Alpha

www.alpha-innovation.co.uk

MAGIS M V2

Monobloc heat pump range
with R290 refrigerant gas



For residential buildings.
No F-Gas certification required.

R290
ECO FRIENDLY REFRIGERANT

MCS

INTRODUCING THE MAGIS M V2



The Magis M V2 monobloc air source heat pump range uses natural refrigerant gas R290 to deliver high performance with a lower environmental impact.

Available in a range of power outputs, the Magis M V2 is ideal for new build and retrofit residential projects. It provides heating and cooling, with flow temperatures of up to 75°C, making it suitable for use with high-temperature emitters such as radiators and fan coil units in addition to low-temperature underfloor or radiator systems.

Designed for efficient operation, the unit helps to minimise electricity consumption, while inverter technology allows it to modulate output in line with demand. This improves overall performance, particularly during milder weather conditions when full capacity is not required.

Part of the Italian, family-owned Immergas Group, which operates in over 30 countries, Alpha brings advanced manufacturing and proven technology to the UK market. The Magis M V2 forms part of a wider range of products available through Alpha.

FEATURES

- Heating and cooling operation (reversible)
- Hermetically sealed R290 refrigerant gas circuit (GWP=0.02)
- Smart Grid ready function
- Entire range features a single-fan and Bluefin treatment
- Modbus communication protocol integrates with home automation systems via BMS port
- HP Keymark Certification meaning it is MCS approved
- Max flow temperature: 75°C (central heating) and 70°C (domestic hot water), without needing additional heat sources
- Ultra-quiet operation: 35 dB (A)
- Protection rating IPX4 (approved for fully exposed outdoor installation)
- Heating energy class: A+++ LT (35 °C), A++ MT (55 °C)
- Can be installed individually, in a cascade up to 6 units or in combination with an Alpha boiler for hybrid solutions

STANDARD SAFETY FEATURES:

- High-efficiency deaerator to prevent any refrigerant gas leaks in the hydronic circuit 2.5 bar safety valve
- Hermetically sealed electrical components to protect against ignition

REFRIGERANT CIRCUIT:

Equipped with an inverter compressor, electronic control valve, 4-way valve, and high- and low-pressure switches.

HYDRONIC CIRCUIT AS STANDARD:

Circulation pump, expansion vessel, flow meter, pressure sensor, Y filter, condensate drain fitting, 50 W heating cable, 150 W condensate heating resistance and external probe.

WHAT IS R290 GAS?

R290 is a natural refrigerant gas composed of carbon and hydrogen, helping to reduce environmental impact without compromising performance.

LOW CLIMATE IMPACT

R290 has an extremely low global warming potential (GWP), making it a more sustainable choice than conventional synthetic refrigerants. It has zero ozone depletion potential (ODP) and does not contribute to ozone layer damage.

ENERGY EFFICIENT

R290 offers high thermal efficiency, supporting strong performance while reducing overall energy consumption.

SAFE

R290 is a flammable refrigerant, but systems that use it are specifically designed to operate safely. The Magis M V2 meets strict international standards governing refrigerant use, ensuring safe and reliable operation.

