
Max external air temp. (4)	°C	44	40	40	41	37	37	45	41	41	40	37	37	44	40	40	40	36	36	41	37	37
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																				
Circuits / Compressors	N°	1/1			1/1			1/1			2/2			2/2			2/2			2/2		
Sound power (5)	dB(A)	94,3	89,6	86,9	95,7	88,5	86,6	96,0	88,7	86,8	98,5	91,1	89,2	97,4	90,0	88,0	97,8	90,4	88,5	98,4	90,9	89,0
Sound pressure (6)	dB(A)	66,3	61,6	58,9	67,7	60,5	58,6	68,0	60,7	58,8	70,5	63,1	61,2	69,4	62,0	60,0	69,8	62,4	60,5	70,4	62,9	61,0
Width	mm	2190			2190			2190			2190			2190			2190			2190		
Depth	mm	3465			3465			4455			4455			5445			5445			6435		
Height	mm	2425			2425			2425			2425			2425			2425			2425		
Installed weight	kg	2805	2875	2875	3280	3350	3350	3866	3936	3936	4263	4403	4403	4853	4993	4993	5054	5194	5194	5719	5859	5859

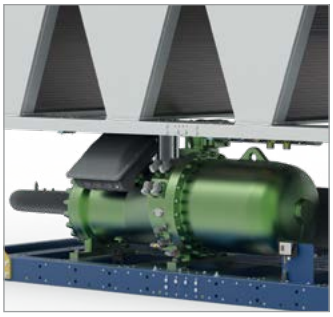
Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions.

(1) Data referred to nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
(2) Data referred to the full load functioning and nominal conditions , external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
(3) 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) Data declared referred to cooling mode and outlet water temperature 15 °C;
(5) Determined on the basis of measurements taken in accordance with the standard ISO 3744;
(6) 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 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.

The listed noise levels, weights and dimensions refer to base units with no options fitted.

Latest-generation touch screen user terminal.

Screw compressors with smart stepless capacity regulation.



Electronic expansion valve and single pass shell & tube evaporator.

Supervision systems.

NEPTUNE TECH

R410A | ErP Tier 2 COMPLIANT | EUROVENT CERTIFIED PERFORMANCE

Water-cooled water chillers featuring hermetic scroll compressors with R410A.

Nominal cooling capacity 289 - 752 kW

Benefits

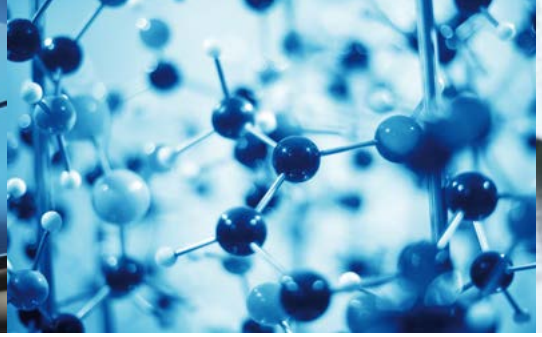
- Up to 6 compressors offer high efficiency and reliability;
- High energy efficiency levels, especially at partial loads;
- Extremely compact, even passes through a door;
- Operates with water outlet temperatures from 0 °C to 25 °C;
- Unloading function allowing operation even in extreme conditions;
- Robust design with high quality components from renowned suppliers, fruit of MTA's industrial background;
- Reduced noise levels, thanks also to the availability of two differing acoustic versions;
- Flexibility of use, sized for operation with either tower or well water;
- Energy efficient total heat recovery and desuperheater options;
- Easy installation and access to all components;
- Allows both inlet and outlet water control, with a PID control logic;
- Generous ambient limits (-10 °C to +45 °C);
- Easy to use intuitive controller with dual icon display.

Standard Features

- 3 to 6 hermetic scroll compressors, positioned in parallel in one or two circuits;
- Brazed stainless steel plate evaporators and condensers;
- Electronic expansion valve;
- Extensive inspections and tests performed on all units;
- Factory charged with non-freezing oil and refrigerant;
- IP54 electrical protection rating;
- Refrigerant R410A;
- All the scroll compressors are equipped with cranckcase heaters as standard;
- All the units are delivered with a phase monitor which provides protection against phase loss and phase reversal.

Options

- Noise reducing compressor housing;
- Modulating condensing pressure control valves;
- Antivibration dampers;
- Heating functioning mode with water side cylce reversion;
- Soft starter;
- Desuperheater (20% heat recovery);
- Total heat recovery (100% heat recovery);
- Antifreeze heater for exchangers;
- Remote user interface;
- RS485 MODBUS interface for connection to supervisor systems;
- xWEB 300D EVO supervision system.


