



AIR CONDITIONING
SYSTEMS

PRODUCT GUIDE

Air Conditioning



Cooling, conditioning, purifying.

*Conditioning your ambient,
maximising your comfort.*

PRODUCT SELECTION

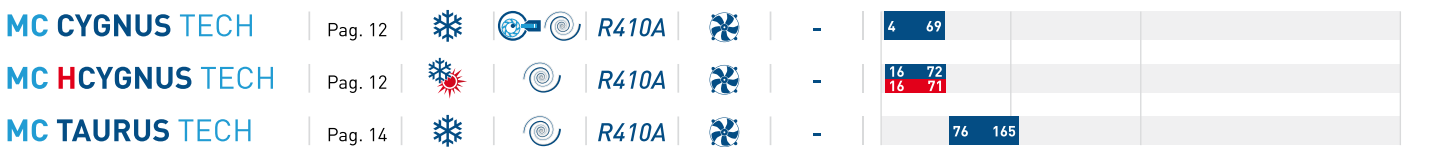
AIR-COOLED WATER CHILLERS



AIR/WATER HEAT PUMPS



CONDENSING UNITS



AIR-COOLED WATER CHILLERS WITH INTEGRATED FREE-COOLING



LEGEND

Mode

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

Fans

- Axial
- Centrifugal

Compressors

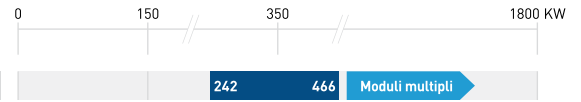
- Rotary
- Scroll
- Screw
- DC Inverter Rotary
- DC Inverter Scroll

Heat Exchangers

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

ADD-ON FREECOOLING MODULES

AQUAFREE | Pag. 26 | | - | - | |

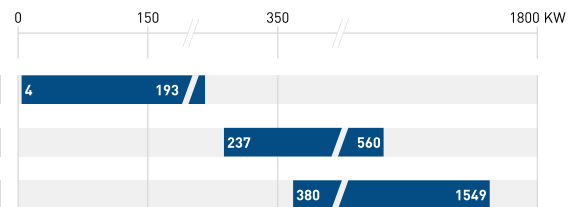


WATER-COOLED WATER CHILLERS

OCEAN TECH | Pag. 28 | | | | R410A | - |

NEPTUNE TECH | Pag. 30 | | | | R410A | - |

AQUARIUS PLUS 2 | Pag. 32 | | | | R134a | - |

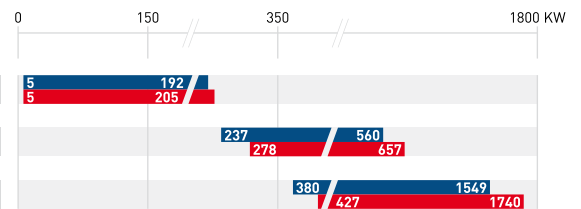


WATER/WATER HEAT PUMPS

HOCEAN TECH | Pag. 28 | | | | R410A | - |

NEPTUNE TECH | Pag. 30 | | | | R410A | - |

AQUARIUS PLUS 2 | Pag. 32 | | | | R134a | - |

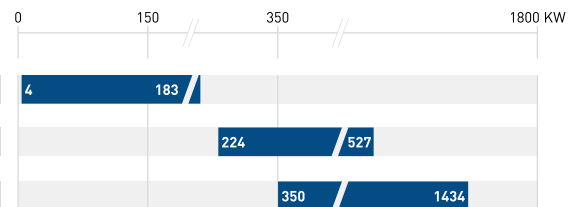


CONDENSERLESS UNITS

OCEAN TECH ME | Pag. 28 | | | | R410A | - |

NEPTUNE TECH ME | Pag. 30 | | | | R410A | - |

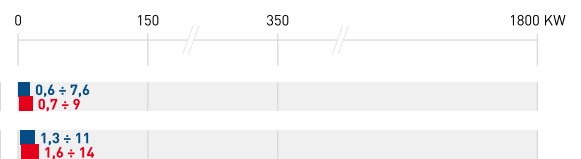
AQUARIUS PLUS 2 ME | Pag. 32 | | | | R134a | - |



HYDRAULIC AIR TREATMENT TERMINAL UNITS

EURUS | Pag. 34 | | - | H₂O | |

EURUS CA | Pag. 36 | | - | H₂O | |



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

- ³ Extremely low noise levels;
- ³ High EER/COP values and seasonal performance indices;
- ³ Ideally suited to commercial and domestic chilled water air-conditioning applications;
- ³ Extended operating limits;
- ³ Optimisation of heat pump defrosting cycles thanks to the exclusive Frost Detecting System (FDS) (Minimum ambient temperature in heat pump mode = -10 °C);
- ³ Self-adaptive temperature control (SAC) for efficient operation with installations having low water contents;
- ³ Designed for installation in confined spaces;
- ³ Easy to use thanks to a controller with icon-based dual display;
- ³ Easy installation and simple access to all chiller components.