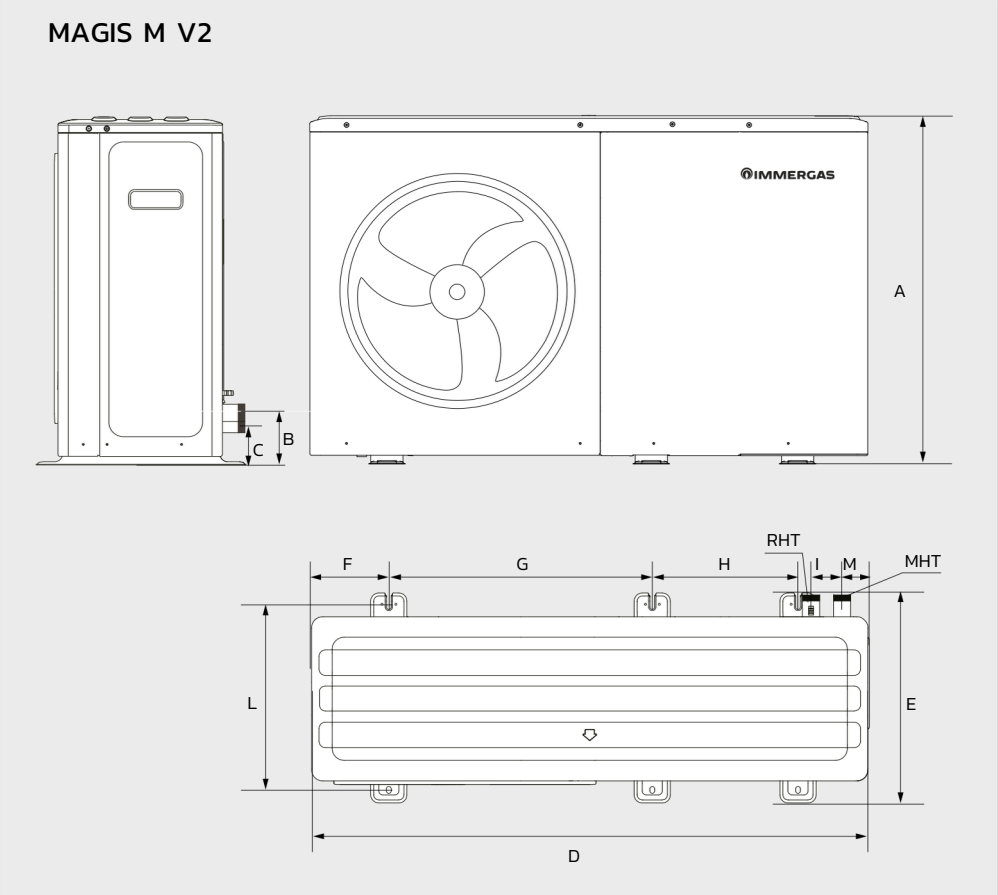


STANDARD WIRED CONTROL PANEL (BLACK):

- Colour display and navigation via graphical menu
- Ambient sensor for on/off temperature management in the area where it is installed
- Management of operating modes
- Weekly and daily programming for individual zones and for DHW, including temperature settings
- Setting of climate curves for individual zones
- Unit monitoring and status (parameter viewing, energy analysis, error history)
- Remote management via the ILET COMFORT app

DIMENSIONS AND CONNECTIONS

MAGIS M V2



Model	Dimensions mm										
	A	B	C	D	E	F	G	H	I	L	M
MAGIS M6 V2	717	91	91	1299	426	121	644	379	90	375	71
MAGIS M8/10/12/16 V2	865	129	100	1385	523	192	656	363	77	456	71

Connections		
	RHT	MHT
MAGIS M6 V2	1" M	1" M
MAGIS M8/10/12/16 V2	1 ¼" M	1 ¼" M

SAFETY ZONE

The areas mentioned below relate exclusively to the correct operation of the appliance.

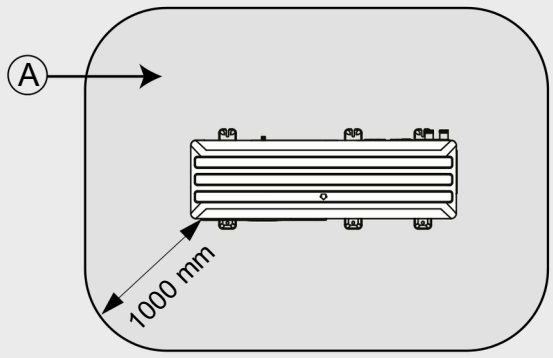
In case of leaks, under no circumstances must the refrigerant be able to penetrate inside a building. In the safety zone of the building there must not be openings such as: windows, doors, skylights, dormer windows, ventilation system air inlet/outlet, etc.

Refrigerant R290 is heavier than air and may accumulate at ground level or in the lower part of the installation area. Within the safety zone, there must be no negative pressure conditions that could create hazardous situations due to the accumulation of refrigerant gas.

The safety zone must not extend to buildings or public areas.

The safety zone cannot be modified after installation so as to comply with protection rules.

