

PLUMBERS



Instructions and recommendations

IE

Installer

User

Maintenance technician

UI PRE PLUMBED

200

Electric heat pump
consisting of:

- PRE PLUMBED 200 indoor unit
- Outdoor motocondensing unit
UE HYDRO HP5-8-12-16



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Dear Customer

Congratulations for having chosen a top-quality Immergas product, able to assure well-being and safety for a long period of time. As an Immergas customer you can also count on a Qualified Authorised After-Sales Technical Assistance Centre, prepared and updated to guarantee constant efficiency of your appliance. Read the following pages carefully: you will be able to draw useful tips on the proper use of the device, compliance with which will confirm your satisfaction with the Immergas product.

For assistance and routine maintenance, contact Authorised Technical Service Centres: they have original spare parts and are specifically trained directly by the manufacturer.

Thermal systems must undergo periodic maintenance and scheduled checks of the energy efficiency in compliance with national, regional or local provisions in force.

The company **IMMERGAS S.p.A.**, with registered office in via Cisa Ligure 95 42041 Brescello (RE), declares that the design, manufacturing and after-sales assistance processes comply with the requirements of standard **UNI EN ISO 9001:2015**.

For further details on the product CE marking, request a copy of the Declaration of Conformity from the manufacturer, specifying the appliance model and the language of the country.

The manufacturer declines all liability due to printing or transcription errors, reserving the right to make any modifications to its technical and commercial documents without forewarning.



GENERAL RECOMMENDATIONS

This book contains important information for the:

Installer (section 1);

User (section 2);

Maintenance Technician (section 3).

For instructions on the UE HYDRO HP outdoor condensing unit, please refer to the relevant instruction manual;

- The user must carefully read the instructions in the specific section (section 2).
- The user must limit operations on the appliance only to those explicitly allowed in the specific section.
- **Every operation carried out on the heat pump (e.g. set up, inspection, installation and commissioning), must mandatorily be performed by authorised personnel alone and in possession of a technical engineering or professional degree qualifying them to perform these tasks. They must also have attended a refresher course acknowledged by competent authorities. This particularly applies to personal specialised in C.H. and air-conditioning systems and qualified electricians who, due to their specialised training, skills and experience are experts in the correct installation and maintenance of C.H., cooling and air-conditioning systems.**
- The appliance must be installed by qualified and professionally trained personnel.
- The instruction booklet is an integral and essential part of the product and must be given to the new user in the case of transfer or succession of ownership.
- It must be stored with care and consulted carefully, as all of the warnings provide important safety indications for installation, use and maintenance stages.
- In compliance with the legislation in force, the systems must be designed by qualified professionals, within the dimensional limits established by the Law. Installation and maintenance must be performed in compliance with the regulations in force, according to the manufacturer's instructions and by professionally qualified staff, meaning staff with specific technical skills in the plant sector, as provided for by Law.
- Improper installation or assembly of the Immergas device and/or components, accessories, kits and devices can cause unexpected problems for people, animals and objects. Read the instructions provided with the product carefully to ensure proper installation.
- This instructions manual provides technical information for installing Immergas products. As for the other issues related to the installation of products (e.g. safety at the workplace, environmental protection, accident prevention), it is necessary to comply with the provisions of the standards in force and the principles of good practice.
- All Immergas products are protected with suitable transport packaging.
- The material must be stored in a dry place protected from the weather.
- Damaged products must not be installed.
- Maintenance must be carried out by skilled technical staff. For example, the Authorised Service Centre that represents a guarantee of qualifications and professionalism.
- The appliance must only be destined for the use for which it has been expressly declared. Any other use will be considered improper and therefore potentially dangerous.
- If errors occur during installation, operation and maintenance, due to non-compliance with technical laws in force, standards or instructions contained in this booklet (or however supplied by the manufacturer), the manufacturer is excluded from any contractual and extra-contractual liability for any damages and the device warranty is invalidated.
- In the event of malfunctions, faults or incorrect operation, turn the appliance off and contact an authorised company (e.g. the Authorised Technical Assistance Centre, which has specifically trained staff and original spare parts). Do not attempt to modify or repair the appliance alone.

SAFETY SYMBOLS USED



GENERIC HAZARD

Strictly follow all of the indications next to the pictogram. Failure to follow the indications can generate hazard situations resulting in possible harm to the health of the operator and user in general, and/or property damage.



ELECTRICAL HAZARD

Strictly follow all of the indications next to the pictogram. The symbol indicates the appliance's electrical components or, in this manual, identifies actions that can cause an electrical hazard.



WARNING FOR INSTALLER

Read the instruction booklet carefully before installing the product.



LOW FLAMMABILITY MATERIAL

The symbol indicates that the appliance contains low flammability material.



WARNINGS

Strictly follow all of the indications next to the pictogram. Failure to follow the indications can generate hazard situations resulting in possible minor injuries to the health of both the operator and the user in general, and/or slight material damage.



ATTENTION

Read and understand the instructions of the appliance before carrying out any operation, carefully following the instructions given. Failure to observe the instructions may result in malfunction of the unit.



INFORMATION

Indicates useful tips or additional information.



EARTH TERMINAL CONNECTION

The symbol identifies the appliance's earth terminal connection point.



DISPOSAL WARNING

The user must not dispose of the appliance at the end of its service life as municipal waste, but send it to appropriate collection centres.

PERSONAL PROTECTIVE EQUIPMENT



SAFETY GLOVES



EYE PROTECTION



SAFETY FOOTWEAR

1 INSTALLING THE INDOOR UNIT

1.1 DESCRIPTION OF THE PRODUCT.

UI Pre Plumbed 200 + UE Hydro HP5-8-12-16 is a heat pump consisting of:

- Pre Plumbed 200 UI Indoor Unit (hereinafter it will only be referred to as Indoor Unit);
- Hydro HP5-8-12-16 UE Outdoor Unit (hereinafter it will only be referred to as Outdoor Unit).

The product is perfectly operational only if the two units are correctly powered and interconnected.

The indoor unit is designed solely for floor standing installation in an upright position, for winter air conditioning and domestic hot water production in domestic and similar uses;

it can be placed anywhere convenient provided the discharge pipe(s) from its safety valves can be correctly installed and all pre-fitted ancillary parts can be accessed for servicing and/or maintenance.

Areas that are subject to freezing must be avoided.

Ensure that the floor is of sufficient strength to bear the 'full' weight of the unit. Pipe runs should be kept as short as possible for maximum economy.

Additional automatic air vents (AV) (not supplied) may be required at high points in the primary system where pipework is located above the level of the cylinder.

After filling the system (primary circuit), release all trapped air using air vents during and following heating period and top up with water as necessary.

After removing the air, automatic air vent(s) MUST be closed.

For normal operation it must be paired with the following Outdoor Units:

- UE Hydro HP5 Outdoor Unit;
- UE Hydro HP8 Outdoor Unit;
- UE Hydro HP12 Outdoor Unit;
- UE Hydro HP16 Outdoor Unit;

Comply with all requirements concerning the safety and use of both units.

The cylinder of the Indoor Unit is manufactured in high grade stainless steel with manifold, pump, and zone valves pre-fitted.

The unit also has a pre-wired control panel for all connection and settings according to the system requirements:

it is equipped with an integrated resistance for hot water production and protection against legionella;

is provided with high-quality insulation, and meets the highest possible standards in terms of heat loss;

is equipped with a DHW expansion vessel, to be fixed to the wall in the most suitable part for making connections to the inlet hydraulic unit.

A separate primary heating expansion vessel must be used according to the overall volume of the primary system.

This is normally calculated when the system heat loss requirements are designed, and the design flow temperature is calculated.

A primary circuit pressure relief valve is pre-fitted to the cylinder.

1.2 INSTALLATION WARNINGS

INSTALLER



Operators who install and service the appliance must wear the personal protective equipment required by applicable law.



The place of installation of the appliance and relative Immergas accessories must have suitable features (technical and structural), such as to allow for (always in safe, efficient and comfortable conditions):

- installation (according to the provisions of technical legislation and technical regulations);
- maintenance operations (including scheduled, periodic, routine and special maintenance);
- removal (to outdoors in the place for loading and transporting the appliances and components) as well as the eventual replacement of those with appliances and/or equivalent components.



Installation must be carried out according to regulation standards, current legislation and in compliance with local technical regulations and the required technical procedures.



The appliance operates with R32 refrigerant gas.

This gas is ODOURLESS.



Pay the utmost attention

Strictly follow the instruction handbook of the outdoor unit before installation and any type of operation on the chiller circuit.



R32 refrigerant gas belongs to the low flammability refrigerant category: class A2L according to standard ISO 817. It guarantees high performance with low environmental impact. The new gas reduces the potential environmental impact by one third compared to R410A, having less effect on global warming (GWP 675).



MAINTENANCE TECHNICIAN



The manufacturer declines all liability in the event of damage caused by appliances removed from other systems or for any non-conformities with such equipment.



Only a professionally enabled company is authorised to install Immergas appliances.



Check the environmental operating conditions of all parts relevant to installation, referring to this booklet.

TECHNICAL DATA



If installing a kit or servicing the appliance, always empty the system's circuit first so as not to compromise the appliance's electrical safety (Parag. 2.9).

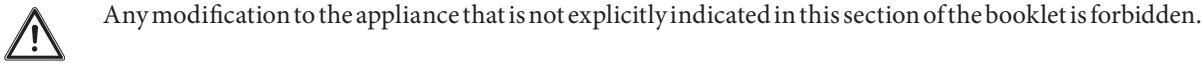
Always disconnect the appliance from voltage and, depending on the type of operation, decrease the pressure and/or bring it to zero in the system circuit.



Before installing the appliance, ensure that it is delivered in perfect condition; if in doubt, contact the supplier immediately. Packing materials (staples, nails, plastic bags, polystyrene foam, etc.) constitute a hazard and must be kept out of the reach of children.

If the appliance is installed inside or between cabinets, ensure sufficient space for routine servicing; for minimum installation distances, see Fig. 2.

 Keep all combustible material away from the appliance (paper, rags, plastic, polystyrene, etc.).

 Any modification to the appliance that is not explicitly indicated in this section of the booklet is forbidden.

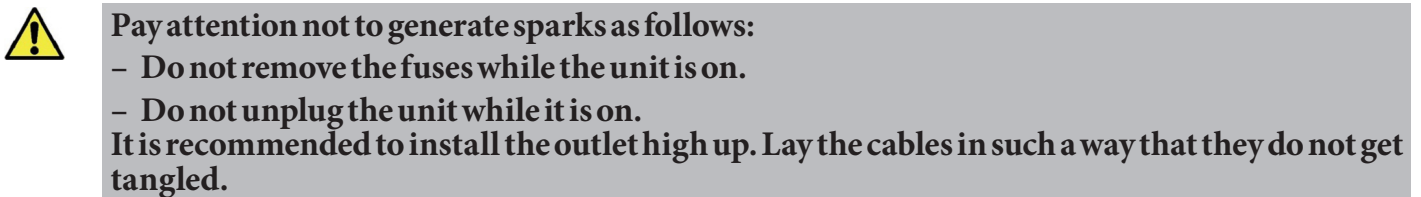
 **In any configuration do not install the Indoor Unit and Outdoor Unit at altitudes above 2000 m.**

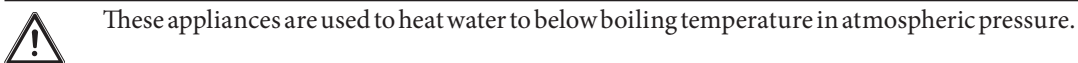
 Prior to installation the pre-plumbed cylinder of the Indoor Unit must be stored upright on a secure, level surface in a dry, frost free environment. Take note of the weight of the product and follow safe working practices when lifting, moving or manipulating into position. **DO NOT** lift by the Pre-plumbed pipework manifold.

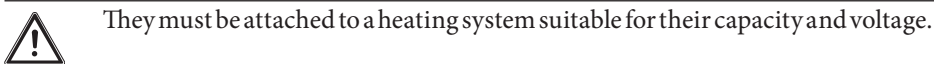
Installation standards

 **Do not install in places/rooms that constitute public areas of apartment buildings, internal stairways or other escape routes (e.g. floor landings, entrance halls, etc.).**

 **Do not install near sources of heat.**

 **Pay attention not to generate sparks as follows:**
– **Do not remove the fuses while the unit is on.**
– **Do not unplug the unit while it is on.**
It is recommended to install the outlet high up. Lay the cables in such a way that they do not get tangled.

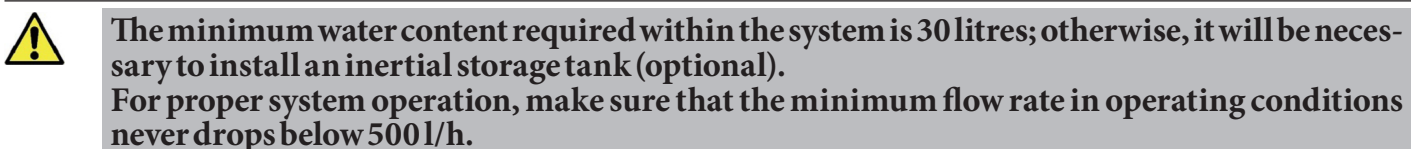
 These appliances are used to heat water to below boiling temperature in atmospheric pressure.

 They must be attached to a heating system suitable for their capacity and voltage.

 The storage tank unit must also be installed in an environment in which the temperature cannot fall below 0°C.

 Anti-Legionella can only be activated if the optional DHW electrical resistance is installed;
The anti-Legionella function is programmed directly on the control panel.

During this phase, the temperature of the water inside the tank exceeds 60°C with the subsequent risk of burns. Keep this domestic hot water treatment under control (and inform the users) to prevent unforeseeable damage to people, animals, things. If required install a thermostatic valve on the domestic hot water outlet to prevent scalding.

 **The minimum water content required within the system is 30 litres; otherwise, it will be necessary to install an inertial storage tank (optional).**
For proper system operation, make sure that the minimum flow rate in operating conditions never drops below 500l/h.



When the circulation within each room central heating loop is controlled by remotely operated valves, it is important to guarantee the minimum water content (30 litres), even if all the valves are closed.

When the circulation within each or certain room central heating loops is controlled by remotely operated valves, it is important to guarantee the minimum flow rate, even if all the valves are closed. It is necessary to have a loop that is always open on the system (by-pass or non-intercepted zone), to allow some functions such as, for example, the antifreeze function.



The minimum water content required within the system is 50 litres; otherwise, it will be necessary to install an inertial storage tank (optional).

For proper system operation, make sure that the minimum flow rate in operating conditions never drops below 750 l/h.



When the circulation within each room central heating loop is controlled by remotely operated valves, it is important to guarantee the minimum water content (50 litres), even if all the valves are closed.

When the circulation within each or certain room central heating loops is controlled by remotely operated valves, it is important to guarantee the minimum flow rate, even if all the valves are closed. It is necessary to have a loop that is always open on the system (by-pass or non-intercepted zone), to allow some functions such as, for example, the antifreeze function.

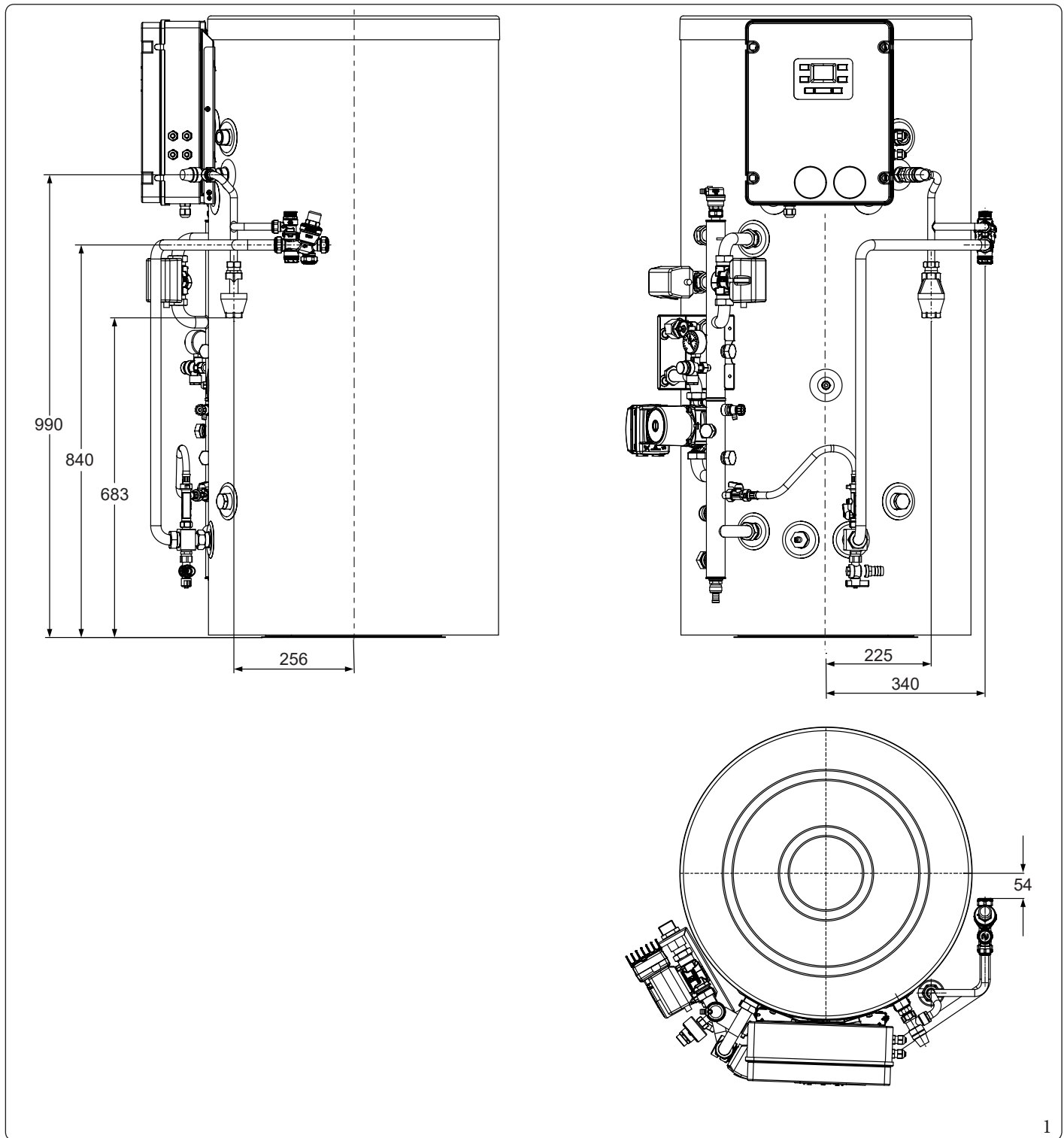


Failure to comply with the above implies personal responsibility and invalidates the warranty.

