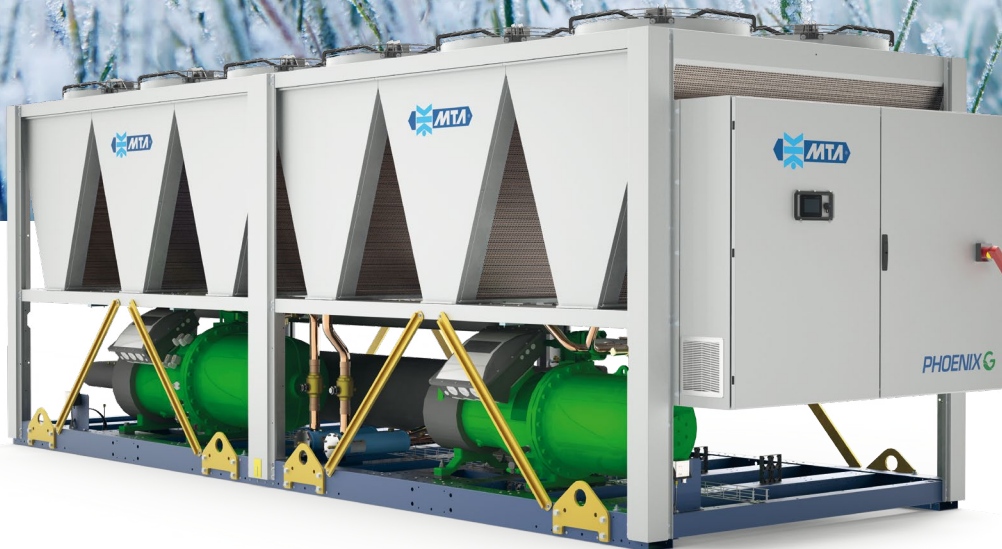




PHOENIX



Air-cooled liquid chillers
featuring semi-hermetic screw compressors.
Nominal cooling capacity 375 – 1931 kW



*Cooling your industry,
optimising your process.*



Cooling, conditioning, purifying.

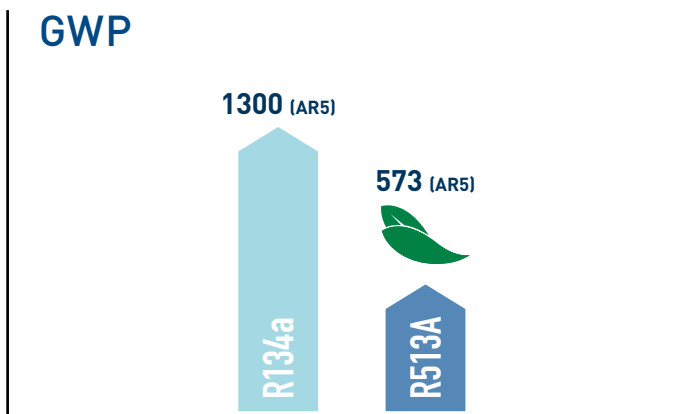
THE SMART SOLUTION FOR ECO-SUSTAINABLE APPLICATIONS

PHOENIX G air-cooled chillers, developed to enhance the cooling property of low GWP R513A refrigerant, are well suited to large industrial systems where the load can be constant or highly variable.

The Smart Stepless regulation, with perfect adaptability according to the required load, achieves SEPR HT seasonal energy efficiencies, compliant with ErP directives, and high nominal performances. Four available versions cover all requests in terms of efficiency and noise.

R513A REFRIGERANT

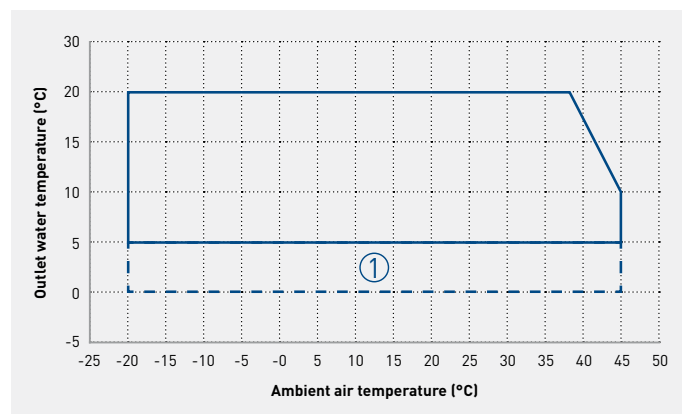
- GWP 573. -56% vs R134a;
- Same cooling capacity as R134a refrigerant;
- Non-flammable. Safety Class A1.