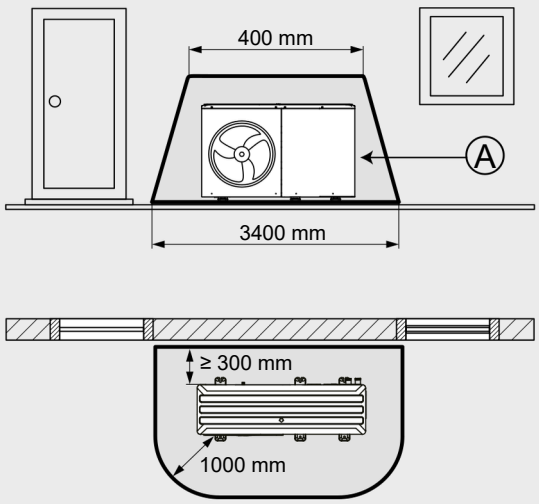
Independent unit positioning



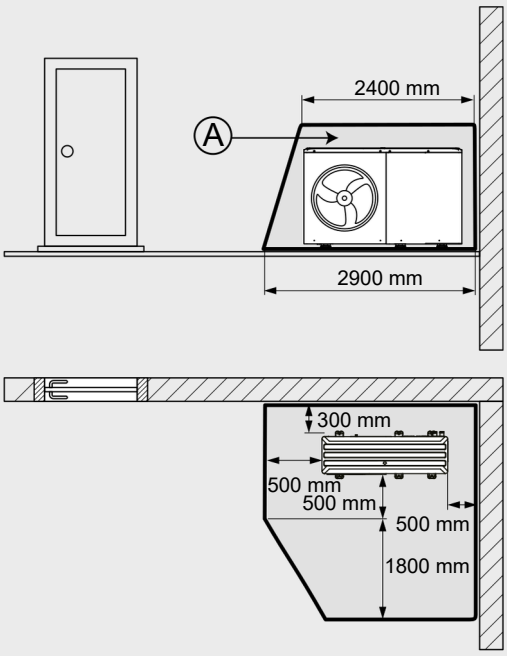
Key

A	Safety zone

Unit positioning in front of an external wall

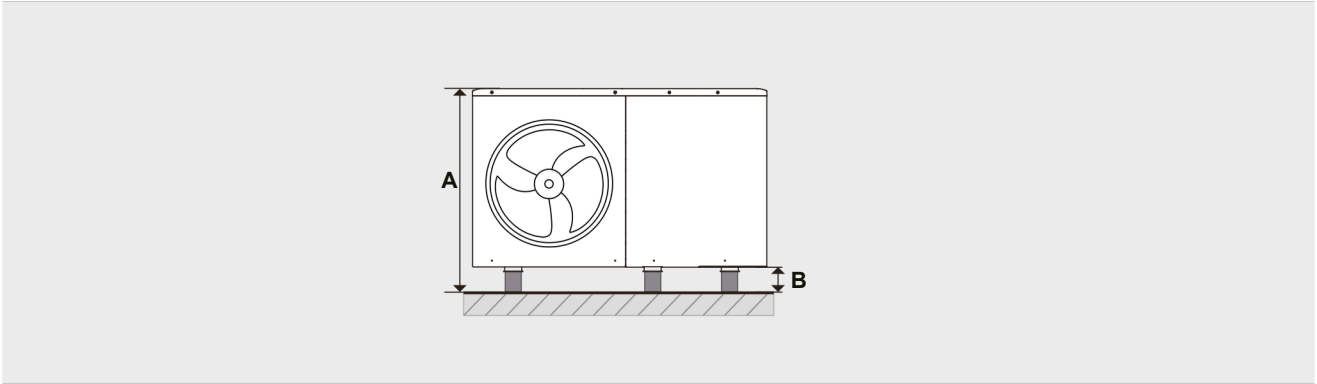


Corner positioning of the unit, on the left

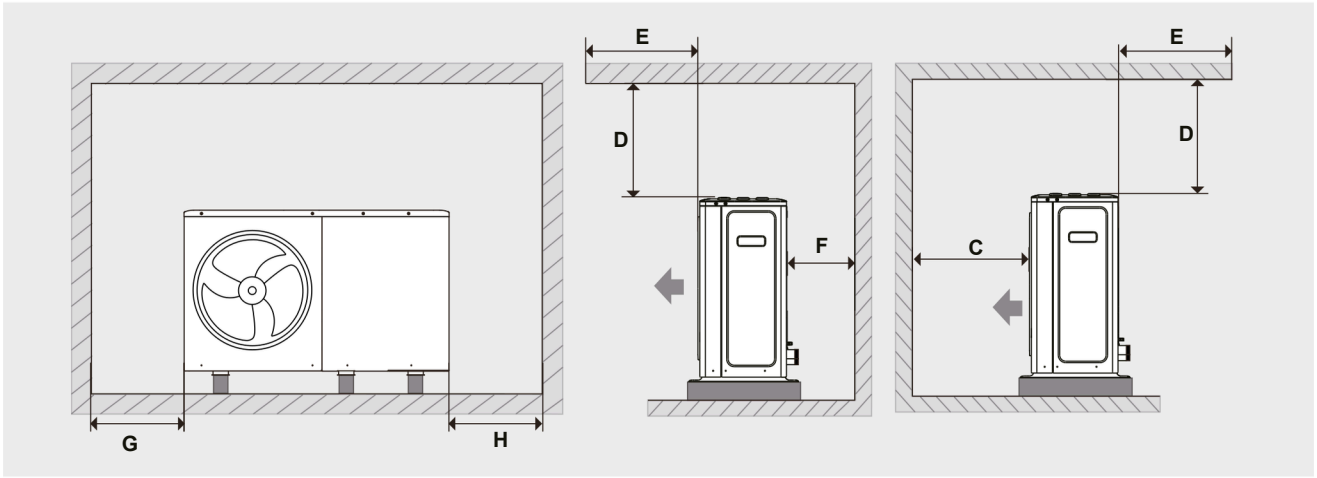


FOR GROUND INSTALLATION AND FLAT ROOF FOOTPRINT - SINGLE UNIT

