



PHOENIX G



Air cooled water chillers
featuring semi-hermetic screw compressors with R513A.
Nominal cooling capacity 375 - 1908 kW



Accuracy and capacity with low GWP.

The PHOENIX G 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 G 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;
- 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);
- Extended operating limits;
- 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

- Low ambient temperature version (down to -20 °C);
- Single pump with low or medium head pressure;
- Twin water pump with low head pressure;
- Water accumulation tank (up to model 6002);
- Antifreeze heaters for heat exchangers and hydraulic module (if included);
- Suction compressors valves;
- High efficiency EC brushless fans (base equipment for SSN configuration and from model 6402 for SHE configuration);
- Microchannels condenser coils;
- Protection coating for condenser coils, suitable for installation in aggressive environments;
- Metallic mesh filters for condenser coils protection;
- Soft-starter for compressors;
- Soundproof housing for compressors (for HE configuration);
- Total heat recovery (up to model 6002).

Standard features

- Refrigerant R513A;
- High efficiency screw compressors with stepless regulation optimized for R513A refrigerant gas;
- Crankcase heater compressor and phase-monitor;
- Air-cooled condensers (copper tubes/aluminium fins) with transverse "V" shape;
- Axial fans configured with protective grilles and sickled bladed with die-cast aluminium airfoil profiled;
- Electronic expansion valve;
- Shell & tube evaporator optimized for R513A;
- Victaulic hydraulic connections ki (supplied as standard with each unit);
- Electrical cabinet protection rating IP54;
- 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.

Acoustic configurations

- HE - basic acoustic configuration;
- SHE - low noise acoustic configuration;
- SSN - very low noise acoustic configuration.

Kits

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

Models PNG2	2501			3201			3601			4302			5002			5602			6002					
	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	351	334	505	469	444	620	582	556	671	622	590	792	740	706	873	808	761	991	924	881
Total absorbed power (1)	kW			91	92	97	123	129	135	135	139	143	172	182	191	181	187	194	213	219	232	227	236	244
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	4,11	3,69	3,32	4,37	3,92	3,61
SEPR HT (3)				5,45	5,37	5,80	5,17	5,39	5,34	5,70	5,57	6,02	5,51	5,32	5,80	5,75	5,66	6,11	5,64	5,93	5,91	5,66	5,77	5,99
Max external air temp. (4)	°C			44	40	40	41	37	37	45	41	41	40	37	37	44	40	40	42	37	37	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

Models PNG2	6402			7202			8402			9602			11202			12802					
	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN	HE	SHE	SSN			
Nominal cooling capacity (1)	kW			1036	964	919	1194	1114	1059	1385	1298	1244	1573	1473	1412	1735	1623	1554	1908	1778	1689
Total absorbed power (1)	kW			244	250	265	278	283	300	321	331	352	363	374	398	405	415	438	441	447	472
EER (2)				4,24	3,85	3,46	4,30	3,94	3,53	4,31	3,92	3,54	4,34	3,94	3,55	4,28	3,91	3,55	4,33	3,98	3,58
SEPR HT (3)				5,62	6,04	5,90	5,50	5,91	5,80	5,64	6,02	5,86	5,63	6,04	5,89	5,74	6,10	5,98	5,75	6,15	6,03
Max external air temp. (4)	°C			42	37	37	44	38	38	43	37	37	42	37	37	43	37	37	43	38	38
Power supply	V/Ph/Hz			400 ± 10% / 3-PE / 50																	
Circuits / Compressors	N°			2/2			2/2			2/2			2/2			2/2					
Sound power (5)	dB(A)			98,3	93,3	90,9	98,8	93,8	91,4	99,8	94,7	92,3	100,6	95,4	93,0	101,5	96,1	93,7	102	96,7	94,3
Sound pressure (6)	dB(A)			70,3	65,3	62,9	70,8	65,8	63,4	71,8	66,7	64,3	72,6	67,4	65,0	73,5	68,1	65,7	74	68,7	66,3
Width	mm			2190			2190			2190			2190			2190					
Depth	mm			6385			7375			8365			9355			10345					
Height	mm			2515			2515			2515			2515			2515					
Installed weight	kg			6289	6289	6289	7241	7193	7193	7260	7185	7185	7652	7549	7549	9116	8985	8985	9911	9752	9752

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. Certification applied to the units:
- Air/Water up to 600 kW
- Water/Water up to 1500 kW

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