



AIR CONDITIONING
SYSTEMS

PRODUCT GUIDE

Air Conditioning



*Conditioning your ambient,
maximising your comfort.*



Cooling, conditioning, purifying.

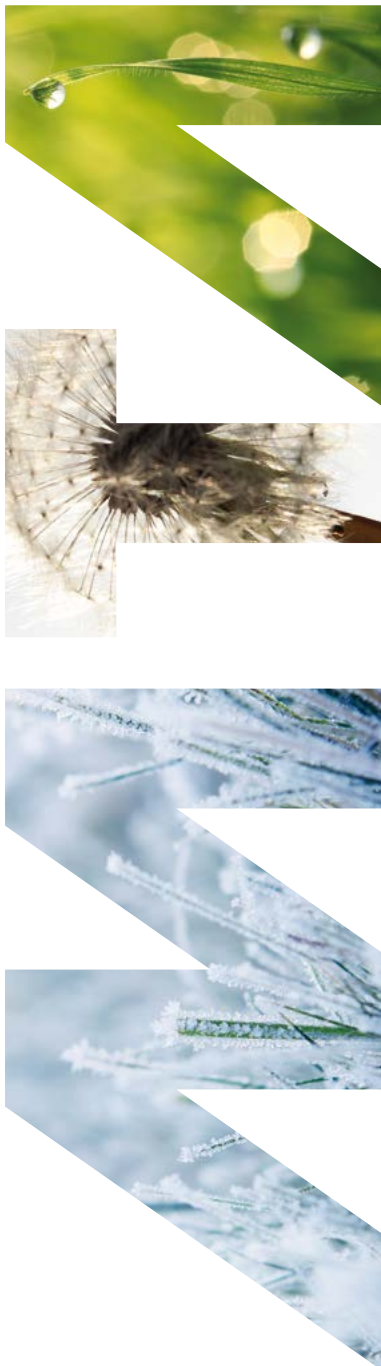


ENERGY FOR THE FUTURE

An Air Conditioning system is a challenge and an opportunity. Increasing energy efficiency and decreasing environmental impact; providing comfort to human beings and improving their well-being, every day without interruption; providing a solution which is flexible to the needs of each individual application. At MTA we are dedicated to offering our Customers all this, and more.



Cooling, conditioning, purifying.



THE PHILOSOPHY BEHIND “COOLING, CONDITIONING, PURIFYING”

A company built on solid foundations

Founded 40 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.

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.

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.

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.

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 certified.

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.

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.



Cooling, conditioning, purifying.



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

SINCE
1982
OVER 35 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



Marchio di Conformità Europea

MTA AIR CONDITIONING APPLICATIONS



Residential



Shopping Centers



Hospitals



Hotels & Restaurants



Public Buildings & Schools



Offices



Airports & Stations



Cinemas, Theaters & Museums



Exhibitions



Leisure & Sport Centers



Data Centers

VITTA

JK



PRODUCT GUIDE

Air Conditioning

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Cooling, conditioning, purifying.

Heat pumps featuring inverter scroll compressors.

Nominal cooling capacity 6 – 46 kW

Nominal heating capacity 6 – 50 kW



Benefits

- Compressors with BLDC motors and regulated by inverter which allows a capacity modulation from 20% to 100%;
- All electrical motors with electronic commutation integrated (compressors, fans and circulators, if included);
- Extremely low noise levels;
- Extended operating limits;
- Optimisation of heat pump defrosting cycles thanks to the exclusive Frost Detecting System;
- Domestic hot water production up to +60 °C;
- Domestic hot water option for external DHW three-way valve management;
- Designed for installation in confined spaces;
- Easy to use semi-graphic terminal;
- Easy installation and simple access to all chiller components.

Options

- Configuration without storage tank;
- Medium head pressure circulators complete with EC motors;
- Antifreeze heaters protection.

Kits

- Remote user interface;
- xWEB300D EVO for local or remote (GPRS) monitoring plus data filing based on WEB server technology;
- EMC filters;
- Antivibration mountings;
- Condenser filters;
- External 3-way valve kit for DHW (domestic hot water).

Standard Features

- Refrigerant R410A;
- Twin rotary inverter compressor (020-051), scroll inverter compressor (081-171) and double scroll inverter compressors (211);
- Compressor crankcase heater;
- Finned tube condensing coils with hydrophilic coating;
- Condensate collection tray with hose connection for condensing coils;
- EC brushless axial fans;
- Brazed stainless steel plate evaporator;
- Threaded hydraulic connections directly accessible from the external of the unit;
- Heat pumps with 2nd electronic expansion valve for performance optimisation in all operating conditions (models 081 to 211);
- Protection grade IPX4;
- Factory charged with refrigerant and non-freezing oil;
- Inspections and tests performed in factory as per all MTA products and components;
- RS485 ModBus interface for connection to supervisor systems.



iHCY model		020	031	051	081	101	131	171	211
Nominal cooling capacity (1)	kW	5,26	9,16	12,02	17,96	22,02	30,03	39,14	44,01
Total absorbed power (1)	kW	1,88	3,46	4,81	7,08	8,39	11,11	14,47	16,26
SEER (2)		4,12	4,12	4,11	4,14	4,42	4,30	4,61	4,68
Max external air temperature (3)	°C	46	46	46	46	46	46	46	46
Nominal heating capacity (4)	kW	6,05	10,37	14,00	21,06	25,01	34,64	44,93	50,08
Total absorbed power (4)	kW	1,97	3,55	4,75	7,05	8,22	11,29	14,96	16,61
SCOP (5)		3,43	3,24	3,36	3,41	3,54	3,34	3,44	3,45
Min external air temperature (6)	°C	-15	-15	-15	-15	-15	-15	-15	-15
Power supply	V/Ph/Hz	230±10%/1/50		400 ± 10% / 3+N-PE / 50					
Circuits / Compressors	N°	1/1							
Sound power level (7)	dB(A)	64,9	67,3	67,1	72,1	72,7	74,6	75,6	76,1
Sound pressure level (8)	dB(A)	36,9	39,3	39,1	44,1	44,7	46,6	47,6	48,1
Depth	mm	550	550	550	2012	2012	2526	2526	2526
Width	mm	1420	1420	1420	830	830	1115	1115	1115
Height	mm	1330	1330	1330	1232	1232	1689	1689	1689
Installed weight	kg	150	157	166	330	345	515	555	595

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

- (1) Data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (2) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning applications);
- (3) Data declared referred to cooling mode and outlet water temperature 7 °C;
- (4) Data referred to nominal conditions external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
- (5) 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;
- (6) Data declared with: heating mode and outlet water temperature 45 °C;
- (7) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (8) 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 working conditions.

Semigraphic user terminal with multifunctional buttons and dynamic display icons (mod. 020-051).



Semigraphic user terminal with multifunctional buttons and dynamic display icons (mod. 081-211).



Built-in pumping module with or without storage tank.



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



Heat pumps featuring hermetic rotary or scroll compressors.

Nominal cooling capacity 6 – 54 kW

Nominal heating capacity 7 – 65 kW



Benefits

- Extremely low noise levels;
- Ideally suited to small and medium hydronic cooling systems;
- Extended operating limits;
- Optimisation of heat pump defrosting cycles thanks to the exclusive Frost Detecting System (FDS) (Minimum ambient temperature in heat pump mode = -10 °C);
- Designed for installation in confined spaces;
- Easy to use controller with icon-based dual display;
- Easy access to all internal components.

Options

- Configuration with storage tank;
- Medium/low head pressure pump (depending on model);
- Double pump (1 run/1 stand-by) (mod.081-301);
- Anti-freeze heater on evaporator, pump and tank (if included).

Kits

- Condensate collection tray with hose connection (models 020-071);
- Replicated remote user display;
- Serial card RS485 Modbus;
- Supervision system xWEB300D EVO;
- Soft starter;
- Condenser air filters;
- Antivibration mountings (base kit in the Biogas version).