Data nameplate positioning

The data nameplate is attached to the Indoor Unit (cylinder) on the flow/return connection plate.

1.3 INDOOR UNIT MAIN DIMENSIONS



INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

1

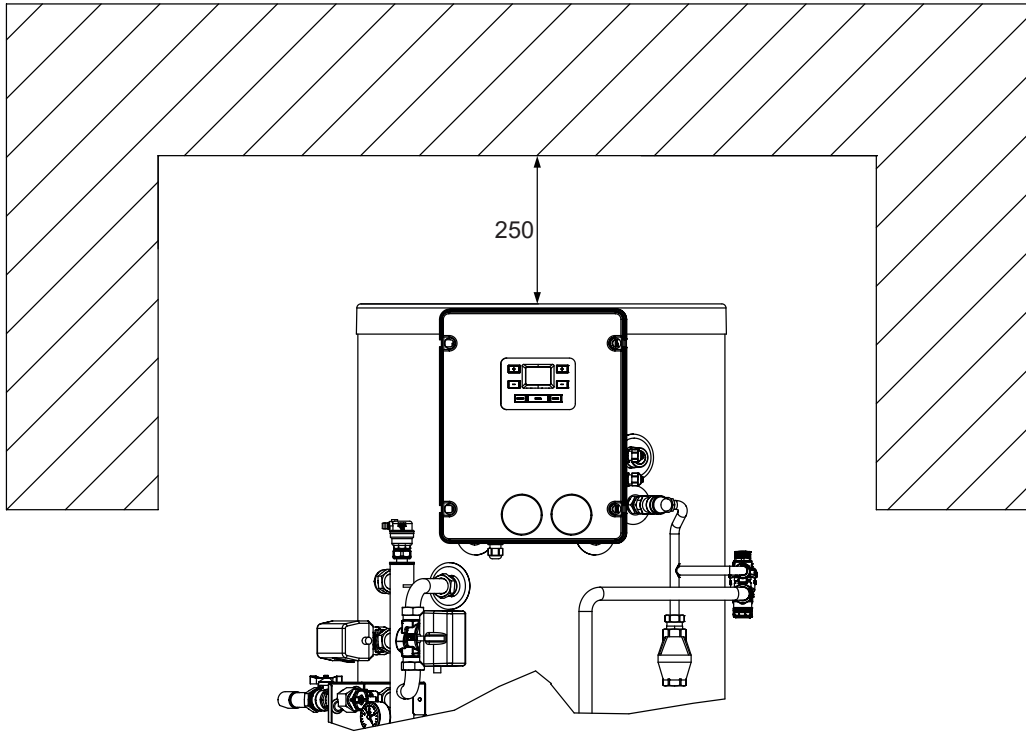
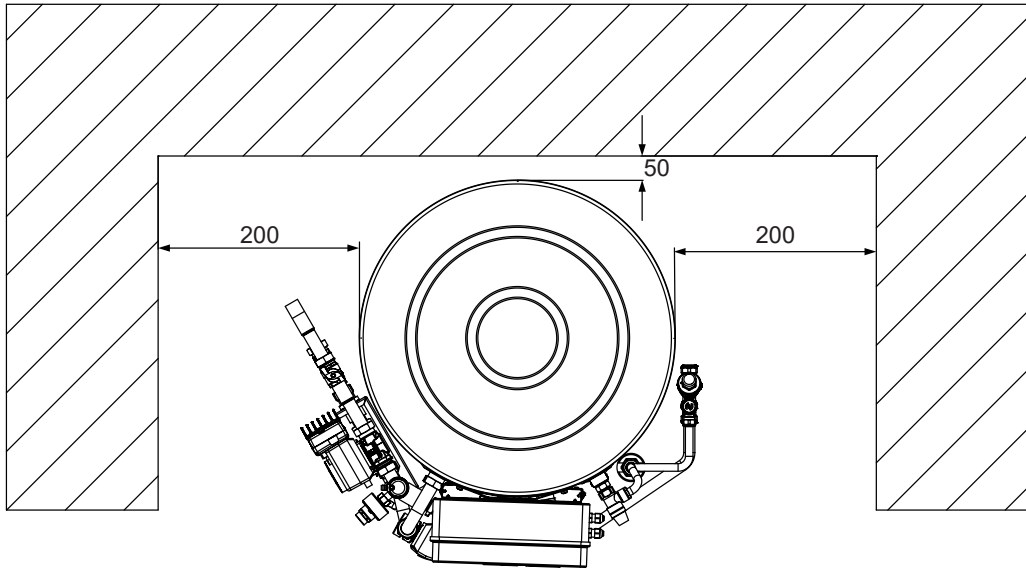
1.4 MINIMUM INSTALLATION DISTANCES

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA



1.5 ANTIFREEZE PROTECTION

Minimum room temperature 0°C



In order to guarantee the integrity of the appliance and the domestic hot water heating system in areas where the temperature drops below zero, we recommend protecting the central heating system using anti-freeze liquid.



If the indoor unit is installed in a place where the temperature drops below 0°C, the appliance can freeze.

To prevent the risk of freezing follow the instructions below:



The excessive use of glycol could jeopardise the proper functioning of the appliance.



Follow the supplier's instructions for the life cycle duration and possible disposal of the anti-freeze liquid.

- protect the central heating circuit from freezing by inserting a good-quality antifreeze liquid into this circuit, which is specially suited for central heating systems and which is manufacturer guaranteed not to cause damage to the heat exchanger or other components of the Indoor Unit. The antifreeze liquid must not be harmful to one's health. The instructions of the manufacturer of this liquid must be strictly followed regarding the necessary percentage with respect to the minimum temperature at which the system must be kept.
- The materials used for the central heating circuit of Immergas Indoor Unit resist ethylene and propylene glycol based antifreeze liquids (if the mixtures are prepared perfectly).
- An aqueous solution must be made with potential pollution class of water 2 (EN 1717:2002 or local standards in force).

1.6 HYDRAULIC CONNECTION



Before connecting the Indoor Unit, in order not to invalidate the warranty, carefully wash the heating system (pipes, heating bodies, etc.) with special pickling or descaling agents capable of removing any residues that could compromise the proper functioning of the Indoor Unit.

A treatment of the heating and water system water is required, in compliance with the technical standards in force, in order to protect the system and the appliance from deposits (e.g. scale), slurry or other hazardous deposits.

Water connections must be made in a rational way using the couplings on the Indoor Unit template.



The manufacturer declines all liability in the event of damage caused by the installation of an automatic filling system.

In order to meet the system requirements established by EN 1717 in terms of pollution of drinking water, we recommend installing the IMMERGAS anti-backflow kit to be used upstream of the cold water inlet connection of the appliance. We also recommend using category 2 heat transfer fluid (e.g.: water+ glycol) in the appliance's primary circuit (C.H. circuit), as defined in standard EN 1717.

1.7 HYDRAULIC CONNECTION OF INDOOR AND OUTDOOR UNITS

The heat pump of the Outdoor Unit must be connected to the primary circuit with insulated pipes.

The position of the Outdoor Unit must comply with the requirements of the regulations in force.

The distance of the flow and return pipes between the Indoor Unit (pre-plumbed cylinder) and the Outdoor Unit (heat pump) must be reduced to a minimum and in any case not exceed 10 m in total length and have a minimum diameter of 28 mm, in order to meet the required volumes and flow rates.

Safety devices and drainage pipes must be installed correctly, in accordance with current regulations.

Only use accessories and replacement parts approved by Immergas for suitability with the package.

Outdoor pipe and fittings must have UV and water resistant insulation.

1.8 ELECTRICAL CONNECTION

The pre-plumbed cylinder has an IPX4D degree of protection. The electrical safety of the appliance is achieved only when it is connected to an earthing circuit as specified by current safety standards.

Remove the screws securing the front control panel cover to access the electrical connections.

Please refer to the corresponding electrical connection diagrams (Fig. 17, 18).

Connect a dedicated power supply to the pre-plumbed Indoor Unit using 2.5 mm² flexible heat resistant cable.

Connect the BUS communication cable from the outside heat pump using 0.75 mm² twin core cable.

Where the cable run is close to power cables or other cables, shielded type cable is recommended.

Connect the thermostat controls according to the control type. Please refer to the corresponding wiring diagram (Fig. 17, 18).

Disconnect the power supply cable.

If the fuses on the circuit boards need to be replaced, this must also be done by a qualified person, use a F3.15A H250V fuse on the PCB.

For the main power supply to the appliance, never use adapters, multiple sockets or extension leads.

Make the various electrical connections according to your requirements (see Wiring diagrams sections).



The manufacturer declines any responsibility for damage or physical injury caused by failure to connect the Indoor Unit to an efficient earthing system or failure to comply with the IEC reference standards.



Also ensure that the electrical installation corresponds to maximum absorbed power specifications as shown on the indoor unit data-plate.

Indoor units are supplied complete with an “X” type power cable without plug.



The power supply cable must be connected to a 230V ±10% / 50Hz mains supply respecting L-N polarity and earth connection; this network must also have a multi-pole circuit breaker with class III overvoltage category in compliance with installation regulations.



To protect from possible dispersions of DC voltage, it is necessary to provide a type A differential safety device.



**If the power cable is damaged, contact a qualified company (e.g. the Authorised Technical Assistance Centre) for its replacement to avoid a hazard.
It is recommended to contact a qualified company (e.g. the Authorised After-Sales Technical Assistance Centre) for replacement to avoid a hazard.**

Outdoor unit electrical connection

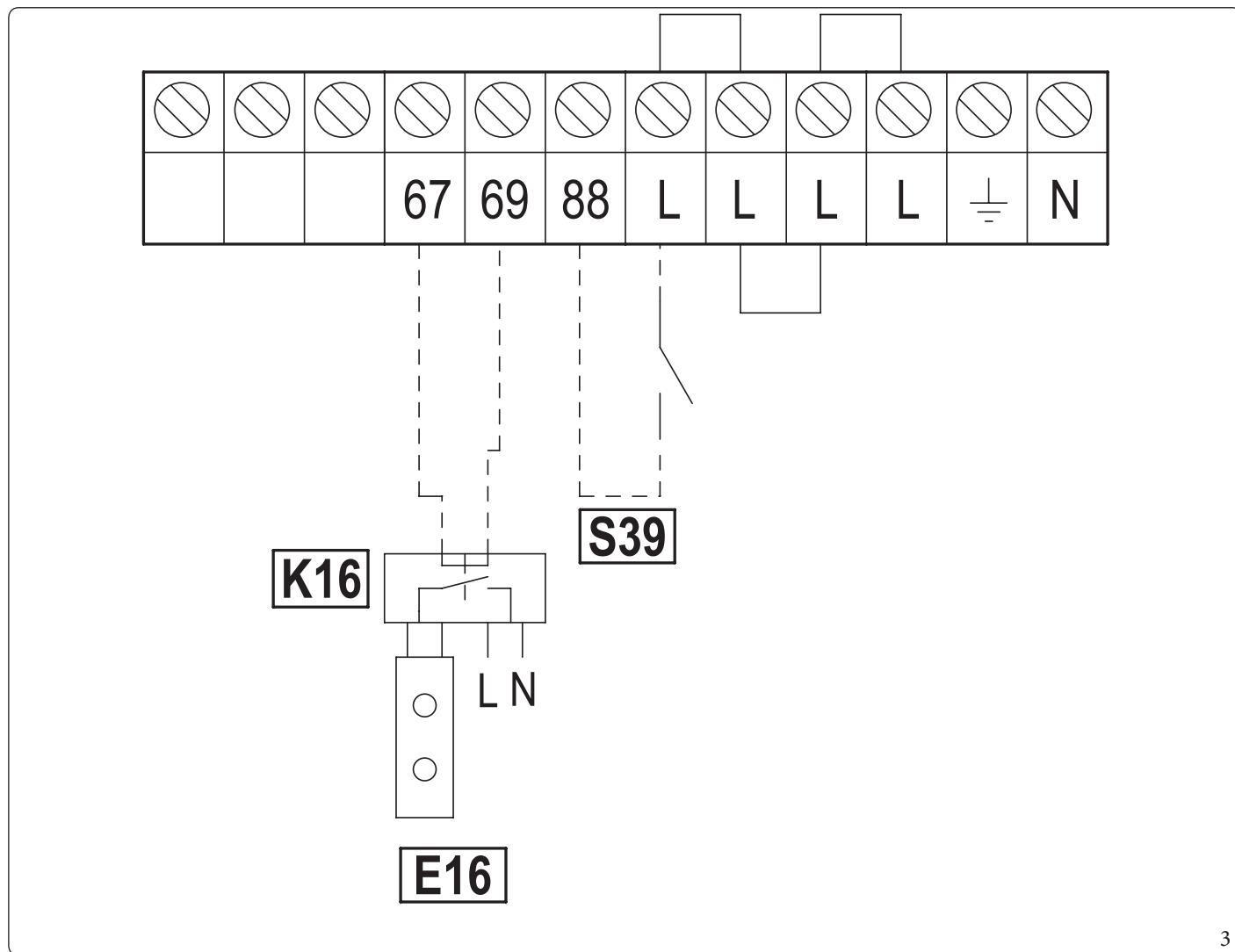
The Indoor Unit must be coupled to an Outdoor Unit by connecting terminals F1 and F2 as shown in the wiring diagram (Fig.4). The Indoor Unit is powered at 230 V, regardless of the Outdoor Unit.

Configure the Indoor Unit parameters as indicated in paragraph Parag.3.9.

Photovoltaic system installation

Connecting the product to a photovoltaic system enhances use of the Outdoor Unit when the photovoltaic panels are operating. Carry out the connection as indicated (Fig.3).

Vertical terminal block electrical connection diagram.



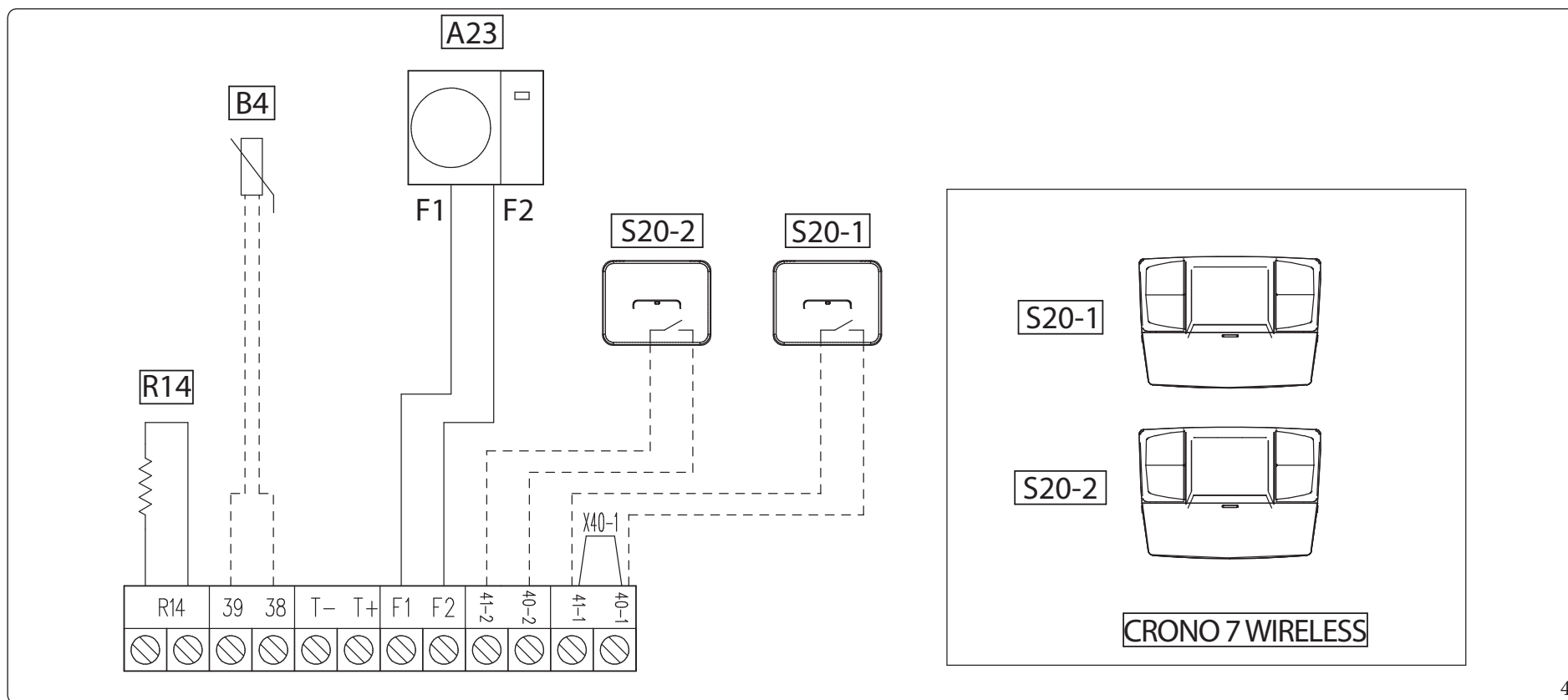
3

Key (Fig. 3):

- E16 - System integration resistance
- K16 - System integrative resistance relay
- S39 - Photovoltaic active input



For the connection diagram, see Fig 17



4

Key (Fig. 4):

- A23 - Outdoor Unit
- B4 - External probe (optional)
- X40-1 - Zone 1 thermostat jumper
- R14 - Configuration resistance
- S20-1 - Zone 1 thermostat (optional)
- S20-2 - Zone 2 thermostat (optional)

Remove the X40-1 jumper to connect the zone 1 thermostat
 Any connections of the two room thermostats (S20-1/2) must be free of voltage (NOT 230 V)

1.9 ROOM CHRONO-THERMOSTATS (OPTIONAL)

The indoor unit is prepared for the application of room chrono-thermostats or remote controls, which are available as optional kits. All Immergas chrono-thermostats are connected with 2 wires only. A maximum of 2 temperature controllers can be applied directly to the appliance. Carefully read the user and assembly instructions contained in the accessory kit.