Models NET		075	090	100	110	120	135	150	165	180
Nominal cooling capacity (1)	kW	224	279	294	326	366	423	465	517	583
Total absorbed power (1)	kW	51	66	69	80	89	96	102	118	135
EER (2)		4,39	4,20	4,29	4,07	4,10	4,42	4,58	4,38	4,31
SEPR (3)		8,14	7,75	7,95	7,63	7,55	8,22	8,64	8,35	8,04
Nominal cooling capacity (4)	kW	289	361	380	421	473	547	600	668	752
Total absorbed power (4)	kW	53	69	71	83	92	99	104	122	140
EER (5)		5,50	5,25	5,37	5,05	5,14	5,55	5,76	5,48	5,36
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50								
Circuits / Compressors	N°	1/3		2/4			2/5	2/6		
Sound power (6)	dB(A)	86,1	87,8	87,3	88,3	89	89,1	89,1	90	90,8
Sound pressure (7)	dB(A)	58,1	59,8	59,3	60,3	61	61,1	61,1	62	62,8
Depth	mm	2010	2010	2610	2610	2610	3705	3705	3705	3705
Width	mm	800	800	800	800	800	800	800	800	800
Height	mm	1830	1830	1830	1830	1830	1830	1830	1830	1830
Installed weight	kg	842	1037	1158	1258	1422	1673	1771	1945	2165

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) Nominal cooling capacity and nominal absorbed power: data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C.

(2) EER: data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C.

(3) SEPR: 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) Nominal cooling capacity and nominal absorbed power: data referred to nominal conditions, evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C.

(5) EER: data referred to the full load functioning: evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C.

(6) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744.

(7) 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.

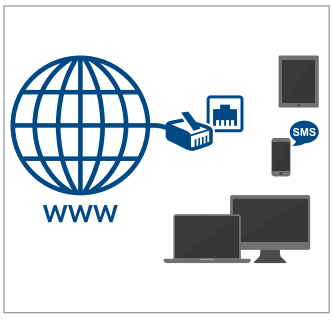
The listed noise levels, weights and dimensions refer to base units with no options fitted.

Microprocessor controller with dual icon-based display.

Optimised performance thanks to multiscroll logic.

Ideal for medium and large process cooling applications.

Supervision systems.



AQUARIUS PLUS 2

R134a | ErP | EUROVENT CERTIFIED PERFORMANCE

Water cooled water chillers with semi hermetic screw compressors and R134a.

Nominal cooling capacity 464 – 1943 kW

Benefits

- High energy efficiency both at full load and at partial load;
- Stepless cooling capacity regulation with self-adaptive control;
- High precision and adaptability in cooling capacity regulation;
- Compressors minimum capacity step 25%;
- Heat exchangers with low water side pressure drops in order to save pumping costs;
- Low noise levels, thanks also to the availability of two different acoustic versions;
- Fully bundled heat recovery solutions;
- Condenser outlet water temperature up to 60 °C.

Options

- Partial or total heat recovery;
- Compressors acoustical enclosure (super silent acoustic configuration);
- Shut-off compressors' valves on suction line;
- Soft starter device allows a reduction in mechanical stress for compressors start-up;
- Capacitors for compressors;
- Condensing control kit (with servo-driven modulating valves or pressure control valves);
- Flanges kit on evaporator;
- Flanges kit or Victaulic kit on condenser and total heat recovery.

Standard features

- Environmentally friendly refrigerant R134a with zero ozone depletion potential;
- High efficiency screw compressors with stepless regulation optimized for R134a refrigerant gas;
- Automatic circuit breakers for compressors;
- Compressor crankcase heaters;
- Check valve and shut-off valve on discharge line;
- Electronic expansion valves;
- Single pass shell & tubes heat exchangers optimized for R134a refrigerant gas;
- Electrical panel with numbered wires, forced ventilation and IP54 protection class;
- Phase monitor which provides protection against phase loss and phase reversal;
- Microprocessor electronic control xDRIVE with high computing capacity and user friendly interface, suitable for connection with supervisor system;
- RS485 interface for connection to ModBus supervisor systems;
- Ethernet connection featuring pre-programmed HTML supervision pages, allowing local or internet based visualization and modification of the operating parameters.

Kits

- Antivibration mounting kit;
- Remote control kit;
- xWEB300D EVO supervision kit.