Standard Features

- Refrigerant R410A;
- Hermetic rotary compressor (mod.020), hermetic scroll compressor (mod.031-171) and double hermetic scroll compressor (mod.211-301);
- Crankcase heater compressor;
- Integrated hydronic module with pump, tank, expansion vessel, filling/drain valve, pressure gauge and automatic bleed valve;
- Hydraulic threaded connections directly accessible from the exterior of the unit;
- Brazed stainless steel plate evaporator;
- Axial fans with electronic speed control;
- Heat pumps with 2nd thermostatic valve for performance optimisation in all operating conditions (mod.131-301);
- Electrical panel protection grade IPX4;
- Phase monitor;
- Factory charged with refrigerant and non-freezing oil;
- Inspections and tests performed in factory as for all MTA products and components.



HCY model		020	031	051	071	081	101	131	171	211	251	301	
Nominal cooling capacity (1)	kW	5,63	8,91	12,35	16,80	17,92	23,91	30,48	35,06	42,11	48,42	53,65	
Total absorbed power (1)	kW	2,27	3,29	2,31	6,81	6,96	9,19	12,03	13,23	16,40	18,28	21,43	
EER (2)		2,48	2,71	2,13	2,47	2,58	2,60	2,53	2,65	2,57	2,65	2,50	
Max external air temperature (3)	°C	45	45	45	45	46	46	45	45	46	46	46	
Nominal heating capacity (4)	kW	6,87	10,60	15,00	19,00	21,98	28,86	36,72	42,18	51,25	57,88	64,95	
Total absorbed power (4)	kW	2,11	3,46	4,95	6,25	7,30	9,41	11,94	13,37	16,97	19,21	21,91	
COP (5)		3,26	3,06	3,03	3,04	3,01	3,07	3,08	3,15	3,02	3,01	2,96	
SCOP (6)		3,37	3,25	3,30	3,24	3,24	3,31	3,30	3,43	3,57	3,64	3,62	
ErP efficiency class (6)		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	
Min external air temperature (7)	°C	-7	-9	-7	-7	-7	-7	-7	-8	-7	-7	-7	
Power supply	V/Ph/Hz	230±10%/1/50		400 ± 10% / 3+N-PE / 50									
Circuits / Compressors	N°	1/1							1/2				
Sound power level (8)	dB(A)	69,9	70,0	76,7	77,8	75,8	77,6	80,7	82,7	82,9	83,3	82,8	
Sound pressure level (9)	dB(A)	41,9	42,0	48,7	49,8	47,8	49,6	52,7	54,7	54,9	55,3	54,8	
Depth	mm	426	580	580	580	1995	1995	2104	2104	2504	2504	2504	
Width	mm	961	1404	1404	1404	809	809	1112	1112	1112	1112	1112	
Height	mm	985	1293	1293	1293	1173	1173	1477	1477	1518	1518	1518	
Installed weight	kg	89	157	166	175	252	275	367	406	516	548	551	

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

- (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) Maximum external air temperature: data declared referred to cooling mode and outlet water temperature 7 °C;
- (4) Data referred to nominal conditions external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
- (5) Data referred to the full load functioning and nominal conditions, external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
- (6) 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;
- (7) Data declared with heating mode and outlet water temperature 45 °C;
- (8) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (9) 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 working conditions.

Microprocessor controller with dual icon-based display.

Higher energy efficiency and quieter operation thanks to scroll compressors.

Built-in pumping module with or without storage tank.

Remote control.



Air-cooled water chillers featuring hermetic scroll compressors.
Nominal cooling capacity 73 – 150 kW



Benefits

- HE version, High Efficiency;
- Silent SHE version and super silent SSN version;
- High efficiency performances at full load (EER);
- High value of SEER efficiency, compliant with requirements of Regulation ERP EcoDesign;
- 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.

Options

- 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 fans;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Antifreeze heaters for evaporator pump/s and tank;
- Protection of the hydraulic group by means of panels or metallic mesh;
- Metallic mesh or filters for condenser coil protection;
- Soft starters to reduce by 30% the starting current;
- Total or partial heat recovery;
- -20 °C option: it allows the units to operate down to -20 °C ambient temperature (it is mandatory to protect the hydraulic circuit with anti-freeze additives).

Kits

- Anti-vibration mounts kit;
- Remote control kit: VICX620 display LED, VG1890 display LCD semi-graphic (max 100 m);
- Supervisor kits: RS485 ModBus, xWEB300D EVO;
- Modularity kit (master/slave configuration from 2 to 5 units).

Standard features

- Refrigerant R410A;
- Hermetic Scroll compressors in single circuit configuration;
- Crankcase heater and phase-monitor;
- Axial fans, developed on the basis of bionic principles that allow to achieve high performance with low noise emissions;
- Electrical panel protection rating IP54;
- Parametric microprocessor control IC208CX;
- Electronic expansion valve;
- Air-cooled condensers (copper tubes/aluminium fins) with longitudinal "V" formation;
- High and low refrigerant pressure switches;
- Refrigerant pressure gauges.

Acoustic configurations

- 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; not available on model 035.



TAT model	030			035			040			050			055			060			065		
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																				
Total absorbed power [1]	kW																				
EER [2]																					
SEER [3]																					
Max external air temperature [4]	°C																				
Power supply	V/Ph/Hz																				
Circuits / Compressors	N°																				
Sound power level [5]	dB(A)																				
Sound pressure level [6]	dB(A)																				
Depth	mm																				
Width	mm																				
Height	mm																				
Installed weight	kg																				

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

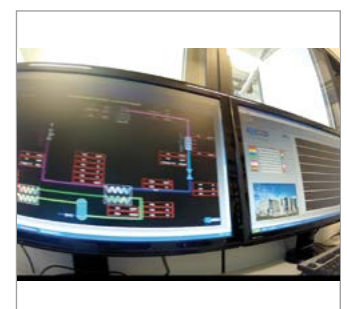
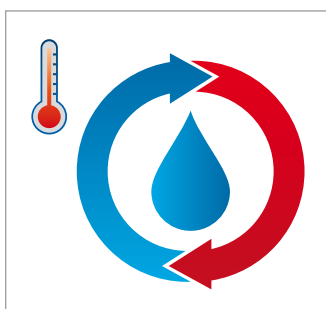
- (1) Nominal cooling capacity and nominal absorbed power: data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (2) Data referred to the full load functioning and nominal conditions , external ambient temperature 35 °C and evaporator 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 (air conditioning application);
- (4) Data declared referred to outlet water temperature 7 °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 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 working conditions.

Integrated partial or total heat recovery systems.

Advanced IC208CX microprocessor digital controller.

External supervisor systems.

All models are individually tested in order to check correct operation.



Air-cooled water chillers featuring hermetic scroll compressors.
Nominal cooling capacity 73 – 145 kW



Benefits

- Low GWP refrigerant R454B (GWP 466);
- Seasonal efficiency compliant with the parameters required by the ErP regulation for SEER (Tier 2 01/01/2021);
- Acoustic configurations SHE and SSN with reduced sound levels;
- High full load efficiency (EER);
- Extended working limits for starting up and operating even in the worst conditions;
- Wide choice of options and kits for simplified installation;
- Eased access to all internal components.

Options

- Low ambient temperature option (down to -20 °C);
- High efficiency EC brushless fans;
- Shell & tube evaporator;
- Single or twin water pump with low or medium head pressure;
- Water accumulation tank;
- Anti-freeze protection heaters for heat exchangers, pump/s and water accumulation tank (if included);
- IN/OUT compressors valves;
- Hydraulic group protection with covering panels or metallic mesh;
- Condenser coils protection with metallic filters or metallic mesh;
- Protective coating for condenser coils, suitable for installation in aggressive environments;
- Soft starters to reduce by 30% the unit's starting current.

Kits

- Antivibration mountings;
- Replicated remote user display (LED or LCD configuration);
- RS485 ModBus kit for connection to supervisor systems;
- xWEB300D EVO supervisor system;
- Modularity kit (master/slave configuration from 2 to 5 units).

