



MAGIS COMBO V2 HEAT PUMP

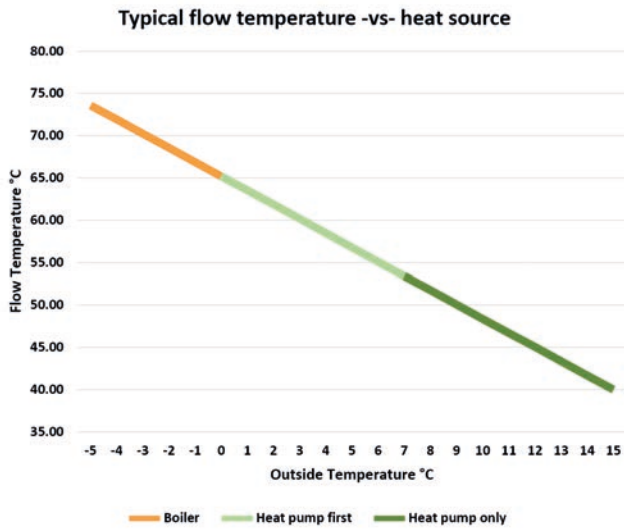
FOR USE IN OLDER HOMES



Immergas Magis Combo

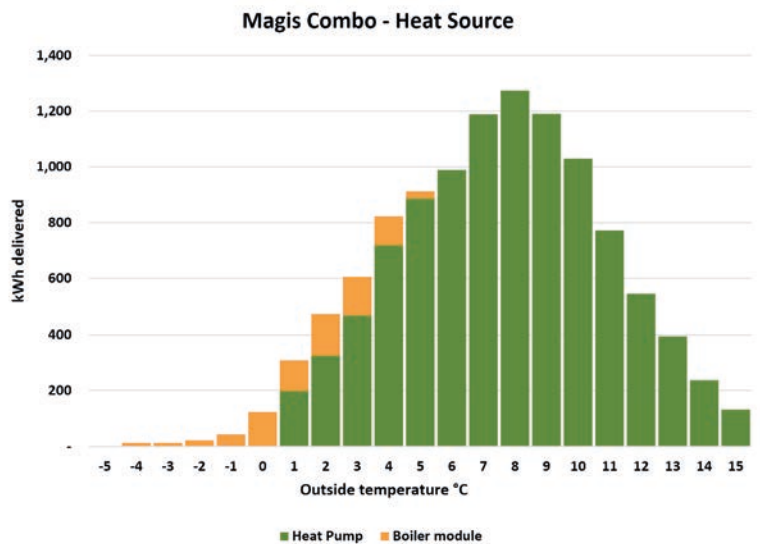
Magis Combo is an air source heat pump. It combines a very efficient heat pump with a powerful gas boiler module.

It can be fitted in any house with no need to change the radiators or water heating tank in most cases. It is ideal for homes with a high level of heat loss.



Most of the heat demand during the heating season is provided by the heat pump with the boiler module kicking in during cold weather when the heat pump may not have enough capacity.

Smart auto-switching electronics decide when to switch over automatically - always prioritising the heat pump.



The performance of the Magis Combo will vary depending on the house. In a typical house, the heat pump will provide over 90% of the heat with the boiler module providing the rest.



Magis Combo 12/14/16 shown

The Magis Combo has an outdoor unit and an indoor unit connected by refrigerant piping and a two core data cable.

The outdoor unit (single or twin-fan, depending on model) takes heat from the air outside and transfers it into the refrigerant circuit, The indoor unit transfers the heat from the refrigerant into the heating or hot water system.

The Magis Combo is unique as it contains a supplementary gas boiler module in the indoor unit which allows it to deliver flow temperatures of up to 80°C when required.

This powerful back-up means it is suitable for use in almost any home without changing the radiators or water heating tank.

The indoor unit has similar pipe locations to a gas boiler, which makes it an ideal boiler replacement.



