AIR CONDITIONING SYSTEMS

PRODUCT GUIDE

Air Conditioning

MTA®

Cooling, conditioning, purifying.

Conditioning your ambient,
maximising your comfort.

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.

MTA®

Cooling, conditioning, purifying.

THE PHILOSOPHY BEHIND "COOLING, CONDITIONIG, PURIFYINGfi

A company built on solid foundations

Founded over 30 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. MTA÷s facilities and processes meet the requirements of ISO 14000 environmental legislations. MTA strives to ensure its success also benefits the ambient in which it operates.

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,
30 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

1,4 - 1.800 kW
CHILLERS RANGE

0,3 - 760 m³/min
DRYERS RANGE

22.000
UNITS BUILT PER YEAR

58.000 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 AIR CONDITIONING APPLICATIONS

Residential

Shopping Centers

Hospitals

Hotels & Restaurants

Public Buildings & Schools

Offices

Airports & Stations

Cinemas, Theaters & Museums

Exhibitions

Leisure & Sport Centers

Data Centers

AIR CONDITIONING SYSTEMS

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Air Conditioning

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MTA®

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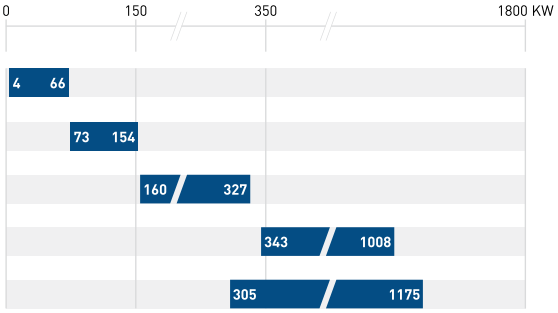
PRODUCT SELECTION

AIR-COOLED WATER CHILLERS



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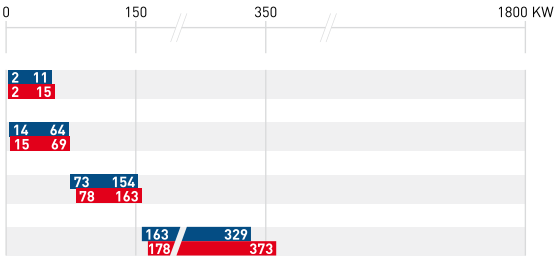
AIR/WATER HEAT PUMPS



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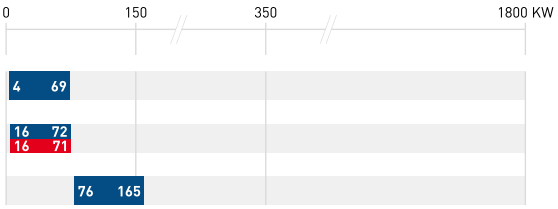
CONDENSING UNITS



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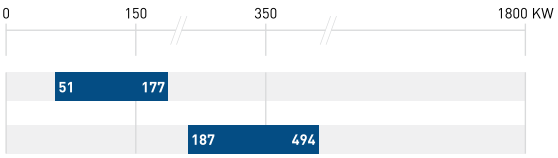
AIR-COOLED WATER CHILLERS WITH INTEGRATED FREE-COOLING



ARIES FREE-COOLING	Pag. 22			R407C		
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LEGEND

Mode

- Cooling
- Cooling / Heating
- Cooling, heating & hot water

Fans

- Axial
- Centrifugal

Compressors

- Rotary
- DC Inverter Rotary
- Scroll
- DC Inverter Scroll
- Screw

Heat Exchangers

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

ADD-ON FREECOOLING MODULES

							0 150 350 1800 KW
AQUAFREE	Pag. 26	❄	-	-			242 466 Moduli multipli

WATER-COOLED WATER CHILLERS

							0 150 350 1800 KW
OCEAN TECH	Pag. 28	❄		R410A	-		4 193
NEPTUNE TECH	Pag. 30	❄		R410A	-		237 560
AQUARIUS PLUS **2**	Pag. 32	❄		R134a	-		380 1549

WATER/WATER HEAT PUMPS

							0 150 350 1800 KW
HOCEAN TECH	Pag. 28	❄		R410A	-		5 192 5 205
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CONDENSERLESS UNITS

							0 150 350 1800 KW
OCEAN TECH **ME**	Pag. 28	❄		R410A	-		4 183
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AQUARIUS PLUS **2 ME**	Pag. 32	❄		R134a	-		350 1434

HYDRAULIC AIR TREATMENT TERMINAL UNITS

							0 150 350 1800 KW
EURUS	Pag. 34	❄	-	H_2O			0,6 ÷ 7,6 0,7 ÷ 9
EURUS CA	Pag. 36	❄	-	H_2O			1,3 ÷ 11 1,6 ÷ 14




NEWGEN SI

R410A

Air to water high efficiency heat pumps with R410A, monoblock and reversible design, compressor and axial fans with DC Inverter motors and variable speed water pump. Cooling capacity 4 - 14 kW. Heating capacity 5 - 15 kW.

Benefits

- Energy efficiency Class A with high ESEER values;
- High thermal comfort;
- High energy savings and consequently reduction of management costs;
- Very low noise operation;
- Supplying of hot water for heating and sanitary use also at the external limit temperature of -15 °C;
- The unit allows to avoid the use of a buffer tank also at partial loads;
- Compact design that meets high quality and safety standards;
- The inverter technology allows the NEWGEN Si units to operate always at optimum power, modulating the compression of the refrigerant gas, the cooling capacity and the power consumption;
- Refrigerant gas R410A which does not damage the ozone layer;
- Microprocessor with high computing capacity for a perfect logic control of the electronic expansion valve, the compressor DC Inverter, the fans DC Inverter and the circulation pump;
- NEWGEN Si units can produce hot water managing also a 3-way valve (optional VD);
- The NEWGEN Si allows the connection of max 5 units in parallel configuration with the rotation of units in operation and remote control management (optional CRH);
- Connecting multiple units in series, the user can decide which and how many units should be used for the production of domestic hot water;
- Climatic compensation function.

Accessories

- **CRH** - Remote control panel to control up to 5 units NGSi, and up to 70 hydronic terminal units in 9 different climatic areas;
- **AG** - Anti-vibration rubber mounts to be fixed on the unit base frame;
- **AK** - Antifreeze heater version - Antifreeze heater kit (this accessory has to be requested when ordering because it has to be installed during the unit production). The kit includes heaters applied on the user plate exchanger sides which are energized (also when the unit is switch off but powered) when the water temperature falls below 4 °C. The plate heat exchanger heaters are switched off when the temperature measured by the outlet water probe exceeds 6 °C. The kit also includes a heating cable installed on the base of the NEWGEN Si unit and it is equipped with a built-in thermostat which activates the power supply of the heating cable (also when the unit is switch off but powered) when the outside air temperature falls below 5 °C;
- **DSP Kit** (Dual Set Point Kit) - This kit, which allows a second working setpoint side system, is used to improve the thermohygrometric comfort and avoid the formation of condensation on the floor prevent the formation of condensation on the floor in the case of floor radiant cooling assisted by fan coil for dehumidification. The kit consists of a humidistat, a socket for DIN rail and a relay. It also required the use of a 3-way diverter valve (not included in this kit, optional VD);
- **VD** - 3-way diverter valve;
- **SAS** - Sanitary water probe kit;
- **DRAL NET** - Control Panel for hydronic terminals units EURUS series;
- **SB** - BUS adapter for hydronic terminals units EURUS series;
- **HNS-BOX** - Prewired box for hydronic terminals units EURUS series, within SB device, Dral NET device and air/water probes.

Standard Features

- The DC Inverter compressors are rotary hermetic single phase type for models NGSi 05 and 07, twin rotary single phase type for model NGSi 10 and scroll three-phase type for unit NGSi 15. All compressors are equipped with crankcase electric heater, thermal overload protection and anti-vibration rubber mounts;
- Axial fans with plastic aerofoil blades, with modulating Brushless motor are equipped with a protection mesh and are managed by the microprocessor. The rotor forms a single unit with the fan wheel and incorporates an overload protection device;
- The user heat exchanger is made of stainless steel braze-welded plates. It is insulated and equipped with a water thermal sensor that in case of need, switches on the water circulator also when the unit is in stand-by, in order to avoid freezing condition;
- Air side exchanger made by copper pipes and aluminium fins with turbolenced design, low pressure drop and hydrophilic treatment which increases the corrosion protection and also delay the frosting of the exchanger in heat pump mode reducing the number of defrost cycles and consequently obtaining a considerable energy saving;
- The refrigerant circuit is contained in a separated compartment and it is equipped with: electronic expansion valve; 4-ways reverse cycle valve; high pressure switch control; liquid separator (only for models NGSi 05, 07 and 10); liquid receiver; high and low pressure transducer; filters; oil separator, liquid separator and non return valve (only for mod. NGSi 10 and 15).
- The units NEWGEN Si are covered by hot-galvanised metal sheet, painted with polyurethane powder enamels at 180 °C. The colour is Pantone Warm Grey 2C;
- The hydraulic circuit is equipped with: water pump with continuous phase cut-off electronic speed control; expansion vessel; safety valve; pressure gauge; water flow switch; water pressure gauge; loading/unloading valve.
- The electrical board contains all the power, regulation and safety devices;
- Thermic/acoustic insulation on the compressor and on the piping of the hydraulic circuit;
- Plastic mesh protection for air side exchanger;
- The model NGSi 15 (power supply 400/3+N-PE/50Hz) is equipped with a device to provide protection against phase loss and phase reversal. All compressors are provided with a function to start at low frequency (soft starter) integrated in the logic management of the compressor driver, to decrease the inrush current at the start-up of the compressor;
- External ambient temperature sensor;
- Integrated collection tray in the unit base frame equipped with drain connection;
- On-off control of the integration system electrical heater and integration sanitary heater.



	Model NGSi		05	07	10	15
Cooling	Nominal cooling power (1) (min/max)	kW	4,13 (1,80 / 5,00)	6,49 (3,00 / 8,20)	8,20 (3,70 / 10,80)	10,51 (4,80 / 13,10)
	Nominal power input (1)	kW	1,33	2,08	2,65	3,39
	EER (1)	W/W	3,11	3,12	3,10	3,10
	ESEER	W/W	3,43	3,49	3,41	3,48
	Nominal cooling power (2) (min/max)	kW	5,72 (2,30 / 6,20)	8,93 (3,70 / 9,90)	12,36 (4,60 / 13,20)	14,00 (6,00 / 16,00)
	Nominal power input (2)	kW	1,44	2,27	2,98	3,64
	EER (2)	W/W	3,98	3,93	4,15	3,85
Heating	Nominal heating power (3) (min/max)	kW	5,48 (2,10 / 5,80)	8,43 (3,50 / 9,30)	11,81 (4,40 / 12,60)	13,38 (5,60 / 14,80)
	Nominal power input (3)	kW	1,65	2,55	3,45	4,13
	COP (3)	W/W	3,32	3,30	3,42	3,24
	Nominal heating power (4) (min/max)	kW	5,77 (2,40 / 6,50)	9,06 (4,00 / 10,30)	12,40 (4,70 / 13,40)	14,16 (6,30 / 16,40)
	Nominal power input (4)	kW	1,39	2,21	2,95	3,45
	COP (4)	W/W	4,15	4,11	4,21	4,11
Electrical data	Power supply	V/Ph/Hz	230 ±10% / 1 / 50			400 ± 10% / 3+N-PE / 50
	Max. absorbed power	kW	2,81	4,61	5,78	7,93
	FLA (Full Load Ampere)	A	12,3	20,2	25,4	11,5
Compressor	Type	-	Rotary DC Inverter	Rotary DC Inverter	Twin Rotary DC Inverter	Scroll DC Inverter
	Number	-	1	1	1	1
Fan	Type	-	Motor DC Brushless			
	Number	-	1	1	2	2
	Rated power input	kW	0,156	0,188	0,180 (×2)	0,180 (×2)
	Speed	r/min	900	900	1000	1000
	Max. air flow	m^3/s	1,08	1,63	2,11	2,59
Refrigerant	Type	-	R410A			
	Refrigerant quantity	kg	1,55	2,10	3,65	3,90
Hydraulic Circuit	Water flow (1)	L/s	0,29	0,45	0,59	0,72
	Head pressure (1)	kPa	43	29	51	48
	Max power input of the water pump	kW	0,124	0,124	0,165	0,165
	Expansion vessel	L	2	2	2	2
	Hydraulic connections	in	1×M	1×M	1×M	1×M
	Min. volume of water	L	18	25	35	45
Sound levels	Sound power max (5)	dB(A)	63	65	67	68
	Sound pressure max (6)	dB(A)	50	52	54	55
Dimensions and Weight	Dimensions (W×H×D)	mm	1134 x 719 x 376	1229 x 861 x 371	1258 × 1402 × 448	1258 × 1402 × 448
	Opearation weight	kg	73	92	147	152
	Transportation weight	kg	77	96	153	158

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode (terminal units):** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C.

