





MAGIS HERCULES PRO







MAGIS HERCULES PRO

Maximum DHW comfort with renewable energies

The **new MAGIS HERCULES PRO** is the **split heat pump** with external unit and floor-standing internal unit that combines **the largest boiler in the category**, the buffer tank and all the efficiency to ensure very high energy classes even in areas with freezing winters.

The MAGIS HERCULES PRO range consists of appliances called "**all-in-one**" because the floor-standing indoor unit contains all the components necessary to create multi-zone heating and cooling systems. The high capacity storage tank is integrated to get the maximum comfort in medium and large homes such as villas or single-family homes.

The buffer tank - important for the correct operation of the heat pump - **is as standard**, to simplify the installation and optimize costs.

MAGIS HERCULES PRO is the ideal solution for new homes with zero energy impact (with very high thermal insulation and photovoltaic system), for those who want to reduce waste, save energy and reduce harmful emissions as much as possible, in line with the requirements of European standards.





ADVANCED SOLUTIONS FOR NEW HOUSES

MAGIS HERCULES PRO offers a wide range of models: single-phase with **R32 refrigerant gas of 4, 6, 9 kW** and single-phase or three-phase with **R410A refrigerant gas of 12, 14, 16 kW**. They are highly efficient appliances, perfect for obtaining the highest energy classes in new residential buildings of large dimensions even where external temperatures can be particularly freezing.

"ALL IN ONE" TO MAKE INSTALLATION EASIER

MAGIS HERCULES PRO "all-in-one" appliances are easy to assemble because they join, inside the single casing, the 235-liter DHWstorage tank and the ability to manage systems up to 3 zones, all with a complete range of accessories. The suffix "PRO" refers to the requirement for installation by professionals, with F-GAS certification for the refrigeration connections between the 2 units.

PROTECTED FROM FROST

The water circuit is completely protected from frost because it is located inside the internal unit: solution particularly suitable in cold climatic areas.

MAXIMIZE YOUR SAVINGS WITH PHOTOVOLTAIC SYSTEMS

MAGIS HERCULES PRO combines in the most effective way with photovoltaic systems and allows to obtain **domestic hot water, heating and cooling** with the free energy of the sun.



MAIN FEATURES INDOOR UNIT

72 plates refrigerant/ water exchanger

235-litres DHW stainless steel storage tank

45-litres buffer tank,working also as hydraulic manifold with set up for integration of 1 or 2 heating system integrative electric heater 3-kW (available as optional kit)

2,3-kW DHW electric heater supplied as standard (possible installation of 1 or 2 further DHW heaters - available as optional kit)

24-litres expansion vessel for heating system

16-litres DHW expansion vessel

3-way valve for DHW/ System

Flow-meter that switch on the heat pump when the water flow rate is enough

Shut off knobs with filter as standard

Protection index IPX5D (approved for indoor installation only)



MAIN FEATURES INDOOR UNIT

Equipped with one pump to manage one direct zone, as standard. The casing of the indoor unit can contain 2 further pumps and 2 mixing valves, thus managing a total of 3 zones (1 direct and 2 mixed).

Kit	Description	Code
Additional mixed 2nd zone kit for MAGIS HERCULES PRO 4-6-9	Composed by: 1 low consumption pump, mixing valve and connection pipes.	3.030855
Additional mixed 2nd zone kit for MAGIS HERCULES PR0 12/14/16/12T/14T/16T	Composed by: 1 low consumption pump, mixing valve and connection pipes.	3.030943
Additional mixed 3rd zone kit for MAGIS HERCULES PRO 4-6-9	Composed by: 1 low consumption pump, 1 mixing valve, connection pipes and expansion.	3.030856
Additional mixed 3rd zone kit for MAGIS HERCULES PRO 12/14/16/12T/14T/16T	Composed by: 1 low consumption pump, 1 mixing valve, connection pipes and expansion.	3.030944



SUPPLIED AS A SINGLE PACKAGE, THE INDOOR UNIT MAY BE SEPARATED INTO TWO UNITS

In order to simplify the work of installers, the design of MAGIS HERCULES PRO has been particularly careful to handling and transport aspects.

The floor-standing indoor unit of MAGIS HERCULES PRO, thanks to suitable mechanical and electrical arrangements, **can be divided into 2 sections halving its volume and weight** thus facilitating the handling in the installation sites.