Disconnect power to the unit before making any electrical connections.

On/Off Immergas digital chrono-thermostat.

The chrono-thermostat allows:

- set two room temperature value: one for day (comfort temperature) and one for night (reduced temperature);
- set a weekly programme with four daily switch on and switch off times;
- selecting the required function mode from the various possible alternatives:
 - manual mode (with adjustable temperature);
 - automatic mode (with set programme);
 - forced automatic operation (momentarily changing the temperature of the automatic program).

The chrono-thermostat is powered by two 1.5V LR6 type alkaline batteries.

On/Off chrono-thermostat electrical connection (Optional).



The operations described below must be performed after having removed the voltage from the appliance.

On/Off ambient thermostat or Chrono-thermostat: must be connected to the 40-1 / 41 terminals, eliminating the X40-1 jumper for zone 1 and 40-2 / 41 for zone 2.

Make sure that the On/Off thermostat contact is of the “clean” type, i.e. independent of the mains voltage, otherwise the P.C.B. would be damaged.

The connections must be made on the terminal board inside the appliance’s control panel (Fig. 4).



If the area remote panel or any other On/Off chrono-thermostat is used, arrange two separate lines in compliance with current regulations regarding electrical systems.

No Indoor Unit pipes must ever be used to earth the electric system or telephone lines.

Ensure elimination of this risk before making the Indoor Unit electrical connections.

1.10 EXTERNAL TEMPERATURE PROBE (OPTIONAL)

The Outdoor Unit has a standard external probe that can be used as an external probe of the heat pump.

If the Outdoor Unit is positioned in an area that is not suitable for temperature reading, it is advisable to use an additional external probe (Fig. 5) which is available as an optional kit.

Refer to the relative instruction sheet for positioning of the external probe.

For the proper operation of the optional probe, it must be connected where envisaged (Fig.4) and then enabled (Par. 3.9).



Once the probe is enabled, switch the appliance off and back on.

The presence of the external probe allows the system flow temperature to be set automatically based on the outdoor temperature in order to adapt the heating or cooling provided to the system.

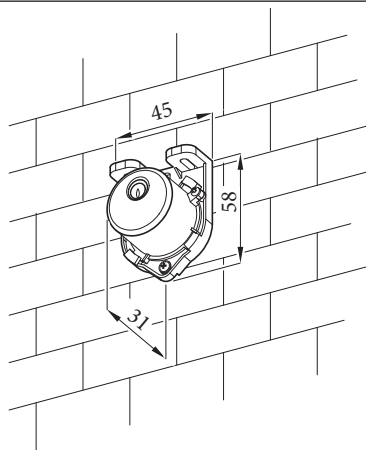
The system flow temperature is determined by the setting on the "Heat regulation" menu and by the "User" menu for the offset values based on the curves shown in the diagram (Parag. 1.11).



If the system is divided into two or three zones, the flow temperature is calculated based on the zone with the higher temperature in central heating mode and with the lower temperature in cooling mode.

The electric connection of the external probe must be made on terminals 38 and 39 on the terminal board on the Indoor Unit control panel (Fig. 4).

In case of failure, after having powered off and back on, the outdoor temperature is automatically detected by the external probe on the Outdoor Unit.

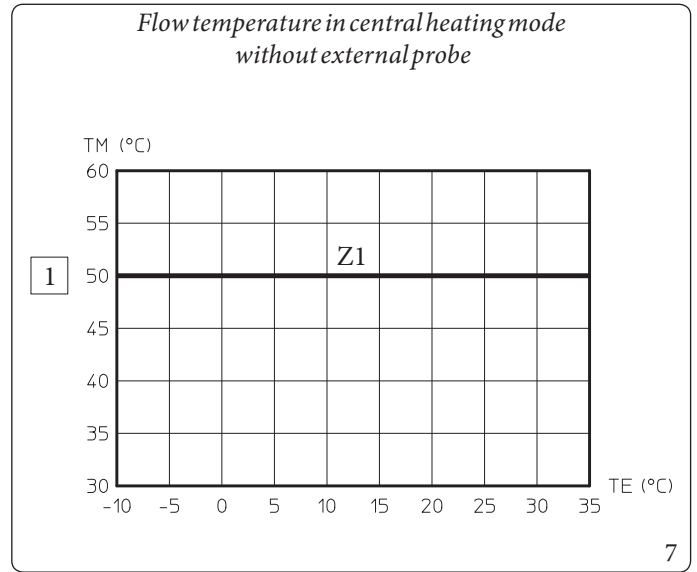
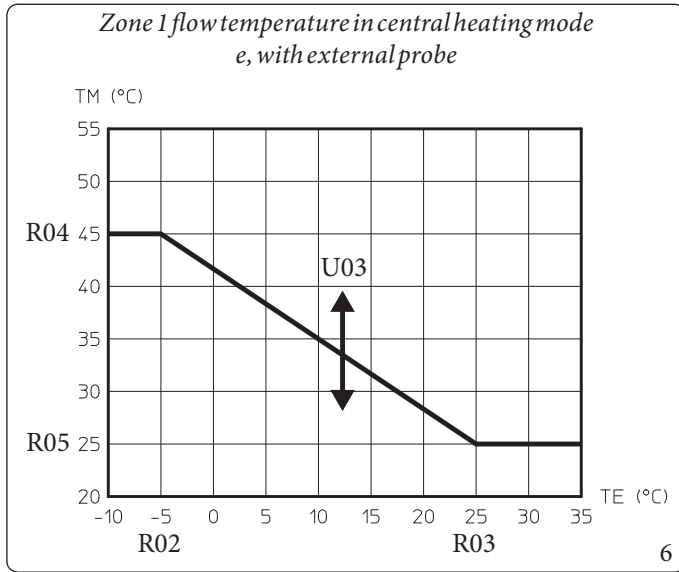


5

1.11 TEMPERATURE CONTROL SETTING

By setting the parameters in the “Heat regulation” menu, you can adjust how the system operates.

The curves (Fig. 6, 7) show the default settings in the various operating modes available both with external probe and without.



Key (Fig. 6, 7)

- 1 - Central heating set
- Rxx - Temperature control menu parameter
- TE - Outside temperature
- TM - Flow temperature
- U01 - Zone 2 flow temperature in "User" menu central heating mode
- U03 - Offset value compared to the curve set by the external probe on central heating zone 1
- U04 - Offset value compared to the curve set by the external probe on central heating zone 2
- Zx - Heating system zone

1.12 SYSTEM FILLING

Once the indoor unit is connected, fill the system using the filling cock (Fig. 12).

The Indoor Unit has one incorporated automatic vent valve located on the circulator and another on the central heating manifold.



Make sure that the hoods are loosened.

The filling cock must be closed when the Indoor Unit pressure gauge indicates approximately 1.2 bar.



During these operations, enable the "Venting" functions by setting the "U 50" parameter to ON, which lasts about 18 hours (Paragraph 2.6).

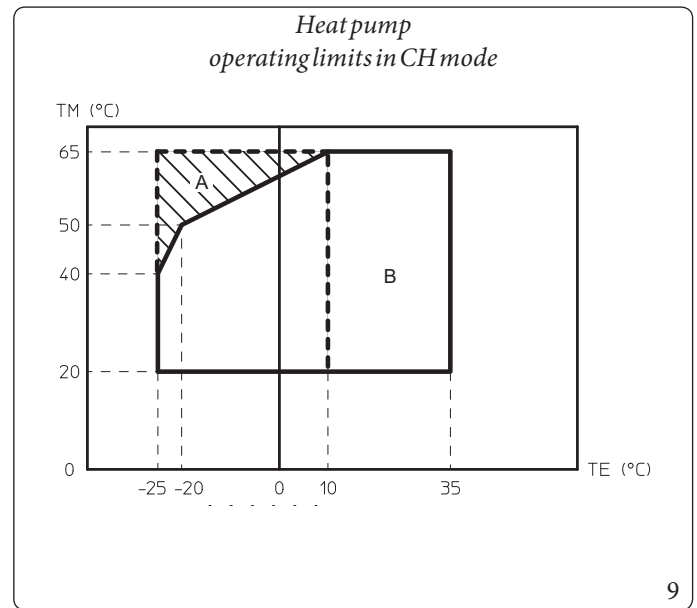
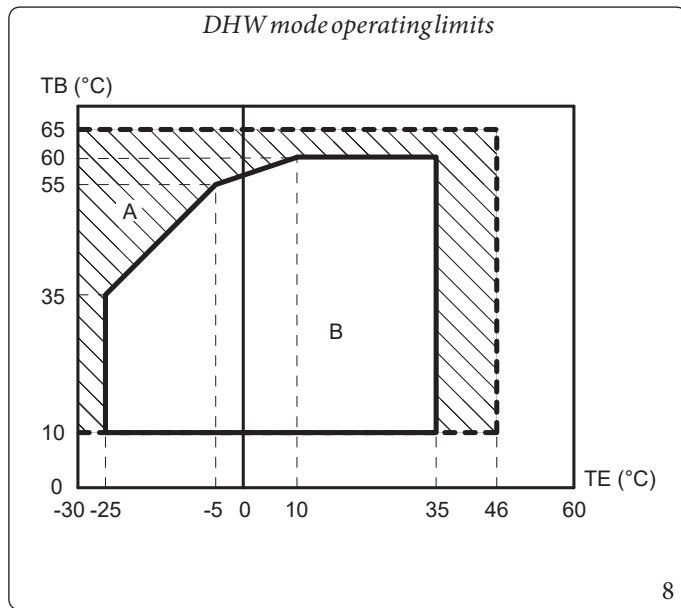
System minimum water content.

The presence of a minimum water content favours a **smooth defrosting cycle** (defrost).

To this end, the minimum amount of water to guarantee is **30 litres** for any type of system and in any operating mode.

1.13 OPERATING LIMITS

The system was designed to work in a specific range of temperatures and at a specific maximum flow temperature. The chart (Fig.8, 9) shows these limits.



Key (Fig. 8, 9)

TE = External temperature

TM = Flow temperature

TB = Storage tank temperature

A = With integration electrical resistance (optional)

B = DHW



Below -20°C, the expected power output is not guaranteed.

1.14 INDOOR UNIT START-UP (IGNITION)

After having made the hydraulic connections on the outdoor unit, to commission the heat pump (the operations listed below must only be performed by qualified personnel and in the presence of staff only):

1. Check connection to a 230V~50Hz power mains, correct L-N polarity and the earthing connection;
2. Switch the indoor unit on and check correct ignition;
3. Check the activation of the main switch located upstream of the indoor unit.



The system must not be started up if even only one of the checks should be negative.



After installation, check for leaks. Toxic gas could be generated if the unit comes into contact with a source of ignition, such as thermal fan, stove and cylinders. Make sure that only refrigerant recovery cylinders are used.

1.15 CIRCULATION PUMP

The appliance is supplied with a variable speed pump which operates as follows:

- **Fixed ("A 05" = 0):** The pump speed is fixed and corresponds to parameter "A 04".
- **ΔT constant ("A 05" = 5 K):** the pump speed varies to maintain the $\Delta T = 5K$ constant between the system flow and return. Also, you can adjust the pump operating range, by setting the maximum speed "A 04" and the minimum speed "A 03".

Pump release.

If after a long period of inactivity, the circulator is blocked, adjust the screw in the centre of the head in order to manually release the motor shaft.

Take great care during this operation to avoid damage to the motor.

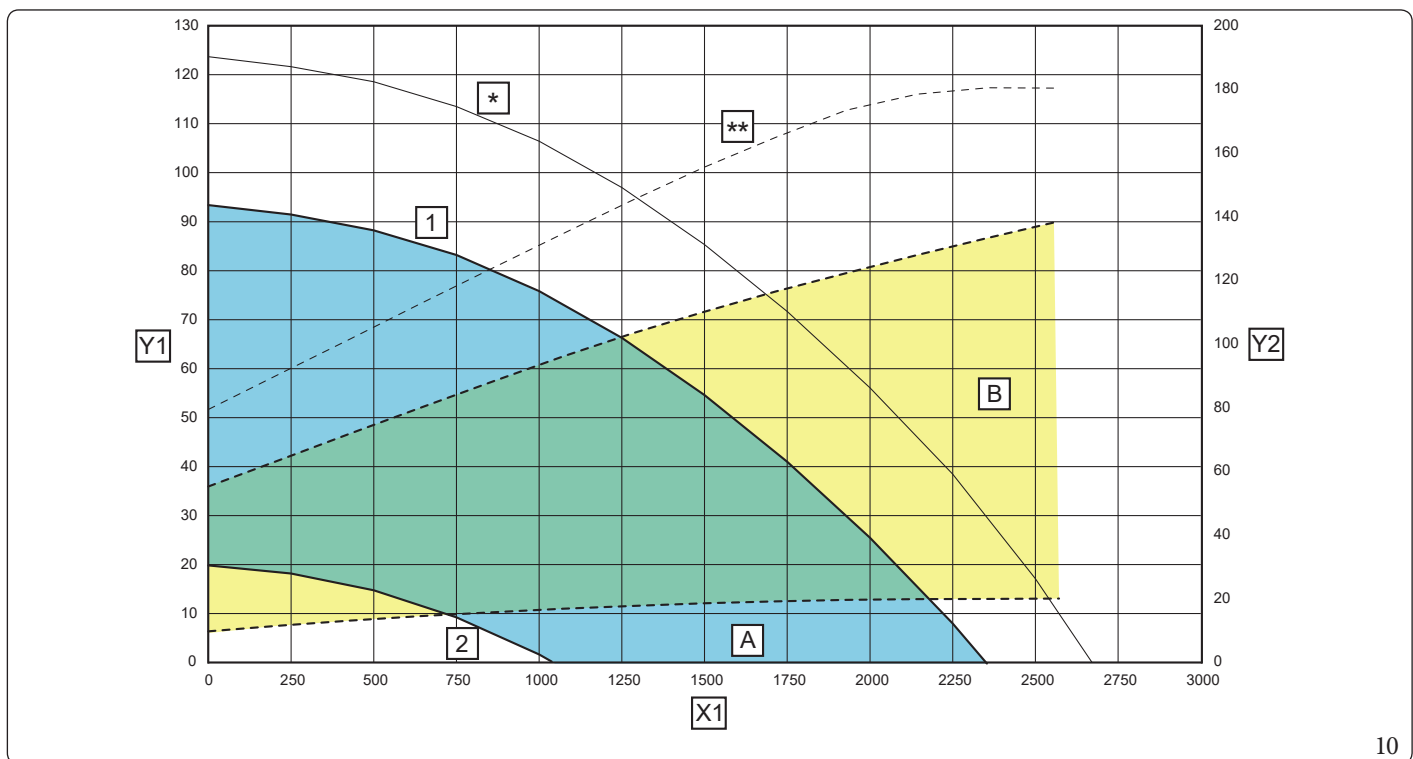
Available head at the UI Pre Plumbed 200 + UE Hydro HP5-8 system



For proper system operation, make sure that the minimum flow rate in operating conditions never drops below 500l/h.



In domestic hot water mode, the circulator pump always runs at full speed.



Key (Fig. 10):

- X1 = Flow rate (l/h)
- Y1 = Head (kPa)
- Y2 = Circulator pump absorbed power (W)
- 1 = Maximum speed (A04 = 80%)
- 2 = Minimum speed (A03 = 40%)
- A = Head available to the system
- B = Absorbed power by the circulator (dotted area)
- * = Maximum head that can be set with A04 = 100% (for adjustment refer to Parag. 3.9).
- ** = Maximum speed that can be set with A04 = 100% (for adjustment refer to Parag. 3.9).