(2) **Cooling mode (radiant panels):** external ambient temperature: 35 °C; evaporator IN/OUT: 23/18 °C.

(3) **Heating mode (terminal units):** external ambient temperature 7 °C; relative humidity 87%; condenser IN/OUT: 40/45 °C.

(4) **Heating mode (radiant panels):** external ambient temperature 7 °C; relative humidity 87%; condenser IN/OUT: 30/35 °C.

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

(6) **Sound pressure at 1 m:** average value obtained in free field over a reflecting plane. Tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump;

Data shown in the table are referred to the basic units without options.

Attention: for antifreeze unit version, for lowest ambient temperature -5 °C, you must add a suitable quantity of antifreeze additives.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW

CRH panel for remote control of the unit (optional).

Anti-freeze kit AK, equipped with a heating cable and electrical resistance (optional).

Innovative logic control and DC Inverter technology.

CYGNUS TECH

R410A

Air-cooled water chillers, heat pumps, condensing units and reversible condensing units featuring rotary or hermetic scroll compressors.
Cooling capacity 4,2 - 66,2 kW. Heating capacity 15,4 - 68,4 kW.
Cooling capacity condensing units 4,5 - 68,8 kW. Heating capacity condensing units 16,1 - 70,6 kW.

Benefits

- Extremely low noise levels;
- High EER/COP values and seasonal performance indices;
- Ideally suited to commercial and domestic chilled water air-conditioning applications;
- 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);
- Self-adaptive temperature control (SAC) for efficient operation with installations having low water contents;
- Designed for installation in confined spaces;
- Easy to use thanks to a controller with icon-based dual display;
- Easy installation and simple access to all chiller components.

Main Options

- Configuration without storage tank;
- High/low head pressure pump;
- Double pump with one in stand-by (depending on model);
- Condensate collection tray with hose connection (models 013-071);
- Anti-freeze heaters on evaporator, pump and tank;
- Remote user interface;
- RS485 ModBus interface for connection to supervisor systems;
- xWEB300D for local or remote (GPRS) monitoring plus data filing based on WEB server technology;
- Antivibration mountings;
- Condenser filters;
- Soft starter;
- Thermostat (condensing and reversible condensing unit).

Standard Features

- Hermetic Rotary compressors (013-020) Scroll compressors (031-171) tandem Scroll compressors (211-301);
- Integral hydronic kit complete 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 sickle shaped blades and electronic speed control;
- Heat pumps with 2nd thermostatic valve for performance optimisation in all operating conditions (models 131 to 301);
- Factory charged with refrigerant and non-freezing oil (MC versions excluded);
- Protection grade IPX4;
- Inspections and tests performed in factory as per all MTA products and components;
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- Phase monitor against phase reversal;
- Compressor crankcase heater.

Versions

- **CY** - Cooling only;
- **HCY** - Reversible heat pump;
- **MCCY** -Condensing unit;
- **MCHCY** - Reversible condensing unit.



	Model CY - HCY - MCCY - MCHCY		013	015	020	031	051	071	081	101	131	171	211	251	301
CY	Cooling capacity (1)	kW	4,24	5,23	7,06	9,95	14,4	18,5	22,3	29,2	38,4	44,0	51,3	59,5	66,2
	Total absorbed power (1)	kW	1,59	1,99	2,61	3,64	5,21	6,84	7,40	9,69	12,8	14,0	17,4	19,2	22,5
	ESEER	-	2,84	2,74	2,82	3,15	3,20	3,09	3,41	3,43	3,42	3,60	3,99	4,22	4,19
	Max external air temperature	°C	49	47	46	47	46	46	47	46	46	47	46	46	45
HCY	Cooling capacity (1)	kW	-	-	-	-	13,9	17,5	21,7	28,6	36,8	42,6	50,1	57,6	63,8
	Heating capacity (2)	kW	-	-	-	-	15,4	19,1	23,0	29,8	39,2	44,1	53,2	60,0	68,4
	Total absorbed power (2)	kW	-	-	-	-	4,96	6,21	6,88	8,82	11,8	13,0	15,9	18,1	20,6
	Min. external air temperature	°C	-	-	-	-	-8	-7	-9	-7	-8	-8	-8	-8	-7
MCCY	Cooling capacity (3)	kW	4,47	5,46	7,37	10,5	15,1	19,4	23,2	30,5	39,8	45,5	53,6	61,8	68,8
	Total absorbed power (3)	kW	1,55	1,95	2,55	3,56	5,11	6,73	7,26	9,55	12,6	13,8	17,2	19,0	22,4
	Max external air temperature	°C	48	47	45	47	45	46	46	45	45	46	45	46	44
MCHCY	Cooling capacity (3)	kW	-	-	-	-	15,5	19,5	24,2	31,7	40,7	47,6	55,9	64,6	71,6
	Heating capacity (4)	kW	-	-	-	-	16,1	19,4	23,7	31,0	40,7	46,1	54,8	62,1	70,6
	Total absorbed power (4)	kW	-	-	-	-	3,90	4,91	5,39	6,95	9,14	10,2	12,5	14,1	15,9
	Min. external air temperature	°C	-	-	-	-	-4	-5	-6	-5	-6	-6	-5	-6	-5

Power supply	V/Ph/Hz	230±10%/1/50			400 ± 10% / 3+N-PE / 50									
Circuits / Compressors	N°	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/2	1/2	1/2
Sound power (5)	dB(A)	63,6	65,7	66,9	68,7	69,9	70,9	69,5	72,5	74,8	76,2	76,6	77,4	77
Sound pressure (6)	dB(A)	35,6	37,7	38,9	40,7	41,9	42,9	41,5	44,5	46,8	48,2	48,6	49,4	49,0
Depth	mm	380	380	380	550	550	550	810	810	1112	1112	1112	1112	1112
Width	mm	978	978	978	1420	1420	1420	1960	1960	2060	2060	2470	2470	2470
Height	mm	985	985	985	1288	1288	1288	1203	1203	1417	1417	1595	1595	1595
Installed weight	Kg	98	101	111	151	182	184	344	361	470	505	613	638	654

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode (terminal units):** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C.

(2) **Heating mode (terminal units):** external ambient temperature 7 °C; relative humidity 87%; condenser IN/OUT: 40/45 °C.

(3) **Cooling mode (condensing units):** external ambient temperature 35 °C; evaporating temperature 5 °C.

(4) **Heating mode (condensing units):** external ambient temperature 7 °C; condensing temperature 40 °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 conditions and with circulation pump.

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

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW
- N.A. on MC

Microprocessor controller with dual icon-based display.

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

Built-in pumping module with or without storage tank.

TAURUS TECH

R410A

Air cooled water chillers, heat pumps and condensing units with hermetic scroll compressors and R410A refrigerant gas. Cooling capacity 73 - 154 kW. Heating capacity 76 - 163 kW. Cooling capacity condensing units 76 - 165 kW.

Benefits

- Refrigerant R410A is an environmentally friendly fluid (zero ozone depletion potential) and provides high performances thanks its outstanding heat conductivity;
- 7 base models that perfectly match each specific system requirements;
- 3 acoustic versions (N, SN, SSN) with standard efficiency (Eurovent B/C Class);
- 2 acoustic versions (HE, SHE) with high efficiency (Eurovent A Class);
- Scroll compressors ensure high efficiency, excellent performance and elevated energy savings;
- Plug-in solution with integrated pump and tank allows a simple installation;
- Extended operating limits: Taurus Tech standardly accepts inlet water temperatures up to 25 °C and outlet water temperature down to 0 °C; HTaurus Tech working with ambient temperature up to 47 °C in cooling mode; outlet water temperature up to 55 °C and ambient temperature down to -10 °C in heating mode.
- Optimisation of performance also in heating mode thanks to hot gas injection and the DDS defrosting system;
- Comprehensive safety equipment, including phase monitor, pressure switches, differential pressure switch, crankcase heaters;
- Extensive range of accessories and kits, allow each unit to match the specific customer requirements.

Main Options

- Protection of the hydraulic group by means of panels or metallic mesh;
- Coils protection by means of filters or metallic mesh;
- Soft starter: are installed on each compressor and allow an average reduction of 30% of the start-up current compared to the direct start;
- Shut-off valves on suction side and discharge line of each pair of compressors;
- Total heat recovery (available for TAT only);
- Partial heat recovery (available for TAT and HTAT only);
- Electronic expansion valve (available for TAT only, versions N, SN, SSN);
- Shell & Tube evaporator (available for TAT only, versions N, SN, SSN);
- Pump options: P15, P2, double P15+P15 or P2+P2 with or without storage tank;
- Anti-freeze heater on heat exchangers and hydraulic kit (if present);
- High efficiency EC axial fans with inverter technology and integrated speed regulation (as optional N, SN, SSN versions; as standard HE, SHE versions);
- Condenser coils designed for aggressive atmosphere;
- -20 °C option: it allows the units to operate in cooling mode down to -20 °C ambient temperature;
- Anti-vibration mounts;
- Thermostatic valves kit for condensing units;
- Remote control kit: VICX620 display LED, VGI890 display LCD semi-graphic (max 150 m);
- Gateway Modbus/Trend Kit;
- Supervisor kits: RS485 ModBus, xWEB300D.

Standard Features

- Refrigerant R410A;
- Hermetic Scroll compressors in single circuit configuration;
- Stainless steel plate heat exchanger (all versions) or shell & tube evaporator (only TAT N, SN, SSN versions);
- AC Axial fans with die-cast aluminum blades, developed on the basis of bionic principles (N, SN, SSN versions);
- High efficiency EC axial fans with inverter technology (HE, SHE versions);
- Thermostatic expansion valve (N, SN, SSN versions);
- Electronic expansion valve (available as standard for all TAT models with HE and SHE versions);
- Air-cooled condensers (copper tubes/aluminium fins) with longitudinal °V× formation;
- High and low refrigerant pressure switches;
- Refrigerant pressure gauges;
- Parametric microprocessor control IC208CX;
- IP54 protection class;
- Phase monitor against phase loss and phase reversal;
- Compressor crankcase heater.

Versions

- **TAT** - cooling only version;
- **HTAT** - reversible heat pumps with outlet water temperature up to 55 °C;
- **MCTAT** - condensing units.

Standard energy efficiency versions:
Â N - Standard energy efficiency and basic acoustic configuration;
Â SN - Standard energy efficiency and low noise acoustic configuration;
Â SSN - Standard energy efficiency and very low noise acoustic configuration; not available on model 065;

High energy efficiency versions:
Â HE - High energy efficiency (Eurovent A Class) and basic acoustic configuration;
Â SHE - High energy efficiency (Eurovent A Class) and low noise acoustic configuration.



			N							HE						
	Model TAT - HTAT - MC/TAT		**030**	**035**	**040**	**050**	**055**	**060**	**065**	**030**	**035**	**040**	**050**	**055**	**060**	**065**
TAT (1)	Cooling capacity	kW	72,5	81,0	97,1	111	122	140	154	67,1	73,2	86,1	102	110	125	138
	Total absorbed power	kW	26,3	27,7	33,7	39,3	42,4	47,9	53,3	21,1	23,1	27,3	32,2	34,6	39,5	44,5
	EER	-	2,76	2,92	2,88	2,82	2,88	2,93	2,88	3,18	3,17	3,15	3,16	3,18	3,16	3,10
	Energy efficiency class	-	C	B	C	C	C	B	C	A	A	A	A	A	A	A
	ESEER	-	3,64	3,78	3,85	3,61	3,68	3,82	3,87	4,16	4,10	4,13	4,11	3,99	4,10	4,14
	Max. external air temperature	°C	46	46	46	46	46	46	46	47	47	47	47	47	47	47
HTAT (2)	Heating capacity	kW	75,5	84,5	104	116	129	147	163	71,7	78,0	91,6	105	118	130	145
	Total absorbed power	kW	25,5	27,5	32,8	38,0	42,4	46,6	52,1	22,3	24,3	27,9	32,7	36,3	40,3	44,5
	COP	-	2,96	3,08	3,18	3,04	3,05	3,15	3,12	3,22	3,21	3,28	3,21	3,25	3,23	3,25
	Energy efficiency class	-	C	B	B	B	B	B	B	A	A	A	A	A	A	A
	Max. external air temperature	°C	46	46	46	46	46	46	46	47	47	47	47	47	47	47
	Min. external air temperature	°C	-9	-9	-8	-10	-10	-10	-9	-10	-10	-10	-10	-10	-10	-10
MC / TAT (3)	Cooling capacity	kW	76,4	85,8	103	117	129	148	165							
	Total absorbed power	kW	25,6	27,0	33,1	38,3	41,5	46,8	52,4							
	EER	-	2,98	3,18	3,10	3,04	3,12	3,15	3,14							
	Max. external air temperature	°C	46	46	46	46	46	46	46							
	Refrigerant	-	R410A							R410A						
	Compressors / Circuits	n°	2 / 1							2 / 1						
	Capacity control	-	0 -50 -100							0 -50 -100						
	Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50							400 ± 10% / 3 - PE / 50						
	Protection class	-	IP54							IP54						
	Sound power (4)	dB(A)	87,5	87,1	86,7	90,3	90,1	88,8	89,9	87	86,8	86,3	90,7	89,4	88,4	88,1
	Sound pressure (5)	dB(A)	59,5	59,1	58,8	62,3	62,1	60,9	61,9	59	58,8	58,4	61,7	61,4	60,5	60,1
	Width (W)	mm	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110
	Depth (D)	mm	2507	2507	2507	3407	3407	3407	3407	2507	2507	2507	3407	3407	3407	3407
	Height (H)	mm	2155	2155	2155	2155	2155	2155	2155	2155	2155	2155	2155	2155	2155	2155
	Weight	kg	767	801	950	1162	1221	1261	1307	792	825	904	1127	1236	1277	1287
	Water connections	in	Rp 2"			Rp 2" 1/ 2				Rp 2"			Rp 2" 1/ 2			

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode (terminal units):** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C;

(2) **Heating mode (terminal units):** external ambient temperature 7 °C; relative humidity 87%; condenser IN/OUT: 40/45 °C;

(3) **Condensing units:** external ambient temperature 35 °C; evaporating temperature 5 °C;

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

(5) **Sound pressure at 10 m:** 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 and with circulation pump.