Installation

The Magis Combo is easily installed.

Indoor Unit

The indoor unit is a wall-hung module with refrigeration, gas, water and drain connections underneath. Flue connection is on top.

It has similar pipe connection locations to a gas boiler which makes it very easy to install when replacing an existing boiler.



Electrical connections are accessed from behind the front cover. Power to the indoor unit is to be provided via a 5A fused spur.

The Magis Combo supports up to three heating zones. Simply connect the volt-free thermostats and zone valves.



Outdoor Unit

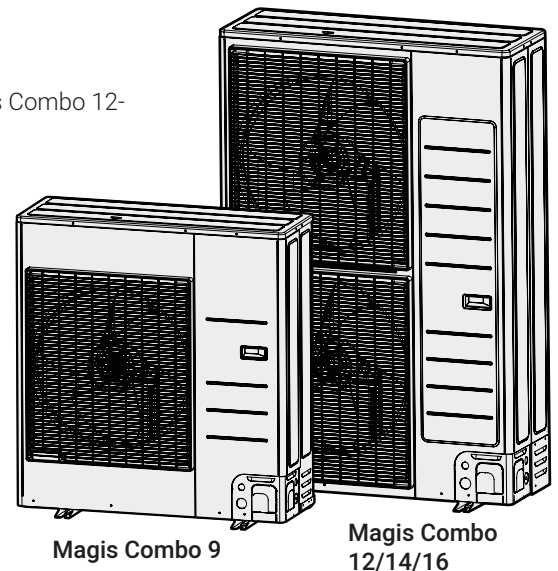
The Magis Combo's outdoor unit is either single fan (Magis Combo 9) or twin fan (Magis Combo 12-14-16).

The unit may be either wall mounted via mounting brackets or floor standing using flexi-feet. Either a gravel bed must be present or condensate piped to drain.

The outdoor unit clearances must be observed - broadly these are 300mm left/rear, 600mm right and 1500mm front. Please consult installation instructions for more information.

The outdoor unit must be powered by a dedicated supply and an appropriate fuse and isolator must be installed.

A two core data cable is installed between the outdoor and indoor unit.



Refrigeration piping

Refrigeration piping must be charged by an F-Gas registered technician.

RVR offer a refrigeration piping installation service if required. In this case, a duct must be made available (no sharp bends). The F-Gas technician will install the refrigerant piping through this duct, connect both ends, charge with refrigerant and commission the heat pump.

We also provide a commissioning only service excluding the f-gas work.



Flue

A 750mm long 60/100 Ø horizontal flue kit is normally used.

A 60/100 Ø vertical flue kit is also available. 80/125 Ø concentric or 80/80 Ø separated flue may also be used. Please see instructions for further information.



Immergas Magis Combo Plus V2

The Magis Combo Plus is designed for connection to a system which incorporates a water heating cylinder.

The indoor unit contains the indoor refrigeration components as well as heating expansion vessel, safety valve and pump.

A 24kw gas boiler module (Natural Gas or LPG) provides additional capacity for heating or hot water.

The Magis Combo Plus has one set of connections for the heating system and one set of connections for direct connection to the water heating cylinder.

A smart auto-switching mode allows the Magis Combo to supply heat to the heating system using either the heat pump or boiler.