EXTENDED OPERATING LIMITS

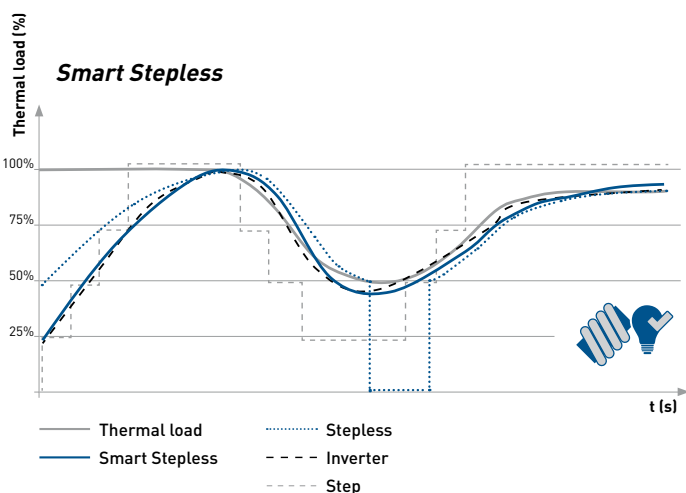
- Outlet water temperature from 0 °C to +20 °C;
- Ambient air temperature from -20 °C to +45 °C.

(1) The unit can operate in this area with a water/glycol mixture only.



SMART STEPLESS COMPRESSOR CONTROL

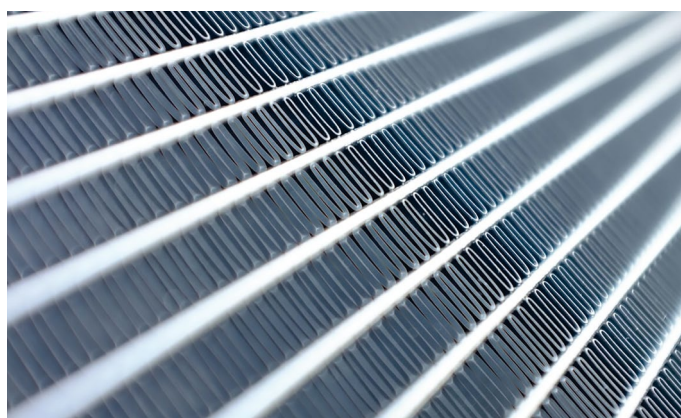
- Maximum accuracy of the capacity control steps;
- 25% minimum compressors capacity step;
- Fewer compressor ON/OFF cycles during thermal load variations.



MICRO-CHANNEL CONDENSER COILS

- Highly resistant aluminum alloys;
- Up to 30% refrigerant charge reduction;
- Up to 10% overall chiller weight reduction.

Detail of micro-channel condensing coil surface.





Benefits

- Low GWP R513A refrigerant;
- High seasonal energy efficiency (SEPR HT);
- Performance guaranteed by Eurovent-certification;
- Extended operating limits;
- 4 available versions; differentiated for efficiency and noise;
- Wide range of options and kits for customized solutions;
- Adaptability to any operating condition using the "Smart Stepless" regulation.

Standard features

- R513A refrigerant;
- Semi-hermetic screw compressors with Smart Stepless regulation;
- Compressor crankcase heaters and phase monitor;
- Micro-channel condensing coils;
- Axial fans with step regulation (HE version);
- EC Brushless fans (HEX, SSN and SSX versions);
- Electronic expansion valves;
- Single pass shell & tube evaporator optimized for R513A refrigerant;
- "Viciaulic" hydraulic connection kit supplied as standard with each unit;
- IP54 electrical cabinet protection grade;
- Programmable controller with software specifically developed by MTA; high calculation capacity and an easy-to-use graphic interface using a touch-screen user terminal; connectivity and supervision through Ethernet, USB and RS485 Modbus ports.

Kits

- Antivibration mounts;
- Metal mesh protection filters for condensing coils;
- Remote user terminal;
- xWEB300D PRO supervision system;
- xVISION web-based remote management and monitoring platform;
- Modularity kit (master/slave from 3 to 7 units).