AUDAX PRO 4 V2

MAIN FEATURES OUTDOOR UNIT OF MAGIS HERCULES PRO (AUDAX PRO V2)

Inverter technology rotative compressor

Preloaded refrigerant GAS R32 [4/6/9 versions]

Preloaded refrigerant GAS R410A (12/14/16/12T/14T/16T versions)

Shut off knobs for refrigerant gas circuit as standard

Air finned heat exchanger (with single fan in 4/6/9 versions, with double fan in12/14/16/12T/14T/16T versions)

Electronic lamination valve bi-flow

4-way valve for cycle inversion

Heating and cooling operation (reversible)

Approved for installation outdoor without protection



USER INTERFACE

New design, equipped with cover hatch for control panel provided with opening for visibility of the wide and backlit display.

The controls are composed of LED touch buttons with sound effect and encoders for adjustments.

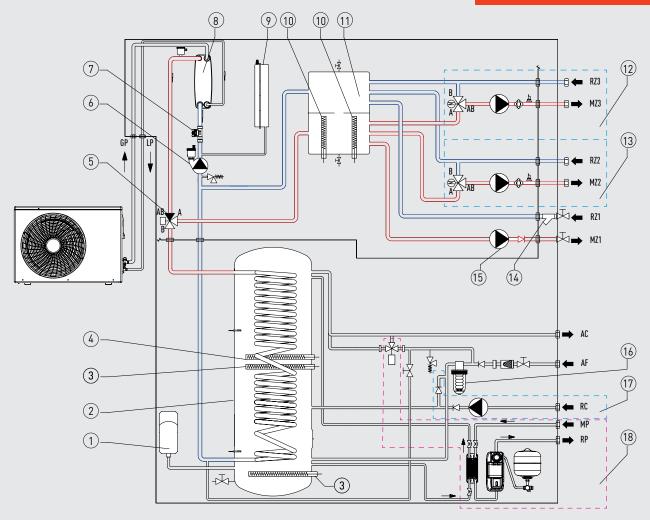
ELECTRONICS

Hydraulic and electric parts are managed directly by MAGIS HERCULES PRO electronics, therefore they are not additional supervision boards required.

The main adjustment and control functions take place from the dashboard:

- the time slots scheduling and related climatic curves for each circuit/zone (both for heating and cooling);
- identification of the operating mode of each single zone by choosing between heating only, cooling only, heating/cooling, heating/cooling with dehumidification, cooling only with dehumidification.

In addition, the new **Zone remote control panel** (code 3.030863) and the new **ModBus temperature and humidity sensor kit** (code 3.030992) allow easy connection and communication with the electronic board, integrated into the casing of the MAGIS HERCULES PRO indoor unit, in managing time slots, temperature and humidity of each single zone.



KEY

- 1 16-litres DHW expansion vessel
- 2 235-litres DHW storage tank unit
- **3** 2,3 kW DHW electric resistance (optional)
- **4** 2,3 kW DHW electric resistance (standard)
- **5** 3 way valve DHW/system
- **6** Primary circuit pump
- 7 Flow-meter
- 8 Refrigerant/water plate exchanger
- 9 24-litres heating system expansion vessel
- **10** 3 kW electric resistance for heating system (optional)
- 11 45-litres buffer tank/hydraulic manifold
- **12** Additional mixed 3rd zone kit (optional)
- **13** Additional mixed 2nd zone kit (optional)
- 14 Y inspection filter
- **15** 1st direct zone pump
- 16 Anti-scale kit (optional)
- 17 Recirculation kit with pump (optional)
- 18 Solar kit (optional)

- **GP** Gas refrigerant line
- LP Liquid refrigerant line
- **RZ3** Return 3rd mixed zone (optional)
- MZ3 Delivery 3rd mixed zone (optional)
- **RZ2** Return 2nd mixed zone (optional)
- MZ2 Delivery 2nd mixed zone (optional)
- RZ1 Return 1st direct zone
- **MZ1** Delivery 1st direct zone
- AC Domestic hot water outlet
- AF Domestic cold water inlet
- RC Recirculation (optional)
- MP Delivery to solar collector (optional)
- **RP** Return from solar collector (optional)