Models AQP2		1401	1601	1801	2001	2301	2601	3001	3301	2802	3202	3402	3602	4002	4302	4602	4902	5202	5602	6002	6602
Nominal cooling capacity (1)	kW	355	413	472	520	582	641	706	759	725	831	889	938	1039	1098	1181	1230	1279	1358	1412	1497
Total absorbed power (1)	kW	72	80	92	100	112	123	134	143	143	159	171	183	198	209	223	233	244	256	268	288
EER (2)		4,92	5,19	5,15	5,22	5,20	5,23	5,28	5,30	5,06	5,24	5,21	5,13	5,24	5,24	5,30	5,27	5,24	5,29	5,28	5,20
SEPR HT (3)		6,89	7,77	7,79	7,82	7,84	7,90	7,99	8,02	7,74	7,89	7,85	7,81	7,90	7,94	7,98	7,97	7,97	7,99	8,00	7,87
Nominal cooling capacity (4)	kW	464	541	617	681	762	835	923	994	934	1080	1157	1216	1355	1432	1542	1601	1659	1765	1830	1943
Total absorbed power (4)	kW	78	86	99	108	121	132	144	154	154	170	184	197	214	225	240	251	263	277	288	311
EER (5)		5,94	6,29	6,22	6,31	6,30	6,31	6,40	6,44	6,07	6,34	6,29	6,17	6,34	6,36	6,42	6,37	6,32	6,38	6,35	6,25
Power supply	V/Ph/Hz	400±10%/3 - PE/50																			
Circuits / Compressors	N°	1/1								2/2											
Sound power (6)	dB(A)	95	96	97	97	97	97	98	98	98	98	99	99	99	99	99	100	100	100	101	101
Sound pressure (7)	dB(A)	67	68	69	69	69	69	70	70	70	70	71	71	71	71	71	72	72	72	73	73
Depth	mm	4344	4344	4326	4326	4326	4326	4334	4334	4966	4966	4920	4979	4982	4982	4982	4982	4982	5030	5030	5032
Width	mm	1460	1460	1460	1485	1485	1460	1460	1460	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390
Height	mm	1640	1645	1721	1721	1645	1770	1819	1819	2165	2165	2165	2165	2278	2278	2278	2278	2278	2278	2278	2278
Installed weight	Kg	2154	2363	2695	2738	2781	3143	3288	3338	4294	4572	4878	5185	5736	5767	5802	5881	5961	6143	6295	6399

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) Nominal cooling capacity and Nominal absorbed power: data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C.

(2) EER: data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C.

(3) SEPR HT: 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) Nominal cooling capacity and Nominal absorbed power: data referred to nominal conditions, evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C.

(5) EER: data referred to the full load functioning: evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C.

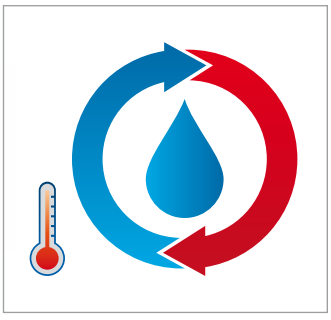
(6) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744.

(7) 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 andat 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.

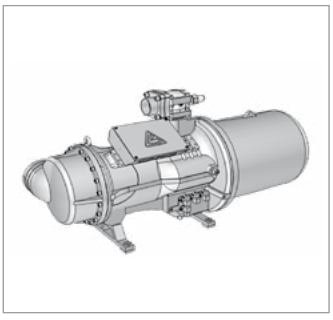
The listed noise levels, weights and dimensions refer to base units with no options fitted.

Semigraphic user interface with multifunctional buttons and dynamic display icons.

Integrated partial or total heat recovery systems.



High efficiency screw compressors designed for R134a refrigerant gas.



The electronic expansion valve allows an improvement of performance.

FC4TAE | FC4ALL

The modular free-cooler.

Cooling capacity 18 – 407 kW

Energy saving

By choosing the FC_4TAE/FC_4ALL modular liquid cooler it is possible to save up the large part of the in power consumption compared to applications which uses the water chiller only. Energy saving is immediately available when environmental conditions are suitable by turning on the FC_4TAE/FC_4ALL free-cooling module.

Short payback time

Thanks to the high energy savings that the FC_4TAE/FC_4ALL module offers, it provides excellent is the payback time for the investment. The selection and savings calculation software allows its testing in an easy and accurate way, tailored to the specific application.

Standard features

- 7 models with cooling power from 18 kW to 407 kW;
- Power supply 400/3/50 - 460/3/60;
- Parametric electronic control;
- Axial fans with on/off regulation;
- On/Off water valve for free-cooling working mode regulation;
- IP54 electrical protection.