Standard features

- Refrigerant R454B;
- Hermetic scroll compressors on single refrigerant circuit;
- Crankcase heater compressor and phase-monitor;
- Plate evaporator;
- Axial fans with die-cast aluminium airfoil blade profiles and AC motors;
- Electrical cabinet protection rating IP54;
- Parametric microprocessor control;
- Electronic expansion valve;
- Air-cooled condensers (copper tubes/aluminium fins) with longitudinal "V" shape layout;
- High and low refrigerant pressure switches;
- Refrigerant pressure gauges.

Acoustic configurations

- HE - Basic acoustic configuration;
- SHE - Low noise acoustic configuration;
- SSN - Very low noise acoustic configuration.



TAG model	030			035			040			050			055			060			065		
	HE	SHE	SSN	HE	SHE	-	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN
Nominal cooling capacity (1)	kW																				
Total absorbed power (1)	kW																				
EER (2)																					
SEER (3)																					
Max external air temperature (4)	°C																				
Power supply	V/Ph/Hz																				
Circuits / Compressors	N°																				
Sound power level (5)	dB(A)																				
Sound pressure level (6)	dB(A)																				
Depth	mm																				
Width	mm																				
Height	mm																				
Installed weight	kg																				

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

- (1) Data referred to nominal conditions, ambient temperature 35 °C and evaporator water IN/OUT temperature 12/7 °C;
- (2) Data referred to full load operation and nominal conditions, ambient temperature 35 °C and evaporator water IN/OUT temperature 12/7 °C;
- (3) Data declared in compliance with the European Regulation [EU] 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning application);
- (4) Data declared referred to outlet water temperature 7 °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 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 working conditions.

Advanced microprocessor digital controller.

External supervisor systems.

All models are individually tested in order to check correct operation.



Heat pumps featuring hermetic scroll compressors.

Nominal cooling capacity 64 -135 kW

Nominal heating capacity 76 – 160 kW



Benefits

- HE version, High Efficiency;
- SHE and SSN version with super low noise levels;
- High efficiency performances at full load (EER and COP);
- High value of SCOP efficiency, compliant with requirements of Regulation ERP EcoDesign;
- Wide operating limits for starting up and functioning even in the worst conditions;
- Optimisation of performance also in heating mode thanks to hot gas injection and the DDS defrosting system;
- Wide range of options and kits for easy installation;
- Easy access to all components.

Options

- Single or double water pump with low or medium head pressure;
- Water accumulation tank;
- IN/OUT compressors' valves;
- High efficiency Brushless EC condenser fans;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Antifreeze heaters for evaporator pump/s and tank;
- Protection of the hydraulic group by means of panels or metallic mesh;
- Metallic mesh or filters for condenser coil protection;
- Soft starters to reduce by 30% the starting current.
- Partial heat recovery;
- -20 °C option: it allows the units to operate down to -20 °C ambient temperature in cooling mode (it is mandatory to protect the hydraulic circuit with antifreeze additives).

Kits

- Anti-vibration mounts kit;
- Remote control kit: VICX620 display LED, VGI890 display LCD semi-graphic (max 100 m);
- Supervisor kits: RS485 ModBus, xWEB300D EVO.
- Modularity kit (master/slave configuration from 2 to 5 units).

Standard features

- Refrigerant R410A;
- Hermetic Scroll compressors, tandem installation in single circuit configuration;
- Crankcase heater and phase-monitor;
- Axial fans, developed on the basis of bionic principles that allow to achieve high performance with low noise emissions;
- Electrical panel protection rating IP54;
- Parametric microprocessor control IC208CX;
- Thermostatic expansion valve;
- Air-cooled condensers (copper tubes/aluminium fins) with longitudinal "V" formation;
- High and low refrigerant pressure switches;
- Refrigerant pressure gauges.

Acoustic configurations

- 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; not available on model 065.



HTAT model	30			35			40			50			55			60			65			
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	64,1	62,3	59,7	68,6	66,6	63,5	82,6	79,6	75,0	98,2	95,7	94,2	108,6	105,4	103,4	118,6	114,6	112,2	135,9	130,3	-
Total absorbed power [1]	kW	23,9	23,6	24,2	26,3	26,2	27,1	32,7	33,1	34,9	34,6	34,1	33,4	39,7	39,6	39,2	45,1	45,5	45,4	51,7	53,0	-
EER [2]		2,68	2,64	2,47	2,61	2,54	2,34	2,53	2,40	2,15	2,84	2,81	2,82	2,74	2,66	2,64	2,63	2,52	2,47	2,63	2,46	-
Max external air temperature [3]	°C	46	46	46	46	46	46	46	46	44	46	46	46	46	46	46	46	46	46	46	46	-
Nominal heating capacity [4]	kW	76,4	75,2	74,1	82,2	80,8	79,5	97,4	95,5	93,6	114,2	112,2	110,3	126,6	124,2	121,9	138,6	135,8	133,1	160,1	155,7	-
Total absorbed power [4]	kW	26,3	25,1	24,1	28,4	27,1	26,2	32,8	31,6	30,6	36,8	34,8	33,3	41,2	39,3	37,6	45,6	43,6	42,1	52,2	50,3	-
COP [5]		2,91	3,00	3,07	2,90	2,98	3,04	2,97	3,02	3,06	3,10	3,22	3,31	3,08	3,16	3,24	3,04	3,11	3,16	3,07	3,10	-
SCOP [6]		3,25	3,56	3,86	3,25	3,56	3,84	3,36	3,63	3,87	3,36	3,69	4,02	3,38	3,71	4,03	3,40	3,66	3,90	3,52	3,77	-
ErP efficiency class [6]		A+	A+	A+	A+	A+	A+	A+	A+	A++	A+	A+	A++	A+	A+	A++	A+	A+	A++	A+	A+	-
Min external air temperature [7]	°C	-9	-8	-7	-9	-8	-7	-7	-6	-6	-10	-9	-8	-10	-9	-7	-9	-8	-6	-9	-8	-
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																				
Circuits / Compressors	N°	1/2																				
Sound power [8]	dB(A)	88	83	80	87	82	79	87	82	79	90	84	81	90	84	81	89	84	80	90	84	-
Sound pressure [9]	dB(A)	60	55	52	59	54	51	59	54	51	62	56	53	62	56	53	61	56	52	62	56	-
Depth	mm	1110			1110			1110			1110			1110			1110			1110		
Width	mm	2507			2507			2507			3407			3407			3407			3407		
Height	mm	2140			2140			2140			2140			2140			2140			2140		
Installed weight	kg	802			836			985			1172			1221			1246			1298		

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

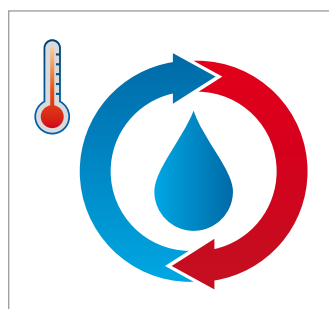
- (1) Data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (2) Data referred to the full load functioning and nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (3) Data declared referred to cooling mode and outlet water temperature 7 °C;
- (4) Data referred to nominal conditions external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
- (5) Data referred to the full load functioning and nominal conditions, external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
- (6) 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;
- (7) Data declared with heating mode and outlet water temperature 45 °C;
- (8) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (9) 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 without accessories/options.

Integrated partial or total heat recovery systems.

Advanced IC208CX microprocessor digital controller.

External supervisor systems.

All models are individually tested in order to check correct operation.



Air cooled water chillers featuring hermetic scroll compressors.
Nominal cooling capacity 164 – 945 kW



Benefits

- The ARIES TECH 2 range already meet the limits set by the ErP, for the index SEER (Tier 2 01/01/2021);
- 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 version (down to -10 °C outlet water temperature);
- Low ambient temperature version (down to -20 °C);
- 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 heat exchangers and hydraulic module (if included);
- Metallic mesh filters for condenser coils protection;
- Soundproof jacket or housing for compressors (for HE configuration);
- Soft start for compressors to reduce by 20% the unit's inrush current.