Technical characteristics	Unit of measurement	MAGIS HERCULES PRO 4	MAGIS HERCULES PRO 6	MAGIS HERCULES PRO 9
Code N.G. Code L.P.G.		3.030428	3.030429	3.030430
Energetic class in heating at 55 °C		A+++	A+++	A+++
Energetic class in heating at 35 °C		A++	A++	A++
Energetic class DHW/load profile		A/L	A/L	A/XL
Refrigerant quantity (R32)	g	1.200	1.200	1.400
Heating capacity (system water 35 °C)	kW	4,40	6,00	9,00
Heating capacity (system water 45 °C)	kW	4,20	5,40	8,60
Heating capacity (system water 55 °C)	kW	3,90	4,80	8,00
Flow temperature range (C.H.)	°C	20-65	20-65	20-65
Outside air temperature range (C.H.)	°C	-25/35	-25/35	-25/35
COP (system water 35 °C)		5,20	4,92	4,81
COP (system water 45 °C)		3,85	3,58	3,69
COP (system water 55 °C)		2,95	2,65	2,93
Cooling capacity (system water 18 °C)	kW	5,00	6,50	8,70
Cooling capacity (system water 7 °C)	kW	3,60	4,70	6,50
Flow temperature range (cooling)	°C	5 - 25	5 - 25	5 - 25
Outside air temperature range (cooling)	°C	10/46	10/46	10/46
EER (system water 18 °C)		4,59	4,42	4,12
EER (system water 7 °C)		3,24	3,26	3,33
Maximum power absorbed	W	2.100	2.900	4.300
Power supply	V - Hz	230 - 50	230 - 50	230 - 50
Outdoor unit weight (empty)	kg	46,5	46,5	73
DATA REFERRE	ED TO INDOOR FLOOR	-STANDING UNIT		
Expansion vessel capacity (C.H.)	l	24	24	24
Expansion vessel capacity (D.H.W.)	l	16	16	16
Electric power absorbed	W	135	135	135
Electrical absorption DHW integrative resistance	W	2,3	2,3	2,3
Max operating pressure hydronic circuit	bar	3	3	3
Power supply	V - Hz	230 - 50	230 - 50	230 - 50
Adjustable DHW temperature (with electric heater activated)	°C	10-55 (10-65)	10-55 (10-65)	10-55 (10-65)
Indoor unit weight (empty)	kg	211	211	211

Referred to the following conditions:

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

For more information consult the technical sheet or the website immergas.com



Technical characteristics	Unit of measurement	MAGIS HERCULES PRO 12	MAGIS HERCULES PRO 14	MAGIS HERCULES PRO 16	MAGIS HERCULES PRO 12 T	MAGIS HERCULES PRO 14 T	MAGIS HERCULES PRO 16 T
Code N.G. Code L.P.G.		3.030431	3.030432	3.030433	3.030434	3.030435	3.030436
Energetic class in heating at 55 °C		A+++	A+++	A++	A+++	A+++	A++
Energetic class in heating at 35 °C		A+	A+	A+	A+	A+	A+
Energetic class DHW/load profile		A/XL	A/XL	A/XL	A/XL	A/XL	A/XL
Refrigerant quantity (R410A)	g	2.980	2.980	2.980	2.980	2.980	2.980
Heating capacity (system water 35 °C)	kW	12,00	14,00	16,00	12,00	14,00	16,00
Heating capacity (system water 45 °C)	kW	11,50	13,00	15,30	11,50	13,00	15,30
Heating capacity (system water 55 °C)	kW	11,01	12,45	14,60	11,01	12,45	14,60
Flow temperature range (C.H.)	°C	20 - 55	20 - 55	20 - 55	20 - 55	20 - 55	20 - 55
Outside air temperature range (C.H.)	°C	-25/35	-25/35	-25/35	-25/35	-25/35	-25/35
COP (system water 35 °C)		4,63	4,44	4,26	4,63	4,44	4,26
COP (system water 45 °C)		3,56	3,47	3,37	3,56	3,47	3,37
COP (system water 55 °C)		2,87	2,80	2,74	2,87	2,80	2,74
Cooling capacity (system water 18 °C)	kW	12,00	14,00	15,00	12,00	14,00	15,00
Cooling capacity (system water 7 °C)	kW	9,00	10,50	11,20	9,00	10,50	11,20
Flow temperature range (cooling)	°C	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25
Outside air temperature range (cooling)	°C	10/46	10/46	10/46	10/46	10/46	10/46
EER (system water 18 °C)		3,87	3,68	3,62	3,87	3,68	3,62
EER (system water 7 °C)		2,90	2,80	2,80	2,90	2,80	2,80
Maximum power absorbed	W	6.160	6.930	8.190	6.160	6.930	8.190
Power supply	V - Hz	230 - 50	230 - 50	230 - 50	400 - 50	400 - 50	400 - 50
Outdoor unit weight (empty)	kg	100	100	100	101,5	101,5	101,5
	[DATA REFERRED	TO INDOOR FLO	OR-STANDING UI	TIV		
Expansion vessel capacity (C.H.)	l	24	24	24	24	24	24
Expansion vessel capacity (D.H.W.)	l	16	16	16	16	16	16
Electric power absorbed	W	205	205	205	205	205	205
Electrical absorption DHW integrative resistance	W	2,3	2,3	2,3	2,3	2,3	2,3
Max operating pressure hydronic circuit	bar	3	3	3	3	3	3
Power supply	V - hz	230 - 50	230 - 50	230 - 50	230 - 50	230 - 50	230 - 50
Adjustable DHW temperature (with electric heater activated)	°C	10 - 55 (10 - 65)	10 - 55 (10 - 65)	10 - 55 (10 - 65)			
Indoor unit weight (empty)	kg	212	212	212	212	212	212