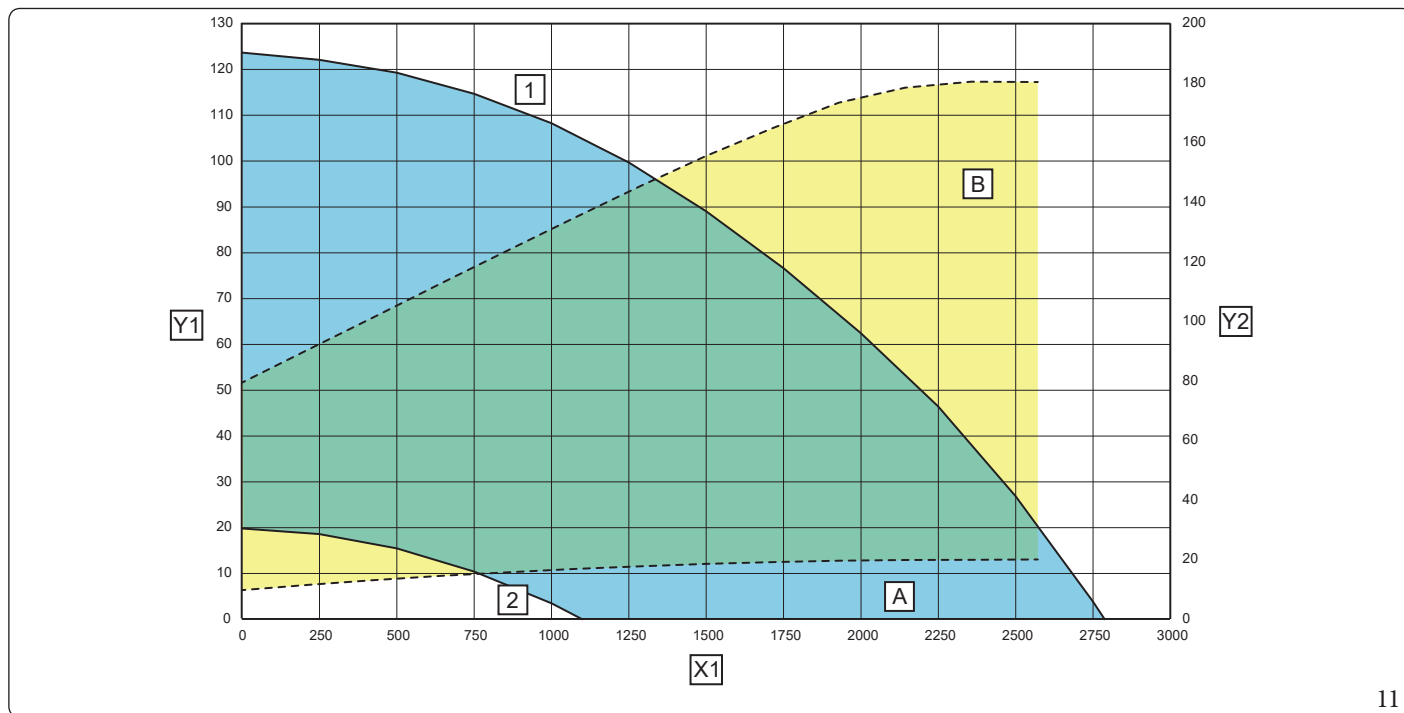
Available headroom at the UI Pre Plumbed 200 + UE Hydro HP12-16 system



For proper system operation, make sure that the minimum flow rate in operating conditions never drops below 750 l/h.



In domestic hot water mode, the circulator pump always runs at full speed.



11

Key (Fig. 11):

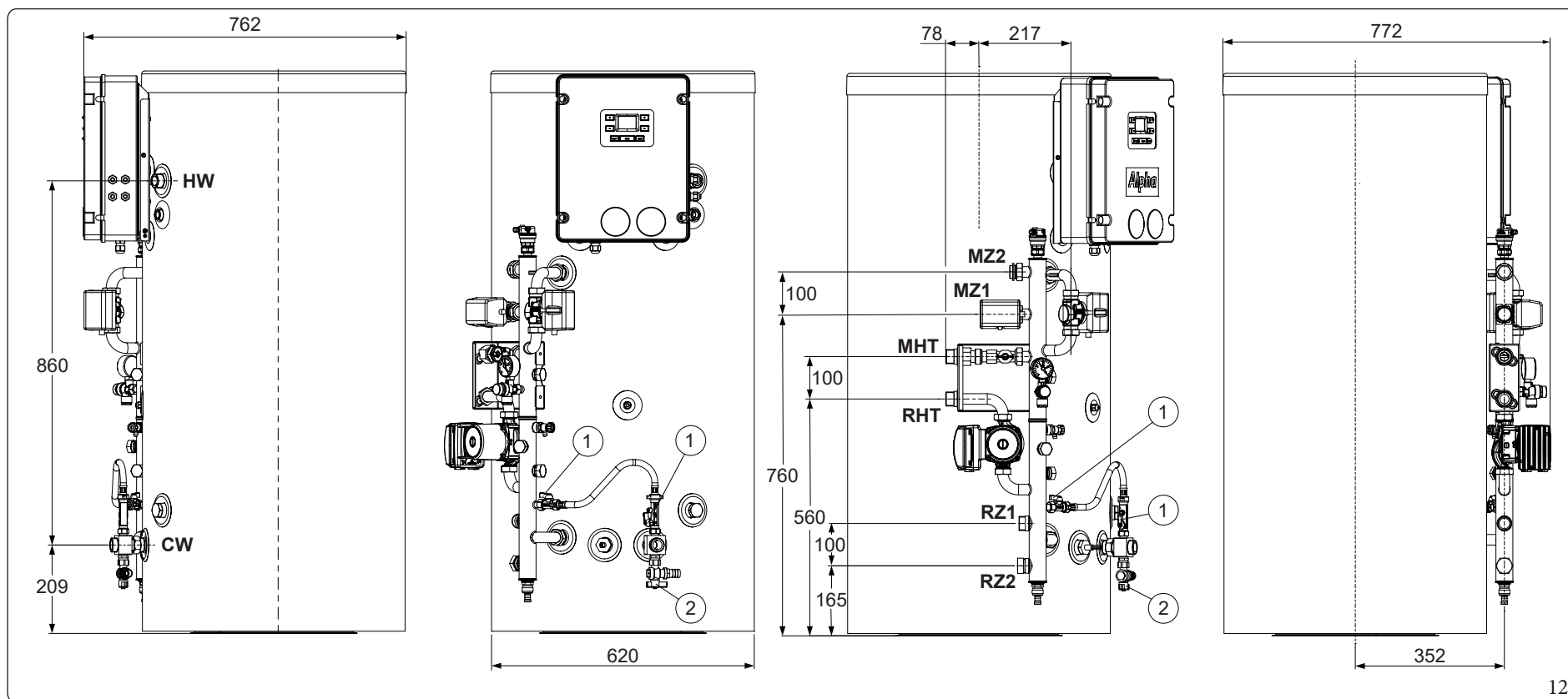
- X1 = Flowrate (l/h)
- Y1 = Head (kPa)
- Y2 = Circulator pump absorbed power (W)
- 1 = Maximum speed (A04 = 100%)
- 2 = Minimum speed (A03 = 40%)
- A = Head available to the system
- B = Absorbed power by the circulator (dotted area)

1.16 KITS AVAILABLE ON REQUEST

- System integrative resistance kit. If necessary, an electrical resistance can be installed to supplement the room central heating system.
- Second zone kit. If necessary, another unmixed zone can be installed.



The above-mentioned kits are supplied complete with instructions for assembly and use. Check the complete list of kits available and which can be combined with the product, consult the Immergas website, the Immergas Price List or the technical-commercial documentation (catalogues and data sheets).



12

Key (Fig. 12):

- MHT - Heat pump flow
- RHT - Heat pump return
- MZ1 - Main zone 1 heating circuit flow
- MZ2 - Zone 2 heating circuit return (optional - remove blanking cap)
- RZ1 - Main zone 1 heating circuit return
- RZ2 - Zone 2 heating circuit return (optional - remove blanking cap)
- CW - Cold water inlet
- HW - Hot water outlet
- 1 - Filling cock / tap
- 2 - Draining cock / tap

2 INSTRUCTIONS FOR USE AND MAINTENANCE

2.1 GENERAL RECOMMENDATIONS



Never expose the indoor unit to direct vapours from a hob.



The device can be used by children at least 8 years old as well as by persons with reduced physical, sensory or mental capabilities, or lack of experience or required knowledge, provided that they are under surveillance, or after they have been instructed relating to the safe use and have understood the potential dangers.

Children must not play with the appliance.

Cleaning and maintenance destined to be performed by the user can not be carried out by unsupervised children.



If temporary shutdown of the Indoor Unit is required, proceed as follows:

- a) drain the heating system if antifreeze is not used;
- b) shut off the electrical and water supply.



Never clean the appliance or connected parts with easily flammable substances.



Never leave containers or flammable substances in the same environment as the appliance.



Do not open or tamper with the appliance.



Do not climb on the appliance, do not use the appliance as a support base.



Only use the user interface devices listed in this section of the booklet.



The use of components involving use of electrical power requires some fundamental rules to be observed such as:

- do not touch the appliance with wet or moist parts of the body; do not touch when barefoot;
- never pull electrical cables or leave the appliance exposed to atmospheric agents (rain, sunlight, etc.);
- the appliance power cable must not be replaced by the user;
- in the event of damage to the cable, switch off the appliance and contact exclusively qualified staff for replacement;
- if the appliance is not to be used for a certain period, disconnect the main Indoor Unit external switch.



(If paired with a storage tank unit) water at a temperature of more than 50 °C can cause serious burns.

Always check the water temperature before any use.



The temperatures indicated by the display have a tolerance of +/- 3°C due to environmental conditions that cannot be blamed on the Indoor Unit.



**At the end of its service life, the appliance must not be disposed of like normal household waste nor abandoned in the environment, but must be removed by a professionally authorised company as required by current legislation.
Contact the manufacturer for disposal instructions.**

2.2 CLEANING AND MAINTENANCE



To preserve the system's integrity and keep the safety features, performance and reliability, which distinguish the assembly, unchanged over time, you must execute maintenance operations on a yearly basis in compliance with what is stated in the relative point at “annual check and maintenance of the appliance”, in compliance with national, regional, or local standards in force.

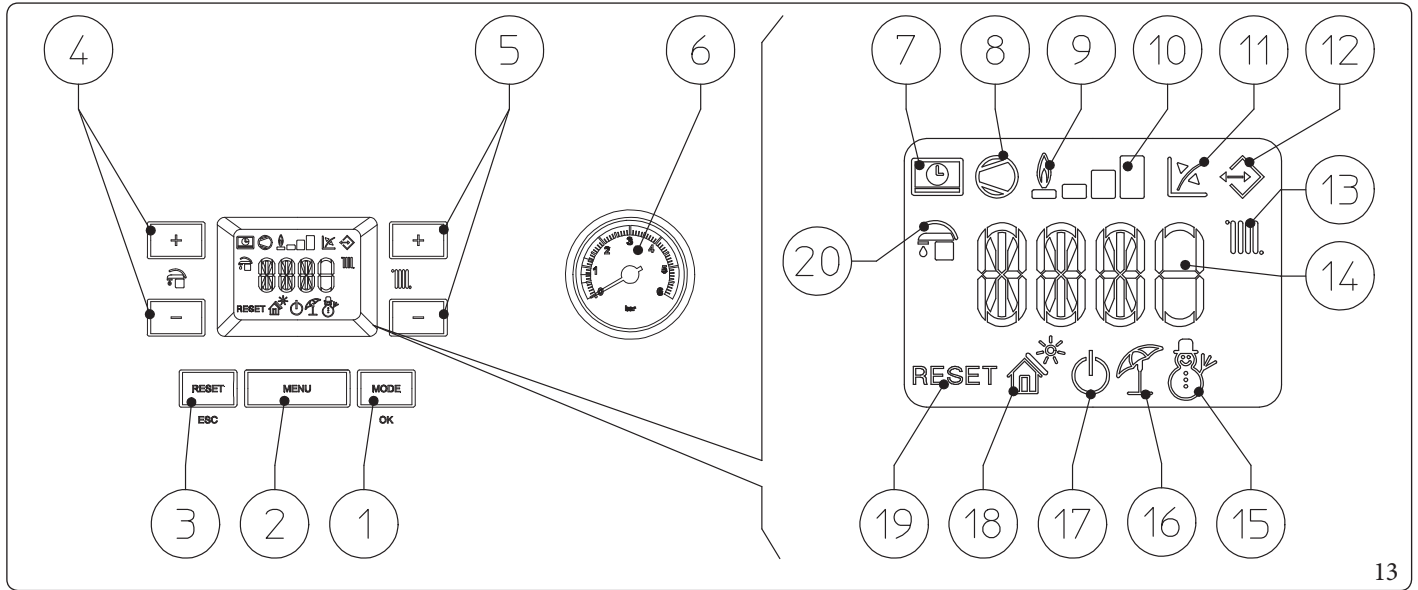
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2.3 CONTROL PANEL



Key (Fig. 13):

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 1 - Operating mode (winter - air conditioning - summer - stand-by - off) and parameter confirm button 2 - Menu selection button 3 - Reset and exit menu button 4 - Domestic hot water temperature selection buttons 5 - Heating system temperature selection buttons 6 - Indoor Unit pressure gauge 7 - Remote control connection (optional) 8 - Outdoor Unit in operation 9 - Not used on this model 10 - Dispensed output level 11 - Operation with external temperature probe active (optional) | <ul style="list-style-type: none"> 12 - Connection to other Immergas units 13 - Central heating room mode function active 14 - Temperature indicator, indoor unit info and error codes 15 - Operation in winter mode 16 - Operation in summer mode 17 - Stand-by mode 18 - Not used on this model 19 - Locked indoor unit, it needs to be unlocked by pressing the "RESET" button 20 - DHW production phase operating mode active |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

2.4 SYSTEM USE

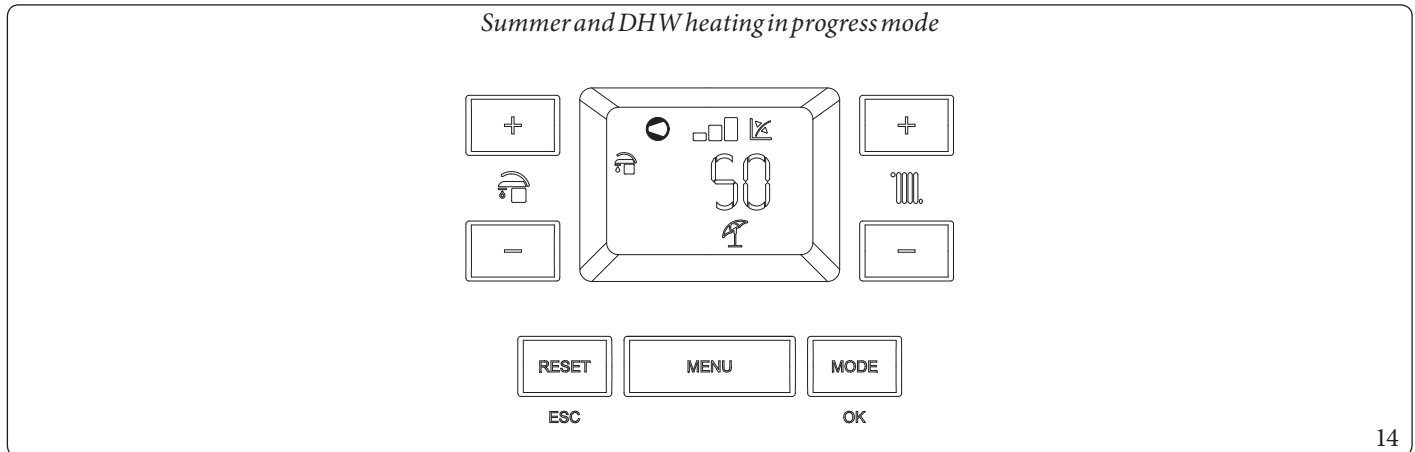


Before ignition, make sure the system is full of water, checking that the pressure gauge needle (6) points to a value between 1 and 1.2 bar and make sure that the chiller circuit has been filled as described in the Outdoor Unit instructions booklet.

- Press the button (1) until the display turns on, now the system will go back to the status it was in prior to shutdown (upon ignition the following are displayed in sequence: display segments all on, parameter A11, parameter A13).
- If the indoor unit is in stand-by, press the button (1) again to activate it. If this is not the case, go to the next point;
- Then press the button (1) in sequence and set the system to summer ☂, or winter ❄ and, if necessary, the deaeration timer.

Summer ☂

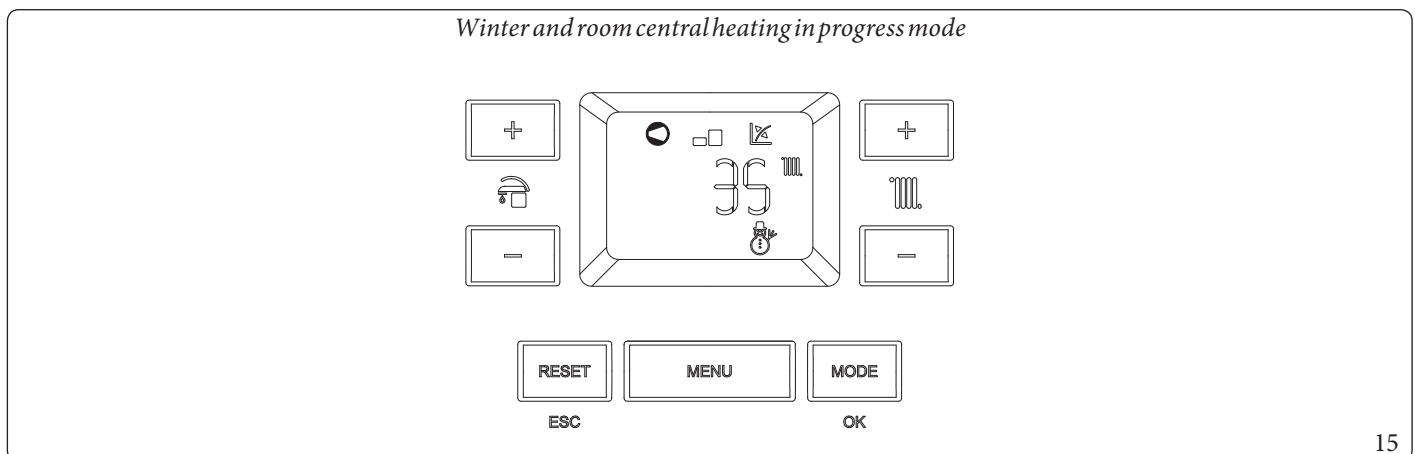
In this mode, the system only works to produce domestic hot water, the temperature is set using the buttons (4) and the corresponding temperature is shown on the display by the indicator (14).