Applicable everywhere

This range allows you to integrate the free-cooling technology both in new and existing systems where TAEevo, TAEevo Tech, Aries Tech or other chillers are already installed. The FC_4TAE/FC_4ALL module is fitted with all the necessary components, so it can be used even where chillers are not installed as a stand alone solution.

Increased chiller life

Everytime the environmental conditions are suitable, the FC_4TAE/FC_4ALL module provides heat rejection for process cooling, while the chiller reduces its annual operating hours. The reduced wear on compressors and on other components makes the operating life of the chiller longer.

Options

- Power supply 460/3/60 UL (only for FC_4TAE);
- Power supply 400/3/50 UL (only for FC_4ALL);
- Minimum air temperature -20 °C;
- EC Brushless axial fans;
- Protection coating for coil;

Kits

- Hydraulic connection kit between FC_4TAE module and TAEevo Tech chiller;
- Remote control kit.



		FC4TAE					FC4ALL	
Models		**051**	**161**	**351**	**602**	**802**	**300**	**450**
Water flow	m³/h	3,4	8,3	14,1	25,0	34,6	49,9	76,3
Cooling power	kW	18,3	44,4	75,2	133,0	184,2	265,8	406,7
Absorbed power	kW	0,5	1,4	2,1	3,2	3,2	4,8	9,6
Water circuit pressure drops	kPa	48,0	47	41	43	24	55	75
Width	mm	760	760	866	1410	1410	1410	2190
Depth	mm	983	1517	2225	2926	2926	3660	3660
Height	mm	1360	1360	1460	2190	2190	2190	2190
Weight	kg	160	220	355	695	890	1020	1325
Water Connections	Rp	Rp 1"	Rp 1 1/2"	Rp 2"	Rp 2 1/2"	Rp 3"	DN 100 (4")	DN 125 (5")

(*) Operating conditions: water temperature in/out 15/10 °C, ethylene glycol 30%, ambient temperature 0 °C; power supply 400V/3Ph/50Hz.

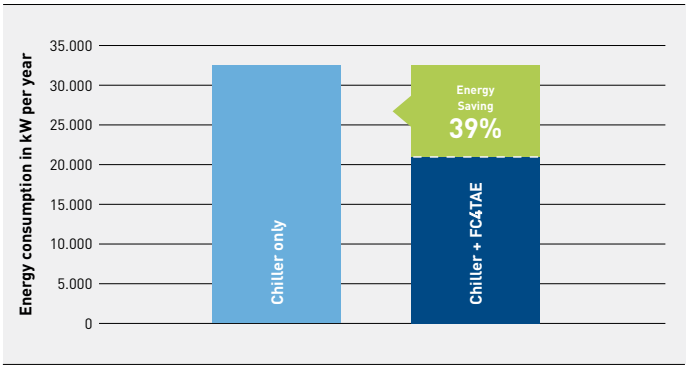
Energy saving calculation

Project data

Cooling power	53 kW
Cooled water temperature	15 °C
Water flow	9,11 m³/h
Existing chiller	TAEevo Tech 161
Working hours per day	16
Working days per week	5
Working weeks per year	45
Reference city	Berlin

Free-cooling suitable module:	**FC4TAE 161**
Energy Saving	**39%**
Payback time:	**18 months**