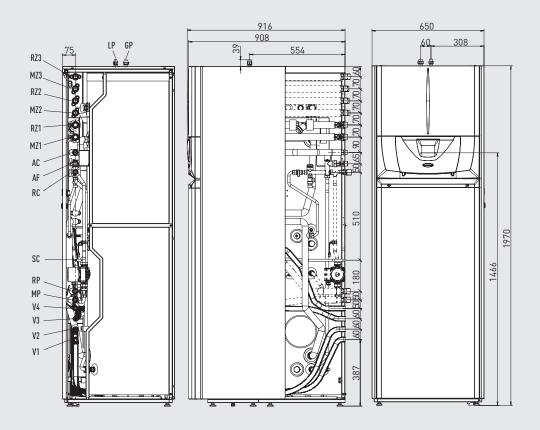
Referred to the following conditions:

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

For more information consult the technical sheet or the website immergas.com

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MAGIS HERCULES PRO



Key

- **RP** Return from solar collectors (optional)
- **MP** Delivery to solar collectors (optional)
- RZ3 Return 3d mixed zone (optional)MZ3 Delivery 3rd mixed zone (optional)
- **RZ2** Return 2nd mixed zone (optional)
- MZ2 Delivery 2nd mixed zone (optional)
- RZ1 Return 1st direct zone
- MZ1 Delivery 1st direct zone
- AC Domestic hot water outlet

- AF Domestic cold water inlet
- **RC** Recirculation (optional)
- SC Condensate water drain
- LP Liquid refrigerant line
- GP Gas refrigerant line
- V1 Electrical connections 3rd zone
- V2 Electrical connections integrative resistances power supply
- V3 Electrical connections alimentation cable
- V4 Main electrical connections

Connections MAGIS HERCULES PRO 4/6/9

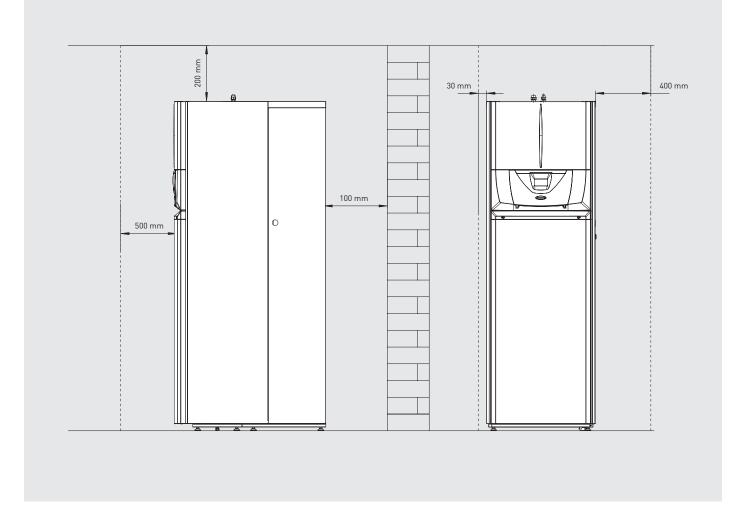
R	32	D.H	I.W.	Recirculation				Sys	tem			
LP	GP	AC	AF	RC	RP	MP	RZ1	MZ1	RZ2	MZ2	RZ3	MZ3
SAE¼"	SAE5/8"	G¾"	G¾"	G¾"	G¾"	G¾"	G1"	G1"	G1"	G1"	G1"	G1"