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

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW
- N.A. on MC

IC208CX Microprocessor Control.

High efficiency EC axial fans with inverter technology.

Electronic expansion valve.

ARIES TECH

R410A

Air cooled water chillers and heat pumps with R410A featuring hermetic scroll compressors.
Cooling capacity 160 - 327 kW. Heating capacity 178 - 373 kW.

Benefits

- Reduced noise levels, thanks also to the availability of three differing acoustic versions;
- High EER/COP levels, especially at partial loads;
- Optimisation of performance also in heat pump mode thanks to hot gas injection and the innovative EcoDefrost defrosting system (min. ambient temperature -10 °C in heat pump mode);
- Allows start-up and operation in even the most severe conditions thanks to the unloading function;
- Simplified installation and easy access to all components;
- User friendly controller with multifunctional buttons and dynamic dis play icons.

Main Options

- Shell and tube evaporator (AST only);
- 1 or 2 high/low head pressure pumps and water pressure gauge;
- Storage tank;
- Electronic expansion valves (AST only);
- Compressor shut-off valves on suction and discharge lines;
- High efficiency EC inverter fans that allows an high energy savings, special at partial load;
- Condenser coils designed for aggressive atmospheres;
- Antivibration dampers;
- Anti-freeze heaters on evaporator, pump and tank;
- Metal mesh filters for condenser coil protection;
- Electric power supplies differing from standard;
- Soft starter allows about a 20% reduction of the start-up current than direct start;
- Victaulic connections;
- Simple remote control;
- Replicated remote user terminal;
- Serial connection to supervisor systems;
- MTA xCONNECT supervision based on internal web pages;
- Modularity/web interconnection hub.

Standard Features

- 4 scroll compressors in parallel within two independent circuits;
- Phase monitor against phase reversal;
- Compressor crankcase heater;
- Single brazed °dual-circuit× stainless steel plate evaporator;
- Heat pumps equipped with 2 nd thermostatic valve for optimised perfor-mance in all operating conditions);
- Axial fans with progressive activation for optimised condensing pres sure control, installed in two independent aeraulic sections;
- Factory tested and supplied with refrigerant charge and antifreeze oil;
- IP54 electric protection rating;
- Environmentally friendly refrigerant R410A;
- xDRIVE is a microprocessor electronic controller with high computing capacity and user friendly graphic interface;
- RS485 ModBus interface for connection to supervisor systems;
- Ethernet connection featuring pre-programmed HTML supervision pages, allowing local or internet based visualization and modification of the operating parameters.

Versions

- **AST** - Cooling only;
- **HAST** - Reversible heat pump;
- **Low ambient air temperature** - down to -20 °C in cooling mode (AST only);
- **H version** - for high external air temperature / high efficiency (only AST);
- **Desuperheater 20%**;
- **Heat recovery 100%.**

- Acoustic configurations:
  - **N** - basic acoustic configuration;
  - **SN** - low noise acoustic configuration;
  - **SSN** - very low noise acoustic configuration.



	Model AST - HAST		070	080	090	100	110	120	130	140
AST	Cooling capacity (1)	kW	160	193	210	222	247	269	308	327
	Total absorbed power (1)	kW	66,9	74,9	79,0	85,9	99,5	114	120	131
	ESEER (N)	-	3,61	3,90	4,04	4,06	3,88	3,95	3,87	3,89
	ESEER (H)	-	3,81	4,01	4,11	4,16	3,78	3,84	3,97	3,99
	Max external air temperature vers. N	°C	45	46	46	46	45	44	46	45
	Max external air temperature vers. H	°C	49	49	48	48	49	48	48	48
HAST	Cooling capacity (1)	kW	163	193	204	215	246	281	303	329
	Heating capacity (2)	kW	178	213	229	243	276	316	338	373
	Total absorbed power (2)	kW	60,8	70,4	75,0	79,6	93,4	101,8	108,8	116,2
	Min external air temperature	°C	-7	-7	-6	-6	-6	-8	-7	-8

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	2/4	2/4
Sound pressure N (3)	dB(A)	65,6	64,6	64,6	64,6	64,6	64,6	65,3	65,3
Sound pressure SN (3)	dB(A)	59,2	58,0	58,0	58,0	58,0	58,0	58,2	58,2
Sound pressure SSN (3)	dB(A)	50,9	50,9	49,7	49,7	50,7	50,7	51,1	51,1
Sound pressure H (3)	dB(A)	64,6	64,6	63,7	63,7	65,3	65,3	64,3	64,3
Depth	mm	3418	3418	3418	3418	4518	4518	4518	4518
Width	mm	2188	2188	2188	2188	2188	2188	2188	2188
Height	mm	1935	1935	1935	1935	1935	1935	1935	1935
Installed weight	Kg	1476	1671	1852	1928	2138	2229	2411	2532

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode:** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C;

(2) **Heating mode:** external ambient temperature 7 °C; relative humidity 87%; condenser IN/OUT: 40/45 °C;

(3) **Sound pressure at 10 m:** 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 and with circulation pump.

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

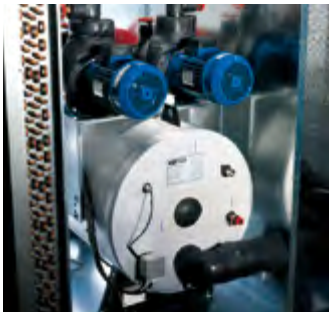
EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW

Semigraphic user terminal with multifunctional buttons and dynamic display icons.

Also available with shell and tube evaporator (only for AST).

Pump section with or without storage tank.



High efficiency EC axial fans with inverter technology.

GALAXY TECH

R410A

Air-cooled water chillers featuring tandem/triple scroll compressors.
Cooling capacity 343 - 1008 kW.

Benefits

- Reduced noise levels, thanks also to the availability of differing acoustic versions;
- High EER/COP levels, especially at partial loads;
- Ideal for large hydronic air conditioning installations in public and private surroundings;
- Allows start-up and operation in even the most severe conditions;
- Easy installation with direct access to the water connections and the applications of victaulic connections;
- Simple to install and maintain, easily accessible components;
- User friendly controller with multifunctional buttons and dynamic display icons.

Main Options

- 1 or 2 pumps and water pressure gauge;
- Storage tank;
- Condenser coils designed for aggressive atmospheres;
- Metal mesh filters for condenser coil protection;
- High efficiency EC axial fans with inverter technology and integrated speed regulation;
- Compressor suction and discharge valves;
- Electronic expansion valve;
- Antifreeze heater on evaporator, pumps and tank;
- Antivibration dampers;
- Serial connection to supervisor systems;
- MTA xCONNECT supervision based on internal web pages;
- Modularity / web interconnection hub;
- Replicated remote user terminal;
- Soft starter: are installed on each compressor and allow a reduction from 10 to 20% (depending by the model) of the start-up current compared to the direct start;
- Compressor housings for acoustic insulation;
- Victaulic connections;
- Simple remote control;
- Special execution with partial or total heat recovery exchangers;
- Special execution for water temperatures down to -10 °C;
- Special execution with shell and tube evaporator.

Standard Features

- Multiple scroll compressors (4, 6, 9 or 12 depending on the model) connected in parallel (tandem or trio) on 2, 3 or 4 independent refrigeration circuits;
- Stainless steel brazed plate dual-circuit evaporators °dual-circuit×;
- Shut-off valve and solenoid valve on the liquid line in each refrigeration circuit;
- xDRIVE is a microprocessor electronic controller with high computing capacity and user friendly graphic interface;
- xDRIVE features the ModBUS-RTU communication protocol as standard, allowing connection with the most widely utilised Building Management Systems (BMS). It also features an Ethernet port as standard, with HTML supervision pages preloaded for connection to a company intranet or the Internet. The xDRIVE can manage in master/slave mode up to 8 units;
- Phase monitor against phase loss and phase reversal and checks the operating voltage limits;
- AC axial fans with die-cast aluminum blades, developed on the basis of bionic principles with progressive starting for condensing pressure control;
- High and low pressure transducer;
- Water differential pressure switch, air bleed valve and water drain valve;
- Water collectors for twin evaporator models;
- Factory tested and supplied with refrigerant charge and antifreeze oil;
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- All the compressors are equipped with crankcase heaters.

Versions

- **Low ambient air temperature** - down to -20 °C in cooling mode;

Standard energy efficiency versions:
Â N - Standard energy efficiency and basic acoustic configuration;
Â SN - Standard energy efficiency and low noise acoustic configuration;
Â SSN - Standard energy efficiency and very low noise acoustic configuration;

High energy efficiency versions:
Â HE - High energy efficiency and basic acoustic configuration;
Â SHE - High energy efficiency and low noise acoustic configuration.



Model GLT		120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360
Cooling capacity (1)	kW	343	383	426	465	504	557	600	645	684	723	762	810	852	891	930	969	1008
Total absorbed power (1)	kW	126	143	159	170	182	206	222	238	250	262	273	301	317	329	341	352	364
ESEER (N)	-	4,01	3,88	3,92	4,02	4,10	3,96	3,98	4,01	4,09	4,13	4,19	3,97	3,98	4,04	4,10	4,13	4,16
ESEER (HE)	-	4,33	4,11	4,12	4,10	4,14	4,21	4,21	4,21	4,29	4,19	4,20	4,19	4,18	4,16	4,16	4,23	4,22
ESEER (SHE)	-	4,55	4,30	4,29	4,39	4,43	4,45	4,41	4,39	4,52	4,47	4,51	4,42	4,39	4,43	4,46	4,55	4,38
Max external air temperature (N)	°C	46	46	46	46	46	46	46	45	45	46	46	46	46	46	46	46	46
Max external air temperature (HE)	°C	51	48	48	48	51	48	48	48	48	48	51	48	48	48	48	48	46

Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50																
Circuits / Compressors	N°	2/4	2/6	2/6	2/6	2/6	3/9	3/9	3/9	3/9	3/9	3/9	4/12	4/12	4/12	4/12	4/12	4/12
Sound pressure N (2)	dB(A)	69	69	68	68	69	70	70	69	70	70	70	71	71	71	71	71	71
Sound pressure SN (2)	dB(A)	60	60	60	60	60	61	61	62	62	62	62	63	63	63	63	63	63
Sound pressure SSN (2)	dB(A)	56	56	56	57	57	58	58	57	57	58	58	58	58	58	59	59	59
Sound pressure HE (2)	dB(A)	68	68	68	69	69	70	70	70	70	71	71	71	71	71	72	72	72
Sound pressure SHE (2)	dB(A)	59	59	60	61	61	61	61	62	63	63	64	64	64	64	64	65	65
Depth	mm	4530	4530	4530	4530	4530	6510	6510	6510	6510	6510	6510	8490	8490	8490	8490	8490	8490
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190
Height	mm	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425
Installed weight	Kg	3120	3458	3476	3512	3548	5146	5164	5189	5430	5665	5887	6781	6799	7038	7268	7508	7737

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode:** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C.

(2) **Sound pressure at 10 m:** 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 and with circulation pump.