Options

- Minimum ambient temperature down to -20 °C;
- Single pump with low (P2) or medium (P3) head pressure;
- Double twin pump with low (P2) or medium (P3) head pressure;
- Storage tank (up to model 6002);
- Anti-freeze protection heaters for the heat exchanger and hydraulic module;
- Compressor shut-off valves (suction);
- Finned pack condensing coils with copper pipes and aluminum fins;
- Painted protection treatment for condensing coils;
- Metal mesh protection filters for condensing coils;
- Compressor soft-starter;
- Compressor soundproof housing (for HE and HEX versions);
- Complete soundproof covering panels for compressors and hydraulic compartment;
- Total heat recovery (up to model 6002, except model 3601).

Versions

- HE – Standard efficiency;
- HEX – High efficiency;
- SSN – Standard efficiency, super low noise;
- SSX – High efficiency, super low noise.

SEPR HT up to 6,4

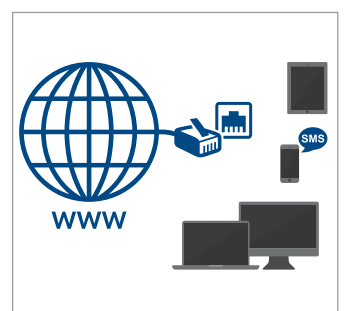
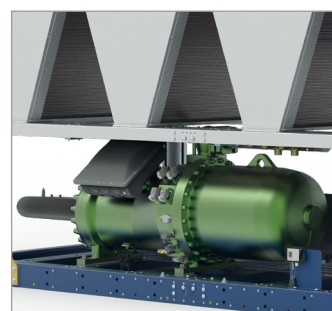
Noise reduction down to -9 dB(A)

Touch screen user terminal.

Semi-hermetic screw compressors with Smart stepless regulation.

Electronic expansion valves and single pass shell & tube evaporator.

Connectivity, supervision and monitoring.



Models PNG2		2501				3201				3601				4302			
Versions		HE	HEX	SSN	SSX	HE	HEX	SSN	SSX	HE	HEX	SSN	SSX	HE	HEX	SSN	SSX
Nominal cooling capacity (1)	kW	375	380	339	361	505	512	452	479	620	626	-	564	671	680	600	651
Total absorbed power (1)	kW	91	89	96	89	123	121	133	124	136	134	-	141	172	169	187	170
EER (1)		4,1	4,2	3,6	4,0	4,1	4,2	3,4	3,9	4,6	4,7	-	4,0	3,9	4,0	3,2	3,8
SEPR HT (2)		5,4	6,0	5,9	6,2	5,4	5,6	5,4	5,8	5,7	6,2	-	6,1	5,7	6,0	5,9	6,3
Max external air temperature (3)	°C	46	46	46	46	46	46	44	46	46	46	-	46	46	46	44	46
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50															
Circuits / Compressors	N°	1/1												2/2			
Tank volume (4)	l	530				530				800				800			
Hydraulic connections	DN	100				100				125				125			
Sound power (5)	dB(A)	94,2	95,0	87,1	87,2	95,6	96,3	86,8	86,9	95,8	96,7	-	87,1	98,4	98,9	89,3	89,4
Sound pressure (6)	dB(A)	66,2	67,0	59,1	59,2	67,6	68,3	58,8	58,9	67,8	68,7	-	59,1	70,4	70,9	61,3	61,4
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	-	2190	2190	2190	2190	2190
Depth	mm	3465	3465	3465	3465	3465	3465	3465	4455	4455	4455	-	4455	4455	4455	4455	5445
Height	mm	2425	2425	2425	2425	2425	2425	2425	2425	2425	2425	-	2425	2425	2425	2425	2425
Installed weight	kg	2597	2592	2599	2651	3145	3139	3133	3438	3844	3836	-	3803	4105	4097	4137	4538

