

NEPTUNE *tech*

Water cooled water chillers, heat pumps and evaporating units featuring hermetic scroll compressors.



PURE ENERGY



NEPTUNE*tech* offers the optimal combination of energy efficiency, ease of use and superior quality.

The application of up to 6 scroll compressors within up to 2 independent circuits ensures peace of mind together with excellent partial load energy savings and lowest noise levels.

Energy savings can be further enhanced by opting for total heat recovery or the desuperheater configuration.

Neptune Tech's compact configuration allows it to even pass through a domestic door, further simplifying installation.

The robust industrial design featuring renowned components, unloading function and wide operating limits combine to offer guaranteed operation in all conditions.



Cooling, conditioning, purifying.

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.

VERSIONS

- Chiller;
- Heat pump with inversion on the hydraulic side;
- Evaporating unit (NET/ME) with in/out shut-off valves, designed for use with a remote condenser.

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;
- Environmentally friendly refrigerant R410A, with zero ozone depletion potential;
- Factory charged with non-freezing oil and refrigerant (except ME);
- IP54 electrical protection rating.

MAIN OPTIONS

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

Microprocessor controller with dual icon-based display



Optimised performance thanks to multiscroll logic



xCONNECT: a world of connectivity solutions



Easy access to all internal components



Model NET - NET/ME		075	090	100	110	120	135	150	165	180	
Tower water											
NET	Cooling capacity	kW	241	286	319	345	381	428	478	527	572
	Absorbed power	kW	54,2	63,2	72,6	80,3	84,0	96,9	109	117	125
	ESEER	-	5,85	5,95	5,75	5,71	5,91	5,90	5,99	6,16	6,21
	IPLV	-	6,17	6,27	6,02	6,01	6,19	6,22	6,16	6,30	6,39
Well water											
NET	Cooling capacity	kW	256	304	339	367	404	455	509	562	611
	Absorbed power	kW	47,7	55,6	63,8	70,8	73,9	85,2	95,7	101	109
HEAT PUMP	Heating capacity	kW	281	331	373	404	441	499	560	612	662
	Absorbed power	kW	66,2	77,0	88,8	98,0	102	118	133	142	153
Evaporating unit											
/ME	Cooling capacity	kW	230	271	304	333	361	408	457	499	541
	Absorbed power	kW	59,4	69,3	79,2	85,8	92,4	106	119	129	139

Power supply		400±10%/3/50									
Circuits / Compressors	N°	1/3	1/3	2/4	2/4	2/4	2/5	2/6	2/6	2/6	2/6
Sound press. level (standard)	dB(A)	58,1	59,8	59,3	60,3	61,0	61,1	61,1	62,0	62,8	62,8
Sound press. level (comp. housing)	dB(A)	51,1	52,8	52,4	53,3	54,0	54,1	54,1	55,0	55,8	55,8
Depth	mm	2010	2010	2610	2610	2610	3705	3705	3705	3705	3705
Width	mm	800	800	800	800	800	800	800	800	800	800
Height	mm	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830
Installed weight	Kg	993	1161	1332	1440	1549	1729	1867	2061	2211	2211

All data refers to standard units at the following nominal conditions:

Tower water: evaporator water inlet/outlet temperature 12-7 °C, condenser water inlet/outlet temperature 30-35 °C.

Well water: evaporator water inlet/outlet temperature 12-7 °C, condenser water inlet/outlet temperature 15-30 °C.

Heat pump: condenser water inlet/outlet temperature 40-45 °C; evaporator water inlet/outlet temperature 12-7 °C.

Evaporating unit: evaporator water inlet/outlet temperature 12-7 °C; condensing temperature 45 °C.

Sound pressure level in hemispherical field at 10 m from operating side and 1,6 m from ground. Values with tolerance ± 2 dB. The sound levels refer to unit operation under full load in nominal conditions.



Eurovent Certification
(N.A. on ME)

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Cooling, conditioning, purifying.



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.