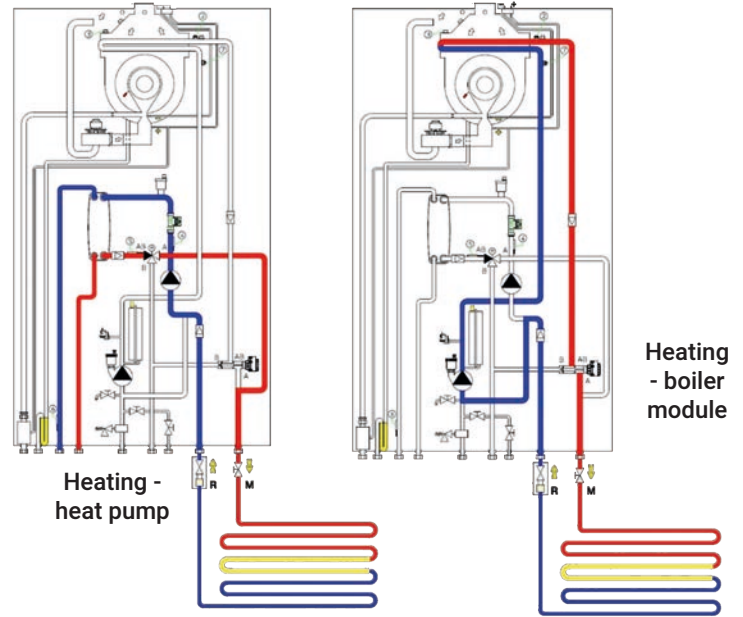
Weather compensation allows the Magis Combo to vary the flow temperature so that high flow temperatures are only provided in the coldest of weather, without sacrificing comfort.

When the required flow temperature is within the operating range of the heat pump (max 65°C - Magis Combo 9, max 55°C - Magis Combo 12-14-16) then the heat pump will be used. This is the majority of the heating season.

If the flow temperature or load is too high then the gas boiler module will be used. This will normally be during cold weather.

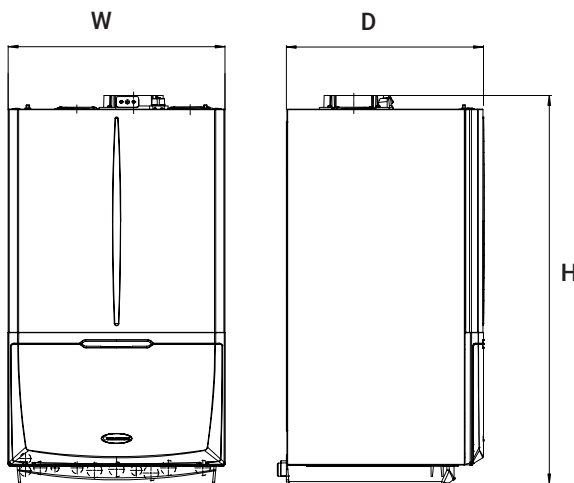
Either the heat pump or gas boiler module can provide water heating to the cylinder, depending on load. A sensor is connected to monitor the temperature of the water heating cylinder. The hot water is automatically heated as needed.

The Magis Combo has an anti-legionella function. It automatically heats the hot water to over 60°C periodically to ensure the hygiene of the domestic hot water is maintained. No Immersion is required.

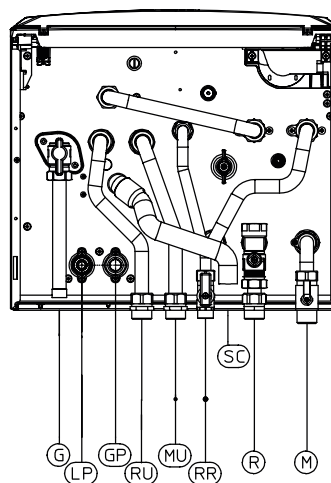


Magis Combo Plus V2	Outdoor unit H x W x D mm	Weight kg Empty	Pipe Connections	Noise db(A)	Max Current A	Breaker Size A	Indoor unit H x W x D mm	Weight kg Empty	Refrigerant	Max Flow °C
9	1010 x 940 x 384	73	1/4"L 5/8"G	64	22	32	787 x 440 x 400	55.8	R32	65 / 80
12	1420 x 940 x 384	100	3/8"L 5/8"G	64	28	35	811 x 440 x 474	61.8	R410A	55 / 80
14				30	40					
16				66	32					