Kits

- Antivibration mounting;
- Metallic mesh filters kit for condenser coils protection;
- Replicated remote user terminal kit;
- Supervision system xWEB300D EVO;
- Modularity kit for xDRIVE (master/slave from 3 to 7 units).

Standard Features

- Refrigerant R410A;
- 4, 6 or 9 scroll compressors on two or three independent refrigerant circuits;
- Crankcase heater compressor and phase-monitor;
- Victaulic hydraulic connections kit (supplied as standard with each unit);
- Electronic expansion valve;
- Axial fans configured with protective grilles and sickled bladed with die-cast aluminium airfoil profiled;
- Electrical cabinet protection rating IP54;
- Refrigerant charge, non-freezing oil and tests performed in the factory;
- Electronic microprocessor controller with high computing capacity and an easy to use graphical interface;
- Modbus RS485 serial output for connection to supervision systems;
- Master/slave configuration manageable between 2 units.

Acoustic configurations

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



AST2 Model Versions	065			075			090			105			115			140					
	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN			
Nominal cooling capacity (1)	kW			163,9	157,9	150,1	187,2	178,0	171,0	219,1	206,4	196,6	270,9	258,6	249,0	307,1	289,5	277,0	360,1	333,6	319,8
Total absorbed power (1)	kW			66,1	67,0	70,6	68,6	70,4	72,9	82,6	86,5	90,7	93,2	94,7	97,5	111,5	116,1	120,9	139,7	150,5	156,9
EER (2)				2,48	2,36	2,12	2,73	2,53	2,34	2,65	2,39	2,17	2,91	2,73	2,55	2,75	2,49	2,29	2,58	2,22	2,04
SEER (3)				4,17	4,34	4,20	4,24	4,30	4,38	4,22	4,30	4,22	4,46	4,53	4,67	4,28	4,32	4,38	4,23	4,33	4,27
Max external air temperature (4)	°C			46	46	45	47	47	47	47	44	45	47	47	47	47	46	47	47	45	45
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 level (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 level (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		

AST2 Model Versions	150			160			170			190			210			240					
	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN			
Nominal cooling capacity (1)	kW			396,2	374,8	359,5	429,9	405,5	389,3	477,6	454,1	437,3	525,5	495,3	473,8	586,6	556,7	535,4	644,7	606,9	581,6
Total absorbed power (1)	kW			141,9	147,7	153,8	147,1	153,3	159,1	159,5	163,4	168,3	185,5	193,5	201,8	198,5	204,5	211,6	224,8	236,2	246,6
EER (2)				2,79	2,54	2,34	2,92	2,65	2,45	2,99	2,78	2,60	2,83	2,56	2,35	2,96	2,72	2,53	2,87	2,57	2,36
SEER (3)				4,31	4,37	4,44	4,73	4,76	4,91	4,68	4,85	5,04	4,62	4,67	4,80	4,64	4,73	4,90	4,62	4,65	4,74
Max external air temperature (4)	°C			47	46	47	47	47	47	47	47	47	47	46	47	47	47	47	47	47	47
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 level (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 level (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		

AST2 Model Versions	270			300			330			360					
	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN			
Nominal cooling capacity (1)	kW			719,1	679,8	636,1	794	742,7	691,5	883,6	829,5	773,7	944,9	893	834,7
Total absorbed power (1)	kW			251,6	257,5	271,7	276,6	288,3	306,4	313,1	323,5	341,8	337,1	344,9	363,3
EER (2)				2,86	2,64	2,34	2,87	2,58	2,26	2,82	2,56	2,26	2,80	2,59	2,30
SEER (3)				4,70	4,78	4,86	4,82	4,88	4,91	4,69	4,74	4,72	4,75	4,85	4,80
Max external air temperature (4)	°C			47	46	46	47	47	47	47	46	46	47	47	47
Power supply	V/Ph/Hz			400 ± 10% / 3-PE / 50											
Circuits / Compressors	N°			2/6			2/6			3/9			3/9		
Sound power level (5)	dB(A)			99,0	91,8	86,7	99,8	92,6	87,4	99,7	92,5	87,3	99,7	92,6	87,4
Sound pressure level (6)	dB(A)			71,0	63,8	58,7	71,8	64,6	59,4	71,7	64,5	59,3	71,7	64,6	59,4
Width	mm			2191			2191			2191			2191		
Depth	mm			7425			7425			8415			9405		
Height	mm			2513			2513			2513			2513		
Installed weight	kg			5467			5667			6467			6667		

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

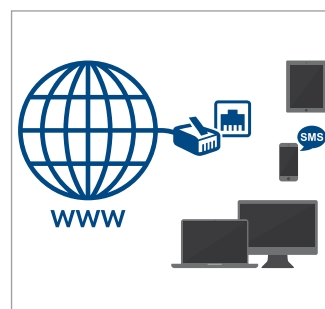
- (1) Data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (2) Data referred to the full load functioning and nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (3) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning application);
- (4) Data declared referred to cooling mode and outlet water temperature 7 °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 working conditions.

Latest-generation touch screen user terminal.

Shell and tube evaporator.

External supervisor systems.

High efficiency EC inverter fans.



Air cooled water chillers featuring hermetic scroll compressors.
Nominal cooling capacity 161 – 611 kW



Benefits

- Low GWP refrigerant R454B (GWP 466);
- Seasonal efficiency compliant with the parameters required by the ErP regulation for SEER (Tier 2 01/01/2021);
- Acoustic configurations SHE and SSN with reduced sound levels;
- Extended working limits for starting up and operating even in the worst conditions;
- Wide choice of options and kits for easy installation;
- Easy access to all internal components;
- Advanced electronic control with web server integrated.

Options

- MWT version (down to -10 °C outlet water temperature);
- Low ambient temperature option (down to -20 °C);
- Stainless steel shell & 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 option for SSN version);
- Total heat recovery;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Anti-freeze protection heaters for heat exchangers, pump/s and water accumulation tank (if included);
- Metallic mesh filters for condenser coils protection;
- Soft starters to reduce by 20% the unit's starting current.
- Soundproof jacket or housing for compressors (for HE configuration);
- Complete soundproof housing (hydraulic and compressors compartment).

Standard Features

- Refrigerant R454B;
- 4 or 6 scroll compressors on two refrigerant circuits;
- Crankcase heater compressor and phase-monitor;
- Shell & tube evaporator;
- "Viciaulic" hydraulic connections kit (supplied for each unit)
- Electronic expansion valve;
- Axial fans complete with protective grids and die-cast aluminium airfoil blade profiles;
- Electrical cabinet protection rating IP54;
- Refrigerant and oil charge;
- Tests and checks performed on factory;
- Electronic microprocessor controller with touch screen user display;
- Modbus RS485 serial output for connections to supervision systems;
- Master/slave configuration manageable between 2 units.

Kits

- Antivibration mountings;
- Metallic mesh filters for condenser coils protection;
- Replicated remote user display;
- Supervision system xWEB300D EVO;
- Modularity kit (master/slave configuration from 3 to 7 units).

Acoustic configurations

- HE - Basic acoustic configuration;
- SHE - Low noise acoustic configuration;
- SSN - Very low noise acoustic configuration.