The listed noise levels, weights and dimensions refer to base chillers with no options fitted. (NB: dimensions for lower noise and/or higher efficiency versions may differ.)

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW

Semigraphic user terminal with multifunctional buttons and dynamic display icons.

Pump section with or without storage tank.

Optimisation of performance thanks to the multiscroll logic.

High efficiency EC axial fans with inverter technology.

PHOENIX PLUS

R134a

Air-cooled chillers with R134a equipped with semi-hermetic twin screw compressors.
Cooling capacity 310 - 1187 kW.

Benefits

- High energy efficiency both at full load and at partial load (Eurovent A Class);
- High seasonal energy efficiency (ESEER up to 4.34);
- 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 4 screw compressors and "Smart Stepless" algorithm);
- Wide operating range (ambient temperature from -20 °C to +50 °C);
- Comprehensive 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;
- Integration with AQUAFree free-cooling modules.

Main Options

- High efficiency EC axial fans with inverter technology and integrated speed regulation;
- Condenser coils with anticorrosion treatment;
- Soft starter;
- Antivibration dampers;
- Special applications with partial or total heat recovery;
- Special applications for water temperatures down to -10 °C;
- Special very high efficiency applications;
- Antifreeze heater;
- Metal mesh filters for condenser coil protection;
- Compressor housings;
- Replicated remote user terminal;
- Simple remote control;
- Serial connection to supervision systems;
- MTA xCONNECT Supervision based on internal web pages;
- Modularity / web interconnection hub.

Standard Features

- Environmentally friendly R134a refrigerant;
- High efficiency screw compressors with stepless regulation optimized for R134a refrigerant gas;
- Compressor crankcase heater;
- Air-cooled condensers (copper tubes/aluminium fins) with transverse "V" formation;
- AC Axial fans with die-cast aluminum blades, developed on the basis of bionic principles;
- Check valve on compressor discharge and shut-off valves on discharge and suction lines;
- Electronic expansion valves;
- Single pass shell & tubes evaporator optimized for R134a refrigerant gas;
- 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

- **Low ambient air temperature version -** down to -20 °C in cooling mode.

Standard energy efficiency versions:
- **N** - Standard energy efficiency and basic acoustic configuration;
- **SN** - Standard energy efficiency and low noise acoustic configuration;
- **SSN** - Standard energy efficiency and very low noise acoustic configuration;

High energy efficiency versions:
- **HE** - basic acoustic configuration optimized for full load operation (Eurovent A Class);
- **SHE** - low noise acoustic configuration optimized for part load operation (Eurovent A Class).



Model PNP		160	170	180	190	200	220	250	265	280	310	330	360	390	405	420	440	470	500	530	560
Cooling capacity (1)	kW	310	325	339	385	398	460	492	538	582	643	692	723	781	833	895	942	965	988	1089	1187
Total absorbed power (1)	kW	123	127	130	145	152	169	184	201	219	233	253	269	293	312	332	340	354	368	405	441
ESEER (N)	-	3,64	3,67	3,71	3,68	3,60	3,78	3,88	3,94	3,91	3,79	3,82	3,84	3,88	3,92	3,99	3,89	3,89	3,90	3,96	4,04
ESEER (HE)	-	4,05	4,10	4,07	4,00	4,00	4,02	4,17	4,21	4,17	4,11	4,09	4,11	4,16	4,20	4,25	4,19	4,20	4,22	4,26	4,27
ESEER (SHE)	-	4,12	4,11	4,14	4,05	4,07	4,09	4,24	4,28	4,23	4,18	4,15	4,19	4,24	4,27	4,32	4,26	4,29	4,28	4,34	4,34
Max external air temp. vers. N	°C	44	44	44	44	44	46	44	44	44	46	46	45	44	44	44	45	44	44	44	44
Max external air temp. vers. HE	°C	50	49	50	50	50	50	50	50	50	50	50	50	49	50	50	49	48	47	47	45

Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																			
Circuits / Compressors	dB(A)	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3	4/4	4/4	4/4	4/4	4/4
Sound pressure N (2)	dB(A)	68,9	68,9	68,9	70,1	70,1	71,0	71,0	70,9	70,8	72,5	72,8	72,8	72,7	72,6	72,5	74,0	74,0	74,0	73,9	73,8
Sound pressure SN (2)	dB(A)	60,8	60,8	60,8	61,6	61,6	62,3	62,2	62,3	62,4	64,0	64,1	64,0	64,0	64,0	64,1	65,3	65,3	65,2	65,3	65,3
Sound pressure SSN (2)	dB(A)	54,9	54,8	54,8	56,0	55,9	56,8	56,7	56,7	56,7	58,0	58,6	58,5	58,4	58,4	58,5	61,0	61,0	60,9	60,9	61,0
Sound pressure HE (2)	dB(A)	70,3	70,2	70,0	71,7	71,6	72,8	72,5	72,4	72,2	73,8	74,5	74,4	74,2	74,1	74,0	75,4	75,3	75,2	75,0	75,0
Sound pressure SHE (2)	dB(A)	63,0	62,8	62,6	64,2	64,1	65,1	64,7	64,6	64,4	66,2	66,9	66,6	66,4	66,3	66,2	67,7	67,5	67,3	67,1	67,1
Depth	mm	4530	4530	4530	4530	4530	4530	4530	4530	4530	6510	6510	6510	6510	6510	6510	8490	8490	8490	8490	8490
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190
Height	mm	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425
Installed weight	Kg	3480	3610	3740	3710	3840	4080	4210	4340	4470	5970	6040	6170	6350	6490	6750	8240	8370	8470	8770	9200

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode:** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C.

(2) **Sound pressure at 10 m:** 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 tollerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.

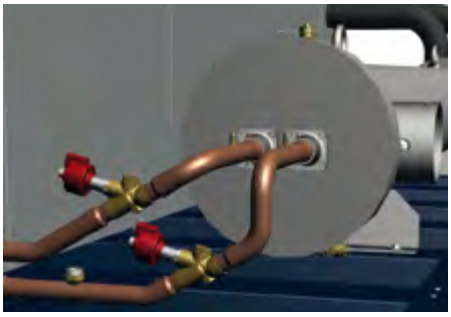
The listed noise levels, weights and dimensions refer to base chillers with no options fitted. (NB: dimensions for lower noise and/or higher efficiency versions may differ).

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW

Semigraphic user interface with multifunctional buttons and dynamic display icons.

Electronic expansion valves as standard and single pass shell & tubes evaporator.



Maximum accessibility to compressors.

ARIES FREE-COOLING

R407C

Air-cooled water chillers with integrated Free-cooling featuring hermetic scroll compressors.
Cooling capacity 51 - 177 kW.

Benefits

- Maximum exploitation of free cooling and maximum energy efficiency of the system with respect to conventional solutions, thanks to the in dependence of the coils in terms of air handling;
- Accurate control of water outlet temperature (including at low temperatures down to -15 °C), thanks to the use of a modulating three-way water valve;
- Generous sizing of coils for free-cooling;
- Operates at high ambient temperatures thanks to the compressor un loading;
- Version SSN featuring extremely quiet operation;
- Individually tested in a test chamber like all MTA components and products;
- User friendly control section with simple readout and graphic display;
- Simple to install and maintain, easily accessible components;
- Sections featuring complete aeraulic segregation to maximise the use of free-cooling.

Main Options

- Compressor suction and discharge valves;
- Electronic fan speed control;
- Electronic thermostatic expansion valve (except 201-301);
- Hydronic group without pump;
- Hydronic group with storage tank and single or twin pumps (351-751 only);
- High, medium and low head pressure pumps;
- Air filter on condenser coils (standard on 201-301);
- Antivibration dampers;
- Simple remote control;
- Replicated remote user terminal;
- Supervisor systems;
- Victaulic connections.

Standard Features

- Parallel scroll compressor coupling within single refrigerant circuit;
- Finned coil evaporator inside the storage tank (201-301) and shell and tube evaporator (351-751);
- Condensers and fans installed in a separate compartment with aeraulic isolation, for maximum Free-Cooling effect and maximum overall ener - gy efficiency;
- Axial fans with crescent shaped blades featuring step regulation;
- 3-way modulating valve for Free-Cooling (controlled by microproces sor), water connections within chiller;
- Total Free-Cooling from approximately 10 °C below the water outlet temperature;
- Water differential pressure switch on evaporator (301-751);
- High and low pressure transducers;
- Single or twin high pressure switches for max condensing pressure control;
- Electronic expansion valve with external equalisation, refrigerant filter, sight glass, solenoid valve on liquid line (except 201-301);
- Safety valve (except 201-301);
- Microprocessor control with advanced software ensuring optimum con - trol in all conditions;
- All the units are delivered with a phase monitor which provides protec- tion against phase loss and phase reversal;
- The scroll compressors are equipped with cranckcase heaters as standard;
- Main switch;
- IP54 electric protection rating;
- Environmentally friendly refrigerant R407C with zero ozone depletion potential.

Versions

Â N - Standard energy efficiency and basic acoustic configuration;
Â SN - Standard energy efficiency and low noise acoustic configuration;
Â SSN - Standard energy efficiency and very low noise acoustic configuration;
- **Low ambient air temperature** - down to -15 °C.



	Model AS FC		201	251	301	351	401	501	551	601	701	751
Free-Cooling OFF	Cooling capacity (1)	kW	50,9	54,6	69,3	80,1	97,6	115	133	146	161	177
	Absorbed power (1)	kW	16,2	19,3	20,0	30,1	34,3	40,1	44,4	50,7	52,7	60,1
	Max external air temperature (1)	°C	45	47	47	42	44	43	43	41	45	43
TOTAL Free-Cooling	Cooling capacity (1)	kW	50,9	54,6	69,3	80,1	97,6	115	133	146	161	177
	Absorbed power (1)(*)	kW	1,6	2,3	2,3	4,0	4,0	4,0	4,0	4,0	6,0	6,0
	Total freecooling (1)	°C	1,0	1,4	-0,3	1,6	0,5	-0,7	0,4	-0,7	1,4	0,4
Free-Cooling OFF	Cooling capacity (2)	kW	46,5	49,5	63,1	72,8	88,6	105	121	133	147	162
	Absorbed power (2)	kW	15,7	18,8	19,5	29,0	33,1	38,5	42,7	48,6	50,8	57,8
	Max external air temperature (2)	°C	46	48	48	44	45	44	44	43	46	45
TOTAL Free-Cooling	Cooling capacity (2)	kW	46,5	49,5	63,1	72,8	88,6	105	121	133	147	162
	Absorbed power (2)(*)	kW	1,6	2,3	2,3	4,0	4,0	4,0	4,0	4,0	6,0	6,0
	Total freecooling (2)	°C	-1,1	-0,7	-2,3	-0,6	-1,5	-2,5	-1,5	-2,5	-0,6	-1,6
	ESEER	-	4,19	3,82	4,07	3,56	3,73	3,79	3,97	3,94	3,91	3,75
	Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50									
	Circuits / Compressors	N°	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
	Sound pressure Free-cooling OFF - N (3)	dB(A)	60,2	60,2	61,5	62,6	61,6	61,6	61,6	61,6	62,3	62,3
	Sound pressure Free-cooling OFF - SN (3)	dB(A)	-	-	-	56,2	55,0	55,0	55,0	55,0	55,2	55,2
	Sound pressure Free-cooling OFF - SSN (3)	dB(A)	-	-	-	48,9	48,9	47,7	48,7	48,7	49,1	49,1
	Depth	mm	2550	2550	2550	3495	3495	3495	4595	4595	4595	4595
	Width	mm	1400	1400	1400	2188	2188	2188	2188	2188	2188	2188
	Height	mm	2136	2136	2136	1989	1989	1989	1989	1989	1989	1989
	Installed weight	Kg	1494	1494	1509	1858	1980	2276	2536	2541	2752	2803

Data declared according to UNI EN 14511:2011.

(1) Evaporator water inlet/outlet temperature 15-10 °C, external air temperature 35 °C, glycol water at 30%.

(2) Evaporator water inlet/outlet temperature 12-7 °C, external air temperature 35 °C, glycol water at 30%.

(*) In total Freecooling mode the absorbed power is only the fans absorbed power.

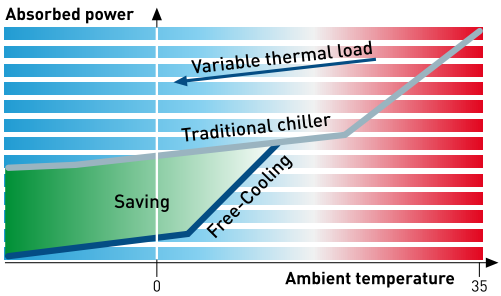
(3) **Sound pressure at 10 m:** average value obtained in free field on a reflective surface at a distance of 10 m from the side of the condenser coils and at a height of 1.6 m from the unit support base. Values with tolerance +/- 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions. The sound pressure level is refered at functioning with Free-cooling Off.