Winter ❄

In this mode, the system works both to produce domestic hot water and room central heating.

The temperature of the DHW is always regulated via buttons (4), the central heating temperature is regulated via buttons (5) and the relative temperature is shown on the display by the indicator (14).



Operation with external probe ☒


The system is set up to use the Outdoor Unit external probe or an optional external probe.

With the external probe connected, the system flow temperature for room heating and air conditioning is managed by the external probe based on the outdoor temperature measured (Parag. 1.10).

You can change the flow temperature by choosing the offset value in the specific user menu.

In this case, any settings made on the Indoor Unit will not affect system operation.

“Stand-by” Mode

Press button (1) repeatedly until the symbol  appears. The system remains off from this moment, though the antifreeze, pump anti-block and 3-way function and signalling of any anomalies are guaranteed.



In these conditions the system must still be considered powered.

OFF mode

By holding the button (1) down for 8 seconds, the display switches-off and the indoor unit is off completely. In this mode, the safety functions are not guaranteed and the remote devices are disconnected.



In these conditions the indoor unit is considered still live even if there are no functions active.

“Automatic vent” mode

Every time the Indoor Unit is electrically powered, the system automatic vent function is activated (lasting 8 minutes). This function is displayed via a countdown signalled by the indicator (14).

During this period the DHW and CH functions are not active.

The “Automatic vent” function can be annulled by pressing the “Reset” button (3).

Display operation

The display lights up while the control panel is being used; after a set inactivity period, the brightness drops until only the active symbols are displayed. The lighting mode can be varied via parameter T08 in the P.C.B. programming menu.

System operating with Outdoor Unit disabled

You can disable the outdoor unit through a prearranged connection.

This status is signalled by the flashing of the symbol "Outdoor unit operation in progress" (8) and the flashing of the anomaly code "E194".



In this condition the requests are met by the integration electric resistances (optional).

2.5 FAULT AND ANOMALY SIGNALS

The indoor unit signals any anomalies by flashing a code on the display (14) according to the following table.

Error Code	Anomaly signalled	Cause	Indoor unit status/ Solution
E 8	Maximum N° of resets	Number of allowed resets already performed.	Attention: the fault may be reset up to 5 times consecutively, after which the function is inhibited for at least one hour. One attempt is gained every hour for a maximum of 5 attempts. By switching the appliance on and off again, the 5 attempts are re-acquired.
E 12	Storage tank probe anomaly (optional)	The board detects an anomaly on the storage tank probe.	The indoor unit cannot produce domestic hot water (1).
E 15	Configuration error	If the board detects an anomaly or incongruity on the electric wiring, the appliance will not start.	If normal conditions are restored, the heat generator restarts without having to be reset (1).
E 24	Push button control panel anomaly	The board detects an anomaly on the pushbutton panel.	If normal conditions are restored, the system restarts without having to be reset (1).
E 26	System flowmeter anomaly	The board detects an anomaly on the system flowmeter. Booster pump, if any, always working.	The system does not start (1). Make sure the booster pump (optional) only activates when requested.
E 27	Circulation insufficient	This occurs if there is overheating in the indoor unit due to insufficient water circulating in the primary circuit; the causes can be: - low system circulation; check that no shut-off devices are closed on the central heating circuit and that the system is free of air (deaerated); - pump blocked; free the pump; - damaged flowmeter.	Check system circulation and flowmeter. Press the Reset button (1).
E 37	Low power supply voltage	This occurs when the power supply voltage is lower than the allowed limits for correct system operation.	If normal conditions are restored, the system restarts without having to be reset (1).

(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).

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Error Code	Anomaly signalled	Cause	Indoor unit status / Solution
E 50	External probe missing or faulty	In the event the external probe is not connected or is faulty, the anomaly is indicated.	Check the external probe connection. The system continues to operate with the external probe integrated in the external unit (1). In case of replacement of the external probe, repeat the installation operations.
E 139	De-aeration in progress	Vent function in progress.	No demand can be made until the end of the function in progress (1).
E 177	DHW maximum time block	Domestic hot water production is not met within the pre-established time (see parameter P014).	The system continues to operate with non-optimal performance (1).
E 178	Anti-Legionella cycle block not successful	The anti-Legionella cycle is run without success within the pre-established time (see parameter P013).	Press the Reset button (1).
E 179	Liquid phase probe anomaly	The board detects an anomaly on the liquid phase NTC probe.	The system does not start (1).
E 182	Outdoor unit alarm	An anomaly appears on the outdoor unit.	The system does not start (1).
E 183	Outdoor unit in test mode	A signal notifies that the condensing unit is in test mode.	During this time, room heating/air conditioning and domestic hot water production requirements cannot be met.
E 184	Communication error with outdoor unit	A signal notifies an anomaly due to a communication problem between the indoor unit and the outdoor unit.	Have the electrical connection between the units checked. The system does not start (1).
E 187	Return probe anomaly	The board detects an anomaly on the return NTC probe.	The system does not start (1).
E 188	Request with temperature out of range	A request is made with the outdoor temperature exceeding the operating limits (Parag. 1.13)	The system does not start (1). Wait for the outdoor unit to be restored within operating limits.
(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).			

Error Code	Anomaly signalled	Cause	Indoor unit status/ Solution
E 189	Timeout alarm with communication board	If communication between the printed circuit boards is lost, an anomaly is signalled.	The system does not start (1). Check communication between the P.C.B. and the interface board.
E 190	Communication board alarm	An anomaly appears on the communication board.	The system does not start (1).
E 192	Delivery probe fault	The board detects an anomaly on the flow NTC probe.	The system does not start (1).
E 193	Appliance in test mode	A signal notifies that the appliance is in test mode.	The system continues operating properly.
E 195	Liquid phase probe low temperature anomaly	Too low temperature is detected in the liquid phase.	Check that the cooling circuit is working properly (1).
E 196	Flow high temperature block	Excessively high temperature is detected in the flow circuit of the heat pump.	Check the hydraulic circuit (1).
E 197	Interface Board Configuration Error	An incorrect interface board configuration has been detected.	The system does not start (1).
E 250	Anti-legionella function enabled with DHW integration disabled	The anti-legionella function has been enabled but DHW integration is disabled.	If DHW integration is restored, the heat generator restarts without having to be reset (1).

(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).

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List of outdoor unit anomalies

If the Outdoor Unit is faulty, the error code is signalled on the control panel (Fig. 13) and on the interface board (Parag. "Interface board - 7-segment display"). The failure is signalled in different ways.

On the control panel, the error is displayed with an "A" + error code.

On the interface board, the error is displayed with an "E" + error code, showing a sequence of two digits.

For example:

Error 101 is displayed as follows: E1 alternated with 01.

The following is the list of alarms as displayed on the control panel.

Error Code	Anomaly signalled	Indoor Unit status/ Solution
A101	Outdoor Unit communication error	Check the communication cable to the Outdoor Unit. Check that the interface board works properly. (1)
A109	Communication error due to incorrect address of interface board	Check the address on the interface board. (1)
A122	MODBUS communication error	Check communication between the management board and interface boards. (1)
A162	EEPROM error	Replace the main board of the Outdoor Unit (1)
A177	Emergency error	(1)
A198	Error of thermal fuse terminal board (open)	(1)
A201	Communication error (failed coupling) between interface board and Outdoor Unit	Check the communication cable to the Outdoor Unit. Check that the interface board and main board of the Outdoor Unit work properly (1)
A202	Communication error (failed coupling) between Indoor Unit and interface board	Check the communication cable to the Outdoor Unit. Check that the interface board and main board of the Outdoor Unit work properly (1)
A203	Communication error between Inverter and main board of the Outdoor Unit	Check wiring of communication between the two boards. Replace the main board. Replace the inverter board (1)
A221	Outdoor Unit air temperature sensor error	Check the position of the sensor. Check the relative wiring Replace the sensor (1)
A231	Condenser temperature sensor error	Check the position of the sensor. Check the relative wiring Replace the sensor (1)
A251	Discharge temperature sensor error	Check the position of the sensor. Check the relative wiring Replace the sensor

(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).

Error Code	Anomaly signalled	Indoor Unit status / Solution
A320	Compressor sensor error (overload protection sensor)	Check the position of the sensor. Check the relative wiring Replace the sensor (1)
A403	Freezing detection (during cooling operation)	Check the chiller cycle. Check the temperatures of the plate heat exchanger (1)
A404	Protection of Outdoor Unit when in overload (during safety start-up, normal operating status)	Check the chiller cycle. Check the compressor connections. Check the resistances between the different phases of the compressor (1)
A407	Compressor not working due to high pressure	Check the chiller cycle (1)
A416	The compressor discharge is overheated	(1)
A430	Outdoor Unit EEV operation error	(1)
A425	Power line failure error (three-phase model only)	Check the power connection of the Outdoor Unit (1)
A440	Central heating blocked (outdoor temperature beyond 35°C)	(1)
A441	Cooling blocked (outdoor temperature below 9°C)	(1)
A458	Error of Outdoor Unit fan no.1	(1)
A461	Compressor start-up error (Inverter)	Check the chiller cycle. Check the compressor connections. Check the resistances between the different phases of the compressor (1)
A462	Inverter total current overload error	Check the inlet current. Check the refrigerant charge. Check normal operation of the fan. (1)
A463	Compressor overheated sensor	Check the compressor sensor. (1)
A464	Inverter IPM current overload error	Check the compressor connections and its normal operation. Check the refrigerant charge. Check whether there are obstacles around the Outdoor Unit. Check whether the service valve is open. Check whether the installation pipes are mounted properly. (1)
(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).		

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Error Code	Anomaly signalled	Indoor Unit status/ Solution
A465	Compressor overload error	Check the compressor connections and its normal operation. Check the resistances between the different phases of the compressor. (1)
A466	Low voltage error of DC circuit	Check the input voltage. Check the power connections. (1)
A467	Compressor rotation error	Check the compressor connections. Check the resistances between the different phases of the compressor. (1)
A468	Current sensor error (inverter)	Check the main board. (1)
A469	Voltage sensor error of DC circuit (inverter)	Check the power connector of the inverter board. Check the connectors RY21 and R200 of the inverter board. (1)
A470	EEPROM reading/writing error of Outdoor Unit	Check the main board. (1)
A471	EEPROM reading/writing error of Outdoor Unit	Check the main board. (1)
A474	Inverter temperature sensor error	Replace inverter board (1)
A475	Error of Outdoor Unit fan no.2 (where present)	Check the wiring. Check that the fan is powered. Check the board fuses. (1)
A484	PFC overload	Check inductances. Replace inverter board. (1)
A485	Incoming current sensor error	Replace inverter board. (1)
A500	IPM overheated	Check temperature of inverter board. Switch the machine off. Wait for the inverter to cool down. Switch the machine back on. (1)
A554	Gas leak error	Check that the coolant is charged Check the liquid sensor of the Indoor Unit Check whether the service valve is open Check whether the installation pipes are mounted properly. (1)
A590	Inverter board error	Check normal operation of the main board. Replace the main board (1)
A601	Not present	(1)

(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).

Error Code	Anomaly signalled	Indoor Unit status / Solution
A604	Not present	(1)
A653	Not present	(1)
A654	Not present	(1)
A899	Not present	(1)
A900	Not present	(1)
A901	Not used	Indoor Unit error. Check Indoor Unit. (1)
A902	Not used	Indoor Unit error. Check Indoor Unit. (1)
A903	Not used	Indoor Unit error. Check Indoor Unit. (1)
A904	Not used	Indoor Unit error. Check Indoor Unit. (1)
A906	Not used	Indoor Unit error. Check Indoor Unit. (1)
A911	Not used	Indoor Unit error. Check Indoor Unit. (1)
A912	Not used	Indoor Unit error. Check Indoor Unit. (1)
A916	Not used	Indoor Unit error. Check Indoor Unit. (1)
A919	Not used	Indoor Unit error. Check Indoor Unit. (1)
(1) If the shutdown or fault persists, contact an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).		

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2.6 PARAMETERS AND INFORMATION MENU

Pressing the “MENU” button (2), the display cyclically shows the “Data” menu, “User” menu and a menu protected by a “0000” access code with the first flashing digit reserved for a qualified technician.

To access an individual menu, once it appears, press the “OK” button (1).

To scroll through the menu items and to edit the values, use the heating temperature control buttons (5). Pressing the “OK” button (1) confirms the parameter, while pressing the “ESC” button (3) goes back to the previous menu or exits.

A minute after the last operation, the system automatically exits any of the menus.



The menus of the control panel, found in the booklet, refer to rev. 8.0 of the P.C.B. firmware.

Data Menu.

Parameter ID	Description	Range
D 03	Storage tank unit temperature (if paired with a storage tank unit)	-10 ÷ 130 °C
D 04	Value calculated for system setting	5 ÷ 65 °C
D 05	Set value for the DHW set (if paired with a storage tank unit)	10 ÷ 65 °C
D 06	Outdoor temperature (if the outdoor unit external probe is connected or if the optional external probe is available)	- 20 ÷ 50 °C
D 08	System return water temperature	-10 ÷ 130 °C
D 09	List of the last five anomalies (to scroll the list press “OK” (1)).	-
D 10	Anomaly list reset. Once “D 10” is displayed, press “OK”.	-
D 14	Circulator pump flow rate	0 ÷ 9999
D 21	Status of the DHW zone valve	OFF - ON
D 24	Chiller circuit liquid temperature	-10 ÷ 130 °C
D 28	System circulator pump instantaneous speed	0 ÷ 100 %
D 31	DHW integration function (if paired with a storage tank unit)	OFF - ON
D 32	System integration function	OFF - ON
D 35	Solar system inlet	OFF - ON
D 38	Delta T due to operation of system electrical resistance (if activated)	0 ÷ 99 °C
D 47	Zone 1 circulator pump	OFF - ON
D 48	Zone 2 circulator pump	OFF - ON
D 55	Zone 1 thermostat	OFF - ON
D 56	Zone 2 thermostat	OFF - ON
D 61	System model definition (MP = Magis Pro V2; MCI = Magis Combo V2; MCP = Magis Combo Plus V2)	MP - MCI - MCP
D 62	Communication with interface board	OFF - ON

Parameter ID	Description	Range
D 63	Communication with other Immergas devices	OFF - ON
D 71	External unit operating frequency	0 ÷ 150 Hz
D 72	Compressor temperature	-20 ÷ 200 °C
D 73	Compressor discharge temperature	-20 ÷ 100 °C
D 74	Evaporator coil temperature	-20 ÷ 100 °C
D 75	Outdoor unit compressor absorption (make sure the value reading refers to the inverter and therefore not a value read with an amperometric clamp).	0 ÷ 10 A
D 76	Outdoor unit fan speed	0 ÷ 800 rpm
D 77	Electronic expansion valve position	0 ÷ 2000
D 78	4-way side (CL = cooling, HT = heating)	HT / CL
D 79	Temperature detected by the external probe of the outdoor unit	-55 ÷ +45 °C
D 80	Heat pump status (reserved for Authorised After-Sales Technical Assistance Centre)	-
D 91	P.C.B. software version	1 ÷ 99
D 97	Heat pump demand status (reserved to Authorised After-Sales Technical Assistance Centre)	0 ÷ 999
D 98	Thermal generator demand status (reserved for Authorised After-Sales Technical Assistance Centre)	0 ÷ 999
D 99	System status (reserved for Authorised After-Sales Technical Assistance Centre)	0 ÷ 999
D120	Outdoor unit main board firmware version (1/4)	1 ÷ 99
D121	Outdoor unit main board firmware version (2/4)	1 ÷ 99
D122	Outdoor unit main board firmware version (3/4)	1 ÷ 99
D123	Outdoor unit main board firmware version (4/4)	1 ÷ 99
D124	Interface board firmware version (1/4)	1 ÷ 99
D125	Interface board firmware version (2/4)	1 ÷ 99
D126	Interface board firmware version (3/4)	1 ÷ 99
D127	Interface board firmware version (4/4)	1 ÷ 99
D128	Outdoor unit inverter board memory version (1/4)	1 ÷ 99
D129	Outdoor unit inverter board memory version (2/4)	1 ÷ 99
D130	Outdoor unit inverter board memory version (3/4)	1 ÷ 99
D131	Outdoor unit inverter board memory version (4/4)	1 ÷ 99
D132	Outdoor unit inverter board firmware version (1/4)	1 ÷ 99
D133	Outdoor unit inverter board firmware version (2/4)	1 ÷ 99
D134	Outdoor unit inverter board firmware version (3/4)	1 ÷ 99
D135	Outdoor unit inverter board firmware version (4/4)	1 ÷ 99
D140	Internal clock	0 ÷ 23
D141	Internal clock	0 ÷ 59
D142	Day of the week	Mo-Tu-We-Th-Fr-Sa-Su
D143	Current day	1 ÷ 31
D144	Current month	1 ÷ 12
D145	Current year	0 ÷ 99

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User Menu.