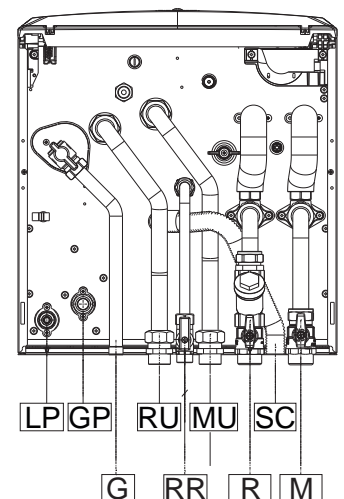
Magis Combo Plus Indoor Unit



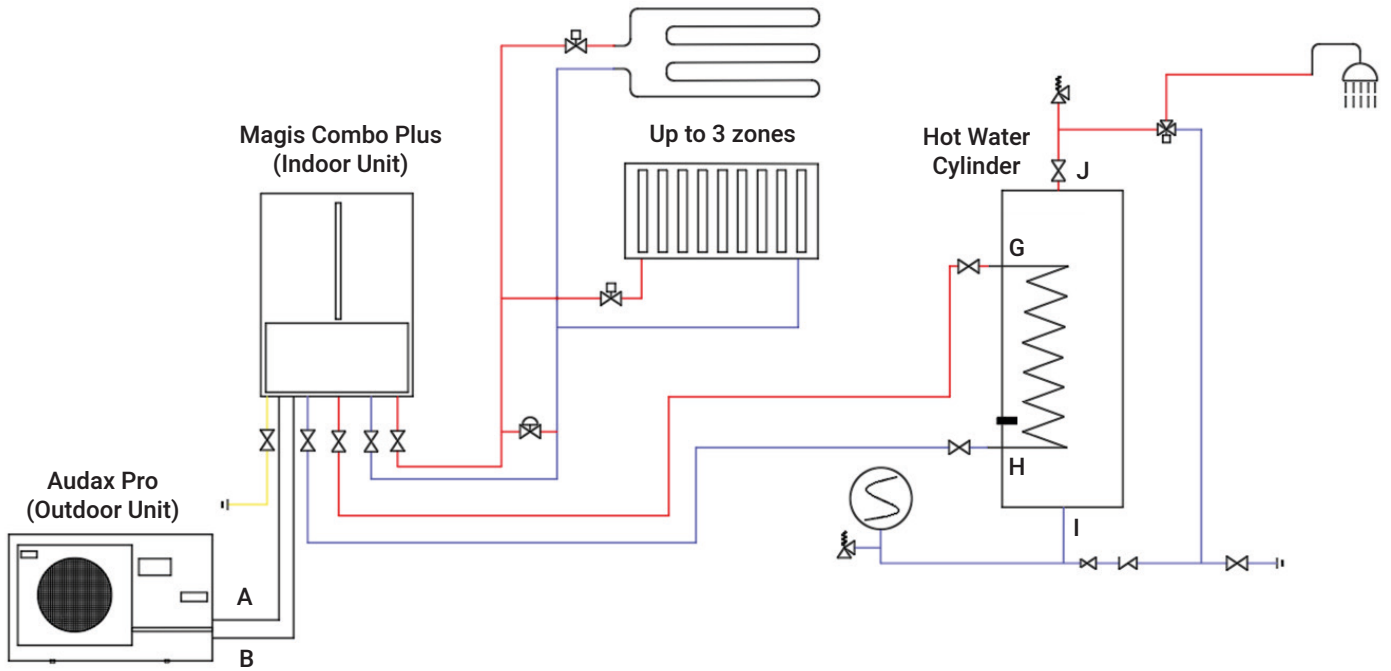
Magis Combo Plus 9



Magis Combo Plus 12-14-16

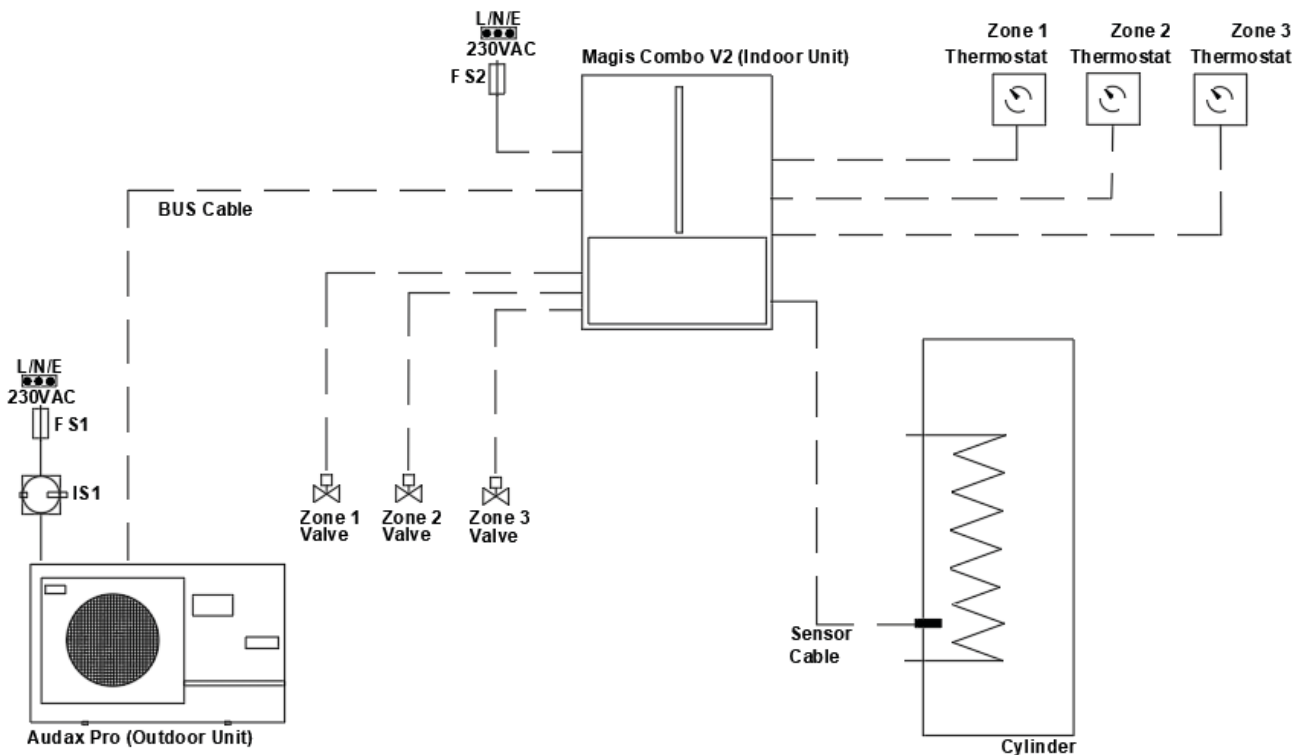


Magis Combo Plus V2 - Illustrative Schematics



Magis Combo Plus V2	9	12-14-16
System Min. Water Quantity	6 L / kW	
System Flow Rates	7.0 + l/min	
Refrigerant Gas Precharge	Up to 15m	
Extra Refrigerant per m beyond	20g	50g
Max distance indoor <-> outdoor	35m	50m
Max. height indoor above outdoor	20m	30m

Connections - Magis Combo Plus V2		9	12-14-16
A	Outdoor Unit - Gas	5/8" Flare	
B	Outdoor Unit - Liquid	1/4" Flare	3/8" Flare
LP	Indoor Unit - Liquid	1/4" Flare	3/8" Flare
GP	Indoor Unit - Gas	5/8" Flare	
G	Natural Gas / LPG	3/4"	
MU/RU	Flow and Return to Cylinder	3/4"	1"
M/R	Flow and Return to System	3/4"	1"
RR	System fill	1/2"	
SC	Condensate drain	Min. 13mm internal Ø	
G/H	Cylinder - Flow and Return	Inoxstor = 3/4"	
I	Cylinder - C.W. Inlet	Inoxstor = 3/4" (500L=1")	
J	Cylinder - D.H.W. Outlet	Inoxstor = 3/4" (500L=1")	



Immergas Magis Combo V2 (combi version)

The Magis Combo (combi version) is designed for connection to a system which does not have any water heating cylinder. It provides hot water instantaneously, on-demand.