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

Availability of Free-Cooling

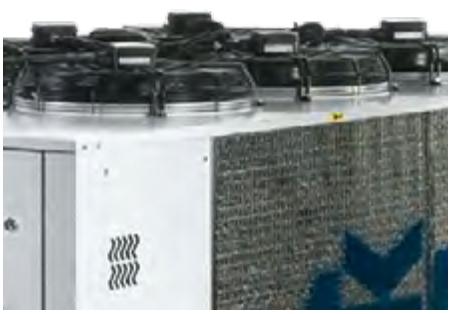
	Annual FC % usability on daily time from 6 AM till 8 PM	
	% of freeccooling with water inlet = 12 °C	% of freeccooling with water inlet = 15 °C
Berlin	**54%**	**68%**
Brussels	**51%**	**69%**
Copenaghen	**61%**	**74%**
Milan	**47%**	**54%**
Oslo	**75%**	**84%**
Stockholm	**63%**	**73%**
Vienna	**50%**	**60%**

Energy saving



Semi-graphic backlit PGD terminal.

Sections featuring complete aeraulic segregation to maximise the use of free-cooling.



Servo-controlled three-way hydraulic valve.

PHOENIX FREE-COOLING

R407C

Air-cooled water chillers with Freecooling system featuring double screw semihermetic compressors.
Cooling capacity 187 - 494 kW.

Benefits

- Maximum exploitation of free cooling and maximum energy efficiency of the system with respect to conventional solutions, thanks to the independence of the coils in terms of air handling;
- Accurate control of water outlet temperature (including at low temperatures - down to -15 °C), thanks to the use of a modulating three-way water valve;
- Generous sizing of coils for free-cooling;
- Version SSF featuring extremely quiet operation;
- Individually tested in a test chamber like all MTA components and products;
- User friendly control section with simple readout and graphic display;
- Simple to install and maintain, asily accessible components.

Main Options

- Compressor housings for acoustic insulation (for C only, standard on other versions);
- Condensing section electronic fan speed regulation;
- Electronic thermostatic valve (special);
- Electrical protection by means of automatic cut-outs;
- Metal mesh protection filters for coils;
- Anti-vibration dampers kit;
- Replicated remote user terminal kit;
- Supervisor kits.

Standard Features

- Twin screw compressors with crankcase heater and oil level control;
- Part winding start for reduced current spikes;
- Compressor suction and discharge valves;
- Shell and tube evaporator;
- Independent refrigeration circuits;
- Axial fans with sickle-shaped blades;
- 3-way modulating water valve for Free-Cooling (managed by microprocessor control) and internal hydraulic connections to the machine;
- Total Free-Cooling from approximately 10 °C below the water outlet temperature;
- Water differential pressure switch on evaporator;
- High and low pressure transducers;
- Electronic expansion valve with external equalisation, refrigerant filter, sight glass, solenoid valve on liquid line;
- Safety valve;
- Microprocessor control with advanced software ensuring optimum control in all conditions;
- Main switch;
- Protection grade IP54;
- SSF fitted silencers, flexible tubing and compressor vibration damping;
- Environmentally friendly refrigerants with R407C zero ozone depletion potential;
- All the units are delivered with a phase monitor which provides protection against phase loss and phase reversal.

Versions

Â C - basic acoustic configuration;
Â SC - low noise acoustic configuration;
Â SF - low noise acoustic configuration for high ambient temperature;
Â SSF - very low noise acoustic configuration;
- **Low ambient air temperature** - down to -15 °C.



	Model PH FC		0801	0901	1101	1251	1401	1602	1702	1802	2002	2202
Free-Cooling OFF	Cooling capacity (1)	kW	187	218	264	306	362	373	395	412	468	494
	Absorbed power (1)	kW	68	79	93	105	119	136	151	165	176	195
	Max external air temperature vers. C (1)	°C	43	43	42	44	44	43	42	40	41	39
	Max external air temperature vers. SF (1)	°C	45	46	46	46	44	43	-	-	-	-
TOTAL Free-Cooling	Cooling capacity (1)	kW	187	218	264	306	362	373	395	412	468	494
	Absorbed power (1)(*)	kW	6	8	8	10	12	12	12	12	14	14
	Total freecooling (1)	°C	-0,2	-1,6	-2,0	-0,6	0,1	-0,2	-0,8	-1,3	-0,6	-1,3
Free-Cooling OFF	Cooling capacity (2)	kW	170	198	239	278	329	339	360	376	425	449
	Absorbed power (2)	kW	65	75	88	101	114	130	144	158	167	185
	Max external air temperature vers. C (2)	°C	45	44	44	45	45	45	43	42	43	41
	Max external air temperature vers. SF (2)	°C	46	47	47	48	45	45	-	-	-	-
TOTAL Free-Cooling	Cooling capacity (2)	kW	170	198	239	278	329	339	360	376	425	449
	Absorbed power (2)(*)	kW	6	8	8	10	12	12	12	12	14	14
	Total freecooling (2)	°C	-2,1	-3,4	-3,7	-2,4	-1,8	-2,1	-2,7	-3,1	-2,4	-3,0
	ESEER	-	3,44	3,72	3,63	3,6	3,98	3,48	3,62	3,65	3,55	3,42

Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50									
Circuit / Compressors	N°	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2
Sound pressure Free-cooling OFF - C (3)	dB(A)	62,0	63,2	62,6	63,6	65,0	65,5	65,6	65,7	66,9	66,9
Sound pressure Free-cooling OFF - SC (3)	dB(A)	55,4	56,3	56,0	57,0	59,0	59,1	59,3	59,4	60,5	60,6
Sound pressure Free-cooling OFF - SF (3)	dB(A)	55,7	56,1	56,3	57,2	59,1	59,2	-	-	-	-
Sound pressure Free-cooling OFF - SSF (3)	dB(A)	49,1	49,5	49,8	50,6	51,0	51,5	-	-	-	-
Depth	mm	3675	4590	4590	5490	6425	6425	6425	6425	7360	7360
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190
Height	mm	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
Installed weight	Kg	2623	3306	3814	4648	5003	5273	5385	6089	6133	6154

Data declared according to UNI EN 14511:2011.

(1) Evaporator water inlet/outlet temperature 15-10 °C, external air temperature 35 °C, glycol water at 30%.

(2) Evaporator water inlet/outlet temperature 12-7 °C, external air temperature 35 °C, glycol water at 30%.

(*) In total Free-cooling mode the absorbed power is only the fans absorbed power.

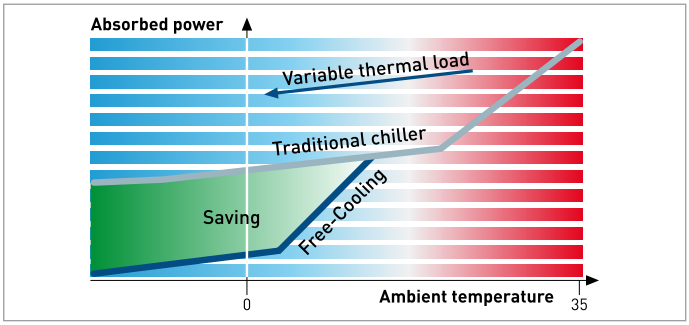
(3) **Sound pressure at 10 m:** average value obtained in free field on a reflective surface at a distance of 10 m from the side of the condenser coils and at a height of 1.6 m from the unit support base. Values with tolerance +/- 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions. The sound pressure level is refered at functioning with Free-cooling Off.

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

Availability of Free-Cooling

	Annual FC % usability on daily time from 6 AM till 8 PM	
	% of freeccoling with water inlet = 12 °C	% of freeccoling with water inlet = 15 °C
Berlin	**54%**	**68%**
Brussels	**51%**	**69%**
Copenaghen	**61%**	**74%**
Milan	**47%**	**54%**
Oslo	**75%**	**84%**
Stockholm	**63%**	**73%**
Vienna	**50%**	**60%**

Energy saving



Semi-graphic backlit PGD terminal.

Sections featuring complete aeraulic segregation to maximise the use of free-cooling.

Servo-controlled three-way hydraulic valve.

AQUAFREE

Add-on Freecooling modules for Aries tech, Galaxy tech and Phoenix plus, transforming the Chiller into an all-in-one modular and expandable Freecooling Chiller. Cooling capacity 242 - 466 kW per single module.

Plug & Play

Connect AquaFree to the chiller (AST, GLT and PNP) and set the software parameters comunications between the units. The chiller÷s xDRIVE microprocessor will control the chiller / free-cooler combination as a single unit. In case of AQUAfree connection to a chiller previously installed check before the software compability. The AQUAfree / chiller piping kit is available on request.

Energy Efficient

AquaFree can easily obtain savings of 30% or more, offering efficiency levels well beyond the industry norm. The modular design permits additional AquaFree modules to be added, allowing efficiencies to be further increased and tailored to individual applications.

Super Silent

Choose between 2 noise levels, both extremely quiet, with an electronic fan speed control option to further reduce part load noise levels. Especially during night time, when temperatures drop and freecooling becomes more active, AquaFree÷s low noise becomes a notable asset.

Indipendent

Each module features its own electrical connection and 3-way valve, as well as its own electrical panel and microprocessor with independent alarms and water in/out and ambient temperature visualization: consequently each module can operate completely autonomously.

Glycol Free Kit

The glycol free kit is available on request and is ideal in applications requiring an absence of glycol, such as food industries. The glycol free kit, which features its own intermediate exchanger and hydraulic circuit, is simply installed between the chiller and the AquaFree modules.

Peace Of Mind

Each AquaFree module features its own microprocessor, allowing it to operate independently. If one module suffers a fault the others can still operate, if the chiller suffers a fault the modules can continue to operate. AquaFree can operate at ambient temperatures of -15 °C to +46 °C. Each AquaFree module features independent aeraulic sections featuring axial fans with progressive activation (continuos control on request).

Versatile

As AquaFree modules are independent, so system transportation is simplified. AquaFree can be positioned separately if space needs dictate it. It is also possible to install AquaFree, or add additional modules, at a later date. Each AquaFree module features its own remote on/off control.

Models & Versions

[3] Acoustic versions:
- **N** - basic acoustic configuration;
- **SN** - low noise acoustic configuration;

[3] Modules:
- AFW100 (for connection to AST 090-140);
- AFV200 (for connection to GLT/PNP);
- AFV300 (for connection to GLT/PNP);

[3] **Low ambient air temperature** - down to -20 °C.

Accessories

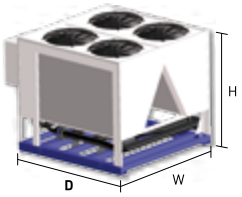
[3] Freecooling coils with anticorrosion treatment;
[3] Lateral hydraulic connections (AFW100);
[3] Metal mesh filters for freecooling coils;
[3] Electronic fan speed control;
[3] Antivibration dampers;
[3] On request Chiller-AquaFree interconnection kit (tubing to be supplied by installer);
[3] On request (special) add-on Glycol-free kit;
[3] Replicated remote user terminal;
[3] Victaulic connections.



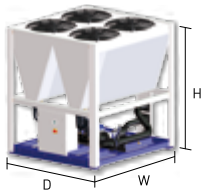
Technical data		AFW100	AFV200	AFV300
Applicable chiller		**AST 090-140**	**GLT & PNP**	**GLT & PNP**
Cooling capacity (N)	kW	310	310	466
Cooling capacity (SN)	kW	242	242	363
Absorbed power (N)	kW	8	8	12
Absorbed power (SN)	kW	7,8	7,8	11,7
Water flow (N)	m³/h	58,3	58,3	87,4
Water flow (SN)	m³/h	45,4	45,4	68,1
Pressure drop (N)	kPa	77	77	86
Pressure drop (SN)	kPa	47	47	52
No. of Coils / Fans	-	4	4	6
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50		
Sound pressure level (N)	dB(A)	61,0	61,0	62,8
Sound pressure level (SN)	dB(A)	54,0	54,0	55,8
Depth (D)	mm	2.100	2.100	3.100
Width (W)	mm	2.188	2.190	2.190
Height (H)	mm	1.989	2.360	2.360
Installed weight	kg	1.071	1.260	1.835

Water inlet-outlet 15-10 °C, external air temperature 0 °C, 30% ethylene glycol.
Sound pressure level in hemispherical field at 10m from coil side, 1.6 m from ground, full load operation at nominal conditions, tollerance ± 2 dB.