Main Options

- ³ Configuration without storage tank;
- ³ High/low head pressure pump;
- ³ Double pump with one in stand-by (depending on model);
- ³ Condensate collection tray with hose connection (models 013-071);
- ³ Anti-freeze heaters on evaporator, pump and tank;
- ³ Remote user interface;
- ³ RS485 ModBus interface for connection to supervisor systems;
- ³ xWEB300D for local or remote (GPRS) monitoring plus data filing based on WEB server technology;
- ³ Antivibration mountings;
- ³ Condenser filters;
- ³ Soft starter;
- ³ Thermostat (condensing and reversible condensing unit).

Standard Features

- ³ Hermetic Rotary compressors (013-020) Scroll compressors (031-171) tandem Scroll compressors (211-301);
- ³ Integral hydronic kit complete with pump, tank, expansion vessel, filling/drain valve, pressure gauge, and automatic bleed valve;
- ³ Hydraulic threaded connections directly accessible from the exterior of the unit;
- ³ Brazed stainless steel plate evaporator;
- ³ Axial fans with sickle shaped blades and electronic speed control;
- ³ Heat pumps with 2nd thermostatic valve for performance optimisation in all operating conditions (models 131 to 301);
- ³ Factory charged with refrigerant and non-freezing oil (MC versions excluded);
- ³ Protection grade IPX4;
- ³ Inspections and tests performed in factory as per all MTA products and components;
- ³ Environmentally friendly refrigerant R410A with zero ozone depletion potential;
- ³ Phase monitor against phase reversal;
- ³ Compressor crankcase heater.

Versions

- ³ **CY** - Cooling only;
- ³ **HCY** - Reversible heat pump;
- ³ **MCCY** - Condensing unit;
- ³ **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	1/1	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.

- Cooling mode (terminal units):** external ambient temperature: 35 °C; evaporator IN/OUT: 12/7 °C.
 - Heating mode (terminal units):** external ambient temperature 7 °C; relative humidity 87%; condenser IN/OUT: 40/45 °C.
 - Cooling mode (condensing units):** external ambient temperature 35 °C; evaporating temperature 5 °C.
 - Heating mode (condensing units):** external ambient temperature 7 °C; condensing temperature 40 °C.
 - Sound power:** determined on the basis of measurements taken in accordance with the standard ISO 3744.
 - 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.



MTA participates 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.