ASG2 Model		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	161	155	148	183	174	168	215	202	192	260	249	240	292	277	266	344	322	309
Total absorbed power (1)	kW	62	62	65	66	67	69	82	86	90	91	92	94	106	108	112	129	135	139
EER (2)		2,60	2,49	2,27	2,77	2,59	2,42	2,62	2,36	2,14	2,86	2,72	2,57	2,76	2,56	2,38	2,67	2,38	2,22
SEER (3)		4,16	4,38	4,20	4,34	4,41	4,50	4,20	4,27	4,17	4,32	4,56	4,71	4,33	4,39	4,50	4,26	4,28	4,18
Max external air temperature (4)	°C	46	46	46	47	47	47	47	45	46	47	47	47	47	46	47	47	45	46
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 level (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 level (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	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191
Depth	mm	3091	3091	3091	3091	3091	3091	3091	3091	3091	3439	3439	3439	3439	3439	3439	3465	3465	3465
Height	mm	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424
Installed weight	kg	1626			1820			1850			2240			2317			2590		

ASG2 Model		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	378	359	346	417	394	379	455	434	420	503	477	459	554	529	510	611	578	557
Total absorbed power (1)	kW	132	135	138	141	146	150	152	154	157	175	179	184	186	188	192	208	213	219
EER (2)		2,86	2,67	2,51	2,95	2,70	2,52	2,99	2,83	2,68	2,88	2,67	2,50	2,98	2,81	2,66	2,94	2,71	2,54
SEER (3)		4,41	4,37	4,48	4,89	4,88	5,10	4,64	4,76	5,06	4,61	4,68	4,90	4,77	4,78	5,04	4,79	4,75	4,98
Max external air temperature (4)	°C	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
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 level (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 level (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	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191
Depth	mm	4455	4455	4455	4455	4455	4455	5445	5445	5445	5445	5445	5445	6435	6435	6435	6435	6435	6435
Height	mm	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424	2424
Installed weight	kg	3180			3249			3788			3994			4617			4667		

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

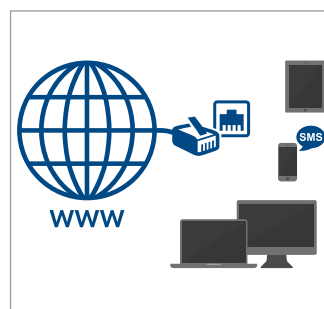
- (1) Data referred to nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (2) Data referred to the full load functioning and nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;
- (3) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning application);
- (4) Data declared referred to cooling mode and outlet water temperature 7 °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. Sound levels refer to operation of the unit under full load in nominal conditions.

Latest-generation touch screen user terminal.

Shell and tube evaporator.

Supervision systems.

High efficiency EC inverter fans.



Hydronic heat pumps with hermetic scroll compressors.

Nominal cooling capacity 148 - 310 kW

Nominal heating capacity 166 - 356 kW



Benefits

- HE version, Class A Eurovent heating mode;
- SHE and SSN version with super low noise levels;
- High efficiency performances at full load (EER and COP);
- Optimization of performance also in heat pump mode thanks to hot gas injection and the innovative Adaptive Defrost defrosting system;
- High value of SCOP efficiency, compliant with requirements of Regulation ERP EcoDesign;
- 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

- 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;
- Supervision system xWEB300D EVO;
- Modularity kit for xDRIVE (master/slave from 3 to 7 units).

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.

Acoustic configurations

- 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.



HAST Model		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
Nom. 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
Max external air temp. [3]	°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
Nom. heating capacity [4]	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 [4]	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 [5]		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
SCOP [6]		3,30	3,56	3,80	3,44	3,63	3,81	3,53	3,74	3,87	3,53	3,74	3,86	3,34	3,58	3,92	3,51	3,76	4,00	3,58	3,77	3,93	3,67	3,85	4,01
ErP efficiency class [6]		A+	A+	A+	A+	A+	A+	A+	A+	A++	A+	A+	A++	A+	A+	A++	A+	A+	A++	A+	A+	A++	A+	A++	A++
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 level [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 level [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. The listed noise levels, weights and dimensions refer to base chillers with no options/accessories fitted.

- (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 referred to cooling mode and outlet water temperature 7 °C;
- (4) Data referred to nominal conditions external ambient temperature 7 °C, relative humidity 87%, condensing temperature 45 °C;
- (5) Data referred to the full load functioning and nominal conditions, external ambient temperature 7 °C, relative humidity 87%, condenser IN/OUT 40/45 °C;
- (6) 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;
- (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.

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.



Air cooled water chillers featuring semi-hermetic screw compressors.
Nominal cooling capacity 266 - 1383 kW



Benefits

- Refrigerant R513A with low GWP;
- High seasonal energy efficiency (SEER);
- The variable-speed inverter technology and the Step regulation ensure maximum flexibility, adapting capacity to all operating conditions;
- Extended operating limits;
- Complete safety equipment, including phase monitor, pressure switches, differential pressure switch, crankcase heaters and monitoring of the operating envelope and compressor oil level;
- Wide range of accessories and kits for custom solutions.

Options

- Low ambient temperature version (down to -20 °C);
- Single pump with low or medium head pressure;
- Twin pumps with low or medium head pressure;
- Water accumulation tank (up to model 6002);
- Antifreeze heaters for heat exchangers and hydraulic module (if included);
- Compressor suction valves;
- AC axial fans (standard on HE);
- High efficiency EC brushless fans (standard on SSN – option on HE);
- Microchannel condenser coils;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Metallic mesh filters for condenser coil protection;
- Compressors soundproof housing (for HE configuration);
- Complete soundproof housing (hydraulic and compressors compartment);
- Total heat recovery (up to model 6002).

Standard features

- Refrigerant R513A;
- Single refrigerant circuit with variable-speed inverter screw compressors (mod.2501-4001) and twin refrigerant circuits (1+i) with variable-speed inverter and step regulation screw compressors (mod.4302-12202);
- Crankcase heater and phase-monitor;
- "V" shape air-cooled condensers (copper tubes/aluminium fins);
- Electronic expansion valve;
- Shell & tube evaporator optimized for R513A;
- Victaulic hydraulic connections kit (supplied as standard with each unit);
- Electrical cabinet protection rating IP54;
- Programmable controller with high computing capacity and user-friendly graphic interface; connectivity and supervision via Ethernet, USB and RS485 Modbus.

Kits

- Antivibration mountings kit;
- Metallic mesh filters for condenser coil protection;
- Replicated remote user terminal kit;
- RFI filter;
- xWEB300D EVO supervision system;
- Modularity kit for xDRIVE (master/slave from 3 to 7 units).

Acoustic configurations

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



iPNG2 Model		2501		3201		4001		4302		5002		5302		6002	
Versions		HE	SSN	HE	SSN	HE	SSN	HE	SSN	HE	SSN	HE	SSN	HE	SSN
Nominal cooling capacity (1)	kW	266,29	240,66	346,60	316,02	441,57	399,25	467,66	425,30	557,62	503,18	590,34	534,91	685,48	623,50
Total absorbed power (1)	kW	96,80	100,60	123,46	126,87	152,88	158,89	165,98	174,33	188,35	196,95	203,90	213,96	227,80	235,72
EER (2)		2,75	2,39	2,81	2,49	2,89	2,51	2,82	2,44	2,96	2,55	2,90	2,50	3,01	2,65
SEER (3)		4,34	4,79	4,47	4,80	4,62	5,13	4,56	4,63	4,60	4,77	4,62	4,71	4,71	4,81
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 level (4)	dB(A)	97,8	90,3	98,5	91,0	100,0	92,6	98,5	91,0	99,5	91,9	99,6	92,0	100,1	92,5
Sound pressure level (5)	dB(A)	69,8	62,3	70,5	63,0	72,0	64,6	70,5	63,0	71,5	63,9	71,6	64,0	72,1	64,5
Width	mm	2190		2190		2190		2190		2190		2190		2190	
Depth	mm	3500		3500		4500		4500		5500		5500		6500	
Height	mm	2425		2425		2425		2425		2425		2425		2425	
Installed weight	kg	2361	2398	3149	3163	3771	3769	4328	4447	5284	5368	6473	5593	5509	6528

iPNG2 Model		6402		6802		8202		8602		10402		12202	
Versions		HE	SSN	HE	SSN	HE	SSN	HE	SSN	HE	SSN	HE	SSN
Nominal cooling capacity (1)	kW	729,53	665,76	800,50	730,21	942,95	861,41	1142,20	1055,97	1219,51	1118,53	1383,11	1270,80
Total absorbed power (1)	kW	248,04	257,86	261,38	269,59	316,80	331,40	397,08	416,05	411,58	428,11	472,11	485,52
EER (2)		2,94	2,58	3,06	2,71	2,98	2,60	2,88	2,54	2,96	2,61	2,93	2,62
SEER (3)		4,62	4,64	4,69	4,88	4,71	4,80	4,66	4,77	4,77	4,87	4,82	4,89
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50											
Circuits / Compressors	N°	2/2		2/2		2/2		2/2		2/2		2/2	
Sound power level (4)	dB(A)	100,4	92,8	100,5	92,9	101,8	94,2	101,1	93,5	101,6	93,9	102,6	95,0
Sound pressure level (5)	dB(A)	72,4	64,8	72,5	64,9	73,8	66,2	73,1	65,5	73,6	65,9	74,6	67,0
Width	mm	2190		2190		2190		2190		2190		2190	
Depth	mm	6500		7500		8500		9500		10500		11500	
Height	mm	2515		2515		2515		2515		2515		2515	
Installed weight	kg	6621	6676	7185	7211	8046	8044	8798	8767	9480	9420	10295	10206