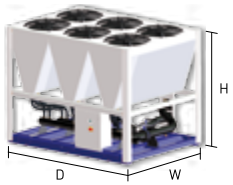
AFW100



AFV200



AFV300



AFV200 & AFV300 can be mounted directly to the back of the chiller, AFW100 requires a small service area between itself and the chiller.

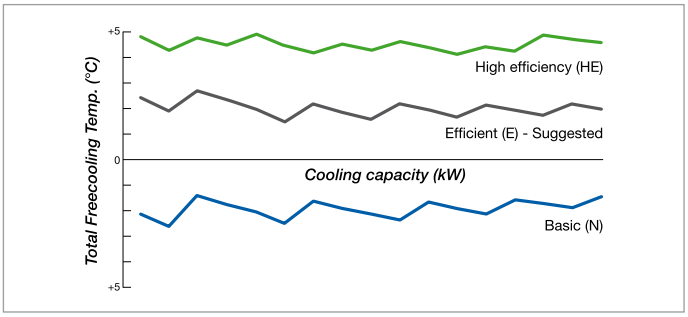
Tailor made Free-Cooling

AquaFree allows the user to define the desired efficiency, simply combining multiple modules to achieve the optimum freecooling level. Any combination of AFV200 and AFV300 modules allows the freecooling section to be increased one °V× coil at a time from a minimum of two coils upwards.

As an example, a GLT150N chiller, operating at water 15/10 °C with 30% glycol and a single AFV300 module (Basic °N× configuration), achieves a TFT (total freecooling temperature), the temperature at which the unit achieves 100% freecooling) of -0,2 °C).
Alternatively, the application of two AFV200 modules (Efficient °E× configuration) achieves a TFT of +3,1 °C. By applying an AFV300 module and an AFV200 module (High efficiency °HE× configuration), a TFT of +5,0 °C can be achieved.

Select your efficiency

The size and number of AquaFree modules applied allows the efficiency level to be progressively increased from Basic (N) to Efficient (E) and even High efficiency (HE) levels.



The integral microprocessor allows AquaFree to operate independently.

Each AquaFree module features its own independent electrical panel.

The 3-way valve, installed on-board as standard, optimises the freecooling level.

OCEAN TECH

R410A

Water-cooled water chillers, heat pumps and condenserless units featuring rotary or hermetic scroll compressors. Cooling capacity 4 - 193 kW. Heating capacity 5 - 205 kW.

Benefits

- Lowest noise levels (down to 30 dB(A)) for installation in residential surroundings;
- High EER/COP levels, especially at partial loads;
- 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;
- Self Adapting Control (SAC) with dynamic set point, for incrased precision with low thermal inertias;
- 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.

Main Options

- Storage and pump module with a geometrical configuration allowing the two units to be mounted together;
- High and low head pressure pumps;
- Noise reducing compressor housing;
- Condensing pressure control valve;
- Antivibration dampers;
- Soft starter;
- Remote user interface;
- RS485 MODBUS interface for connection to supervisor systems;
- xWEB300D remote supervision, allowing local or remote monitoring via a web server or a GPRS;
- Matching cooling towers or dry coolers available on request.

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 (OCT/HOCT);
- IP22 electric protection rating;
- Extensive inspections and tests performed on all units (as per all MTA products);
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- Compressor crankcase heater;
- Phase monitor against phase reversal.

Versions

- **OCT** - Cooling only;
- **HOCT** - Reversible heat pump with inversion on the refrigerant side;
- **MEOCT** - Condenserless unit with in/out shut-off valves designed for use with a remote condenser.



	Model OCT - HOCT - MEOCT		018	022	030	040	050	070	100	130	150	200	230	280	350	400	500	600
	Tower water																	
OCT	Cooling capacity (1)	kW	4,46	5,80	7,72	11,0	15,6	23,7	32,4	41,9	48,4	65,6	73,7	88,2	111	127	164	193
OCT	Total absorbed power (1)	kW	1,28	1,61	2,17	2,74	3,85	5,84	7,59	9,47	11,1	14,8	16,9	20,7	25,1	28,9	38,1	44,4
OCT	ESEER	-	3,76	3,77	3,67	4,45	4,39	4,31	4,56	4,71	4,63	5,46	5,40	5,34	5,61	5,52	5,31	5,38
	Well water																	
OCT	Cooling capacity (2)	kW	4,76	6,16	8,24	11,8	16,7	25,2	34,5	44,4	51,8	69,9	78,3	94,0	119	136	174	205
OCT	Total absorbed power (2)	kW	1,06	1,37	1,87	2,26	3,26	4,99	6,50	8,13	9,58	12,7	14,5	17,8	21,4	24,7	32,9	38,4
HOCT	Cooling capacity (1)	kW	4,42	5,70	7,62	10,8	15,4	23,4	31,9	41,4	47,3	64,5	72,6	86,8	109	126	162	190
HOCT	Heating capacity (3)	kW	4,87	6,23	8,32	11,8	16,8	25,3	34,3	44,6	50,4	69,2	78,1	93,1	118	137	176	205
HOCT	Total absorbed power (3)	kW	1,46	1,81	2,43	3,44	4,61	6,82	8,88	11,2	12,7	17,6	20,3	24,1	30,6	35,7	45,9	53,3
	Condenserless unit																	
MEOCT	Cooling capacity (4)	kW	4,23	5,50	7,35	10,4	14,8	22,5	30,8	39,7	45,8	62,0	69,7	83,7	105	121	156	183
MEOCT	Total absorbed power (4)	kW	1,29	1,62	2,16	2,93	4,07	6,06	7,93	10,1	11,6	15,8	18,0	21,6	26,9	31,0	40,3	47,1

Power supply	V/Ph/Hz	230±10%/1/50				400 ± 10% / 3-PE / 50											
Circuits / Compressors	N°	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Sound power (5)	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 (6)	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	49	53	59	67	120	158	180	204	216	399	430	486	548	617	691	725

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode (tower water):** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 30/35 °C.

(2) **Cooling mode (well water):** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 15/30 °C.

(3) **Heating mode (terminal units):** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 40/45 °C.

(4) **Cooling mode (condenserless units):** evaporator IN/OUT: 12/7 °C; condensing temperature 45 °C.

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

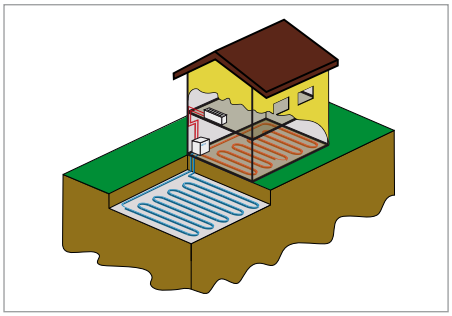
(6) **Sound pressure at 10 m:** average value obtained in free field on a reflective surface at a distance of 10 m from the external side of the electrical panel of machine and at a height of 1,6 m from the unit support base. Values with tollerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.

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

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW
- N.A. on ME

Suitable for operation within geothermal applications.



Separate storage and pump module with two pump versions.

Allows installation in even the most limited spaces.

NEPTUNE TECH

R410A

Water-cooled water chillers, heat pumps and condenserless units featuring hermetic scroll compressors.
Cooling capacity 237 - 560 kW. Heating capacity 278 - 657 kW. Cooling capacity evaporating units 224 - 527 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 domestic door;
- Operates with water outlet temperatures from 0 °C to 25 °C;
- Unloading function allowing operation even in extreme conditions;
- Self Adapting Control (SAC) with dynamic set point, for increased precision with low thermal inertias;
- Robust design with high quality components from renowned suppliers, fruit of MTA÷s industrial background;
- Eurovent certified performance;
- 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.

Main Options

- Noise reducing compressor housing;
- Modulating condensing pressure control valves;
- Antivibration dampers;
- Soft starter;
- Desuperheater (20% heat recovery);
- Total heat recovery (100% heat recovery only chiller);
- Shell & tube evaporator (on request);
- Antifreeze heater for exchangers;
- Remote user interface;
- RS485 MODBUS interface for connection to supervisor systems;
- xWEB300D remote supervision, allowing local or remote monitoring via web server or GPRS;
- Matching cooling towers or dry coolers available on request;
- Remote condensers for integration with ME units available on request.

Standard Features

- 3 to 6 hermetic scroll compressors, positioned in parallel in one or two circuits;
- Brazed stainless steel plate evaporators and condensers;
- Shut-off valve and solenoid valve on the liquid line;
- Extensive inspections and tests performed on all units;
- Factory charged with non-freezing oil and refrigerant (except ME);
- IP54 electrical protection rating;
- Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- 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.

Versions

- **NET** - Cooling only / Heat pump (with inversion on the water side);
- **NET Silent** - Low noise;
- **NET / ME** - Condenserless unit combinable with remote condenser.



	Model NET - NET/ME		075	090	100	110	120	135	150	165	180
	Tower water										
NET	Cooling capacity (1)	kW	237	280	313	338	373	420	469	517	560
NET	Total absorbed power (1)	kW	56	65	75	82	88	101	114	121	131
NET	ESEER	-	5,35	5,43	5,22	5,21	5,36	5,32	5,36	5,49	5,54
	Well water										
NET	Cooling capacity (2)	kW	251	297	332	360	396	446	498	551	598
NET	Total absorbed power (2)	kW	48	57	65	72	75	87	98	104	111
Heat Pump	Heating capacity (3)	kW	278	328	370	400	437	495	555	607	657
Heat Pump	Total absorbed power (3)	kW	68	79	91	99	105	121	136	146	156
	Condenserless unit										
/ME	Cooling capacity (4)	kW	224	264	297	324	352	398	445	487	527
/ME	Total absorbed power (4)	kW	60	70	80	87	94	107	121	131	141

Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50								
Circuits / Compressors	N°	1/3	1/3	2/4	2/4	2/4	2/5	2/6	2/6	2/6
Sound power - basic (5)	dB(A)	86,1	87,8	87,3	88,3	89	89,1	89,1	90	90,8
Sound power - silent (5)	dB(A)	79,1	80,8	80,4	81,3	82	82,1	82,1	83	83,8
Sound pressure - basic (6)	dB(A)	58,1	59,8	59,3	60,3	61,0	61,1	61,1	62,0	62,8
Sound pressure - silent (6)	dB(A)	51,1	52,8	52,4	53,3	54,0	54,1	54,1	55,0	55,8
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	993	1161	1332	1440	1549	1729	1867	2061	2211

Data declared according to UNI EN 14511:2011.

(1) **Cooling mode (tower water):** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 30/35 °C.
(2) **Cooling mode (well water):** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 15/30 °C.
(3) **Heating mode (terminal units):** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 40/45 °C.
(4) **Cooling mode (condenserless units):** evaporator IN/OUT: 12/7 °C; condensing temperature 45 °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 longer 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 chillers with no options fitted.

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW
- N.A. on ME

Microprocessor controller with dual icon-based display.

Optimised performance thanks to multiscroll logic.

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

AQUARIUS PLUS 2

R134a

High efficiency water cooled chillers, heat pumps and evaporating units with screw compressors and R134a refrigerant gas. Cooling capacity 380 - 1549 kW. Heating capacity 427 - 1740 kW.
Cooling capacity evaporating units 350 - 1434 kW.

COOLING ONLY

HEAT PUMPS

ME

CONDENSERLESS

LWT

LOW WATER TEMPERATURE

Benefits

- 20 base models that perfectly match each specific system requirements;
- High energy efficiency both at full load and at partial load (Eurovent A Class);
- Stepless cooling capacity regulation with self-adaptive control;
- High precision and adaptability in cooling capacity regulation;
- Compressors minimum partialization step 25%;
- Heat exchangers with low water side pressure drops in order to save pumping costs;
- Low sound levels, thanks also to the availability of two different acoustic versions;
- Easy access to all components;
- Fully bundled heat recovery solutions;
- Condenser outlet water temperature up to 60 °C.

Main Options

- Partial or total heat recovery;
- Compressors acoustical enclosure (super silent acoustic configuration);
- Shut-off valves on suction line;
- Soft starter device available as factory fitted option allows a reduction in start-up current;
- 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;
- Anti-vibration dampers kit;
- Remote control with LCD display VGIP;
- xWEB300D supervisor kit;
- Cooling tower or dry cooler available on request;
- Remote condenser available on request for condenserless version (ME).

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.

Versions

- **CH** - Cooling only version;
- **HP** - Heat pump with hydraulic system reversing and outlet water temperature up to 60 °C;
- **ME** - Condenserless version;
- **LWT** - Low Water Temperature (down to -8 °C);

Acoustic Configurations

- **Basic acoustic configuration:** compressors directly accessible;
- **Super silent acoustic configuration:** optimised for very low noise operation: compressors are housed in a metal compartment insulated with a sound absorbing layer of open-cell expanded polyurethane and a sheet of sound deadening material (noise reduction -6 db(A) in comparison with basic).