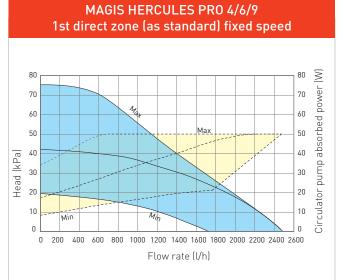
Connections MAGIS HERCULES PRO 12/14/16/12T/14T/16T

R4	10A	D.H	I.W.	Recirculation				Sys	tem			
LP	GP	AC	AF	RC	RP	MP	RZ1	MZ1	RZ2	MZ2	RZ3	MZ3
SAE3/8"	SAE5/8"	G¾"	G¾"	G3⁄4"	G¾"	G3/4"	G1"	G1"	G1"	G1"	G1"	G1"

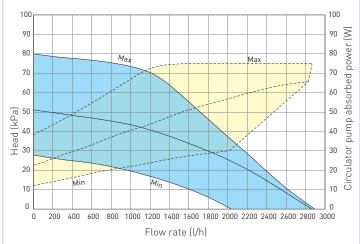


Minimum distances for floor-standing indoor unit





MAGIS HERCULES PRO 12/14/16/12T/14T/16T 1st direct zone (as standard) fixed speed

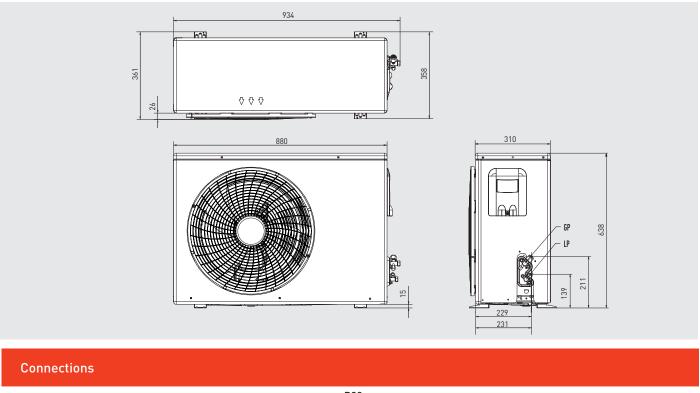


Key

Head available to the system

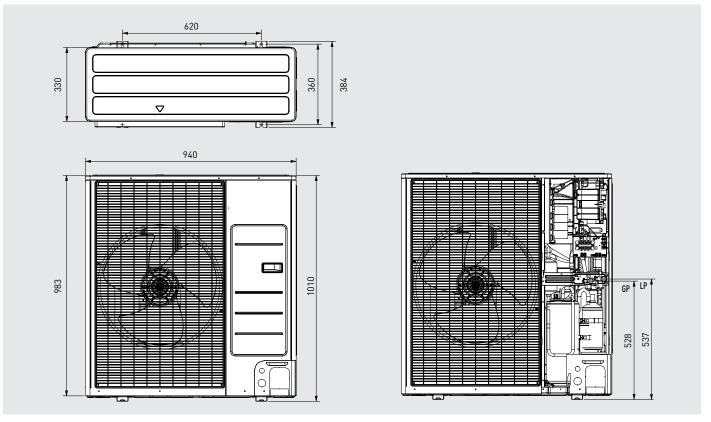
Absorbed power by the circulator (dotted area)

Outdoor unit AUDAX PRO 4/6 V2 for MAGIS HERCULES PRO



R32			
GP (gas refrigerant)	LP (liquid refrigerant)		
 %" (15,88 mm)	¼" (6,35 mm)		