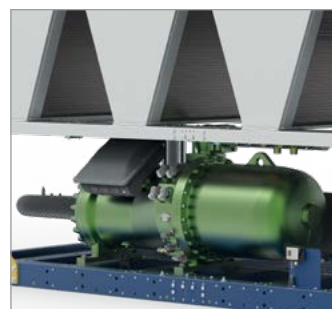
Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions. The listed noise levels, weights and dimensions refer to base units with no options fitted.

- (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 (air conditioning application);
- (4) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (5) 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.

Latest-generation touch screen user terminal.



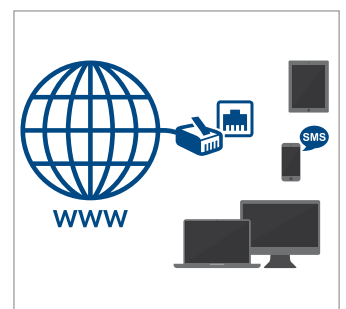
Screw compressors with inverter technology.



Electronic expansion valve and single pass shell & tube evaporator.



Supervision systems.



Water cooled heat pumps featuring rotary or hermetic scroll compressors.

Nominal cooling capacity 4 – 175 kW

Nominal heating capacity 5 – 197 kW



Benefits

- Lowest noise levels, down to 30 dB(A), for installation in residential surroundings;
- Extremely compact, allows installation just about anywhere;
- Operates with water outlet temperatures from 0 °C to 20 °C;
- Unloading function (model 200-600) allowing unit operation even in extreme conditions;
- Robust design with high quality components from renowned international suppliers, fruit of MTA's industrial background;
- Eurovent certified performance;
- Flexibility of use, sized for operation with water either from a tower or from a geothermal source;
- Easy installation and complete access to all components;
- Easy to use intuitive controller with dual icon display.

Options

- Noise reducing compressor housing.

Kits

- Storage and pump module with a geometrical configuration allowing the two units to be mounted together;
- High and low head pressure pumps;
- Condensing pressure control valve;
- Antivibration dampers;
- Soft starter;
- Remote user interface;
- RS485 MODBUS interface for connection to supervisor systems;
- xWEB300D EVO remote supervision, allowing local or remote monitoring via a web server or a GPRS.

Standard features

- Hermetic rotary (018-030), scroll (040-150) and twin scroll (200-600) compressors;
- Single evaporator and brazed stainless steel plate condenser;
- Factory charged with non-freezing oil and refrigerant;
- IP22 electric protection rating;
- Extensive inspections and tests performed on all units;
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- Compressor crankcase heater;
- Phase monitor against phase reversal.



HOCT Model		018	022	030	040	050	070	100	130	150	200	230	280	350	400	500	600	
Nominal cooling capacity (1)	kW	4,16	5,23	6,71	10,19	14,32	21,92	29,47	39,00	42,77	60,57	68,91	83,32	103,26	117,15	142,17	175,68	
Total absorbed power (1)	kW	1,19	1,52	1,81	2,67	3,87	5,75	7,45	9,43	10,73	14,51	16,90	20,10	25,61	29,59	35,16	45,74	
EER (2)		3,51	3,45	3,70	3,82	3,70	3,82	3,96	4,14	3,99	4,18	4,08	4,15	4,03	3,96	4,04	3,84	
Nominal cooling capacity (3)	kW	4,70	5,86	7,68	11,49	16,11	24,61	33,10	43,82	48,04	68,09	77,50	93,67	115,96	131,42	159,41	196,87	
Total absorbed power (3)	kW	1,00	1,33	1,60	2,23	3,33	4,86	6,36	8,03	9,18	12,43	14,46	17,21	22,03	25,33	30,27	39,59	
EER (4)		4,69	4,41	4,81	5,16	4,84	5,06	5,20	5,45	5,23	5,48	5,36	5,44	5,26	5,19	5,27	4,97	
Nominal heating capacity (5)	kW	4,89	6,13	7,47	11,80	16,46	25,16	33,31	43,70	48,93	69,53	79,35	95,71	119,22	130,12	158,41	197,02	
Total absorbed power (5)	kW	1,39	1,76	2,11	3,45	4,73	7,28	9,13	11,67	13,18	18,50	21,45	25,53	32,27	36,58	43,13	55,78	
COP (6)		3,53	3,47	3,54	3,42	3,48	3,46	3,65	3,75	3,71	3,76	3,70	3,75	3,69	3,56	3,67	3,53	
SCOP (7)		3,68	3,62	3,74	3,84	3,76	3,78	3,99	4,12	4,08	4,58	4,49	4,58	4,48	4,26	4,42	4,22	
ErP efficiency class (8)		A+	A+	A+	A+	A+	A+	A+	A++	A++	A+	A+	A+	A++	A+	A+	A+	
Power supply	V/Ph/Hz	230 ± 10 % / 1 / 50						400 ± 10% / 3-PE / 50										
Circuits / Compressors	N°	1/1						1/2										
Sound power level (9)	dB(A)	58	58,7	59,1	62,7	63,9	65,6	68	71,7	74,1	75,4	76,6	77,1	78,9	79,8	80	81,7	
Sound pressure level (10)	dB(A)	30,0	30,7	31,1	34,7	35,9	37,6	40,0	43,7	46,1	47,4	48,6	49,1	50,9	51,8	52,0	53,7	
Depth	mm	310	310	310	310	500	500	500	500	500	660	660	660	660	785	785	785	
Width	mm	520	520	520	520	780	780	780	780	780	1735	1735	1735	1735	1950	1950	1950	
Height	mm	830	830	830	830	1000	1000	1000	1000	1000	1200	1200	1200	1200	1200	1200	1200	
Installed weight	kg	54	58	64	68	128	171	191	215	218	422	465	511	559	649	726	755	

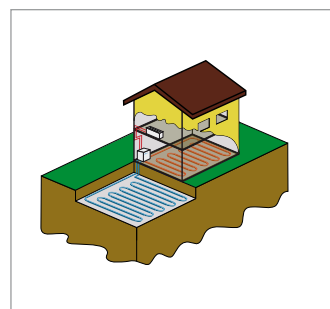
Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions. The listed noise levels, weights and dimensions refer to base chillers with no options/accessories fitted.

- (1) Data referred to nominal working conditions: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (2) Data referred to the full load and in nominal working conditions: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (3) Data referred to nominal working conditions: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 15/30 °C;
- (4) Data referred to the full load and in nominal working conditions: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 15/30 °C;
- (5) Data referred to nominal working conditions: water temperature IN/OUT 40/45 °C and evaporator water temperature IN/OUT 12/7 °C;
- (6) Data referred to nominal working conditions: condenser water temperature IN/OUT 40/45 °C and evaporator water temperature IN/OUT 12/7 °C;
- (7) Data declared according to the European Regulation 813/2013 for heat pumps at low temperature (BT) in average climate conditions (Strasbourg) and fixed outlet water temperature;
- (8) Data declared according to the European Regulation 813/2013;
- (9) Determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (10) 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.