Model AQP2		1401	1601	1801	2001	2301	2601	3001	3301	2802	3202	3402	3602	4002	4302	4602	4902	5202	5602	6002	6602
CH - Cooling mode (1)																					
Cooling capacity	kW	380	422	482	531	594	654	714	768	753	848	907	967	1061	1121	1195	1256	1305	1373	1440	1549
Total absorbed power	kW	74	82	94	103	115	126	137	147	147	163	175	188	204	215	229	240	250	263	275	296
EER	-	5,12	5,15	5,13	5,17	5,17	5,20	5,20	5,23	5,12	5,21	5,18	5,15	5,21	5,21	5,22	5,24	5,21	5,21	5,24	5,23
Energy efficiency class	-	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
ESEER	-	5,84	5,84	5,89	5,89	5,89	5,96	5,99	6,04	5,98	5,98	5,97	5,97	5,99	6,05	6,01	6,05	6,05	5,99	6,04	6,00
HP - Heating mode (2)																					
Heating capacity	kW	427	473	540	593	665	732	799	858	852	953	1019	1089	1188	1255	1337	1407	1466	1540	1618	1740
Total absorbed power	kW	88	97	111	121	136	149	163	174	175	193	208	223	242	256	272	285	298	312	326	351
COP	-	4,85	4,88	4,85	4,89	4,89	4,91	4,91	4,92	4,87	4,93	4,90	4,89	4,91	4,91	4,92	4,94	4,93	4,93	4,96	4,96
Energy efficiency class	-	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Heat recovery																					
(D) Partial recovery heating capacity (3)	kW	21	22	23	24	32	33	34	43	42	44	45	47	47	56	64	66	67	68	69	86
(R) Total recovery heating capacity (4)	kW	427	473	540	593	665	732	799	858	852	953	1019	1089	1188	1255	1337	1407	1466	1540	1618	1740
ME - Condenserless version (5)																					
Cooling capacity	kW	350	387	443	488	545	602	656	706	700	783	838	896	978	1032	1100	1159	1207	1267	1332	1434
Total absorbed power	kW	82	91	104	114	128	140	153	164	164	182	195	209	227	240	255	267	280	294	307	330
EER	-	4,26	4,24	4,26	4,29	4,26	4,30	4,29	4,31	4,27	4,30	4,29	4,29	4,31	4,29	4,31	4,33	4,32	4,31	4,34	4,34
Power supply (6)																					
Power	V/Ph/Hz	400 ± 10% / 3 - PE / 50																			
Compressor																					
Type	-	Screw																			
Compressors / Cooling circuits	n°	1 / 1								2 / 2											
Cooling capacity regulation	-	Stepless																			
Capacity control	-	25 ÷ 100								12,5 ÷ 100											
Refrigerant	-	R134a																			
Sound levels (7)																					
Basic configuration	dB(A)	95	96	97	97	97	97	98	98	98	98	99	99	99	99	99	100	100	100	101	101
Super silent configuration	dB(A)	90	91	91	92	92	92	92	92	93	93	93	93	93	94	94	94	94	95	95	95
Dimensions and weights (8)																					
Width (W)	mm	1460	1460	1460	1485	1485	1460	1460	1460	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390
Depth (D)	mm	4344	4344	4326	4326	4326	4326	4335	4335	4920	4920	4920	4920	4920	4920	4920	4920	4920	4970	4970	4970
Height (H)	mm	1640	1645	1725	1725	1645	1770	1770	1770	2132	2132	2165	2165	2278	2278	2278	2278	2278	2278	2278	2278
Weight	kg	1993	2137	2472	2513	2554	2791	2936	2987	3873	4153	4465	4769	5090	5124	5160	5232	5305	5490	5634	5737
Dimensions and weights (9)																					
Width (W)	mm	1460	1460	1460	1485	1485	1460	1460	1460	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390
Depth (D)	mm	3924	3876	3867	3867	3867	3836	4111	4032	4966	4966	4979	4979	4982	4982	4982	4982	4982	5030	5030	5032
Height (H)	mm	1635	1640	1640	1640	1640	1765	1814	1814	1985	1985	1985	1985	2098	2098	2098	2098	2098	2098	2098	2098
Weight	kg	1913	2090	2374	2388	2402	2720	2822	2815	3765	3879	4193	4498	4954	4966	4982	5032	5072	5191	5401	5562

Data declared according to UNI EN 14511:2011.

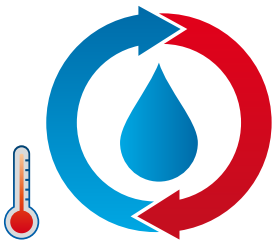
(1) **Cooling mode:** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 30/35 °C;
(2) **Heating mode:** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 40/45 °C;
(3) **Partial heat recovery:** evaporator IN/OUT: 12/7 °C; condenser IN/OUT: 30/35 °C; desuperheater IN/OUT: 40/45 °C;
(4) **Total heat recovery:** evaporator IN/OUT: 12/7 °C; heat recovery IN/OUT: 40/45°C;
(5) **Condenserless version:** evaporator IN/OUT: 12/7 °C; condensing temperature: 45 °C;
(6) **IP54** protection class;
(7) **Sound power:** determined on the basis of measurements taken in accordance with the standard ISO 3744; the sound levels refer to operation of the unit under full load in nominal conditions;
(8) Dimensions and weights are referred to AQP2, without options and water content.
(9) Dimensions and weights are referred to AQP2/ME, in the basic configuration, without options and with water content.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

MTA partecipates in the E.C.C. programme for LCP-HP. Certified products are listed on www.eurovent-certification.com. Eurovent Certification applied to the units:
- Air/Water with cooling capacity up to 600 kW
- Water/Water up to 1500 kW
- N.A. on ME

xDRIVE microprocessor controller.

Integrated heat recovery.



High energy efficiency.

EURUS Fancoils exposed or concealed version

Centrifugal fan coils for surface mounting or recessed installation.
Cooling capacity 0,6 - 7,6 kW and heating capacity 0,7 - 9 kW. Air flow 105 - 1500 m³/h.

Benefits

- Very quiet operation;
- Reduced dimensions;
- Different configurations for all types of installations;
- Wide range of accessories;
- Simplest installation, maintenance and with easily accessible internal parts;
- Reduced maintenance requirements;
- Also available in 4-pipe configurations for operation with hot and cold water;
- Extremely low power consumptions.

Main Options

- Additional coils (with 1 or 2 rows) for 4-pipes installations;
- On/off control valves with 2 or 3 ways;
- Condensate collection tray;
- Feet floor mounting for version M;
- Rear covering panel (for installation against glazed walls);
- Base covering panel;
- Front intake grille for version M;
- Condensate drain hose with quick coupling for version C-E;
- Fancoil version (line EURUS-I) equipped with brushless and sensorless synchronous electronic motor managed by an inverter board.

Control

- Wide selection of controllers, all featuring speed and temperature control, available with or without digital display, for installation on the unit or for separate wall-mounting, and with numerous control facilities depending on the requirements and the options installed on the unit;
- Wireless remote control for complete installation flexibility, with a wireless temperature sensor;
- Infrared microprocessor to control multiple units connected in series;
- Device for control via PC.

Standard Features

- Rugged steel cabinet; galvanized and pre-painted to ensure durable re - sistance over time, white color RAL 9003;
- Air filter on all models;
- Centrifugal fan with double air inlet, offering low noise operation with limited power consumptions;
- Single phase eletric motor with six speeds (three speeds MIN, MED and MAX connected in the factory);
- Plastic air grid made by ABS with light gray color;
- Exchanger coil with copper tubes and aluminium fins.

Versions

Sizes
- Available in 9 sizes to cover all performance requirements for all needs.

Configurations
- Version with casing (model M) for ceiling, wall, or floor-mounting installation;
- Version with compact casing (model C) with front air intake grid and without feet, for ceiling, wall or floor-mounting installation;
- Recessed version (model E) for vertical or horizontal installation.

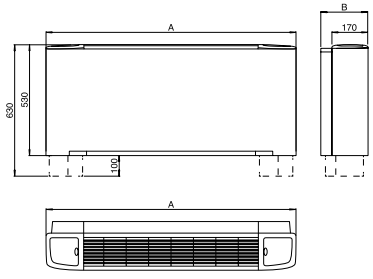
Coil modes
- With single 3-row coil;
- With single 4-row coil;
- With additional coils with 1 row (for 4 pipes and 3 or 4 coil rows) or 2 rows (for 4 pipes and 3 coil rows).



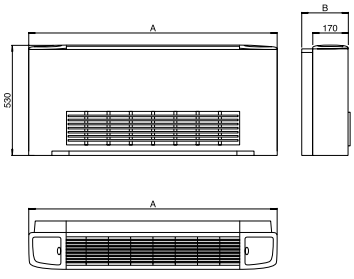
Fancoil models 2 pipes and 3 rows coil			130	230	330	430	530	630	730	830	930
Air flow	max	m³/h	220	295	385	485	650	760	925	1200	1500
	med.	m³/h	175	220	270	335	495	590	735	1020	1210
	min.	m³/h	105	145	235	265	315	415	535	655	830
Total cooling capacity	max	W	1030	1560	2390	2870	3640	4090	5110	5820	6740
	med.	W	860	1250	1780	2140	2940	3370	4290	5190	5870
	min.	W	590	910	1570	1730	2030	2540	3340	3740	4470
Sensible cooling capacity	max	W	860	1240	1800	2190	2820	3200	3950	4680	5550
	med.	W	710	970	1320	1600	2230	2590	3270	4120	4730
	min.	W	470	690	1115	1280	1510	1910	2500	2880	3490
(Cooling mode) Pressure drop	max	kPa	2,3	6,5	19,7	27,2	16,2	19,8	34,2	19	24,6
	med.	kPa	1,7	4,4	11,8	16,2	11,1	14,1	25,1	15,5	19,3
	min.	kPa	0,9	2,5	9,4	11,2	5,8	8,6	16,2	8,7	11,9
Heating capacity	max	W	1390	2020	2920	3560	4500	5090	6270	7660	9060
	med.	W	1150	1590	2150	2610	3590	4130	5190	6740	7720
	min.	W	760	1120	1870	2090	2420	3070	4010	4800	5710
(Heating mode) Pressure drop	max	kPa	2	5,5	16,7	23,1	13,8	16,8	29,1	16,2	20,9
	med.	kPa	1,4	3,7	10	13,8	9,4	12	21,3	13,2	16,4
	min.	kPa	0,8	2,1	8	9,5	4,9	7,3	13,8	7,4	10,1
Sound power level	max	dB(A)	45	47	49	47	48	52	56	60	64
	med.	dB(A)	39	40	40	39	41	46	51	56	58
	min.	dB(A)	32	30	36	33	31	37	42	45	50
Sound pressure level (*)	max	dB(A)	36	37	40	38	39	43	47	51	55
	med.	dB(A)	30	31	31	30	32	37	42	47	49
	min.	dB(A)	23	21	27	24	22	28	33	36	41
Dimensions	A	mm	675	775	990	990	1205	1205	1420	1420	1420
	B	mm	225	225	225	225	225	225	225	255	255
	D	mm	374	474	689	689	904	904	1119	1119	1119
	E	mm	330	430	645	645	860	860	1075	1075	1075
	F	mm	354	454	669	669	884	884	1099	1099	1099
Weight (**)	mod. M / C	kg	13	14	18	19	21	22	26	35	36
	mod. E	kg	9	13	18	19	21	22	25	33	33

Total cooling capacity at the following conditions: water inlet-outlet temperature 7-12 °C. Air temperature 19 °C (wb) / 27 °C (db).
Heating capacity at the following conditions: water inlet temperature 50 °C. Air temperature 20 °C.
(*): sound pressure levels are 9 dB(A) lower than sound power level for a 100 m³ room with a reverberation time of 0,5 sec.
(**): for models with 3-row coils.

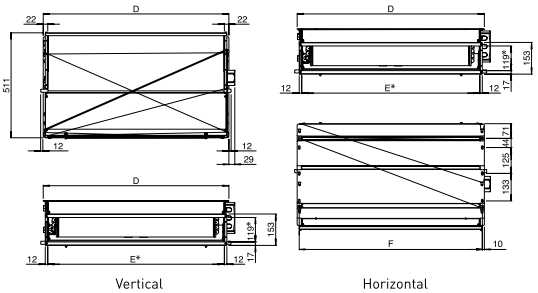
M Version



C Version



E Version



Controller installed on the unit and accessible via a flap (optional).

Digital controller allowing remote mounting on a wall (optional).

Management and controll with microprocessor and infrared controller (optional).

EURUS CA Cassette fancoils

Cassette with radial fan.
Cooling capacity 1,3 - 11 kW and heating capacity 1,6 - 14 kW. Air flow 310 - 1820 m³/h.