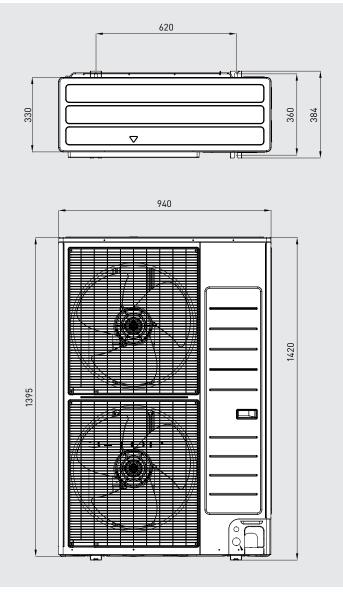
Outdoor unit AUDAX PRO 9 V2 for MAGIS HERCULES PRO



Connections

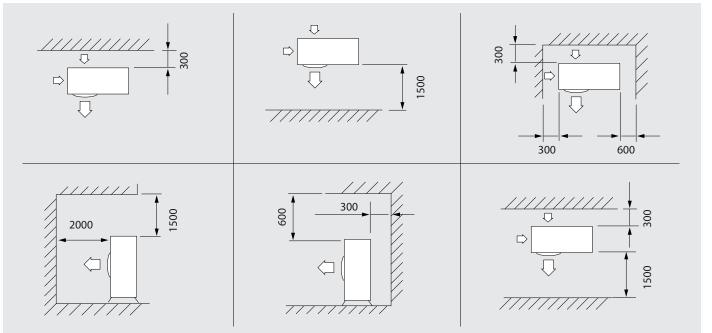
R32				
GP (gas refrigerant)	LP (liquid refrigerant)			
5%" (15,88 mm)	1⁄4" (6,35 mm)			

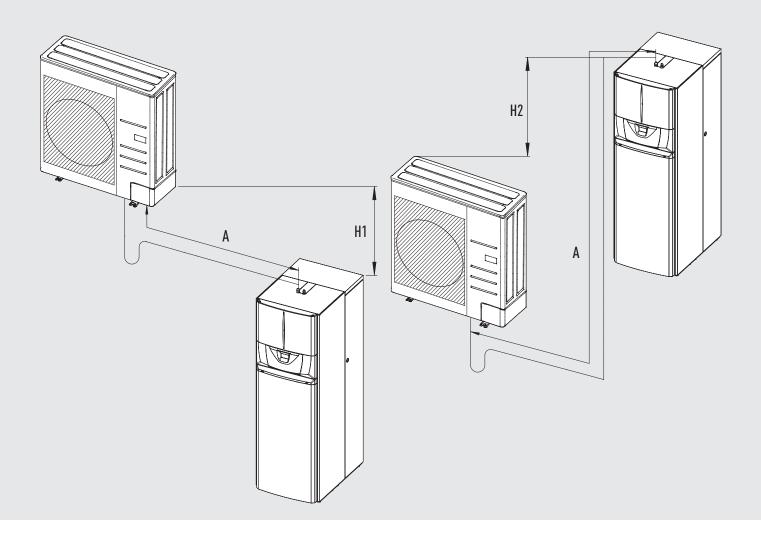
Outdoor unit AUDAX PRO 12/14/16/12T/14T/16T V2 for MAGIS HERCULES PRO



Connections				
R410A				
GP (gas refrigerant)	LP (liquid refrigerant)			
⁵⁄≈" (15,88 mm)	¾" (9,52 mm)			

Minimum distances outdoor unit (AUDAX PRO V2) installation





INSTALLING THE REFRIGERANT LINES

The MAGIS HERCULES PRO refrigerant circuit uses high pressure refrigerants R32 or R410A (depending on the versions). Pipes and other parts subject to pressure must be compliant and suitable for the refrigerant itself; therefore they must be certified and it is necessary to observe the methods of installation stated on the instruction manual supplied with the product.

The length of the pipes between the outdoor and indoor units and the difference in height must not exceed the specified limits. The maximum lengths of the refrigerant lines are listed below, based on the outdoor unit model and the type of installation:

	AUDAX PRO 4/6 V2	AUDAX PRO 9 V2	AUDAX PRO 12/14/16/12T/14T/16T V2
А	≤ 30 m	≤ 35 m	≤ 50 m
H1	≤ 20 m	≤ 20 m	≤35 m
H2	≤ 15 m	≤ 15 m	≤ 15 m

TOPPING UP THE REFRIGERANT LOAD

The top-up depends on the total length and diameter of the pipes.

