



# PHOENIX PLUS 2



Air cooled water chillers  
featuring semi-hermetic screw compressors with R513A.  
Nominal cooling capacity 375 - 991 kW



## Accuracy and capacity with low GWP.

The PHOENIX Plus 2 series has been developed to optimize the capacities and qualities of refrigerant R513A, green alternative with low GWP. They find their natural application in situations where, for most of the year, the thermal request is lower by the load which the unit was dimensioned. Thanks to Smart Stepless regulation according to the exact effective cooling load requested by the system, PHOENIX Plus 2 achieves SEPR HT seasonal efficiency ratio compliant with the ErP regulation, as well as very high nominal load EER ratios.



Cooling, conditioning, purifying.

## Benefits

- Refrigerant R513A with low GWP (Global Warming potential);
- High seasonal energy efficiency (SEPR HT);
- 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 2 screw compressors and "Smart Stepless" algorithm);
- Wide operating range;
- Complete 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.

## Options

- Single pump with low or medium head pressure;
- Twin water pump with low head pressure;
- Water accumulation tank;
- Antifreeze heaters for evaporator, pump/s and tank;
- High efficiency EC brushless fans (base equipment for SSN version);
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Soft-starter;
- Metallic mesh filters for condenser coil protection;
- Compressors housing (for HE version);
- Total heat recovery.

## Kits

- Antivibration mountings kit;
- Replicated remote user terminal kit;
- Supervision system xWEB300D EVO;
- Modularity kit for xDRIVE (master/slave from 3 to 8 units).

## Standard features

- Refrigerant R513A;
- High efficiency screw compressors with stepless regulation optimized for R513A refrigerant gas;
- Compressors crankcase heater;
- Air-cooled condensers (copper tubes/aluminium fins) with transverse "V" shape;
- Axial fans complete with protection grid;
- Electronic expansion valve;
- Shell & tube evaporator optimized for R513A;
- 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

- HE - basic acoustic configuration;
- SHE - low noise acoustic configuration;
- SSN - very low noise acoustic configuration;
- Low ambient air temperature version, down to -20 °C.



Latest-generation touch screen user terminal.



Screw compressors with smart stepless capacity regulation.



Electronic expansion valve and single pass shell & tube evaporator.



Supervision systems.

Models PNP 2		2501			3201			3601			4302			5002			5602			6002		
Versions		HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN
Nominal cooling capacity (1)	kW	375,3	350,8	334,1	505,3	469,2	444,5	619,7	582,0	556,3	671,1	622,4	589,6	792,2	740,6	705,7	895,5	834,4	796,7	991,0	924,1	881,4
Total absorbed power (1)	kW	90,6	93,7	97,2	123,1	129,4	135,2	135,5	139,1	143,4	172,4	182,3	191,0	181,5	187,4	194,4	208,4	216,5	224,2	226,6	235,7	244,2
EER (2)		4,14	3,75	3,44	4,10	3,63	3,29	4,57	4,18	3,88	3,89	3,41	3,09	4,37	3,95	3,63	4,30	3,85	3,55	4,37	3,92	3,61
SEPR HT (3)		5,44	5,36	5,79	5,17	5,39	5,33	5,69	5,57	6,00	5,50	5,28	5,67	5,74	5,65	6,09	5,77	5,93	6,03	5,63	5,75	5,81
Max external air temp. (4)	°C	44	40	40	41	37	37	45	41	41	40	37	37	44	40	40	40	36	36	41	37	37
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50																				
Circuits / Compressors	N°	1/1			1/1			1/1			2/2			2/2			2/2			2/2		
Sound power (5)	dB(A)	94,3	89,6	86,9	95,7	88,5	86,6	96,0	88,7	86,8	98,5	91,1	89,2	97,4	90,0	88,0	97,8	90,4	88,5	98,4	90,9	89,0
Sound pressure (6)	dB(A)	66,3	61,6	58,9	67,7	60,5	58,6	68,0	60,7	58,8	70,5	63,1	61,2	69,4	62,0	60,0	69,8	62,4	60,5	70,4	62,9	61,0
Width	mm	2190			2190			2190			2190			2190			2190			2190		
Depth	mm	3465			3465			4455			4455			5445			5445			6435		
Height	mm	2425			2425			2425			2425			2425			2425			2425		
Installed weight	kg	2805	2875	2875	3280	3350	3350	3866	3936	3936	4263	4403	4403	4853	4993	4993	5054	5194	5194	5719	5859	5859

**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.**

- (1) Data referred to nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
  - (2) Data referred to the full load functioning and nominal conditions, external ambient temperature 25 °C and evaporator water temperature IN/OUT 20/15 °C;
  - (3) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers;
  - (4) Data declared referred to cooling mode and outlet water temperature 15 °C;
  - (5) Determined on the basis of measurements taken in accordance with the standard ISO 3744;
  - (6) Average value obtained in free field on a reflective surface at a distance of 10 m from the external side of the electrical panel of machine and at height of 1.6 m from the unit support base. Values with tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions.
- The listed noise levels, weights and dimensions refer to base units with no options fitted.



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](http://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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