Energy consumption comparison

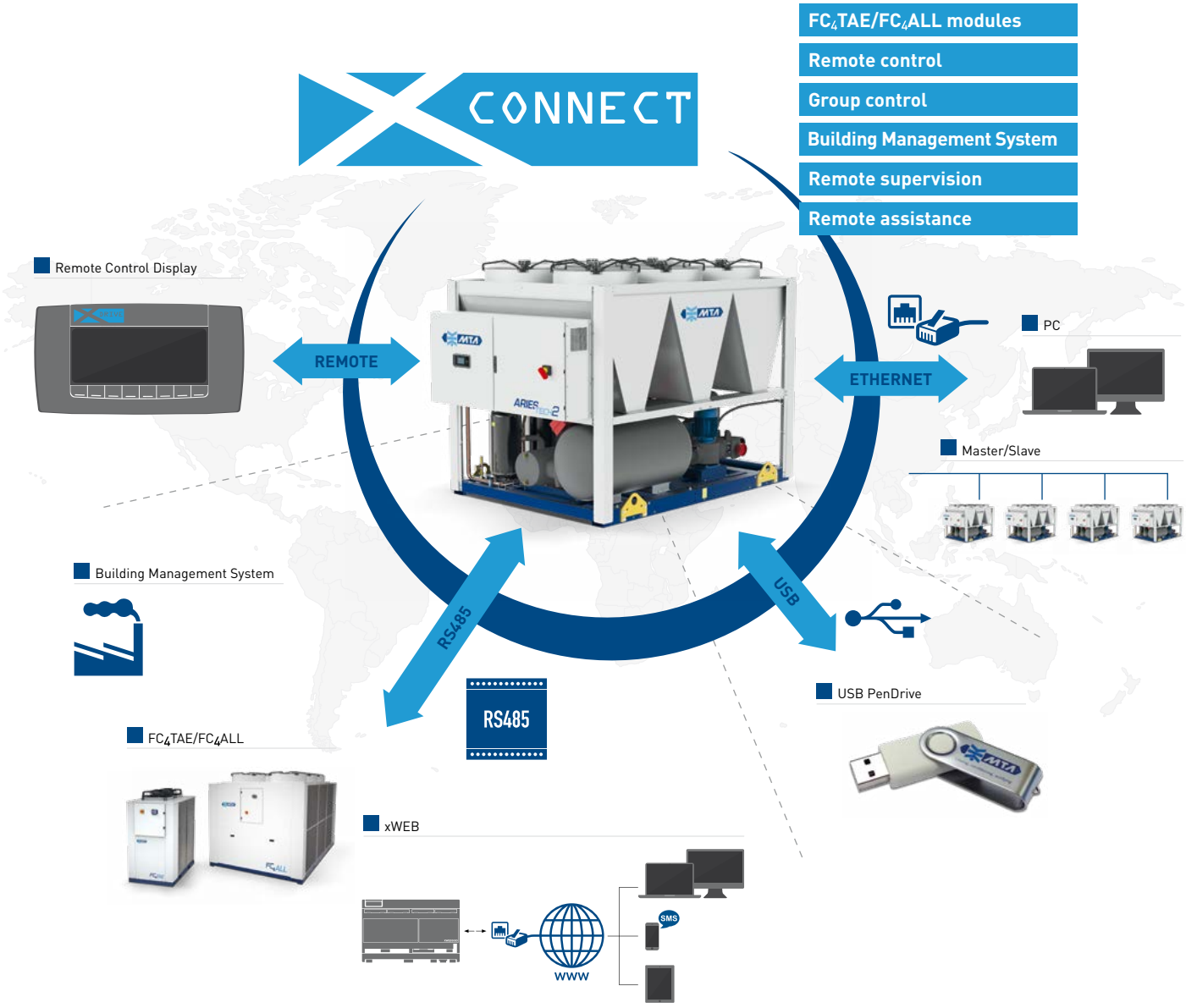


The microprocessor electroinc control manage the 3 stand-alone or modular working mode for the module.

The on/off single or double water valve, manage the modules working mode.

The module are available with on/off or modulating EC brushles axial fans.

CONNECTIVITY



CLICK AND CHECK

xCONNECT, MTA's world of connectivity solutions, allows connection to User-supplied Building Management Systems **(BMS)**, connection **via local LAN** or **Ethernet networks**, connection to MTA's dedicated **xWEB** supervisor, the possibility to program or download storical data via **USB** connection, and much more beyond.

Serial connection to the most advanced **BMS** systems allows MTA units to be integrated into a centralised supervisor through ModBus protocol. The integration with Lonworks, Bacnet, Profibus system is possible through apposite gateways (not included).

Local supervision via intranet or internet can also be achieved **via Ethernet**, with **pre-programmed HTML supervision pages** which, according to the unit type, are already pre-programmed within the unit itself.

Local Ethernet connection allows multiple units to be interconnected within an autonomous system, with one unit acting as Master. The User can manage all units within the system via the Master unit, or via a remote User interface.

MTA's **xWEB**, according to the main modern technologies applicable to the Internet, allows for storage and control of all information it receives from the terminals connected to it. This information is available in web page format (via local connection) or remote connection via **GPRS modem (external and at customer's care)**.

The displayed information is:

- visualization (dynamic, graphic and tabular) of the analog information, outputs status and monitored alarms;
- remote modification of main operating parameters.

NOTES

Cooling, conditioning, purifying.

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MTA is represented in over 80 countries worldwide. For information concerning your nearest MTA representative please contact M.T.A. S.p.A.

ISO 9001 BUREAU VERITAS Certification
N° 220817

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 certification

Cooling, conditioning, purifying.