All the default factory loads are determined, as follows, according to the maximum length of the pipes. If the used pipes are longer than stated above, the load must be topped-up in the manner and quantities described in the instruction manual supplied with the product.

N.B.: To avoid breaking the compressor, do not top-up the refrigerant beyond the specified amount.

	Maximum length without base load top-up (liquid line pipe)	Top-up quantity for every additional metre of the liquid line pipe
AUDAX PRO 4/6/9 V2	≤ 15 m	20 g/m
AUDAX PR0 12/14/16/12T/14T/16 T V2	≤ 20 m	50 g/m



Combining MAGIS HERCULES PRO with a thermoregulation device is an excellent investment because it improves the seasonal energy efficiency of the system. For each of the following thermoregulation devices we therefore stated a class which gives you the percentage value of increased efficiency.

Zone remote control panel NEW

Туре			Code
Modulating chronotermostat, remote control with temperature/ humidity sensor. Temperature control class V* o VI Contribution to seasonal space heating energy efficiency 3%* o 4%		mensions (H x W x D) m 100 x 129 x 37	3.030863
lod-bus temperature and humidity sensor NEW			
To be used with radiant systems that also work in cooling mode. Temperature control class V o VI* Contribution to seasonal space heating energy efficiency 3% or 4%*		Dimensions (H x W x D) nm 80 x 127 x 30	3.030992
CRONO 7			
ON/OFF room thermostat. Temperature control class IV* o VII Contribution to seasonal space heating energy efficiency 2%* o 3,5%		Dimensions (H x W x D) nm 103 x 142 x 31	3.021622
vailable also in WIRELESS version – code 3.021624			
Room hygrostat			
To be used with radiant systems that also work in cooling mode.		sions (H x W x D)) x 115 x 40	3.023302
OOMINUS interface kit			
Wi-fi interface kit to remote control by App			3.026273
External probe			
To be used when external probe as standard in outdoor unit is not correctly exposed. Temperature control class II*, VI o VII Contribution to seasonal space heating energy efficiency 2%*, 4% or 3,5%	()		3.015266

For direct zone.

3.019229

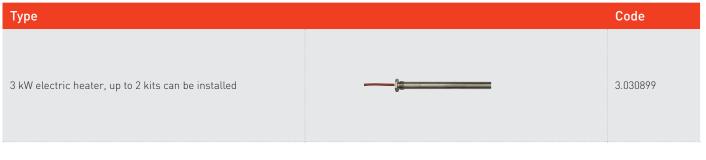
* Temperature control class with default settings. Some heat regulation device can change class depending on the settings and operation modes that can be changed, for example Modulating or ON/OFF. The use of these devices contributes, in percentage, to the seasonal energy efficiency of the heating system.



Inside the various range of options kit, it is possible to find out complementary accessories for installing MAGIS HERCULES PRO.

The use of original kits enhances quality and reliability of the products.

Integration electric heater kit NEW



DHW integration electric heater kit NEW



Recirculation kit with pump NEW



Connection kit for gas refrigerant circuit NEW

For R32 circuit (allow an easy connection of the refrigerant circuit in the case of pipes coming out from the indoor unit rear wall).	3.031505
For R410A circuit (allow an easy connection of the refrigerant circuit in the case of pipes coming out from the indoor unit rear wall)	3.031506

Solar kit NEW

Composed by: plate heat exchanger, single solar pump station (with low consumption circulation pump), solar central unit, connection pipes,18 litre solar expansion vessel, temperature probes (for collectors and storage tank).

N.B.: For solar panel and other solar accessories see the solar catalogue.





Anti-scale kit NEW

Туре	Code
To be installed inside the casing.	3.030859

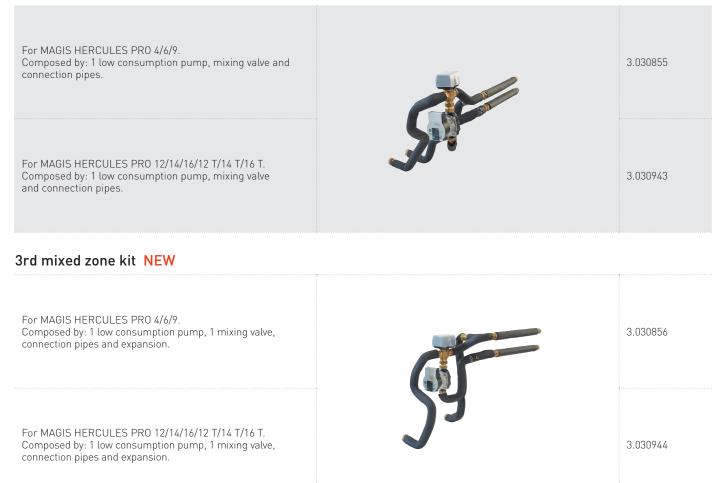
Condensate antifreeze heating cable kit

For external unit	3.027385
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Shut off knobs kit NEW