Benefits

- Possibility to mix external air with air temperature;
- Very quiet operation;
- Wide range of accessories;
- Simplest installation and maintenance;
- Extremely low power consumptions;
- Innovative and prestigious design.

Main Options

- Additional coils for 4-pipes installations;
- On/off control valves with 2 or 3 ways;
- Fresh air connection;
- Unit with remote control board;
- Eletric low energy motor consumption controlled by an inverter board (line EURUS-CA-I).

Control

- Wide selection of remote controllers, all featuring speed and temperature control, available with or without digital display, for wall-mounting installation;
- Wireless remote control for complete installation flexibility, with a wireless temperature sensor;
- Infrared microprocessor to control multiple units connected in series;
- Device for control via PC.

Standard Features

- Rugged steel cabinet, with insulating cells closed from 10 mm, to ensure durable resistance over time;
- Air filter on all models;
- Condensate pump;
- Radial type fan;
- Generous choice of 6 alternative fan speeds (three speeds MIN, MED and MAX connected in the factory);
- Intake grid and adjustable air distribution made by ABS white RAL 9003;
- Exchanger coil with copper tubes and aluminium fins.

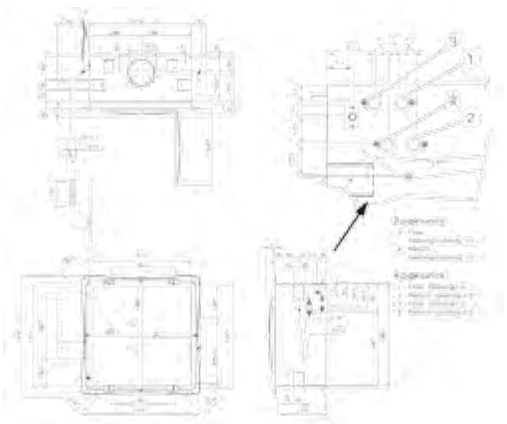
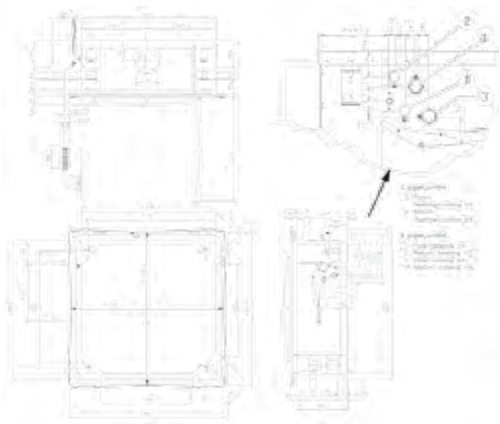
Versions

- 7 models with one heat exchanger (2 pipe units), 11 models with two heat exchangers (4 pipe units), either with control panel or remote infra-red control.



2 Pipes Cassette Models			EU-CA02	EU-CA12	EU-CA22	EU-CA32	EU-CA42	EU-CA52	EU-CA62
Air flow	max	m^3/h	610	520	710	880	1140	1500	1820
	med.	m^3/h	420	420	500	610	820	970	1280
	min.	m^3/h	310	310	320	430	630	710	710
Total cooling capacity	max	W	1980	2680	4330	5020	6160	9510	11100
	med.	W	1630	2340	3340	3880	4910	6780	8450
	min.	W	1270	1840	2250	2940	4210	5310	5310
Sensible cooling capacity	max	W	1640	2040	3180	3740	4590	6480	8250
	med.	W	1320	1750	2390	2810	3580	4480	6090
	min.	W	1010	1350	1570	2080	3030	3460	3710
(Cooling mode) Pressure drop	max	kPa	10,0	9,7	15,1	19,7	21,6	26,9	35,6
	med.	kPa	7,0	7,6	9,4	12,4	14,3	14,7	21,8
	min.	kPa	4,5	4,9	4,6	7,5	10,9	9,4	9,4
Heating capacity	max	W	2640	3350	5230	6170	7770	10710	14000
	med.	W	2120	2900	3930	4630	6030	7340	10300
	min.	W	1620	2220	2560	3430	5120	5610	6130
(Heating mode) Pressure drop	max	kPa	9,0	8,2	11,4	17,7	15,1	23	30,6
	med.	kPa	6,0	6,3	7,3	11,2	9,9	12,4	18,6
	min.	kPa	4,0	4,1	3,5	6,7	6,7	7,9	7,9
Sound power level	max	dB(A)	49	45	53	59	48	53	58
	med.	dB(A)	40	40	45	49	40	40	48
	min.	dB(A)	33	33	33	41	33	34	34
Sound pressure level (*)	max	dB(A)	40	36	44	50	39	44	49
	med.	dB(A)	31	31	36	40	31	31	39
	min.	dB(A)	24	24	24	32	24	25	25
Dimensions	A	mm	575	575	575	575	820	820	820
	B	mm	575	575	575	575	820	820	820
	H	mm	275	275	275	275	303	303	303

Total cooling capacity at the following conditions: water inlet-outlet temperature 7-12 °C. Air temperature 19 °C (wb) / 27 °C (db).
Heating capacity at the following conditions: water inlet temperature 50 °C. Air temperature 20 °C.
(*): sound pressure levels are 9 dB(A) lower than sound power level for a 100 m^3 room with a reverberation time of 0,5 sec.

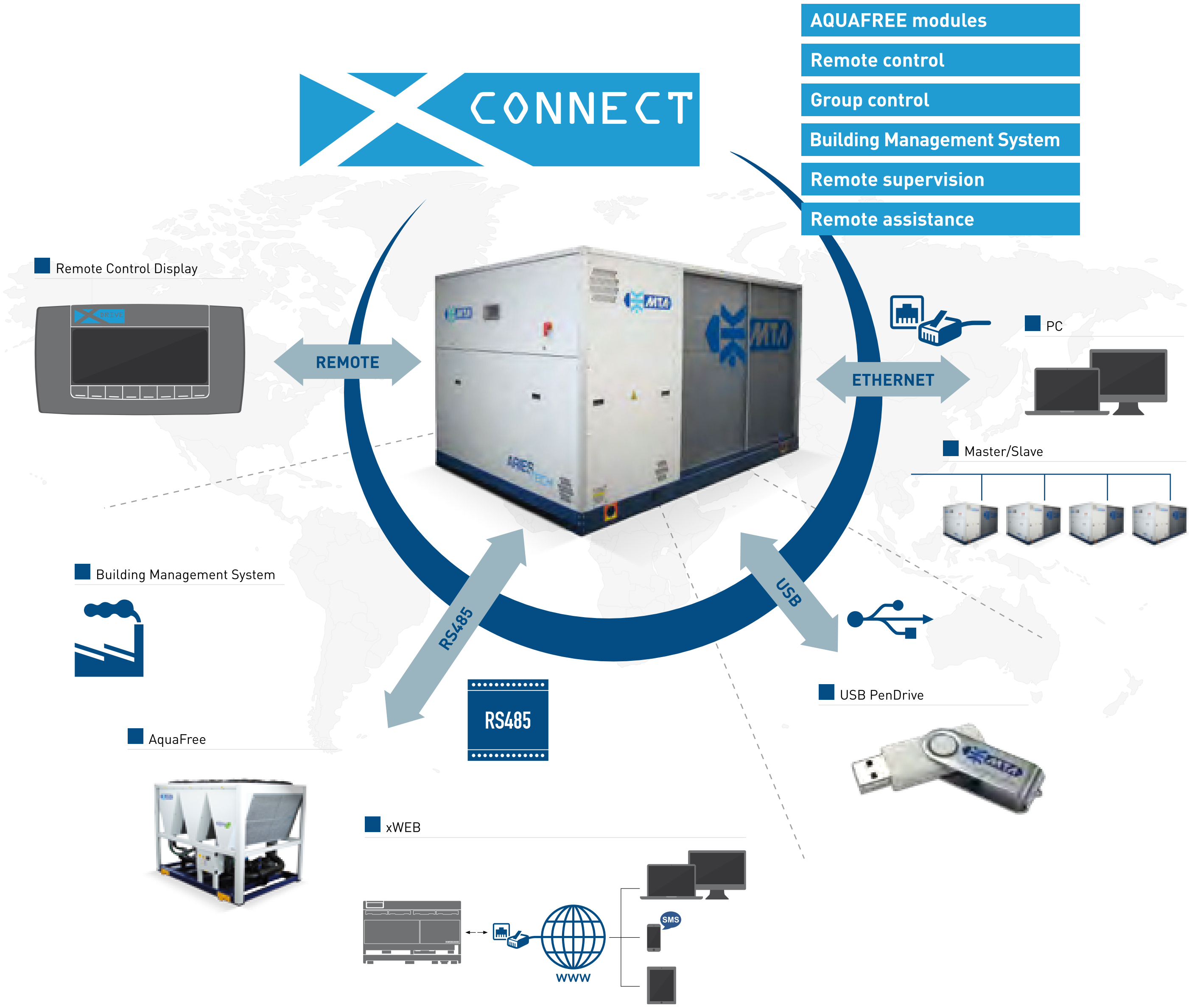
Electonic control (optional).

Digital controller allowing remote mounting on a wall (optional).

Management and controll with microprocessor and infrared controller (optional).



CONNECTIVITY



CLICK AND CHECK

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

BMS connection allows MTA units the most advanced systems 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 **preprogrammed 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.

xWEB function represents one of the most advanced supervision systems currently available, and integrates the latest internet applications.

The server reads, files and manages all information arriving from the units to which it is connected. The following functions are offered in Web page format, either locally or remotely, even **via GPRS**.

- Dynamic multiparameter visualization, either graphically or numerically, of all analogue data, the outputs status and the alarm status;
- Remote modification of the operating parameters;
- Graphic scheduling for command functions;
- System personalization, including alarm messaging rules;
- Alarm reset procedures and alarm history filing by remote display;
- Alarm message transmission via fax, sms and e-mail (only for xWEB with built in GPRS modem).

Features offered depend upon unit type and xCONNECT configuration utilised.

THE COMPLETE MTA PRODUCT PROGRAMME

CHILLERS FOR INDUSTRIAL APPLICATIONS

TAEevo TECH
Air and water-cooled chillers, heat pumps and laser chillers. Nominal cooling capacity from 7 to 166 kW.

TAEevo LASER
Air-cooled chillers for laser systems. Cooling capacity: from 19 to 90 kW.

RWD
Air-blast water coolers. Nominal cooling power from 10 to 372 kW.

ANCILLARY EQUIPMENT

Remote condensers to be combined with MTA chillers.

Beyond RWD, MTA offers an extensive range of water cooling solutions.

Evaporative cooling towers to be combined with MTA water-cooled chillers.

Add-on hydraulic modules including tank and single or twin pumps.

External liquid storage tanks for integration within the system hydraulic circuit.

Auxiliary intermediate heat exchangers for specific application needs.

ENERDRYER: THE BIOGAS DRYER

A packaged plug & play solution, for the dessication of Biogas. EnerDryer is supplied on a compact galvanized steel frame, requiring no additional installation or programming. The stainless steel gas side features a gas/gas economizer, water/gas exchanger and separation/condensate discharge system. The cooling water circuit features a pump and storage tank. MTA offers complete design flexibility, including solutions with integrated blowers (biogas 50 - 4700 m³/h).

COMPRESSED AIR DRYERS

Refrigeration dryers:

DE iTECH New energy saving system Impulse Technology (air flow 18-1620 m³/h).

ETM Refrigeration cycling dryers with energy saving liquid thermal mass technology (air flow 1920-13500 m³/h).

DN Up to 4 scroll compressors for high energy savings (air flow 13500-45600 m³/h).

BD High capacity dryers for all personal needs (air flow 17400-32400 m³/h).

HD Hot gas dryers (air flow 1530-7302 m³/h).

Adsorption dryers:

NC Compact aluminium heatless dryers (air flow 7-118 m³/h).

NE Heatless dryers featuring unique energy saving microprocessor (air flow 240-1500 m³/h).

NH Heat regenerated blower purge dryers for reduced purge air energy losses (air flow 600-10000 m³/h).

NHT Heat regenerated dryers (air flow 116-8903 m³/h).

COMPRESSED AIR COMPONENTS

Filters and separators for the removal of condensate, oil and impurities from compressed air.

Air and water-cooled aftercoolers for air and gas treatment, with a complete choice of applied materials and including high pressure versions.

Electronic zero-loss, mechanical zero-loss and timed drains, including high pressure versions.

Oil-water separators for simple and economic condensate disposal.

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
Nº 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.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

MTA participates in the E.C.C. programme for LCP-H P Certified products are listed on: www.eurovent-certification.com

EAC certification

MTA®

Cooling, conditioning, purifying.