

GEMINI HP

R454B

Air source heat pumps featuring hermetic scroll compressors

Nominal cooling capacity 86 – 147 kW

Nominal heating capacity 84 – 149 kW



Conditioning your ambient,
maximising your comfort.



GEMINI HP

THE SCALABLE SOLUTION: HIGH EFFICIENCY, MAXIMUM FLEXIBILITY

GEMINI HP is the new MTA heat pump range designed to always meet the requirements of air conditioning applications, combining high efficiency with multiple customization possibilities and easy installation.

GEMINI's modularity is ideal when capacity extension is required as the building demand or process cooling demand evolves. Up to 6 units can be combined and connected thanks to an optional dedicated hydraulic connection kit.

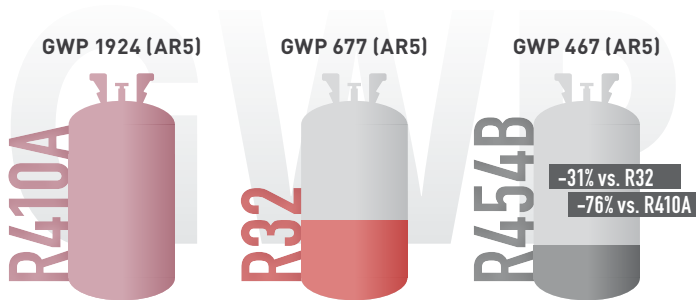
Year-round hot water supply

Optimized to provide hot water for space heating and sanitary purposes, even in summer.

Also delivers chilled water for air-conditioning, operating even beyond 45°C ambient air temperature.

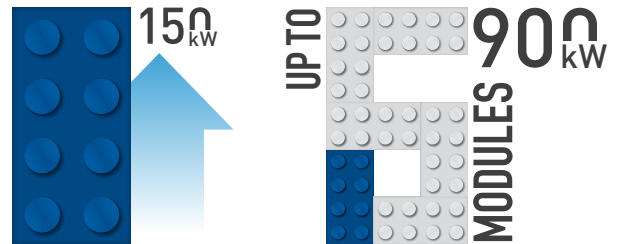
LOW GWP REFRIGERANT R454B

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



EXTENDABLE RANGE

GEMINI heat pumps are available in 6 sizes to cover any thermal load request up to 150 kW with a single unit. The range is extendable combining up to 6 modules reaching up to 900 kW.



LEAVING HOT WATER TEMPERATURE

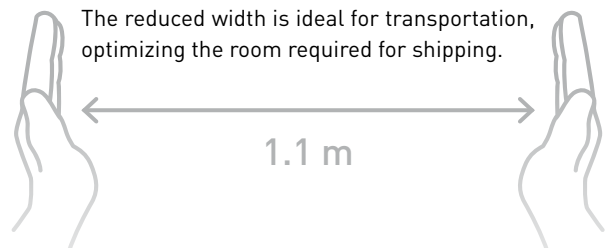
Large operating map to address specific design criteria of applications such as hospitals, office buildings, larger apartment buildings, warehouses and industrial applications. Leaving hot water temperatures up to +60 °C. Also available a 3-way valve (optional) for hot sanitary water production.



COMPACT: JUST 1.1 METER WIDE

GEMINI heat pumps can be easily lifted and moved. They fit through doorways and into standard elevators, making them a perfect choice for installation in old buildings and/or confined spaces.

The reduced width is ideal for transportation, optimizing the room required for shipping.



Standard features

- Tandem Scroll compressors. Size 026 is fitted with single inverter driven one;
- EC axial fans;
- Condenser coils with seamless copper tubes and aluminium fins;
- Water side plate heat exchanger with antifreeze protection electric heater;
- Leak detector as standard;
- Electronic expansion valve;
- Microprocessor;
- Housing and panels in galvanised and painted steel;
- Remote interfaces.

Kits

- Sea container kit;
- Flow switch;
- Automatic water filling;
- Water strainers;
- Water gauges;
- Rubber and spring anti vibration mounts.

Options

- Built-in single or double pump (inverter or on/off) and buffer tank on request;
- Low or high head pumps;
- Three sound power level versions;
- Low temperatures kit;
- Protective grill on coils;
- Protective coating on coils;
- EC hesp fans (high head);
- 3-way valve for domestic hot water production (compatible with water tank option)
- Night noise reduction;
- Antivibration kit;
- Victaulic kit.

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 up to 900 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		026	028	032	037	041	045
Cooling (1)							
Cooling capacity ▼	kW	83,4	93,7	104,9	121,4	131	147,4
Total power input ▼	kW	27,4	30,62	36,17	39,16	43,38	50,65
EER ▼		3,04	3,06	2,9	3,1	3,02	2,91
Water flow	m ³ /h	14,3	16,1	18	20,9	22,5	25,3
Water pressure drop	kPa	18,4	12,8	16	21,2	24,6	21,1
Heating (2)							
Heating capacity ▼	kW	83,7	94,4	106	123,3	133,4	148,5
Total power input ▼	kW	25,52	29,59	33,65	38,17	41,56	47,29
COP ▼		3,28	3,19	3,15	3,23	3,21	3,14
Efficiency class		A	B	B	A	A	B
Water flow	m ³ /h	14,9	16,8	18,8	22,1	23,8	26,2
Water pressure drop	kPa	19,7	13,8	17,3	15,5	18,1	15,6
Heating (3)							
ns,h Seasonal space heating energy efficiency ▼	%	158,4	145	138,5	145	141,9	141,9
SCOP ▼		4,04	3,7	3,54	3,7	3,62	3,62
Efficiency class		A	A	A	A	A	A
Circuits / Compressors	n	1/1	1/2	1/2	1/2	1/2	1/2
Type of compressors		scroll					
Type of unloading		Inverter	Staged				
Number of part load steps	n	-	3	2	3	2	3
Refrigerant	-	R454B					
Fans number	n	2	2	2	3	3	3
Sound power (4) ▼	dB(A)	95,7	88,3	88,8	90,9	90,9	92,4
Sound power (4) XXLN ▼	dB(A)	84,8	83,3	83,7	85,0	85,1	86,0
Electrical power supply		400/3/50					
Length (5)	mm	2774	2774	2774	3741	3741	3741
Width (5)	mm	1115	1115	1115	1115	1115	1115
Height (5)	mm	2327	2327	2327	2327	2327	2327
Shipping weight (5)	kg	785	849	887	1085	1093	1157

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) Evaporator water inlet/outlet temperature 12/7 °C, external air temperature 35 °C;
- (2) Outdoor temperature 7°C - 90% U.R. - hot water temperature in/out 40/45°C). Technical data in accordance to EN 14511;
- (3) Ecodesign rating at low temperature conditions. Outdoor temperature: 7°C dry bulb/6°C wet bulb and hot water temperature in/out: 30°C/35°C. ns,h / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Space heaters and combination heaters with Prated < 400kW - COMMISSION REGULATION (EU) N° 813/2013 of 2 August 2013.
- (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

© 2026 MTA. All rights reserved.