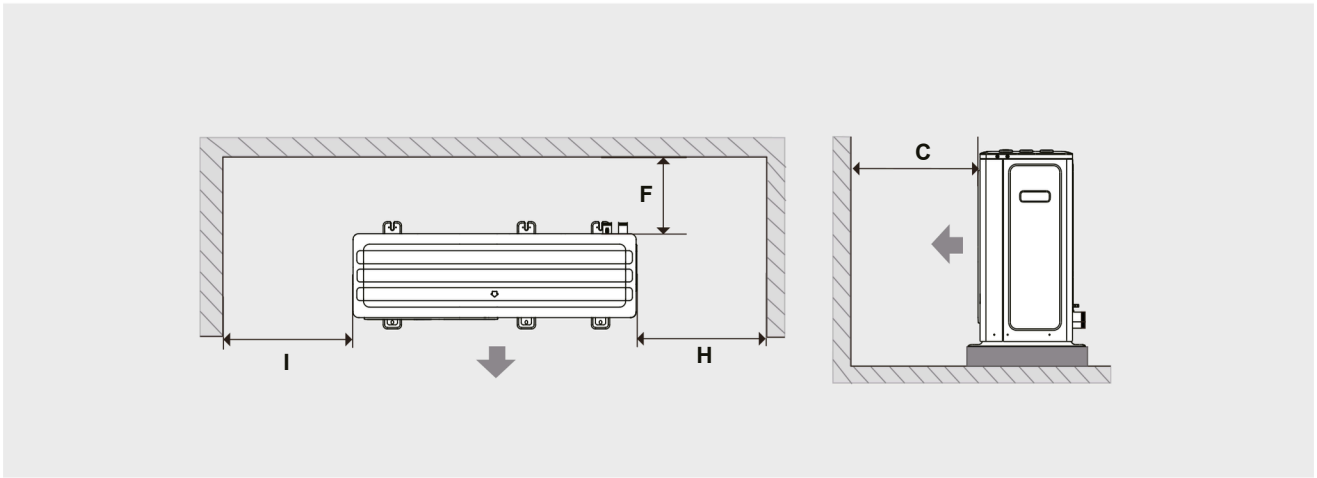
General



Obstacle on the upper wall



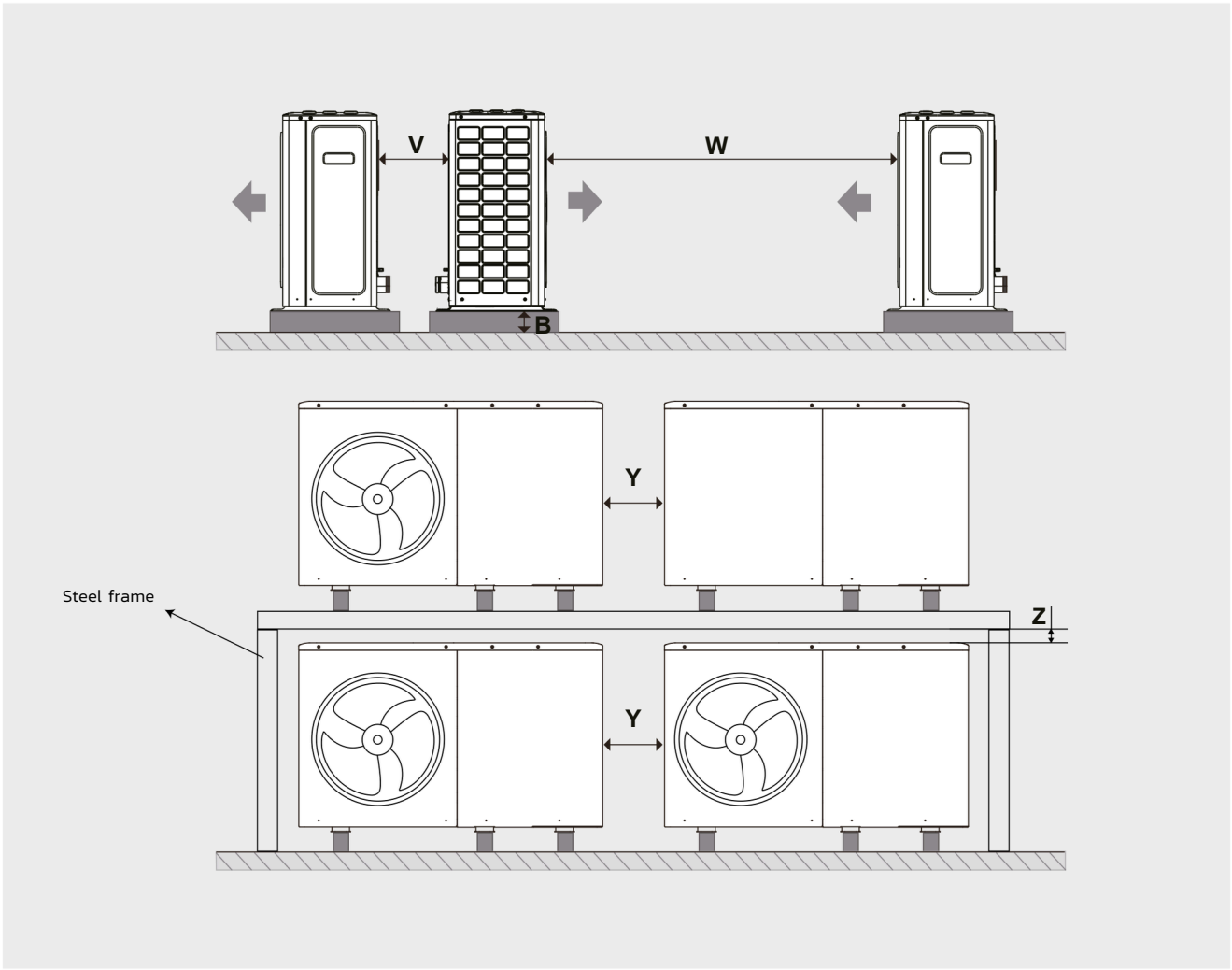
No obstacle on the upper wall



	A	B	C	D	E	F	G	H	I
MAGIS M6/8/10 V2	Unit height + B	*≥ 100	≥ 1000	≥ 500	≥ 500	≥ 300	≥ 500	≥ 500	≥ 500
MAGIS M12/16 V2	Unit height + B	*≥ 100	≥ 1500	≥ 500	≥ 500	≥ 300	≥ 500	≥ 500	≥ 500