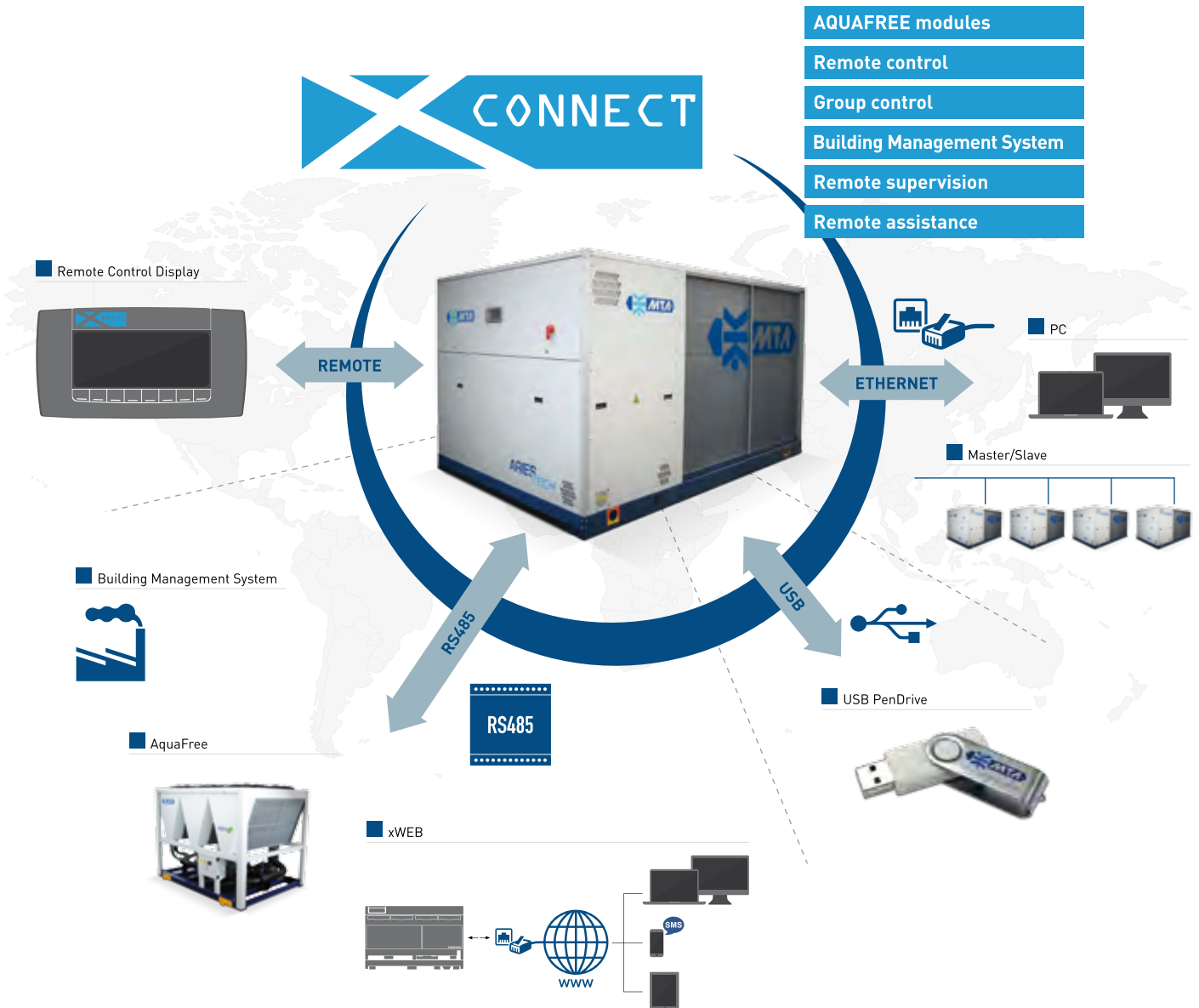
Higher energy efficiency and quieter operation thanks to the use of scroll compressors.



Built-in pumping module with or without storage tank.



CONNECTIVITY



CLICK AND CHECK

xCONNECT world of connectivity solutions, allows connection to BMS, Building Management Systems (BMS) via Lonworks, Bacnet, Profibus, Modbus, RS485, CAN, Ethernet, GPRS, GSM, and many more. It offers a dedicated Supervisor, the possibility to program or download storical data via connection, and much more beyond.

BMS represents one of the most advanced systems available. MTA units can 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 through **pre-programmed HTML supervision pages** 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 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 pages format, either locally or remotely, even

- ³ Dynamic multiparameter visualization, either graphically or numerically, of all analogue data, the outputs status and the alarm status;
- ³ Remote modification of the operating parameters;
- ³ Graphic scheduling for command functions;
- ³ System personalization, including alarm messaging rules;
- ³ Alarm reset procedures and alarm history filing by remote display;
- ³ 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



TAEvo TECH

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



TAEvo 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.



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 desiccation 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:



³ **DE iTECH** New energy saving system Impulse Technology (air flow 18-1620 m³/h).



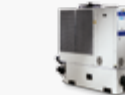
³ **ETM** Refrigeration cycling dryers with energy saving liquid thermal mass technology (air flow 1920-13500 m³/h).



³ **DN** up to 4 scroll compressors for high energy savings (air flow 13500-45600 m³/h).



³ **BD** High capacity dryers for all personal needs (air flow 17400-32400 m³/h).



³ **HS** High capacity dryers (air flow 1530-7302 m³/h).

Adsorption dryers:



³ **NO** Compact aluminium heatless dryers (air flow 7-118 m³/h).



³ **NG** Heatless dryers featuring unique energy saving microprocessor (air flow 240-1500 m³/h).



³ **NH** Heat regenerated blower purge dryers for reduced purge air energy losses (air flow 600-10000 m³/h).



³ **NB** 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.



www.fgnordic.se



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MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.



MTA products comply with European safety directives, as recognised by the CE symbol.



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



EAC certification



Cooling, conditioning, purifying.