Models PNG2		5002				5602				6002			
Versions		HE	HEX	SSN	SSX	HE	HEX	SSN	SSX	HE	HEX	SSN	SSX
Nominal cooling capacity (1)	kW	792	801	-	716	873	885	776	834	991	1003	892	943
Total absorbed power (1)	kW	181	179	-	191	213	209	230	213	227	223	241	227
EER (1)		4,4	4,5	-	3,7	4,1	4,2	3,4	3,9	4,4	4,5	3,7	4,2
SEPR HT (2)		5,7	6,3	-	6,2	5,9	6,2	6,0	6,4	5,8	6,1	6,1	6,4
Max external air temperature (3)	°C	46	46	-	46	46	46	43	46	46	46	44	46
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50											
Circuits / Compressors	N°	2/2											
Tank volume (4)	l	800				800				800			
Hydraulic connections	DN	125				125				125			
Sound power (4)	dB(A)	97,2	98,0	-	88,3	97,7	98,4	88,7	88,8	98,2	99,0	89,2	89,3
Sound pressure (5)	dB(A)	69,2	70,0	-	60,3	69,7	70,4	60,7	60,8	70,2	71,0	61,2	61,3
Width	mm	2190	2190	-	2190	2190	2190	2190	2190	2190	2190	2190	2190
Depth	mm	5445	5445	-	5445	5445	5445	5445	6435	6435	6435	6435	7425
Height	mm	2425	2425	-	2425	2425	2425	2425	2425	2425	2425	2425	2425
Installed weight	kg	4608	4597	-	4611	5027	5016	5030	5469	5604	5591	5579	5961

Data declared according to UNI EN 14511:2018, referring to standard units without accessories/options and in nominal working conditions.

- (1) Data referred to full load operation and nominal conditions, ambient temperature 25 °C and evaporator water IN/OUT temperature 20/15 °C;
- (2) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers;
- (3) Data declared referred to cooling mode and outlet water temperature 15 °C;
- (4) Storage tank available as an option (up to model 6002);
- (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.

Models PNG2		6402				7202				8402			
Versions		HE	HEX	SSN	SSX	HE	HEX	SSN	SSX	HE	HEX	SSN	SSX
Nominal cooling capacity (1)	kW	1042	1055	934	990	1194	1209	1075	1129	1385	1400	1256	1307
Total absorbed power (1)	kW	246	242	266	249	278	274	295	280	321	316	347	330
EER (1)		4,2	4,4	3,5	4,0	4,3	4,4	3,6	4,0	4,3	4,4	3,6	4,0
SEPR HT (2)		5,6	5,8	5,7	6,0	5,8	6,0	5,9	6,2	5,9	6,1	6,0	6,2
Max external air temperature (3)	°C	46	46	44	46	46	46	44	46	46	46	43	46
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50											
Circuits / Compressors	N°	2/2											
Tank volume (4)	l	-				-				-			
Hydraulic connections	DN	200				200				200			
Sound power (4)	dB(A)	98,7	99,3	91,2	91,2	98,8	99,6	91,4	91,4	99,8	100,5	92,3	92,3
Sound pressure (5)	dB(A)	70,7	71,3	63,2	63,2	70,8	71,6	63,4	63,4	71,8	72,5	64,3	64,3
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190
Depth	mm	6435	6435	6435	7425	7425	7425	7425	8415	8415	8415	8415	9405
Height	mm	2425	2425	2425	2425	2515	2515	2515	2515	2515	2515	2515	2515
Installed weight	kg	5742	5729	5716	6101	6649	6634	6595	6990	6534	6517	6451	6745

Models PNG2		9602				11202				12802			
Versions		HE	HEX	SSN	SSX	HE	HEX	SSN	SSX	HE	HEX	SSN	SSX
Nominal cooling capacity (1)	kW	1573	1591	1425	1478	1735	1755	1569	1623	1908	1931	-	1716
Total absorbed power (1)	kW	363	356	393	375	405	399	433	417	441	435	-	465
EER (1)		4,3	4,5	3,6	3,9	4,3	4,4	3,6	3,9	4,3	4,4	-	3,7
SEPR HT (2)		5,9	6,1	6,0	6,2	6,1	6,2	6,1	6,4	5,7	6,3	-	6,2
Max external air temperature (3)	°C	46	46	43	45	46	46	44	46	46	46	-	44
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50											
Circuits / Compressors	N°	2/2											
Tank volume (4)	l	-				-				-			
Hydraulic connections	DN	200				250				250			
Sound power (4)	dB(A)	100,6	101,3	93,0	93,0	101,5	102,1	93,7	93,8	102,0	102,6	-	94,3
Sound pressure (5)	dB(A)	72,6	73,3	65,0	65,0	73,5	74,1	65,7	65,8	74,0	74,6	-	66,3
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	-	2190
Depth	mm	9405	9405	9405	10395	10395	10395	10395	11385	11385	11385	-	11385
Height	mm	2515	2515	2515	2515	2515	2515	2515	2515	2515	2515	-	2515
Installed weight	kg	7640	7620	7527	7903	8025	8003	7884	8263	8789	8764	-	8619



Cooling, conditioning, purifying.



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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-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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