The indoor unit contains the indoor refrigeration components as well as heating expansion vessel, safety valve and pump along with DHW plate heat exchanger.

A 27kW gas boiler module (Natural Gas or LPG) provides ample domestic water heating capacity as well as 24kW of additional capacity for heating.

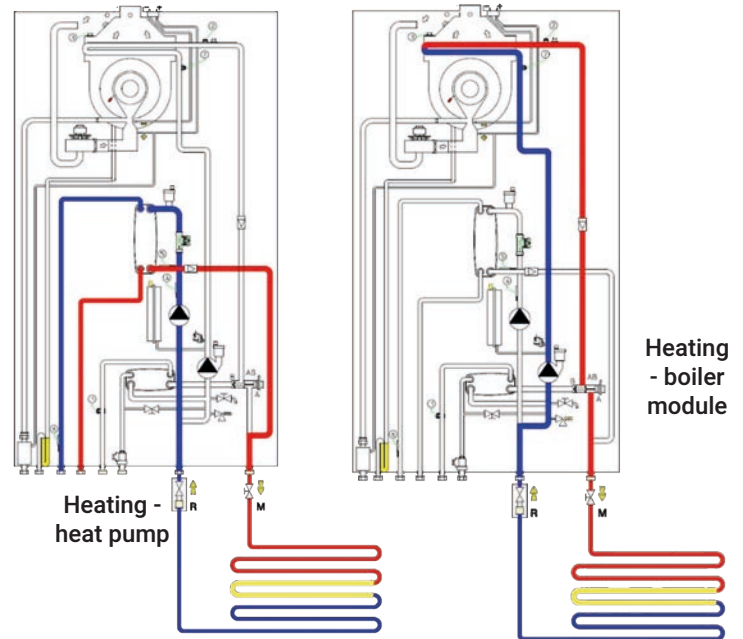


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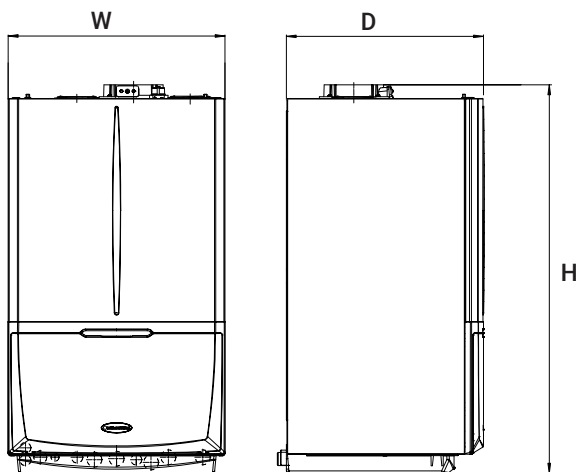
If the flow temperature or load is too high then the gas boiler module will be used. This will normally be during cold weather.

The gas boiler module heats domestic hot water instantaneously, on-demand. This makes the Magis Combo (combi version) an ideal replacement for an existing combi gas boiler or where space for a water heating cylinder is limited.