Parameter ID	Description		Range	Default	Customised value
U03	Zone 1 central heating offset	It is possible to correct the flow temperature with respect to the adjustment curve of the external probe in central heating mode (Parag. 1.11, Offset value)	-15 ÷ +15°C	0	
U11	Night function	Activating the function allows you to reduce the compressor frequency during the outdoor unit operation in the time slot set in the U 12 and U 13 parameters. Make sure the additional power sources needed to meet potential requirements that may present themselves during active operation are available (e.g. additional resistances)	OFF - ON	OFF	
U12	Night function enabling time		0 ÷ 23	0	
U13	Night function disabling time		0 ÷ 23	0	
U21	Hour setting (internal clock)		0 - 23 hours	-	
U22	Minutes setting (internal clock)		0 - 59 minutes	-	
U23	Day of the week		Mo-Tu-We- Th-Fr-Sa-Su	-	
U24	Current day		1 ÷ 31	-	
U25	Current month		1 ÷ 12		
U26	Current year		00 ÷ 99		
U50	Venting	In the case of new central heating systems and in particular mode for floor systems, it is very important that de-aeration is performed correctly. The function consists of the cyclic activation of the pump (100 s ON, 20 s OFF) and the 3-way valve (120 s D.H.W., 120 s heating system). The function lasts for 18 hours and it is possible to stop it by pressing "ESC" and setting the function on "OFF". Activation of the function is signalled by the countdown shown on the indicator (14).	OFF - ON	OFF	

Parameter ID	Description		Range	Default	Customised value
U 21	Hour setting (internal clock)		0 - 23 hours	-	
U 22	Minutes setting (internal clock)		0 - 59 minutes	-	
U 23	Day of the week		Mo-Tu-We- Th-Fr-Sa-Su	-	
U 24	Current day		1 ÷ 31	-	
U 25	Current month		1 ÷ 12		
U 26	Current year		00 ÷ 99		
U 32	Start time of the DHW recirculation.		0 ÷ 23	0	
U 33	Stop time of the DHW recirculation.		0 ÷ 23	0	
U 50	Venting	In the case of new central heating systems and in particular mode for floor systems, it is very important that de-aeration is performed correctly. The function consists of the cyclic activation of the pump (100 s ON, 20 s OFF) and the 3-way valve (120 s D.H.W., 120 s heating system). The function lasts for 18 hours and it is possible to stop it by pressing "ESC" and setting the function on "OFF". Activation of the function is signalled by the countdown shown on the indicator (14).	OFF - ON	OFF	



The parameters referring to zone 2 can only be displayed if there is a zone 2 on the system and it is configured correctly.



The parameters referring to zone 3 can only be displayed if there is a zone 3 on the system and it is configured correctly.

2.7 INDOOR UNIT SHUTDOWN

Switch off the Indoor Unit, putting it in "OFF" mode. Switch off the omni-polar switch outside the unit. Never leave the unit powered if left unused for prolonged periods.

2.8 RESTORE CENTRAL HEATING SYSTEM PRESSURE

1. Periodically check the system water pressure (the Indoor Unit's pressure gauge hand must indicate a value between 1 and 1.2 bar).
2. If the pressure is less than 1 bar (with the system cold), you must restore it using the cock located at the bottom of the unit (Fig. 12).
3. Close the cock after the operation.
4. If the pressure reaches values around 3 bar, there is a risk of tripping the safety valve (in this case, remove water from a radiator air vent valve until a pressure of 1 bar is achieved, or ask for assistance from professionally qualified personnel).
5. In the event of frequent pressure drops, contact qualified staff for assistance to eliminate the possible system leakage.

2.9 DRAINING THE SYSTEM

1. Ensure that the filling cock is closed.
2. Open the draining cock (Fig. 12).
3. Open all vent valves.
4. At the end, close the emptying cock.
5. Close all previously opened vent valves.



If fluid containing glycol was added to the system circuit, make sure it is recovered and disposed of in accordance with standard EN 1717.

2.10 ANTIFREEZE PROTECTION

All information on antifreeze protection can be found in the Installer section at Parag. 1.5.

2.11 PROLONGED INACTIVITY

In case of prolonged inactivity (e.g. second home), we recommend:

1. to switch off the power supply;
2. Completely empty the CH circuit (to be avoided if glycol is present in the system) and the DHW circuit (if combined with a storage tank) of the Indoor Unit. In systems that are drained frequently, filling must be carried out with suitably treated water to eliminate hardness that can cause lime-scale.

2.12 CLEANING THE CASE

1. Use damp cloths and neutral detergent to clean the Indoor Unit casing.



Never use abrasive or powder detergents.

2.13 PERMANENT SHUTDOWN

Should the system be shut down permanently, have professional staff carry out the procedures, making sure that the electrical and water supply lines have been previously shut off.

3 INSTRUCTIONS FOR MAINTENANCE AND INITIAL CHECK

3.1 GENERAL RECOMMENDATIONS



Operators who install and service the appliance must wear the personal protective equipment (PPE) required by applicable law.
The list of possible PPE is not complete as they are indicated by the employer.



Before carrying out any maintenance work, make sure that:

- you have disconnected the power to the appliance;
- you have discharged the pressure from the system and domestic hot water circuit.



Supply of spare parts

The device's warranty shall be rendered null and void if unapproved or unsuitable parts are used for maintenance or repairs. These will also compromise the product's compliance, and the said product may no longer be valid and fail to meet the current regulations. In regard to the above, only use original Immergas spare parts when replacing components.



If additional documentation needs to be consulted for extraordinary maintenance, contact the Authorised After-Sales Service.



The appliance operates with R32 refrigerant gas.
This gas is ODOURLESS.

Pay the utmost attention

Strictly follow the instruction handbook of the Outdoor Unit before installation and any type of operation on the chiller line.



R32 refrigerant gas belongs to the low flammability refrigerant category: class A2L according to standard ISO 817. It guarantees high performance with low environmental impact. The new gas reduces the potential environmental impact by one third compared to R410A, having less effect on global warming (GWP 675).



Below -20°C, the expected power output is not guaranteed.

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3.2 INITIAL CHECK

To commission the package, you must:

- check connection to a 230V-50Hz power mains, correct L-N polarity and the earthing connection;
- make sure the central heating system is filled with water and the Indoor Unit pressure gauge reads a pressure of 1-1.2 bar;
- make sure the chiller circuit has been filled according to what is described in the Outdoor Unit instructions booklet;
- check the activation of the main switch located upstream of the Indoor Unit;
- ensure activation of all adjustment devices;
- check the production of DHW (if paired with a storage tank unit);
- check the tightness of the hydraulic circuits;



Even if just one single safety check provides a negative result, do not commission the system.

3.3 YEARLY APPLIANCE CHECK AND MAINTENANCE



The following checks and maintenance should be performed once a year to ensure operation, safety and efficiency of the appliance over time.

- Check for water leaks or oxidation from/on the fittings.
- Check, after discharging the system pressure and bringing it to zero (read on Indoor Unit pressure gauge), that the expansion vessel charge is at 1.0 bar.
- Check that the system static pressure (with system cold and after refilling the system by means of the filling valve) is between 1 and 1.2 bar.
- Visually check that the safety and control devices have not been tampered with and/or short-circuited.
- Check the condition and integrity of the electrical system and in particular:
 - the power supply wires must be housed in the cable glands;
 - there must be no traces of blackening or burning.
- Check correct lighting and operation.
- Check correct operation of control and adjustment devices and in particular:
 - system regulation probes intervention.
 - Check chiller line connections.
 - Check mesh filter on system return.
 - Check the correct flow rate on plate heat exchanger.
 - Check the integrity of the internal insulation.



In addition to yearly maintenance, one must also check the energy efficiency of the thermal system, with frequency and procedures that comply with the indications of the technical regulations in force.

3.4 COIL MAINTENANCE



We recommend regularly inspecting the finned air coils to check the level of fouling.

This depends on the environment where the unit is installed.

The level of fouling will be worse in urban and industrial sites, as well as near trees that lose their leaves.

There are two maintenance levels to clean the coils:

- If the air heat exchangers are encrusted, clean them gently with a brush in a vertical direction.
- Turn off the fans before working on the air heat exchangers.
- To perform this type of intervention, stop the unit only if the maintenance considerations allow it.
- Perfectly clean air heat exchangers ensure an optimal operation of the unit. When the air heat exchangers begin to encrust, they must be cleaned. The cleaning frequency depends on the season and location of the unit (ventilated, wooded, dusty, etc.).
- Do not use pressurised water without a large diffuser. Do not use high-pressure cleaners for Cu/Cu and Cu/Al air coils.
- Concentrated and/or rotating water jets are strictly prohibited. Never use fluid with a temperature above 45°C to clean the air heat exchangers.
- Proper and frequent cleaning (approx. every three months) prevents 2/3 of corrosion problems.

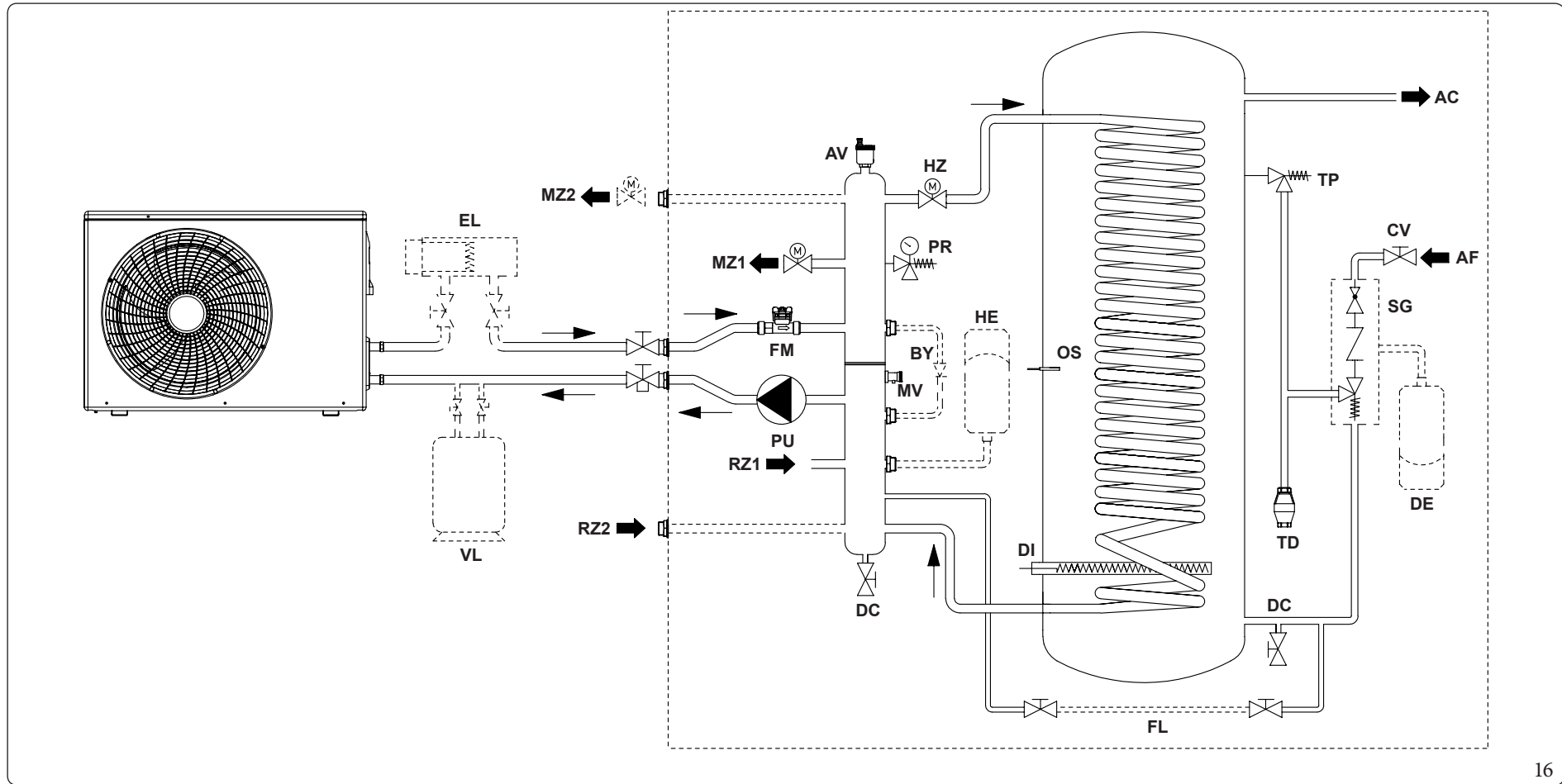
Clean the air coil using suitable products.

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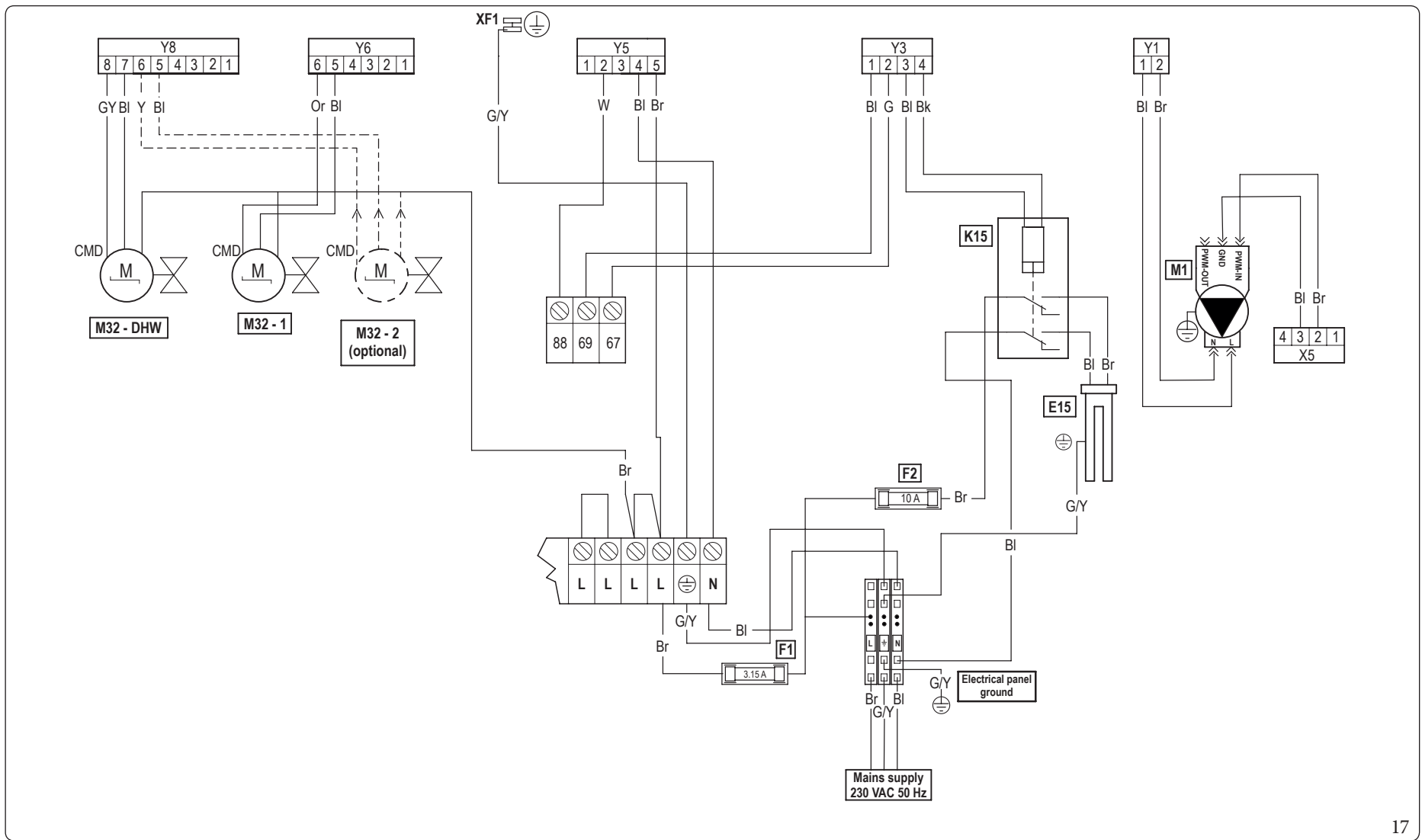
TECHNICAL DATA



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Key (Fig. 16):

- | | | |
|------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| AC - Domestic hot water outlet | FL - Filling loop | PU - System circulator pump |
| AF - Domestic cold water inlet | FM - Flow meter | RZ1 - Main zone 1 heating circuit return |
| AV - Automatic vent valve | HE - Heating expansion vessel - To be supplied separately according to system volume | RZ2 - Zone 2 heating circuit return (optional - remove blanking cap) |
| CV - Cold water inlet tap (not supplied) | HZ - Hot water zone valve | SG - Inlet safety group |
| DC - Draining valve | MZ1 - Main zone 1 heating circuit flow | TD - Exhaust |
| DE - Domestic hot water expansion vessel | MZ2 - Zone 2 heating circuit return (optional - remove blanking cap) | TP - Temperature and pressure relief valve |
| DI - Domestic hot water integration resistance | PR - Primary pressure relief valve | VL - Circuit volume buffer (optional) |
| DS - Domestic water sensor | | MV - Manual air vent valve |
| EL - Backup electric resistance (optional) | | |

