

GEMINI N

R290

Modular air-cooled chillers with Inverter scroll compressors
Nominal cooling capacity 64 - 125 kW



Conditioning your ambient,
maximising your comfort.



GEMINI N

GEMINI N is a modular air-cooled chiller designed with full inverter scroll technology, available in 4 sizes. Its modular architecture supports his cooling capacities that extend beyond 700 kW.

Wide operating limits

Gemini N air-cooled chillers are designed for efficient year-round operation in both cold and hot climates. They can be configured to operate at full load within a wide outdoor air temperature range, from -20°C to +46°C.

With a leaving water temperature range from -12°C to +25°C, these chillers are ideal for a variety of applications, from comfort cooling to the most demanding process cooling needs.

Efficiency that sets a new benchmark

Delivers top-tier seasonal efficiency in both comfort cooling and process cooling applications, powered by full inverter scroll technology and the thermodynamic strength of R290 to ensure low operating costs and sustainable performance.

Safety-forward design

Features a comprehensive safety pack based on MTA's SDS2E approach (Segregate, Detect, Stop, Signal, and Extract), including ATEX-certified leak management and safety relief valves. The optional integrated gas/water separator offers a unique solution by detecting and isolating leaks in the event of a BPHE failure. In parallel, the interlock system enhances protection in side-by-side modular installations.



EFFICIENT YEAR-ROUND OPERATION

Extended operating map on both operating ambient temperature (-20°C to 46°C) and leaving water temperature (-12°C to +25°C) makes the unit suitable for a wide range of applications.

EXTENDABLE RANGE

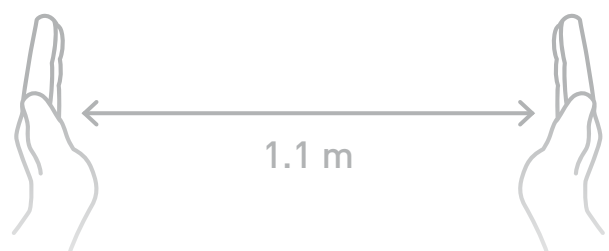
Scalable design allowing up to six units to be connected and managed through a single multi-manager controller.

QUIET OPERATION

4 noise level versions to match most demanding applications.

COMPACT: JUST 1.1 METER WIDE

Compact, maneuverable units that easily fit through standard doorways and elevators, ideal for replacement projects or tight installation spaces.



Standard features

- Single inverter scroll compressor on sizes 018-023; 2 inverter scroll compressors in 2 independent circuits on sizes 030-035;
- EC Axial fans;
- Microchannel coils;
- Water side plate heat exchanger with antifreeze protection electric heater;
- Microprocessor;
- Electronic expansion valve;
- ATEX certified leak detector and ventilation fan.

Options

- Water pump (single or double) with or without inverter;
- Buffer water tank (not available on size 018);
- Four sound power level versions;
- Protective coating on coils;
- Integrated gas/water separator;
- Protective grill on coils.

Kits

- Antivibration kit
- Modularity kit (up to 6 units)
- Interlock safety kit (up to 6 units)
- Victaulic kit

MODULAR PLATFORM ENGINEERED FOR GROWTH

Built on a fully modular platform, GEMINI N allows fast hydraulic connection and streamlined electronic control in banks of up to six units, delivering heating capacity up to 750 kW. The compact, easy-to-transport design simplifies installation and enables capacity to be added over time as building requirements evolve. Its side-by-side configuration minimizes site space, while the low refrigerant charge per circuit enhances both safety and environmental responsibility.

SAFETY INTERLOCK KIT

External electromechanical interlock links the leak-detection systems and ensures safety is enhanced for side-by-side installation

INDEPENDENT connection

ENHANCED system safety

ULTIMATE MODULARITY

Scalable **up to 750 kW** heating capacity



Flexible investment

GEMINI system can be extended on the installation site in terms of time and required features when necessary, by planning investment more flexibly.

Centralised system

For modular applications it is mandatory to select the Multi-Manager option, a centralized system that allows to manage by means of a single controller, the main functions and operating modes of a group of hydronic units in modular configuration.

Quick and easy water connections

The installation of units in modular configuration is facilitated by the new hydraulic connection kit which allows an easy and quick connection of the individual modules.

General technical data

Model		018	023	030	035
Cooling [1]					
Cooling capacity ▼	kW	64,1	80,5	103,8	124,7
Total power input ▼	kW	19,8	25,8	33,4	39,6
EER ▼		3,23	3,12	3,11	3,15
Water flow	m³/h	11,0	13,8	17,9	21,4
Water pressure drop	kPa	16,6	19,8	21,4	22,4
Cooling [2]					
ns,c ▼	%	209,8	209,6	210,9	212,3
SEER ▼		5,32	5,32	5,35	5,38
High temperature process cooling [3]					
SEPR HT ▼		5,91	5,92	5,9	5,84
Circuits / Compressors	n	1 / 1	1 / 1	2 / 2	2 / 2
Type of compressors		Inverter Scroll			
Number of part load steps	n	-	-	-	-
Fans number	n	1	2	2	2
Refrigerant		R290			
Sound power [4] ▼	dB(A)	89,9	91,9	93,0	92,9
Electrical power supply		400V/50Hz/3Ph			
Length [5]	mm	2085	2718	3703	3703
Width [5]	mm	1100	1100	1100	1100
Height [5]	mm	2328	2328	2328	2328
Shipping weight [5]	kg	530	615	855	860

Data declared according to UNI EN 14511, and they refer to units without options which require an electrical feeding source and in nominal working conditions

[(1) Outdoor temperature 35°C - chilled water temperature in/out 12/7°C - Technical data in accordance to EN 14511.

(2) Ecodesign rating for comfort chiller - fan coil application. ns,c/SEER as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016.

(3) Ecodesign rating for comfort High temperature process refrigeration. SEPR HT as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Process Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016.

(4) Sound power level in cooling, in compliance with ISO 9614 for Eurovent certified units;

(5) Please refer to dimensional drawings for extra dimensions and extra weights for hydraulic versions. Dimensional data and weight may change. For further information please contact our sales office.

▼ Eurovent certified data.



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

www.mta-it.com

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