Microprocessor controller with dual icon-based display.



Suitable for operation within geothermal applications.



Separate storage and pump module with two pump versions.



Allows installation in even the most limited spaces.



Water cooled reversible water chillers with scroll compressors.

Nominal cooling capacity 224 - 583 kW

Nominal heating capacity 263 - 686 kW *



Benefits

- Seasonal energy efficiency compliant with ErP Directive 2009/125/EC;
- High energy efficiency levels, especially at partial loads;
- Extremely compact, even handling through the typical technical rooms;
- Unloading function allowing operation even in extreme conditions;
- Robust design with high quality components by renowned suppliers, derived from MTA's industrial background;
- Flexibility of use, sized for operation with tower or well water;
- Further energy efficiency through the total or partial heat recovery options;
- Ease of installation and accessibility to all internal components;
- Wide temperature limits of evaporator water outlet (from 0 °C to 25 °C);
- Wide ambient temperature limits (from -10 °C to +45 °C);
- Easy to use parametric controller with graphic display.

Options

- Soundproof compressors housing;
- Water side reversible heat pump configuration;
- Partial heat recovery - desuperheater (20% heat recovery);
- Total heat recovery (100% heat recovery);
- Anti-freeze heaters for evaporators, condensers and heat recovery.

Standard Features

- 3 to 6 hermetic scroll compressors, on one or two refrigerant circuits;
- Compressors crankcase heater and phase monitor;
- Brazed stainless steel plate evaporators and condensers;
- Electronic expansion valves;
- Inspections and tests performed on all units;
- Non-freezing oil and refrigerant factory charged;
- IP54 electrical protection rating.

Kits

- Modulating condensing control valves;
- Victaulic hydraulic connections;
- Antivibration mounts;
- Soft starter;
- Remote display;
- RS485 Modbus interface for connection to supervisor systems;
- xWEB300D EVO to monitoring, control and register data, based on "WEB server" technology.

* Data referred to units fitted with heat pump option.



NET Models		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
SEER (3)		6,70	6,42	6,53	6,39	6,23	6,73	7,28	7,04	6,77
Nominal heating capacity (4) (5)	kW	263	331	347	389	436	496	540	607	686
Total absorbed power (4) (5)	kW	62	80	84	97	108	117	124	143	163
COP (4) (6)		4,24	4,14	4,13	4,01	4,04	4,24	4,35	4,24	4,21
SCOP (7)		5,17	4,95	5,15	5,00	4,92	5,24	5,42	5,25	5,10
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50								
Circuits / Compressors	N°	1/3			2/4		2/5	2/6		
Sound power (8)	dB(A)	86,1	87,8	87,3	88,3	89	89,1	89,1	90	90,8
Sound pressure (9)	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. The listed noise levels, weights and dimensions refer to base units with no options fitted.

- (1) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (2) 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) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning application);
- (4) Data referred to units fitted with heat pump option;
- (5) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (6) Data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (7) Indicative data calculated in compliance with the European Regulation (EU) 813/2013 for low temperature heat pumps and referred to units fitted with heat pump option;
- (8) Calculated in accordance with the standard ISO 3744;
- (9) Average value obtained in free field on a reflective surface at the distance of 10 m by the external side of the electrical cabinet of the unit and at height of 1.6 m by the unit foothold. Considered tolerances ±2 dB. The sound levels are referred to the full load operations in nominal working conditions.

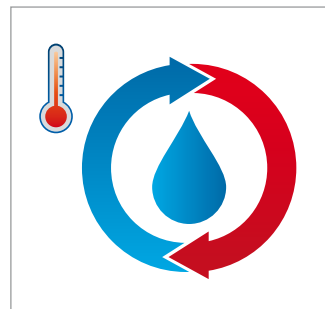
Microprocessor controller with dual icon-based display.



Optimised performance thanks to multiscroll logic.



Integrated partial or total heat recovery systems.



Ideal for air conditioning of civil, public and private buildings.



Water cooled reversible water chillers with semi hermetic screw compressors.

Nominal cooling capacity 351 – 1499 kW

Nominal heating capacity 399 – 1721 kW *



Benefits

- Low GWP refrigerant R513A;
- Seasonal energy efficiency compliant with ErP Directive 2009/125/EC;
- High energy efficiency levels, especially at partial loads;
- Smart stepless cooling capacity regulation with self-adaptive control;
- High accuracy and adaptability in cooling capacity regulation;
- Single compressors minimum capacity step 25%;
- Heat exchangers with low water side pressure drops in order to reduce the pumping systems management costs;
- Integrated heat recovery systems (partial or total heat recovery);
- Condenser outlet water temperature up to 60 °C.

Options

- Soundproof compressors housing;
- Water side reversible heat pump configuration;
- MWT configuration, for low outlet water temperatures (down to -8 °C);
- Partial heat recovery - desuperheater (20% heat recovery);
- Total heat recovery (100% heat recovery);
- Shut-off valve on compressors suction line;
- Soft starter;
- Power factor correction capacitors ($\cos\phi > 0,9$).

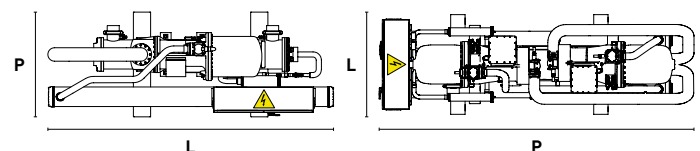
Kits

- Pressure controlled or modulating condensing regulation valves;
- Flanged hydraulic connections (evaporators);
- Victaulic or flanged hydraulic connections (condensers and heat recovery);
- Antivibration mounts;
- Remote display;
- xWEB300D EVO to monitoring, control and register data, based on "WEB server" technology;
- Modularity kit, for master/slave system management (up to 7 units).

Standard Features

- High efficiency screw compressors with smart stepless cooling capacity regulation optimised for R513A refrigerant;
- Check valve and shut-off valve on compressors discharge line;
- Compressors crankcase heater and phase monitor;
- Automatic circuit breakers for compressors;
- Electronic expansion valves;
- Single pass shell & tube heat exchangers optimised for R513A refrigerant;
- "Unloading" function that allows the start-up and operation of the units, even in conditions very different by the nominal ones;
- Programmable microprocessor electronic control with high computing capacity and user friendly interface, suitable for connectivity with RS485 Modbus protocol supervisor systems;
- Electrical cabinet protection rating IP54;
- Inspections and tests performed on all units;
- Non-freezing oil and refrigerant factory charged.

Product layout (top view)



Mod. 1401 ÷ 3201

Mod. 2802 ÷ 6402

* Data referred to units fitted with heat pump option.



AQG2 Model		1401	1601	1801	2101	2401	2801	3201	2802	3202	3402	3602	3902	4202	4502	4802	5202	5602	6402	
Nominal cooling capacity (1)	kW	351	400	471	550	619	693	767	724	860	916	965	1053	1148	1212	1275	1343	1392	1499	
Total absorbed power (1)	kW	74	85	97	111	125	139	153	148	171	183	195	211	224	237	251	267	281	310	
EER (2)		4,73	4,69	4,87	4,95	4,95	4,98	5,03	4,89	5,03	5,00	4,94	4,99	5,13	5,10	5,07	5,03	4,95	4,84	
SEER (3)		7,25	6,81	7,34	7,53	7,59	7,79	7,98	7,55	7,28	7,41	7,40	7,54	7,79	7,80	7,76	7,76	7,72	7,60	
Nominal heating capacity (4) (5)	kW	399	461	538	628	708	789	871	825	980	1044	1103	1199	1302	1377	1453	1529	1589	1721	
Total absorbed power (4) (5)	kW	88	103	116	134	151	167	182	176	206	220	234	253	269	286	303	320	336	369	
COP (4) (6)		4,54	4,50	4,64	4,70	4,70	4,73	4,77	4,68	4,76	4,75	4,72	4,74	4,84	4,82	4,80	4,78	4,73	4,67	
Power supply	V/Ph/Hz	400±10%/3 - PE/50																		
Circuits / Compressors	N°	1/1							2/2											
Sound power (7)	dB(A)	93	94	94	95	95	96	97	96	97	97	97	97	97	98	98	98	99	99	100
Sound pressure (8)	dB(A)	65	66	66	67	67	68	69	68	69	69	69	69	70	70	70	71	71	72	
Width (W)	mm	3752	3747	3807	3807	3995	3995	3995	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	
Depth (D)	mm	1460	1460	1460	1460	1460	1460	1460	4966	4966	4920	4979	4982	4982	4982	4982	5030	5030	5032	
Height	mm	1645	1645	1735	1735	1820	1820	1820	2165	2165	2165	2165	2278	2278	2278	2278	2278	2278	2278	
Installed weight	Kg	2154	2363	2695	2781	3143	3288	3338	4294	4572	4878	5185	5736	5802	5881	5961	6143	6295	6399	

