



PHOENIX



Air-cooled liquid chillers
featuring semi-hermetic screw compressors.
Nominal cooling capacity 232 – 1076 kW



*Conditioning your ambient,
maximising your comfort.*



Cooling, conditioning, purifying.

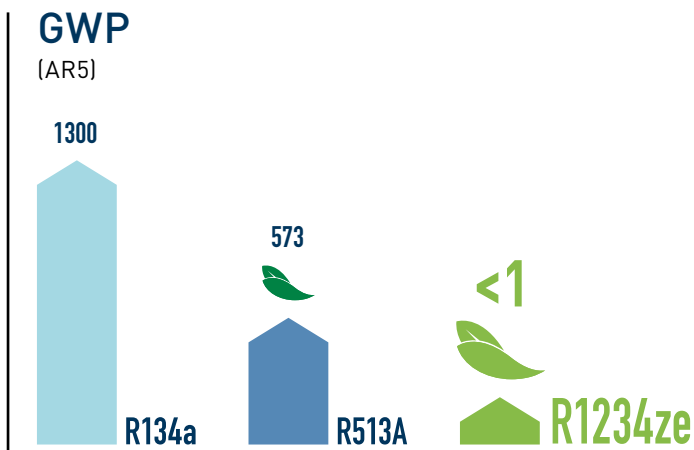
THE EFFICIENT CHOICE WITH A NEGLIGIBLE ENVIRONMENTAL IMPACT

PHOENIX Z air-cooled chillers, optimized for operation with near zero GWP refrigerant R1234ze, are designed to satisfy the needs of high seasonal energy efficiencies combined with nearly zero environmental impacts in large commercial and technical systems where the load can be constant or highly variable.

Refrigerant R1234ze, along with Smart Stepless regulation, and perfect adaptability according to the required load, ensures high SEER seasonal energy efficiencies. Two available versions cover all requests in terms of efficiency and noise levels.

HFO R1234ze REFRIGERANT

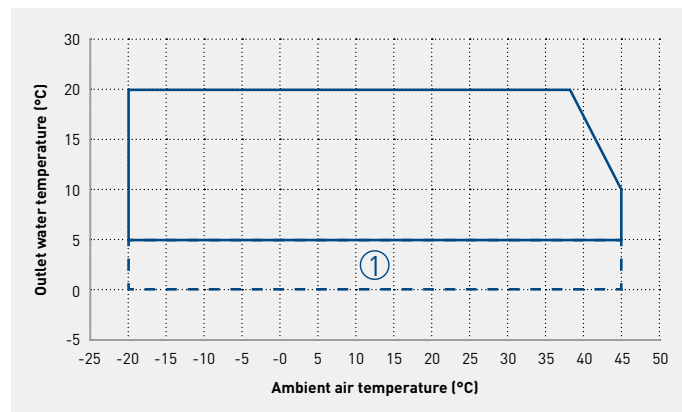
- GWP <1, negligible greenhouse effect;
- Safety class A2L, non-toxic and mildly flammable;
- No impact on the ozone layer.



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.



CERTIFIED EFFICIENCY

- PHOENIX Z efficiency exceeds the latest Ecodesign standard and is guaranteed by Eurovent certification.

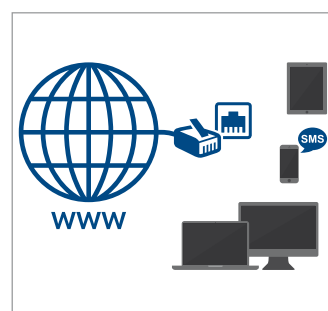
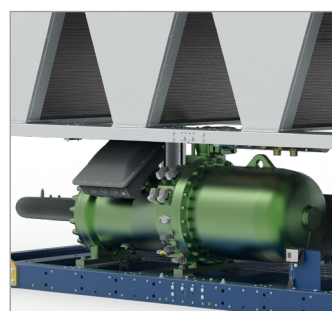


Touch screen user terminal.

Semi-hermetic screw compressors with Smart stepless regulation.

Electronic expansion valves and single pass shell & tube evaporator.

Connectivity, supervision and monitoring.