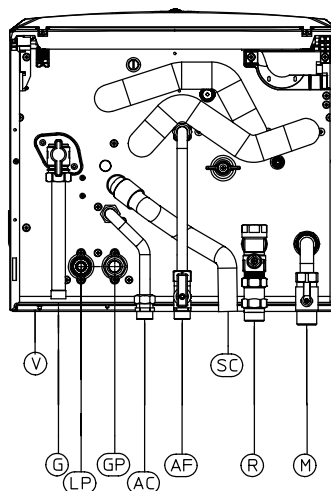


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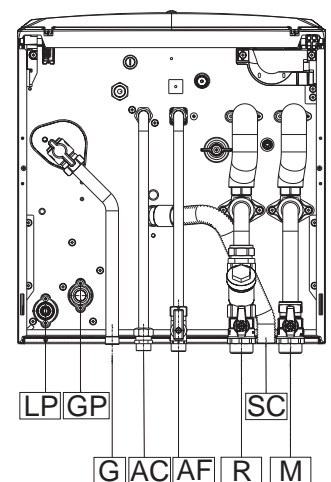
Magis Combo Indoor Unit



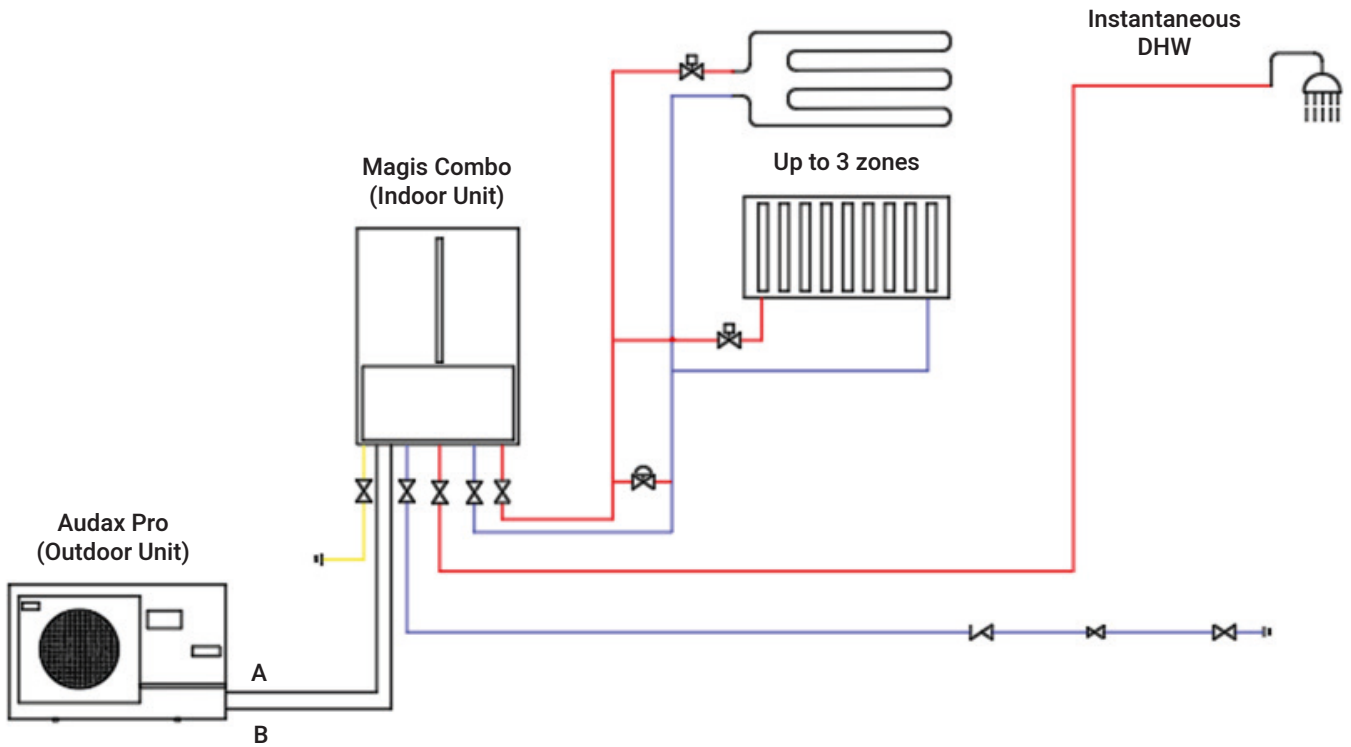
Magis Combo 9



Magis Combo 12-14-16

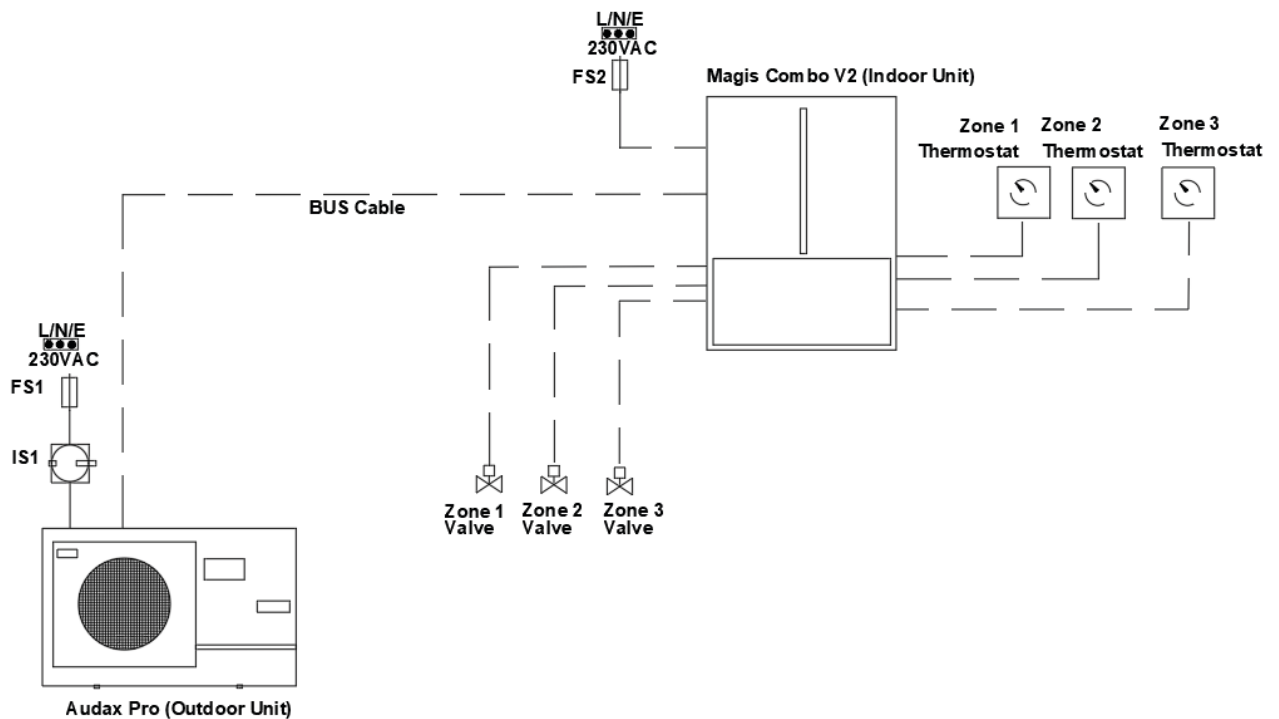


Magis Combo V2 (combi version) - Illustrative Schematics



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GP	Indoor Unit - Gas	5/8" Flare	
G	Natural Gas / LPG	3/4"	
M/R	Flow and Return to System	3/4"	1"
AF	Cold Water Inlet	1/2"	
AC	DHW Outlet	1/2"	
SC	Condensate drain	Min. 13mm internal Ø	



Energy Rating

Magis Combo / Combo Plus V2	9	12-14	16
35°C Space Heating		A+++	A++
55°C Space Heating	A++		A+

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