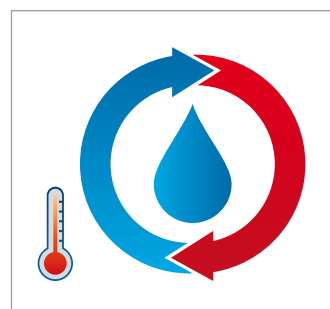
Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions. The listed noise levels, weights and dimensions refer to base units with no options fitted.

- (1) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (2) 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) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning application);
- (4) Data referred to units fitted with heat pump option;
- (5) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (6) Data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (7) Calculated in accordance with the standard ISO 3744;
- (8) Average value obtained in free field on a reflective surface at the distance of 10 m by the external side of the electrical cabinet of the unit and at height of 1.6 m by the unit foothold. Considered tolerances ±2 dB. The sound levels are referred to the full load operations in nominal working conditions.

Latest-generation touch screen user terminal.



Integrated partial or total heat recovery systems.



High efficiency screw compressors designed for R513A 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 FC₄TAE/FC₄ALL 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 FC₄TAE/FC₄ALL free-cooling module.

Short payback time

Thanks to the high energy savings that the FC₄TAE/FC₄ALL 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 FC₄TAE/FC₄ALL 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 FC₄TAE/FC₄ALL 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 FC₄TAE);
- Power supply 400/3/50 UL (only for FC₄ALL);
- Minimum air temperature -20 °C;
- EC Brushless axial fans;
- Protection coating for coil;

Kits

- Hydraulic connection kit between FC₄TAE module and TAEevo Tech chiller;
- Remote control kit.



Model		FC4TAE					FC4ALL	
		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")

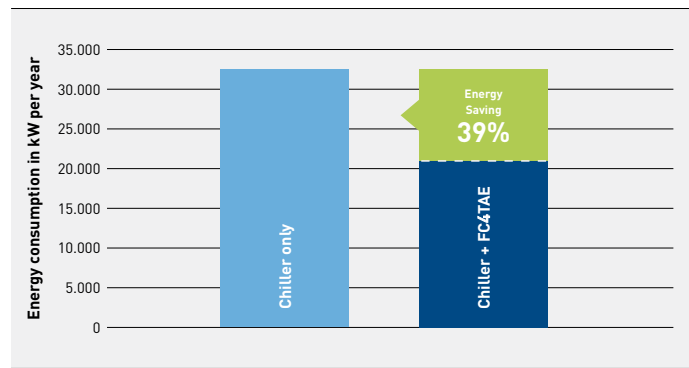
(*) Operating conditions: water temperature in/out 15/10 °C, ethylene glycol 30%, ambient temperature 0 °C; power supply 400V/3Ph/50Hz.

Energy saving calculation

Project data

Cooling power	53 kW
Cooled water temperature	15 °C
Water flow	9,11 m³/h
Existing chiller	TAEvo 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 electronic control manage the 3 stand-alone or modular working mode for the module.



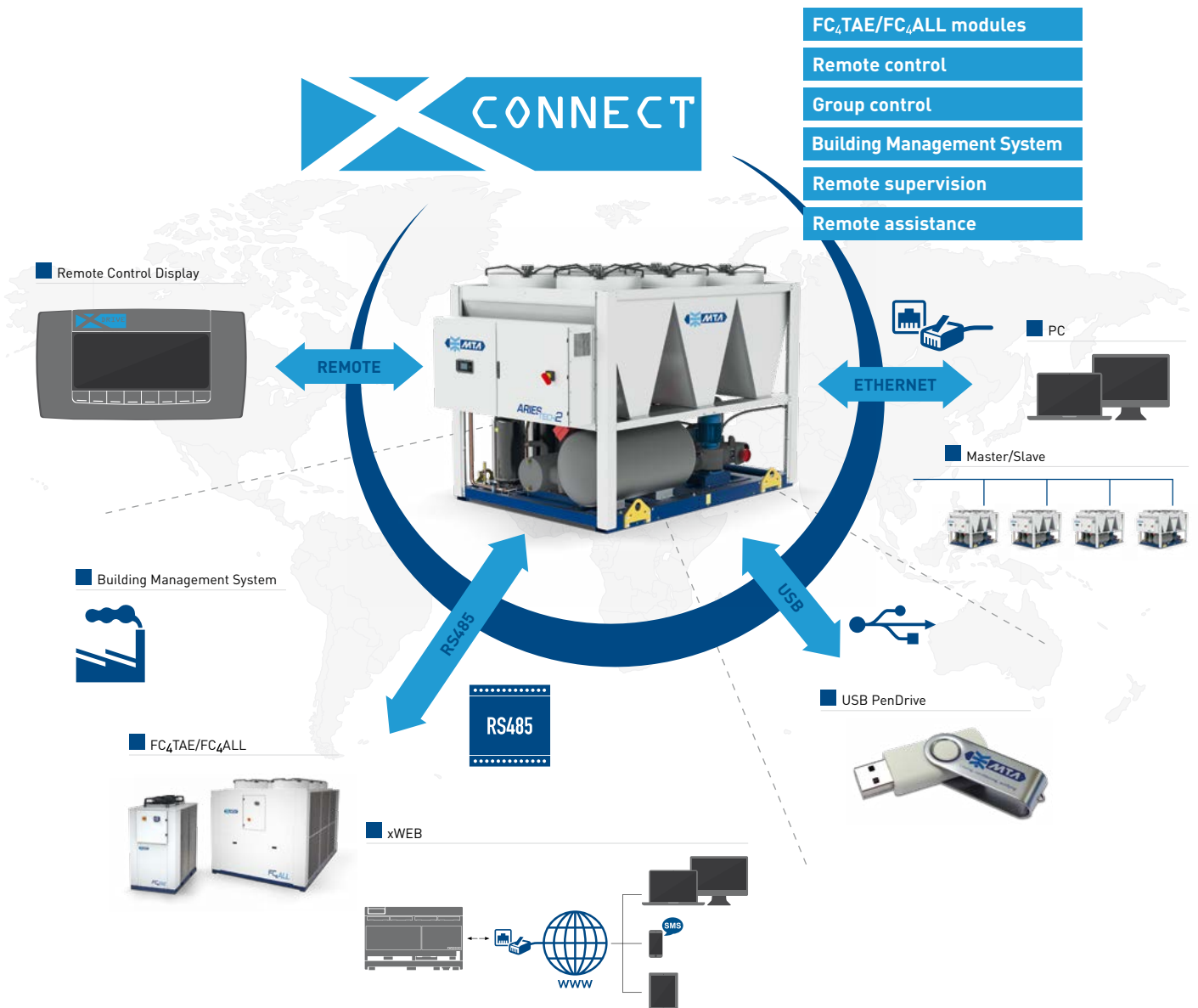
The on/off single or double water valve, manage the modules working mode.



The module are available with on/off or modulating EC brushes 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.



Cooling, conditioning, purifying.

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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.