** In case of antifreeze valve kit installation, the appliance's height from the ground (dimension **B**) must be at least **250 mm** to ensure valve drainage.*

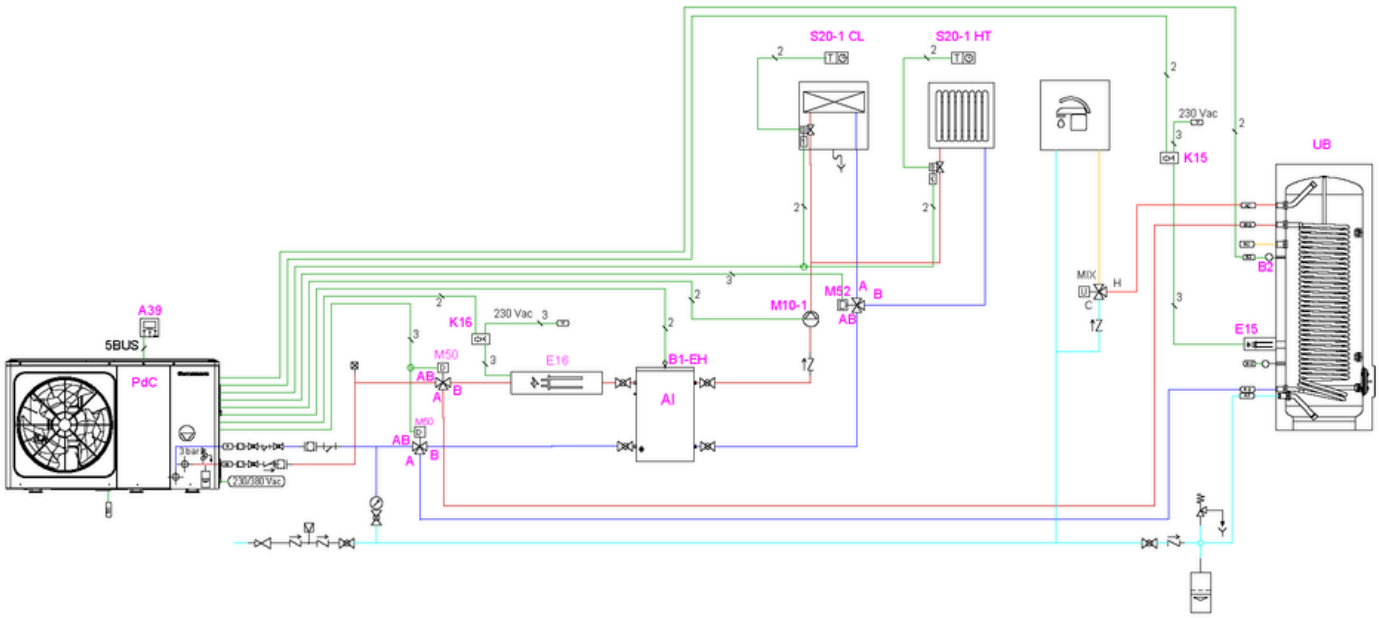
SPACE BETWEEN UNITS FOR CASCADE INSTALLATION



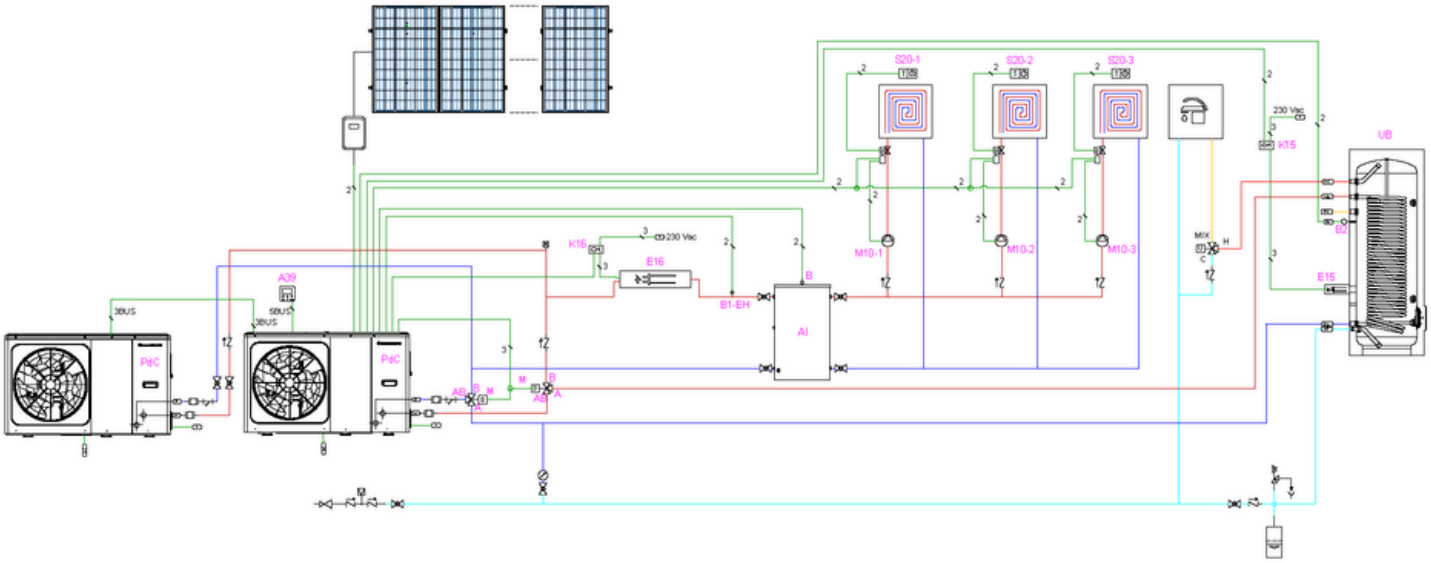
Model	Dimensions mm			
	V	W	Y	Z
MAGIS M6/8/10 V2	≥ 600	≥ 2500	≥ 500	≥ 200
MAGIS M12/16 V2	≥ 600	≥ 3000	≥ 500	≥ 200