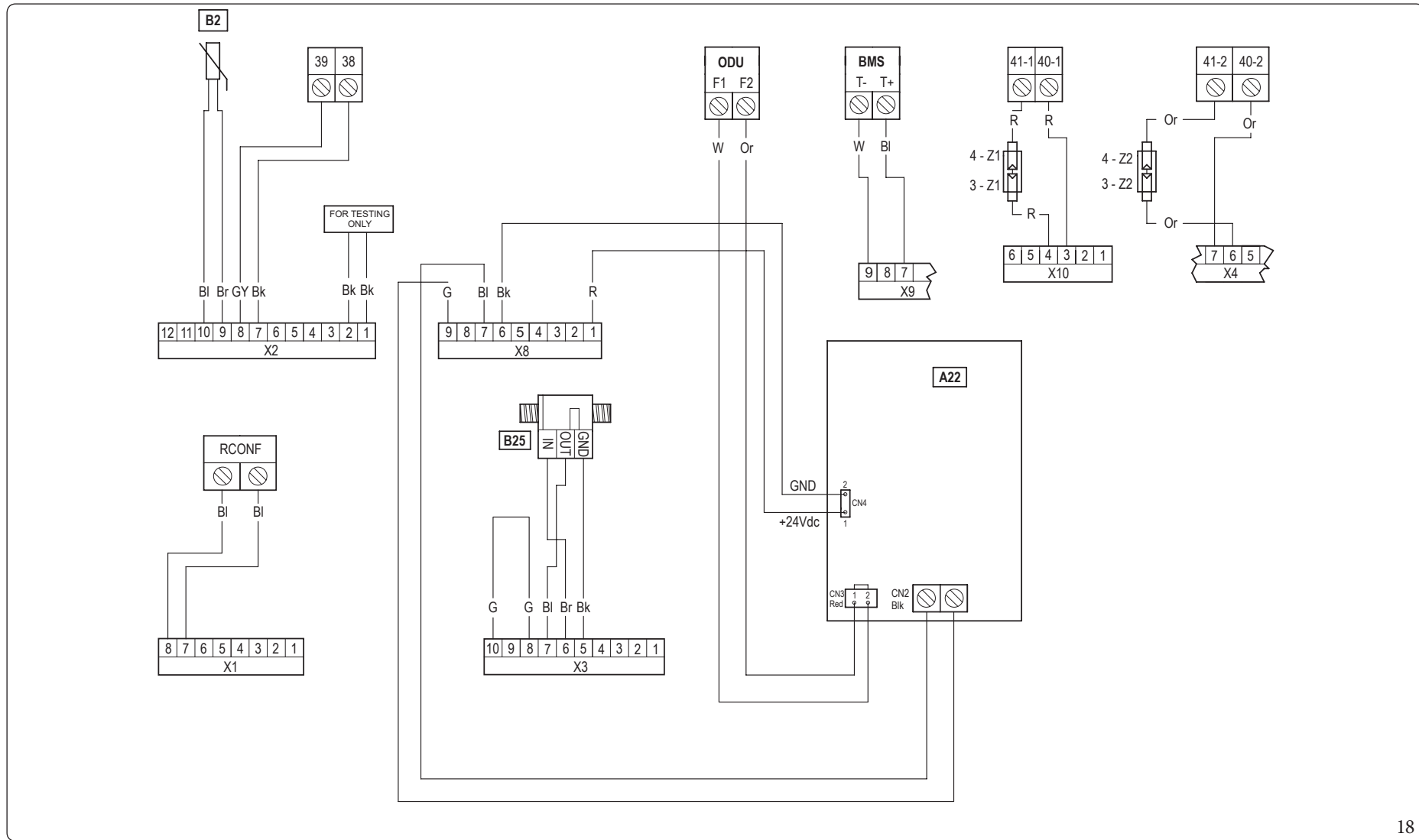


Key (Fig. 17):

- M1 - Pump
- M32-1- Zone 1 valve
- M32-2- Zone 2 valve
- M32-ACS- DHW valve
- F1 - Main phase fuse
- F2 - Electrical resistance phase fuse

- E15 - Domestic hot water integration resistance
- K15 - DHW integration relay
- BI - Blue
- Bk - Black
- Br - Brown
- G - Green

- GY - Grey
- G/Y - Green/Yellow
- Or - Orange
- R - Red
- W - White

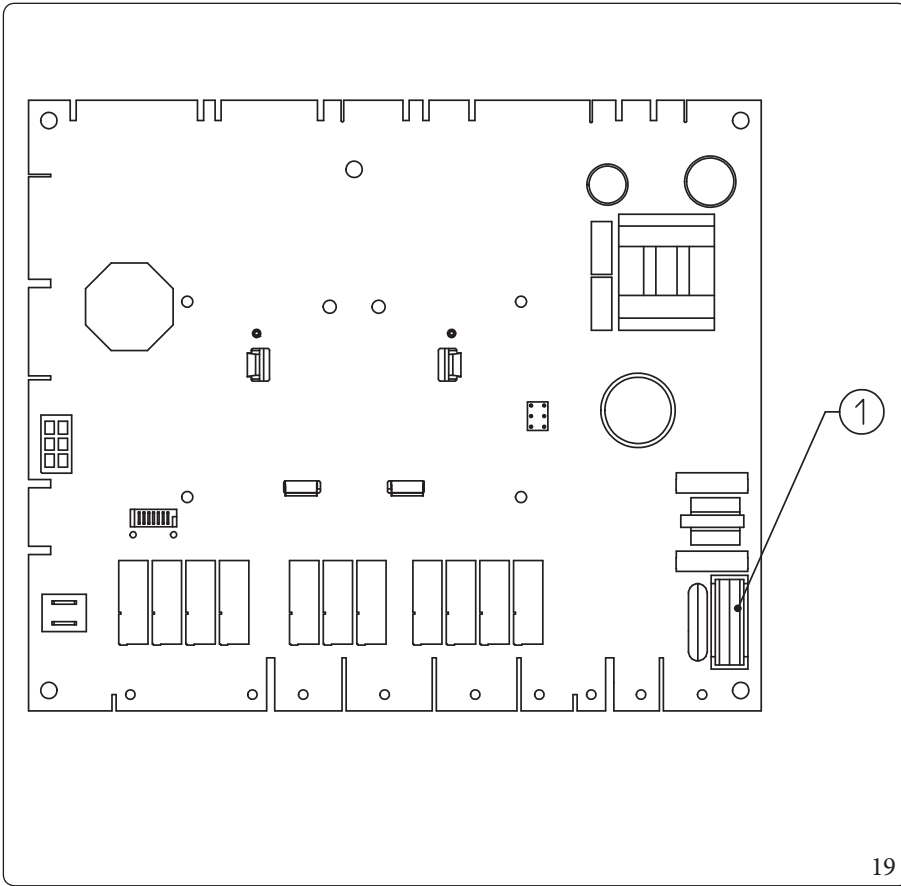


Key (Fig. 18):

- A22 - Outdoor Unit Interface
- B2 - D.H.W. probe
- B25 - System flow-meter
- Bl - Blue
- Bk - Black
- Br - Brown

- G - Green
- GY - Grey
- Or - Orange
- R - Red
- W - White

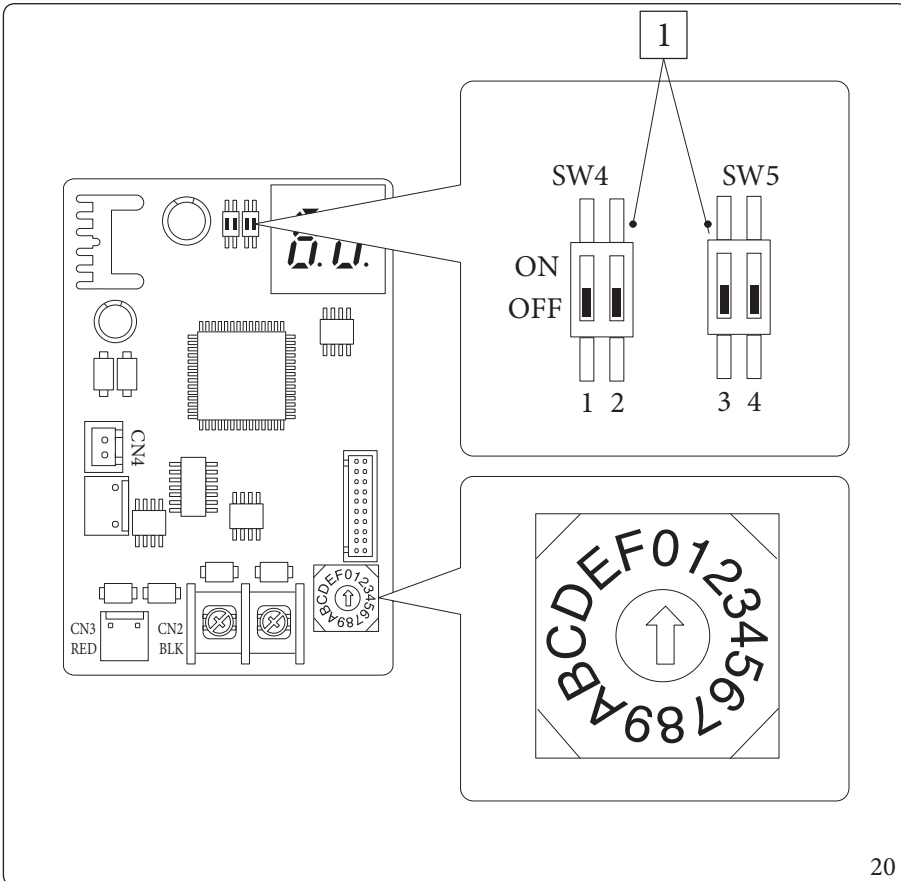
P.C.B.



Key (Fig. 19):

1 - F3.15A H250V fuse

Interfaceboard - settings switch



Key (Fig. 20):

1 - Factory setting: do not change

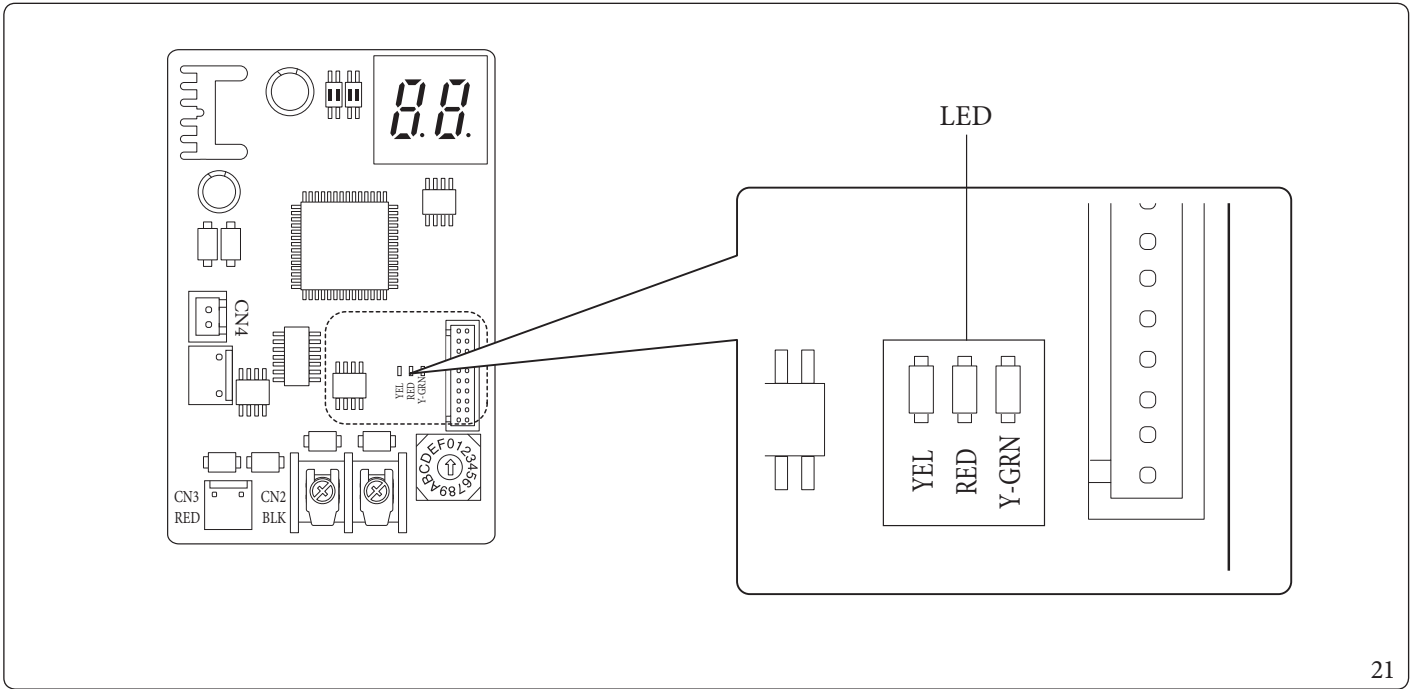
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Interface board - indicator LED



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Key (Fig. 21):

Red LED flashing = Communication between interface board and P.C.B. valid

Green LED flashing = Communication between interface board and outdoor unit valid

Yellow LED = Not Used

Interface board - 7-segment display

During normal operation, the display shows “A0” for 1 second, followed by “30” for 1 second:

	SEGMENTS
VALID COMMUNICATION	

In case of an error of the outdoor unit, a sequence of two digits at a time is displayed: “E” plus outdoor unit error code:

ERROR CODES	SEGMENTS
E101	

3.7 SYSTEM FILTER

The indoor unit has a filter on the system return fitting to keep the system in good operating conditions. The filter can be cleaned periodically and when necessary.

3.8 TROUBLESHOOTING



Maintenance operations must be carried out by an authorised company (e.g. Authorised After-Sales Technical Assistance Centre).

Noise due to air in the system.

Check opening of the hood of the special air vent valve (Fig. 16).

Make sure the system pressure and expansion tank factory-set pressure values are within the set limits.

The factory-set pressure values of the expansion vessel must be 1.0 bar, the value of system pressure must be between 1 and 1.2 bar.

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3.9 PARAMETERS AND INFORMATION MENU

The water heater is set up for possible programming of several operation parameters. By modifying these parameters as described below, the system can be adapted according to specific needs.

To access the programming phase, press the “MENU” button (2) until the “Password” menu appears. Enter the password, modify the numerical values using the “central heating regulation” buttons (5) and confirm with the “OK” button (1).

Once you have accessed programming, you can scroll through the parameters in the “System” menu.

Using the “central heating regulation” button, select the parameter and edit the value.

To save the parameter change, press the “OK” button.

Wait for 1 minute or press the “ESC” button (3) to exit programming mode.

Id Parameter	Parameter	Description	Range	Default	Value customized
A 03	Minimum speed	Defines the minimum operating speed of the system circulator pump	0 ÷ 100 %	55	
A 04	Maximum fixed speed	Defines the maximum operating speed of the system circulator pump	45 ÷ 100 %	100 (**)	
A 05	Circulator mode	0 = Fixed (See Parag. “Circulation pump”) 5 - 25 K = ΔT constant (See Parag. “Circulation pump”)	0 - 25 °C	0	
A 11 (*)	Outdoor unit model	Establishes the outdoor unit model paired with the indoor unit. If set to OFF, only the integrated generators are activated.	OFF - 4 - 6 - 9	9	
A 12	System vent	Enables the automatic vent function. This function activates as soon as the unit is powered.	OFF - ON	ON	
A 13	Number of zones	Defines the number of zones in the heating system	1 - 3	1	
A 20	System electrical resistance size	Defines the power size of the installed system electrical resistance	10 - 160 (tenths of a kW)	30	
A 21	BMS communication address	Defines the communication protocol between the indoor unit and the outdoor unit	1 ÷ 247	11	
A 22	BMS communication setting	OFF = BMS communication protocol on 485; use if connected to optional Immergas devices. 485 = Do not use	OFF - 485	OFF	
A 99	Factory parameter reset	Resets to default settings	OFF - ON	OFF	



* Parameter A11=OFF, may only be used temporarily and only by an authorised technician; failure to do so will invalidate the warranty.



** Correlated to parameter A11

Id Parameter	Parameter	Description	Range	Default	Value customized
P07	External probe correction	If the reading of the external probe is not accurate, it is possible to correct it in order to compensate any environmental factors.	-9 ÷ 9K	0	
P11	Gen. DHW setpoint offset	The DHW flow setpoint of the generator is calculated by adding P11 to the DHW setpoint	2 ÷ 30°C	10	
P12	DHW electric resistance tripping offset	Call an Authorised After-Sales Technical Assistance Centre	5 ÷ 50°C	10	
P13	T max anti-Legionella	Maximum time to perform anti-Legionella function	1 - 24 hours	3	
P14	T max DHW	Maximum time to perform DHW function	1 - 24 hours	5	
P15	Anti-Legionella function enable	Enable running of anti-Legionella function	OFF - ON	OFF	
P16	Anti-Legionella start time	Allows to set when anti-Legionella function starts	0 - 23	2	
P17	Anti-Legionella activation day	Allows to set the weekday on which to activate the anti-Legionella function. You may even activate the function continuously every day.	Mo-Tu-We-Th-Fr-Sa-Su	Mo	

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Id Parameter	Parameter	Description	Range	Default	Value customized
T02	D.H.W. thermostat	Establishes the unit ignition and switch-off mode in DHW mode. It is enabled when the water in the storage tank goes below the DHW set value and is disabled when the temperature exceeds the DHW set value.	0 ÷ 20 °C	4	
T05	Ignitions timer	The indoor unit has an electronic timer that controls restarting the compressor of the outdoor unit.	0 - 10 minutes	3	
T07	Delay request from TA	The system is set to switch on immediately after a request for room air conditioning. For special systems (e.g. zone systems with motorised valves, etc.), it may be necessary to delay ignition.	0 - 240 seconds (10 sec step)	0	
T08	Display lighting	Establishes the display lighting mode. AU: the display lights up during use and lowers after 15 seconds of inactivity. In the event of an anomaly, the display flashes. OFF: the display lighting is always off. ON: the display lighting is always on.	AU - OFF - ON	AU	
T09	Display	Establishes what the indicator displays 14 (Fig. 14). “Summer” mode: ON: active circulator, this displays the flow temperature, with circulator off the indicator is off OFF: the indicator is always off “Winter” and “cooling” mode: ON: circulator pump active displays the flow temperature, pump off displays the value set on the central heating selector. OFF: always displays the value set on the central heating selector	ON - OFF	ON	

Heat regulation menu.

