

GEMINI

Air-cooled chiller featuring scroll compressors
Nominal cooling capacity 87 – 164 kW



Conditioning your ambient,
maximising your comfort.



GEMINI

THE SCALABLE SOLUTION: HIGH EFFICIENCY, MAXIMUM FLEXIBILITY

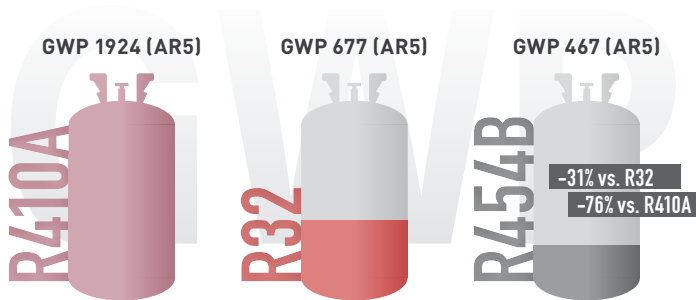
GEMINI chiller redefines industrial and HVAC cooling standards: a next-generation modular platform combining outstanding efficiency, low-GWP R454B refrigerant and advanced scalability, delivering superior performance, operational continuity and total flexibility, even in the most demanding installations.

Dedicated features and options for process applications

GEMINI units include features designed for process applications, such as a boxed-in refrigerant circuit and an IP54-certified electrical panel. In addition, a wide range of accessories is available, including metal mesh filters to protect outdoor coils in dusty environments and a bypass water valve to prevent water hammer in the circuit.

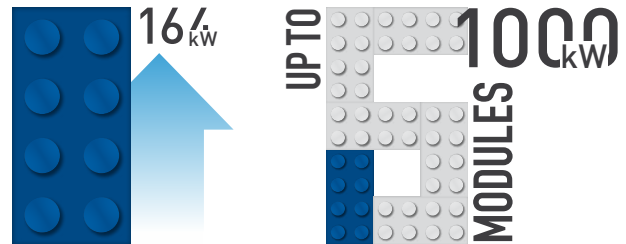
LOW GWP REFRIGERANT R454B

- F-GAS phase-down compatible;
- Composition 69% R32 + 31% R1234yf;
- A2L low-toxicity, mildly flammable (ISO 817);
- Non-Ozone depleting.



EXTENDABLE RANGE

GEMINI chillers are available in 7 sizes to cover any thermal load request up to 164 kW with a single unit. The range is extendable combining up to 6 modules reaching up to 1000 kW.

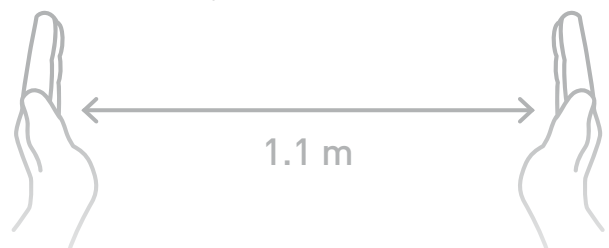


ALL-IN-ONE SOLUTION

The unit can be fitted with a range of hydraulic kits, offering either inverter-driven pumps or simple on/off pumps to match specific application needs. Despite its compact footprint, the unit can incorporate a large integrated tank, delivering a convenient plug-and-play solution. The entire hydraulic circuit can also be enclosed within a protective metal housing. Optional aesthetic grilles and metal mesh filters are available to help safeguard the outdoor coils from accidental damage.

COMPACT: JUST 1.1 METER WIDE

GEMINI units can be easily lifted and moved. They fit through doorways and into standard elevators, making them a perfect choice for challenging projects involving replacement in older buildings and/or confined spaces.



Standard features

- Tandem Scroll compressors. Size 026 is fitted with single inverter driven one;
- EC axial fans statically and dynamically balanced;
- Micro-channel condenser coils;
- Leak detector as per standard;
- Evaporator stainless steel AISI 316 brazed plate type, externally insulated, complete with differential pressure switch and antifreeze protection electric heater;
- Electronic expansion valve;
- Microprocessor;
- Housing and panels in galvanised and painted steel;
- Remote Interfaces;
- Refrigerant circuit housing.

Kits

- Sea container kit;
- Flow switch;
- Automatic water filling;
- Water strainers;
- Water gauges;
- Antivibration kit.

Options

- Low water temperatures kit;
- Protective grill on condensing coils;
- Protective coating on condensing coils;
- Protective air filter on condensing coils;
- EC hesp fans (high head pressure drop);
- Night noise reduction;
- Closing panels on bottom part (where hydraulic circuit is);
- Victaulic kit;
- Water tank (275/475 liters);
- High static pressure pump (up to 3 bar);
- Single or dual pump(s);
- Automatic by-pass hydraulic kit;
- Three sound power level versions.

Options & kits required for modular configuration

- Multi-Manager System (mandatory);
- Hydraulic connection kit for connection between single modules;
- Water filter to be placed at the manifold entrance.

ULTIMATE MODULARITY

Scalable **beyond 1000 kW** cooling 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

GEMINI		026	028	032	037	041	045	051
Cooling [1]								
Cooling capacity ▼	kW	87,4	96,7	109,4	119,4	136,5	151,2	163,5
Total power input ▼	kW	25,8	28,6	33,3	37,33	39,5	45,6	52
EER ▼		3,38	3,39	3,29	3,2	3,45	3,32	3,15
Efficiency class		A	A	A	A	A	A	A
Water flow	m ³ /h	15	16,6	18,8	20,5	23,5	26	28,1
Water pressure drop	kPa	18,4	17,1	21,9	26	23,16	19,5	22,7
Cooling [2]								
ns,c ▼	%	210,1	200,1	185,1	185,8	192,1	192,4	181,7
SEER ▼		5,33	5,08	4,7	4,72	4,88	4,89	4,62
High temperature process cooling [3]								
SEPR HT ▼		6,07	6,25	6,11	6,11	6,26	6,14	6,06
Circuits / Compressors	n	1 / 1	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2
Type of compressors		scroll						
Type of unloading		Inverter	Staged					
Number of part load steps"		-	3	2	3	2	3	2
Fans number		2	2	2	2	3	3	3
Refrigerant		R454B						
Sound power [4] ▼	dB(A)	95,6	87,7	88,2	88,2	89,8	91	91,9
Sound power [4] XXLN ▼	dB(A)	83,9	82,1	82,5	82,6	83,8	85,0	86,0
Electrical power supply		400/3/50						
Length [5]	mm	2774	2774	2774	2774	3741	3741	3741
Width [5]	mm	1115	1115	1115	1115	1115	1115	1115
Height [5]	mm	2327	2327	2327	2327	2327	2327	2327
Shipping weight [5]	kg	687	751	789	800	954	952	1026

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

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