For vertically stacked unit installation, a steel frame or equivalent structure must be provided, designed to support the weight of the units intended for installation. Read the safety precautions before installation.

SYSTEM EXAMPLES

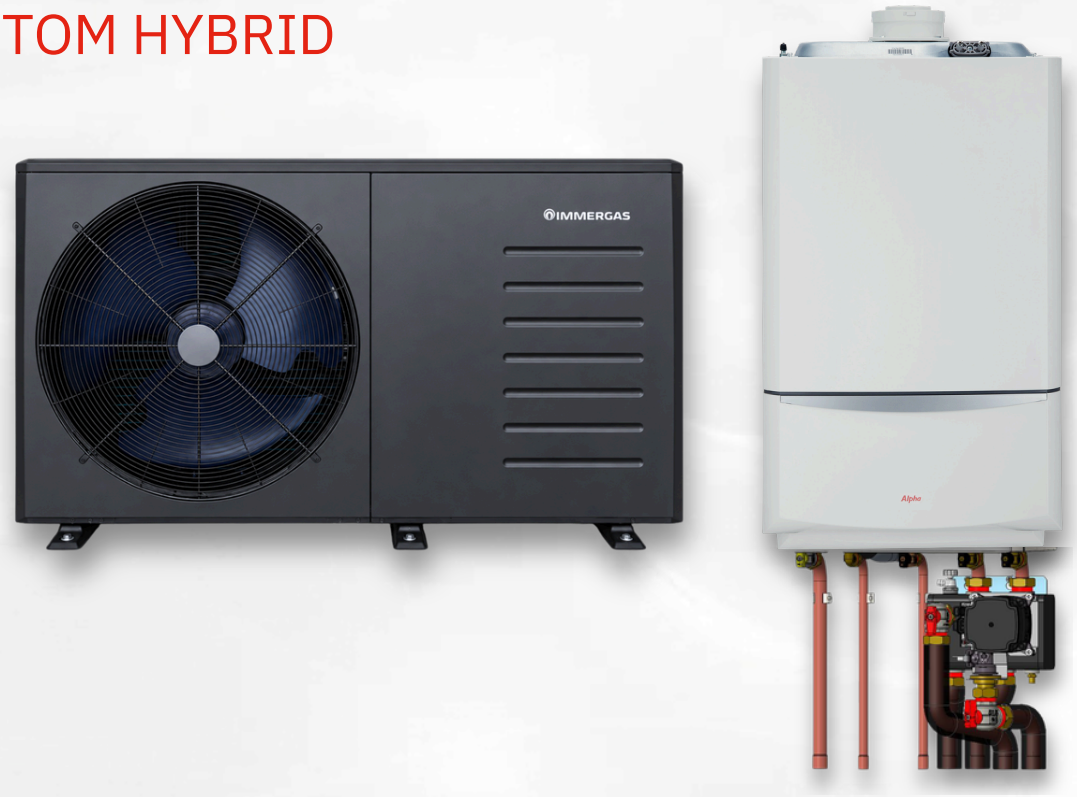


A39 - Magis M V2 control panel
B1 - Flow temperature sensor (code 3.033324)
B2 - DHW probe (code 3.033324)
E15 - Domestic Hot Water integration
E16 - Supplementary heating element
K15 - DHW integration relay
K16 - Supplementary heating relay
M50 - DHW priority 3-way valve
M52 - Summer/Winter diverter valve
M10-1 - Zone 1 pump
S20-1 CL - Zone 1 room thermostat - cooling
S20-1 HT - Zone 1 room thermostat - heating
AI - Inertial storage tank
PdC - Heat pump with R290
UB - DHW storage tank unit



A39 - Magis M V2 control panel
B1-EH - Sensor for supplementary heater
B2 - DHW probe (code 3.033324)
E15 - Domestic Hot Water integration
E16 - Supplementary heating element
K15 - DHW integration relay
K16 - Supplementary heating relay
M10-1 - Zone 1 pump
M10-2 - Zone 2 pump
M10-3 - Zone 3 pump
S20-1 - Zone 1 room thermostat
S20-2 - Zone 2 room thermostat
S20-3 - Zone 3 room thermostat
AI - Inertial storage tank
PdC - Heat pump with R290
UB - DHW storage tank unit

CUSTOM HYBRID



Combine a single-phase Magis M V2 heat pump with any E-Tec or Evoke combi or system boiler to create a custom hybrid heating system, thanks to the innovative Hybrid Interface Kit.