Shut off knobs with filters, 1" connections (for zones 2 and 3, only); standard for zone 1.	3.030861
Shut off knobs, 1" connections (for zones 2 and 3 only).	3.030860

2nd mixed zone kit NEW



3-way diverter valve kit

3-way diverter valve kit	
Туре	Code
To be used as diverter valve for heating/cooling switching.	3.020632
Vall-mounting bracket	
Wall mounting brackets for external unit of HERCULES PRO 4/6/9 V2	3.022154
Double electronic anode kit	
Protects the storage tank from eddy currents.	3.025003
Dehumidifier kit	
Dehumidifier kit*	

Dehumidifier kit*	
Only for recessed installation with codes 3.022146 and 3.022147	3.021529
Dehumidifier back frame kit*	3.022146
Dehumidifier front grille kit*	3.022147

* Useful for radiant systems that work also in cooling.



ZENITAIR-MONO

Decentralised mechanical ventilation unit, easy to install. Suitable for new building or restorations. Useful to complete the supply with our hybrid systems and only heat pump solutions.

- Decentralised Mechanical Ventilation unit, with alternate flow and heat recovery core.
- Multifunction remote controller, with LCD display to visualise the status of the unit supplied as standard.
- Silent, efficient and easy to install.
- Simplified synchronisation of more units (up to 10): thanks to a dedicated communication protocol the units get automatically synchronised when they are wired each other.
- Free cooling: extract only or intake only to prevent heat exhange when not nedeed.
- Automatic anti-frost protection to prevent frost building up on the heat exchanger.





Model	Code	Air-flow at different speed m3/h	Power consumption at different speed W	Thermal efficiency %
ZENITAIR-MONO NEW Mechanical bidirectional ventilation unit	3.030601	60/50/40/30/20	6/4,5/3,5/2,5/2	74

Option kit

Туре	Code
External cover kit with acoustical insulation for ZENITAIR-MONO NEW anti-insect net and anti-wind in pre-painted steel	3.030636

Hydronic fancoils and accessories

Туре	Code
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
HYDRO IN 200 Wall and ceiling built-in hydronic fancoil	3.029841
HYDRO IN 400 Wall and ceiling built-in hydronic fancoil	3.029842
HYDRO IN 600 Wall and ceiling built-in hydronic fancoil	3.029843
HYDRO IN 800 Wall and ceiling built-in hydronic fancoil	3.029844
HYDRO IN 1000 Wall and ceiling built-in hydronic fancoil	3.029845
Smart touch wall controller with temperature probe (black casing)* NEW	3.030877
Smart touch wall controller with temperature probe (white casing)* NEW	3.030878
On board electronic control with PID full modulating fan* NEW	3.030876
Sheet metal feet kit for HYDRO FS	3.028506
Modulating thermoregulation kit for HYDRO FS*	3.028509
4 speeds thermoregulation kit for HYDRO FS*	3.028510
Universal control board for commercial thermoregulation*	3.028511
Electronic control board with 0-10 V connection*	3.028512
Connection cable to shift water connections from left to right	3.029834
2-way group valve kit	3.028507
3-way group valve kit	3.028508
HYDRO 3 Wall-hung hydronic fancoil with remote control as standard.	3.027918
HYDRO 4 Wall-hung hydronic fancoil with remote control as standard.	3.027919
Connection kit for HYDRO 3/4 left exit	3.029520

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* It is mandatory to install one of these kits to operate the fancoil For the recessed installation of HYDRO IN, specific options are available on the dedicated documentation.









immergas.com

Immergas S.p.A. 42041 Brescello (RE) - Italy T. 0522.689011 F. 0522.689178



Design, manufacture and post-sale assistance of gas boilers, gas water heaters and related accessories