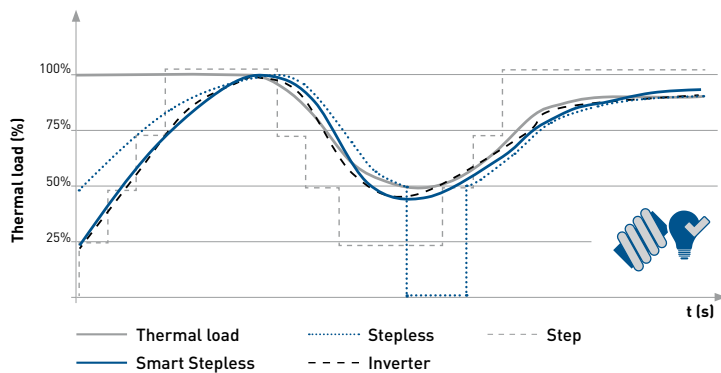




SMART STEPLESS COMPRESSOR CONTROL

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

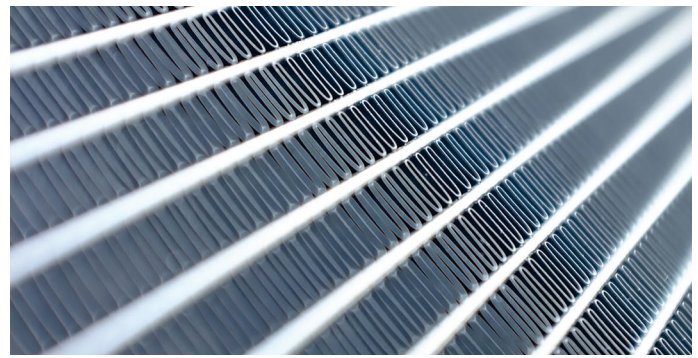
Smart Stepless



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

- Near zero GWP refrigerant HFO R1234ze;
- High seasonal energy efficiency (SEER);
- Performance guaranteed by Eurovent certification;
- Extended operating limits;
- Super low noise version with noise reduction down to -9 dB(A);
- Wide range of options and kits for customized solutions;
- Adaptability to any operating condition using the "Smart Stepless" regulation.

Standard features

- R1234ze refrigerant;
- Semi-hermetic screw compressors with "Smart Stepless" regulation;
- Compressor crankcase heaters and phase monitor;
- Micro-channel condensing coils;
- EC Brushless fans;
- Electronic expansion valves;
- Single pass shell & tube evaporator optimized for R1234ze refrigerant;
- "Victaulic" 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.

Options

- Minimum ambient temperature down to -20 °C;
- Single pump with low (P2) or medium (P3) head pressure;
- Twin pumps 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 HEX version);
- Complete soundproof covering panels for compressors and hydraulic compartment;
- Total heat recovery (up to model 6002, except model 3601).

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).

Versions

- HEX - High efficiency;
- SSX - High efficiency, super low noise.

Models PNZ		2501		3201		3601		4302	
Versions		HEX	SSX	HEX	SSX	HEX	SSX	HEX	SSX
Nominal cooling capacity (1)	kW	232	223	313	299	385	359	422	409
Total absorbed power (1)	kW	74	72	98	97	113	116	138	135
EER (1)		3,13	3,09	3,19	3,09	3,40	3,10	3,05	3,03
SEER (2)		4,65	4,79	4,50	4,67	5,02	4,97	4,67	4,90
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50							
Circuits / Compressors	N°	1/1						2/2	
Tank volume (3)	l	530	530	530	530	800	800	800	800
Hydraulic connections	DN	100	100	100	100	125	125	125	125
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190
Depth	mm	3465	3465	3465	4465	4465	4465	4465	6465
Height	mm	2425	2425	2425	2425	2425	2425	2425	2425

Models PNZ		5002		5602		6002		6402	
Versions		HEX	SSX	HEX	SSX	HEX	SSX	HEX	SSX
Nominal cooling capacity (1)	kW	490	451	528	508	588	565	655	626
Total absorbed power (1)	kW	148	152	161	158	171	166	197	194
EER (1)		3,31	2,96	3,28	3,21	3,44	3,41	3,32	3,22
SEER (2)		4,91	4,77	4,55	4,73	4,65	4,83	4,68	4,85
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50							
Circuits / Compressors	N°	2/2							
Tank volume (3)	l	800	800	800	800	800	800	-	-
Hydraulic connections	DN	125	125	125	125	125	125	200	200
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190
Depth	mm	5445	5445	5445	7445	6435	8435	6435	8435
Height	mm	2425	2425	2425	2425	2425	2425	2425	2425

Models PNZ		7202		8402		9602		11202	
Versions		HEX	SSX	HEX	SSX	HEX	SSX	HEX	SSX
Nominal cooling capacity (1)	kW	760	726	865	824	956	908	1076	1019
Total absorbed power (1)	kW	231	232	260	261	286	285	318	319
EER (1)		3,29	3,14	3,33	3,15	3,35	3,18	3,39	3,20
SEER (2)		5,00	5,14	5,01	5,15	4,92	5,03	5,02	5,11
Power supply	V/Ph/Hz	400 ± 10% / 3-PE / 50							
Circuits / Compressors	N°	2/2							
Tank volume (3)	l	-	-	-	-	-	-	-	-
Hydraulic connections	DN	200	200	200	200	200	200	250	250
Width	mm	2190	2190	2190	2190	2190	2190	2190	2190
Depth	mm	7375	9375	8365	10365	9355	11355	10345	12345
Height	mm	2515	2515	2515	2515	2515	2515	2515	2515

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 the full load functioning and nominal conditions, external ambient temperature 35 °C and evaporator water temperature IN/OUT 12/7 °C;

(2) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products (air conditioning application);

(3) Storage tank available as an option (up to model 6002).



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-HP. 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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