This interface kit is specifically designed to connect the Magis M V2 heat pumps with the E-Tec NX, E-Tec NX Plus, and Evoke NX boiler ranges, creating an integrated hybrid heating system.

KEY FEATURES:

- Fully customisable solution to suit individual heating and hot water requirements
- Dual heating sources, combining a heat pump and a boiler for optimal performance
- Maximises energy savings by enabling you to select the most efficient heat source
- Compatible with both combi and system boilers
- Choose preferred method of delivery for hot water
- Ideal for larger properties with high hot water demands
- Magis M V2 control manages the switchover temperature between the heat pump and boiler

Choose from a range of heat pump outputs (up to 16kW) to match your desired heating load and determine the perfect balance between the heat pump and boiler's contributions to your heating needs.

Your choice of boiler type - combi or system - depends on your hot water requirements and the type of boiler currently installed in your property.

If you opt for a combi boiler, hot water will always be available on demand, whereas with a system boiler, you have the flexibility to decide whether the hot water cylinder is heated by the boiler or the heat pump.

TECHNICAL DATA

		MAGIS M6 V2	MAGIS M8 V2	MAGIS M10 V2	MAGIS M12 V2	MAGIS M16 V2
		3.037356	3.037357	3.037358	3.037359	3.037360
Energy class in heating at 55 °C		A++				
Energy class in heating at 35 °C		A+++				
Refrigerant charge (R290)	g	700		1100	1250	
Power in CH with water set at 35 °C	kW	6.20	8.40	10.00	12.00	15.00
Power in CH with water set at 45 °C	kW	6.40	8.20	10.00	12.00	15.00
Power in CH with water set at 55 °C	kW	6.20	7.80	9.50	12.00	15.00
Flow temperature range (C.H.)*	°C	25/75				
COP with water set at 35 °C		4.9	5.0	4.7	4.8	4.4
COP with water set at 45 °C		3.80	3.85	3.65	3.7	3.35
COP with water set at 55 °C		3.1	3.2	3.05	3.1	2.85
Power in cooling with water set at 18 °C	kW	6.50	8.30	10.00	12.00	16.00
Power in cooling with water set at 7 °C	kW	6.80	7.50	8.90	11.50	14.00
Flow temperature range (cooling)	°C	5/25				
EER with water set at 18 °C		3.91	3.90	4.00	3.80	4.00
EER with water set at 7 °C		3.05	3.00	2.90		
Flow temperature range (DHW)*	°C	20/70				
Max. operating pressure hydraulic system	bar	2.5				
Heat pump power absorbed**	kW	1.27	1.68	2.13	2.50	3.41
Power supply	V – Hz	230-50				
Heat pump weight	Kg	89.5	116	116	133	133
Expansion vessel capacity (C.H.)	L	8				
Maximum absorbed current	A	16.1	26	32		16.1
Electrical insulation rating	IP	24				

** The maximum values can be reached with the contribution of electric resistances. In order to know the correlation between delivery temperature and external temperature consult the technical data sheet of the product.*
*** T. system water (D/R) - air (bs/bu) 35/30 °C - 7/6 °C.*

Referred to the following conditions:

Environment	Heating (°C)	Cooling (°C)
T system water (D/R) – air (bs/bu)	30/35 – 7/6	23/18 – 35 (bs)
T system water (D/R) – air (bs/bu)	40/45 – 7/6	12/7 – 35 (bs)
T system water (D/R) – air (bs/bu)	55/47 – 7/6	

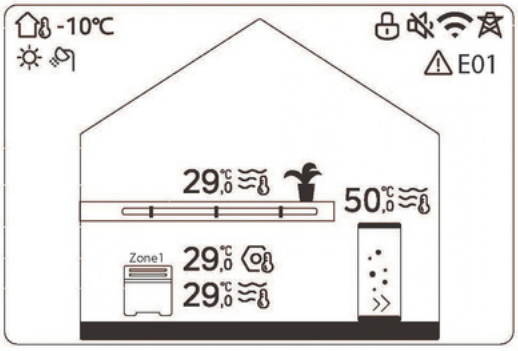
For more information consult the technical sheet

		MAGIS M6 V2	MAGIS M8 V2	MAGIS M10 V2	MAGIS M12 V2	MAGIS M16 V2
Coolant						
Type of refrigerant	-	R290				
Coolant load	g	700		1100	1250	
GWP	-	0,02				
tCO_2 equivalent	-	0,00001		0,00002	0,00003	
Control method	-	EEV				
Fan						
Number	-	1				
Air flow rate (heating)	m^3/h	2770	4030		4450	5040
Compressor						
Type	-	Twin				
Primary circuit						
Expansion vessel: Pre-charge	kPa (bar)	1.5				
System filling pressure	kPa (bar)	200 (2)				
System						
Minimum circulation flow rate	l/h	500			600	
Minimum volume (excluding internal water volume)*	l	40				
Weight and dimensions						
Weight of unit (with primary circuit empty)	kg	89,5	116,0		133,0	
Weight of unit with packaging	kg	110,0	138,0		155,0	
Dimensions (LxHxD)	mm	717 x 1299 x 426	865 x 1385 x 523			
Dimensions with packaging (LxHxD)	mm	885 x 1375 x 475	1035 x 1465 x 560			
Water connections						
System side water connections - inlet	inches	1,0	1,3			
System side water connections - outlet	inches	1,0	1,3			
Condensate drain	mm	1				
Power supply electrical features 1 (by standard)						
Electrical connection		220 - 240V ~ 50Hz				
Maximum current absorbed	W	3000,0	3600,0	3900,0	5700,0	6400,0
Rated absorbed current	A	13,5	16,0	17,5	25,0	28,0
Other electrical data						
Protection class		IP24				
Primary pump rated power	W	95				
Primary pump rated current	A	0,75				
EEI primary pump		£0.21 Part3				

