



NEPTUNE TECH



Water cooled reversible water chillers with scroll compressors.
Nominal cooling capacity 289 - 752 kW
Nominal heating capacity 263 - 686 kW *



Energy efficiency and ease of use.

The water cooled reversible water chiller NEPTUNE TECH is the best solution for medium and large process cooling applications. Offers the optimal combination of energy efficiency, ease of use and high quality. Up to 6 scroll compressors on two refrigerant circuits ensures excellent partial load energy savings and reduced sound levels. A further energy saving is reachable with the partial or total heat recovery configuration. The compact layout allows it to even handling through the typical technical rooms, greatly simplifying the installation. The industrial design, unloading function and wide operating limits combine to offer guaranteed operation in all conditions.

* Data referred to units fitted with heat pump option.



Cooling, conditioning, purifying.

Benefits

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

Options

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

Standard Features

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

Kits

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



Microprocessor parametric controller with dual display.



Optimised performances through the multiscroll technology.



Suitable for medium and large process cooling applications.



Connectivity with supervisor systems.

NET Models		075	090	100	110	120	135	150	165	180
Nominal cooling capacity [1]	kW	289	361	380	421	473	547	600	668	752
Total absorbed power [1]	kW	53	69	71	83	92	99	104	122	140
EER [2]		5,50	5,25	5,37	5,05	5,14	5,55	5,76	5,48	5,36
Nominal cooling capacity [3]	kW	224	279	294	326	366	423	465	517	583
Total absorbed power [3]	kW	51	66	69	80	89	96	102	118	135
EER [4]		4,39	4,20	4,29	4,07	4,10	4,42	4,58	4,38	4,31
SEPR HT [5]		8,16	7,77	7,97	7,64	7,57	8,24	8,66	8,37	8,06
Nominal heating capacity [6] [7]	kW	263	331	347	389	436	496	540	607	686
Total absorbed power [6] [7]	kW	62	80	84	97	108	117	124	143	163
COP [6] [8]		4,24	4,14	4,13	4,01	4,04	4,24	4,35	4,24	4,21
SCOP [9]		5,17	4,95	5,15	5,00	4,92	5,24	5,42	5,25	5,10
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50								
Circuits / Compressors	N°	1/3			2/4		2/5		2/6	
Sound power [10]	dB(A)	86,1	87,8	87,3	88,3	89	89,1	89,1	90	90,8
Sound pressure [11]	dB(A)	58,1	59,8	59,3	60,3	61	61,1	61,1	62	62,8
Depth	mm	2010	2010	2610	2610	2610	3705	3705	3705	3705
Width	mm	800	800	800	800	800	800	800	800	800
Height	mm	1830	1830	1830	1830	1830	1830	1830	1830	1830
Installed weight	kg	842	1037	1158	1258	1422	1673	1771	1945	2165

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

- (1) Data referred to nominal conditions, evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C;
- (2) Data referred to the full load functioning: evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C;
- (3) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (4) Data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C;
- (5) Data declared in compliance with the European Regulation (EU) 2016/2281 for high temperature process chillers;
- (6) Data referred to units fitted with heat pump option;
- (7) Data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (8) Data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 40/45 °C;
- (9) Indicative data calculated in compliance with the European Regulation (EU) 813/2013 for low temperature heat pumps and referred to units fitted with heat pump option;
- (10) Calculated in accordance with the standard ISO 3744;
- (11) Average value obtained in free field on a reflective surface at the distance of 10 m by the external side of the electrical cabinet of the unit and at height of 1.6 m by the unit foothold. Considered tolerances ±2 dB. The sound levels are referred to the full load operations in nominal working conditions.



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-HR. Certified products are listed on: www.eurovent-certification.com Certification applied to the units: - Air/Water up to 600 kW - Water/Water up to 1500 kW



EAC Declaration

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