* The water volume must always be available to the machine.

ELECTRONICS





The control panel is the main tool for managing, programming, and monitoring the MAGIS M V2 outdoor unit.

It is connected to the outdoor unit via a wired connection. The display is coloured, and navigation is via a graphical menu.

KEY FEATURES:

- Ambient sensor for on/off temperature management in the area where it is installed
- Management of operating modes (heating, cooling, domestic hot water, standby, etc.)
- Weekly and daily programming for individual zones and for DHW, including temperature settings
- Setting of climate curves for individual zones
- Unit monitoring and status (Parameter Viewing, Energy Analysis, Error History)
- Service-reserved functions (system configuration, consumption limits, cascade management, etc.)
- Remote management via the ILET COMFORT app thanks to Wi-Fi connection

ALPHA TOUCH

ON/OFF wireless room thermostat. With Wi-Fi. App control of user times and temperature requirements.		7.2000130

ROOM HYGROSTAT

To control humidity.		3.023302

PROBE KIT

For MAGIS M V2. **NEW**		3.037823

OPTIONAL ACCESSORIES

BUFFER TANKS

To ensure proper defrost cycle operation and to prevent intermittent running of the heat pump, the system must contain a minimum water volume of 30 litres for Magis M5/8 Top and 50 litres for Magis M12/16 Top (single or three-phase).

In addition, it is recommended that the dehumidifier circuit has a minimum water content of 3 l/kW of the unit capacity.

Vertical 50 litres buffer tank (RAL 7030) NEW		Dimensions (H x W x D) 820 x 360 x 360 mm	3.036742
Vertical 50 litres buffer tank		Dimensions (H x W x D) 820 x 360 x 360 mm	3.027539
75-litres vertical buffer tank kit. With 4 connections, it also works as a hydraulic separator. It can only be installed inside the building.			3.027288
Bracket kit for wall mounting 75 litres buffer tank.			3.027290

SYSTEM EXPANSION VESSEL

12 litres.		3.011679

PRE-PLUMB CYLINDERS

150L HP Pre-Plumb Cylinder		6.5500171
180L HP Pre-Plumb Cylinder		6.5500172
200L HP Pre-Plumb Cylinder		6.5500173
250L HP Pre-Plumb Cylinder		6.5500174
300L HP Pre-Plumb Cylinder		6.5500175
150L Slimline HP Pre-Plumb Cylinder		6.5500176
180L Slimline HP Pre-Plumb Cylinder		6.5500178
200L Slimline HP Pre-Plumb Cylinder		6.5500177

3 WAY DIVERTER VALVE KIT

To exclude the inertial buffer tank (in summer mode) or for summer/winter switching.		3.020632

SYSTEM ELECTRIC HEATER KIT

Adjustable to 2, 4 or 6 kW (to be installed inside the home).		3.021525

ANTIVIBRATION SUPPORT KIT

The kit includes: - 3 anti-vibration supports - 100 mm high - 6 M10 nuts, washers, and bolts		3.032854

SHUT OFF KNOBS KIT

Connection kit with flexible pipes and valves 1” for MAGIS M6 V2		3.025954
Connection kit with flexible pipes and valves 1 ¼" for MAGIS M8/10/12/16 V2		3.032846

SYSTEM INTEGRATION ELECTRIC RESISTANCE KIT

Adjustable to 2, 4 or 6 kW (to be installed inside the home).		3.021525

FANCOIL UNITS

HYDRO FS 200 Floor standing hydronic fancoil		3.028500
HYDRO FS 400 Floor standing hydronic fancoil		3.028501
HYDRO FS 600 Floor standing hydronic fancoil		3.028502
HYDRO FS 800 Floor standing hydronic fancoil		3.028503
HYDRO FS 1000 Floor standing hydronic fancoil		3.028505
Sheet metal feet kit for HYDRO FS		3.028506
Modulating thermoregulation kit for HYDRO FS*		3.028509
Connection cable to shift water connections from left to right		3.029834
HYDRO 3 V2 Wall-hung hydronic fancoil with remote control and three-way valve with end switch for ON-OFF contacts.		3.033625
HYDRO 4 V2 Wall-hung hydronic fancoil with remote control and three-way valve with end switch for ON-OFF contacts.		3.033626
Connection kit for HYDRO 3/4 V2 left exit		3.029520

* Note: one of these kits is required for fancoil operation.

Alpha

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