Id Parameter	Parameter	Description	Range	Default	Value customized
R01	External probe	Defines if and which external probe is used to manage the system. OFF = no external probe used OU = external probe on outdoor unit IU = optional external probe connected to the indoor unit	OFF - OU - IU	OU	
R02	Outdoor temperature for max CH flow zone 1	Establishes the outdoor temperature at which to have the maximum flow temperature of zone 1.	-15 ÷ 25°C	-5	
R03	Outdoor temperature for min CH flow zone 1	Establishes the outdoor temperature at which to have the minimum flow temperature of zone 1.	-15 ÷ 25°C	25	
R04	Zone 1 maximum central heating	Defines the maximum flow temperature in zone 1 room central heating mode	20 ÷ 65	45	
R05	Zone 1 minimum central heating	Defines the minimum flow temperature in zone 1 room central heating mode	20 ÷ 65	25	

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Integration menu.

Id Parameter	Parameter	Description	Range	Default	Value customized
I01	DHW integra- tion enabling	Allows you to enable an alternative power source (AL) to integrate domestic hot water heating	OFF - AL	OFF	
I02	System integration enabling	Using this function, you can enable an alternative (AL) or simultaneous (CO) power source to integrate heating system central heating.	OFF - AL - CO	OFF	
I03	DHW max wait time	Establishes the maximum amount of time before activating DHW integration.	1 - 255 minutes	240	
I04	Central heating max wait time	Establishes the maximum amount of time before activating central heating integration.	20 - 240 minutes	120	
I08	Simultaneous D.H.W.	Enables the simultaneous operation in DHW mode and room air conditioning mode	OFF - ON	OFF	
I09	DHW activation temperature	Establishes the outdoor temperature under which DHW integration is enabled	-25 ÷ 35°C	-20	
I10	System activation temperature	Establishes the outdoor temperature under which system integration is enabled	-25 ÷ 35°C	-20	
I11	Outdoor unit operating hours	Displays the hours of operation performed by the outdoor unit	-	-	
I12	Heating integration resistance hours of operation	Displays the hours of operation of the central heating integration resistance (optional)	-	-	
I13	DHW integra- tion resistance hours of operation	Displays the hours of operation of the DHW integration resistance (optional)	-	-	
I14	Position of electrical resistance	Determines the installation position of the system electrical resistance	Int - Ext	SH	
I15	Preheat function enabling temperature	If system integration is enabled, this is the temperature below which the preheat function is activated	14 ÷ 25°C	15	

Maintenance menu.

Accessing this menu, the unit goes into stand-by. By selecting every single parameter, you can activate a specific function for each load.

Id Parameter	Parameter	Description	Range	Default	Value customized
M02	System circulator pump speed	Establishes the system circulator pump speed	0 - 100%	0	
M08	Zone 1 outdoor circulator pump	Enables the zone 1 outdoor circulator pump	OFF - ON	OFF	
M09	Zone 2 outdoor circulator pump	Enables the zone 2 outdoor circulator pump	OFF - ON	OFF	
M11	DHW electrical resistance	Enables the DHW integrated electrical resistance	OFF - ON	OFF	
M12	Central heating electrical resistance	Enables the room central heating integrated electrical resistance	OFF - ON	OFF	
M40	Circulator pump flow rate	Determines the flow rate of the system circulator	0 - 9999	-	

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3.10 FIRST IGNITION PARAMETER SETTING

During the first activation of the appliance, it is necessary to customise the following parameters, which concern the generator operation, the type of outdoor unit and the type of system connected to the appliance.

Heat pump power

Set parameter A11 according to the type of Outdoor Unit connected.

Circulator speed

Set parameter A05 to define the operating mode of the pump.

Set parameters A03 and A04 to define the maximum and minimum speed of the pump.

It is necessary to adjust the pump speed according to the appliance power, to improve the operating efficiency of the machine.

It is suggested to check the values as indicated in the following table:

Output	Parameter A04
5	80%
8	80%
12	100%
16	100%

Number of zones

Set parameter A13 according to the number of zones in the system that are directly controlled by the machine.

3.11 PUMP ANTI-BLOCK

The Indoor Unit has a function that starts the pump at least once every 24 hours for the duration of 30 seconds in order to reduce the risk of the pump becoming blocked due to prolonged inactivity.

3.12 PHOTOVOLTAIC

If the photovoltaic contact (contact "S 39" Fig. 3) is closed, any DHW (Domestic hot water) stored is heated to the maximum temperature (Fig. 8) by means of heat pump operation in the absence of system demands.

3.13 ANTI-LEGIONELLA

The indoor unit is equipped with a function to perform a thermal shock on the storage tank.

This function brings the generator temperature to the maximum allowed with DHW integrative resistance enabled.

The function is enabled via parameter 'P 15' because it is not active as standard.

The function activates at the time set on parameter "P 16", on the weekday set on Parameter "P 17"; the function can be activated every day by setting "P 17"="ALL".

The maximum allowed duration of the function is "P 13" hours; if the function is not completed within the maximum allowed time, an alarm will be triggered.

Set the current date and time from the control panel by changing parameters U21 to U26 in the User menu as described in Parag. 2.6.



Since the function is not active as standard, it can only be activated in presence of integrative DHW resistance and eventually a thermostatic valve must be installed at the DHW outlet to prevent burns.



To clear a possible E250 error, it is necessary to re-enable DHW integration and, if necessary, disable the anti-legionella function if not required.

3.14 AUTOMATIC VENT

In the case of new central heating systems and in particular mode for floor systems, it is very important that deaeration is performed correctly.

The function consists of the cyclic activation of the pump and the 3-way valve.

The function is activated in two different ways:

- Each time the heat generator is re-powered;
- Using parameter "U 50".

In the first case, the function has a duration of 8 minutes and it can be interrupted by pressing the "Reset" button (3). In the second case, it has a duration of 18 hours and it can be interrupted simply by switching the heat generator on.

Activation of the function is signalled by the countdown shown on the indicator (14).

3.15 PRE-HEAT

In the case of a heating demand, if the water temperature is lower than the value set in parameter I15, the operation of the electric integration resistor is forced until the flow temperature value of $I15+5^{\circ}\text{C}$ is reached.

The function remains active for a maximum of 2 hours.

If needed, the function can be bypassed by disabling the system's electric resistance.

3.16 OUTDOOR UNIT TEST MODE

When test mode is used (see Outdoor Unit instruction booklet), the Indoor Unit must be set in a mode other than "Stand-by".

Before activating the Test mode function, wait at least 3 minutes after setting the operating mode.

The alarm E183 is triggered during the test, meaning "Test mode" in progress.

3.17 OUTDOOR UNIT PUMP DOWN

If the pump down function is used (see Outdoor Unit instruction booklet) the Indoor Unit must be set in "Stand-by".

The function can only be activated if the appliance is not under alarm.

3.18 NIGHT MODE

This function can be activated by setting the internal clock of the appliance (parameters U 21 and U 22).

Activating the function allows you to reduce the compressor frequency during the Outdoor Unit operation in the time slot set in the U 12 and U 13 parameters.

Make sure the additional power sources needed to meet potential requirements that may present themselves during active operation are available (e.g. additional resistances).

4 TECHNICAL DATA

4.1 TECHNICAL DATA TABLE

The data below refer to the pairing between indoor unit and outdoor unit.

		UIPRE- PLUMB 200+ UEHYDRO HP5	UIPRE- PLUMB 200+ UEHYDRO HP8	UIPRE- PLUMB 200+ UEHYDRO HP12	UIPRE- PLUMB 200+ UEHYDRO HP16
Nominal data for low temperature applications (A7/W35)*					
Nominal central heating output	kW	5,00	8,00	12,00	16,00
Absorption	kW	1,03	1,77	2,65	3,62
COP	kW/kW	4,85	4,52	4,53	4,42
Nominal data for low temperature applications (A35/W18)*					
Nominal cooling output	kW	5,00	7,50	12,00	14,00
Absorption	kW	1,14	1,9	2,77	3,28
EER	kW/kW	4,39	3,95	4,33	4,27
Nominal data for intermediate temperature applications (A7/W45)**					
Nominal central heating output	kW	4,80	7,40	11,70	15,40
Absorption	kW	1,3	2,12	3,18	4,49
COP	kW/kW	3,69	3,49	3,68	3,43
Nominal data for intermediate temperature applications (A35/W7)**					
Nominal cooling output	kW	3,90	5,70	9,00	10,40
Absorption	kW	1,15	1,88	2,73	3,29
EER	kW/kW	3,39	3,03	3,3	3,16
Nominal data for medium temperature applications (A7/W55)***					
Nominal central heating output	kW	4,30	7,10	11,30	15,00
Absorption	kW	1,52	2,53	3,73	5,18
COP	kW/kW	2,83	2,81	3,03	2,9

* Central heating mode status: heat exchanger water inlet/remains at 30 °C/35 °C, outdoor air temperature 7 °C db/6 °C wb. Performance in compliance with EN 14511.

Cooling mode status: heat exchanger water inlet/remains at 23 °C/18 °C, outdoor air temperature 35 °C. Performance in compliance with EN 14511.

* Central heating mode status: heat exchanger water inlet/remains at 40 °C/45 °C, outdoor air temperature 7 °C db/6 °C wb.

Cooling mode status: heat exchanger water inlet/remains at 12 °C/7 °C, outdoor air temperature 35 °C. Performance in compliance with EN 14511.

*** Central heating mode status: inlet/remains at 47 °C/55 °C, outdoor air temperature 7 °C db/6 °C wb. Performance in compliance with EN 14511.

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Indoor Unit data

		UI PRE PLUMBED 200
Dimensions (Width x Height x Depth)	mm	762x1330x772
Water content	l	1,0
System expansion vessel volume	l	-
System expansion vessel pre-charged pressure	bar	-
Hydraulic circuit max. operating pressure	kPa	300
Max. operating temperature in central heating	°C	65
Domestic hot water circuit min. dynamic pressure	kPa	0.3
Domestic hot water circuit pressure	kPa	600
DHW (Domestic hot water) expansion vessel volume	l	12
DHW expansion vessel pre-charged pressure	bar	2,5
Storage tank water content	l	207
Electrical connection	V/Hz	Single-phase, 230Vac, 50Hz
Absorption without additional loads	W	135
Electrical resistance absorption	W	2250
EEl value	-	≤0,23 - Part. 3
Equipment electrical system protection	-	IPX4D
Ambient temperature range of indoor unit in summer mode	°C	-
Ambient temperature range of indoor unit in winter mode	°C	0..+35
Empty indoor unit weight	kg	65
Full indoor unit weight	kg	272

INSTALLER
USER
MAINTENANCE TECHNICIAN
TECHNICAL DATA

Product data

		UIPRE-PLUMB 200 + UEHYDRO HP5	UIPRE-PLUMB 200 + UEHYDRO HP8	UIPRE-PLUMB 200 + UEHYDRO HP12	UIPRE-PLUMB 200 + UEHYDRO HP16
Maximum heating temperature	°C	65			
Adjustable central heating temperature (max operating field)	°C	20-65			
Cooling adjustable temperature (max. operating field)	°C	-			
Minimum circulation flow rate	l/h	500	720		
Head available with 1000l/h flow rate	kPa	106	108		
Head available with 2000l/h flow rate	kPa	56,0	63,0		
Domestic hot water adjustable temperature	°C	10-55			
Domestic hot water adjustable temperature with DHW integration resistance	°C	10-65			
Room temperature in cooling mode	°C	-			
Room temperature in central heating mode	°C	-25..+35			
Domestic hot water room temperature	°C	-25..+35			
Domestic hot water room temperature with DHW integration resistance	°C	-25..+46			

4.2 UI PRE PLUMBED 200 + UE HYDRO HP5 PRODUCT FICHE (IN ACCORDANCE WITH REGULATION 811/2013)

A	Supplier's name or trademark		-	Immergas S.p.A
B	Supplier's model identifier		-	UI PRE-PLUMB 200 + UE HYDRO HP5
C	For space heating	Application temperature	-	Average temperature
	For water heating	Stated load profile	-	XL
D	Seasonal energy efficiency class of room heating	Average temperature	-	A++
		Low temperature	-	A+++
	Energy efficiency class of water heating		-	A
E	Nominal heat output (average climate condition)	Average temperature	kW	5
		Low temperature	kW	6
F	Annual energy consumption for room heating (average climate condition)	Average temperature	kWh	3224
		Low temperature	kWh	2548
	Annual energy consumption for water heating (average climate condition)		kWh	1474
G	Seasonal energy efficiency of room heating (average climate condition)	Average temperature	%	125
		Low temperature	%	175
	Energy efficiency of water heating (average climate condition)		%	114
H	Lwa sound power level indoors		dB	-
I	Operation only during dead hours		-	No
J	Specific precautions		-	-
K	Nominal heat output (colder climate condition)	Average temperature	kW	4
		Low temperature	kW	5
	Nominal heat output (warmer climate condition)	Average temperature	kW	5
		Low temperature	kW	5
L	Annual energy consumption for room heating (colder climate condition)	Average temperature	kWh	3992
		Low temperature	kWh	3081
	Annual energy consumption for room heating (warmer climate condition)	Average temperature	kWh	1801
		Low temperature	kWh	1102
	Annual energy consumption for water heating (colder climate condition)		kWh	-
	Annual energy consumption for water heating (warmer climate condition)		kWh	-
M	Seasonal energy efficiency of room heating (colder climate condition)	Average temperature	%	-
		Low temperature	%	-
	Seasonal energy efficiency of room heating (warmer climate condition)	Average temperature	%	-
		Low temperature	%	-
N	Lwa sound power level outdoors		dB	61

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Average temperature table (47/55) average zones UI Pre Plumbed 200 + UE Hydro HP5

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Model		UIPRE-PLUMB 200 + UE HYDRO HP5					
Air/water heat pump	yes	Low temperature heat pump			no		
Water/water heat pump	no	With Supplementary heater			no		
Brine/water heat pump	no	Mixed central heating device with heat pump:			yes		
The parameters are declared for average temperature application, except for low temperature heat pumps. The parameters for low temperature heat pumps are declared for low temperature application							
The parameters are declared for average climatic conditions							
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Nominal heat output	$P_{nomi-nale}$	5,0	kW	Room central heating seasonal energy efficiency	η_s	125,0	%
Central heating capacity declared with a partial load and indoor temperature equivalent to 20°C and outdoor temperature T_j				Performance coefficient declared with indoor temperature equivalent to 20°C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	Pdh	4,4	kW	$T_j = -7\text{ °C}$	COPd	2,16	-
$T_j = +2\text{ °C}$	Pdh	2,70	kW	$T_j = +2\text{ °C}$	COPd	3,17	-
$T_j = +7\text{ °C}$	Pdh	1,70	kW	$T_j = +7\text{ °C}$	COPd	4,03	-
$T_j = +12\text{ °C}$	Pdh	1,90	kW	$T_j = +12\text{ °C}$	COPd	4,73	-
$T_j =$ bivalent temperature	Pdh	4,4	kW	$T_j =$ bivalent temperature	COPd	2,16	-
$T_j =$ operating limit temperature	Pdh	4,2	kW	$T_j =$ operating limit temperature	COPd	2,0	-
for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)	Pdh	-	kW	for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)	COPd	-	-
Bivalent temperature	T_{biv}	-7	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C
Central heating capacity cycle intervals	Pcyh	-	kW	Cycle intervals efficiency	COPcyc o PERcyc	-	-
Degradation coefficient	Cdh	0,9	-	Water heating temperature operating limit	WTOL	-	°C
Different mode of energy consumption from the active mode				Supplementary heater			
OFF mode	P_{OFF}	0,022	kW	Nominal heat output	P_{sup}	-	kW
Thermostat mode off	P_{TO}	0,022	kW	Type of energy supply voltage	power reduction		
Standby mode	P_{SB}	0,022	kW				
Guard heating mode	P_{CK}	0,000	kW				
Other items							
Capacity control	variable			For air/water heat pumps: nominal air output to outside	-	3060	m ³ /h
Indoor/outdoor sound level	L_{WA}	- / 61	dB	For water or brine/water heat pumps: nominal flow of brine or water, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q_{HE}	3237	kWh or GJ				
For mixed central heating appliances with a heat pump							
Stated load profile	XL			Water central heating energy efficiency	η_{wh}	114	%
Daily electrical power consumption	Q_{elec}	7	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual energy consumption	AEC	1474	kWh	Annual fuel consumption	AFC	-	GJ
Contact information	Immergas S.p.A. via Cisa Ligure n.95						

4.3 UIPRE PLUMBED 200 + UE HYDRO HP8 PRODUCT FICHE (IN ACCORDANCE WITH REGULATION 811/2013)

A	Supplier's name or trademark	-	Immergas S.p.A
B	Supplier's model identifier	-	UIPRE-PLUMB 200 + UEHYDRO HP8
C	For space heating	Application temperature	Average temperature
	For water heating	Stated load profile	XL
D	Seasonal energy efficiency class of room heating	Average temperature	A++
		Low temperature	A+++
	Energy efficiency class of water heating	-	A
E	Nominal heat output (average climate condition)	Average temperature	kW 8
		Low temperature	kW 8
F	Annual energy consumption for room heating (average climate condition)	Average temperature	kWh 5113
		Low temperature	kWh 3719
	Annual energy consumption for water heating (average climate condition)	kWh	1577
G	Seasonal energy efficiency of room heating (average climate condition)	Average temperature	% 126
		Low temperature	% 175
	Energy efficiency of water heating (average climate condition)	%	106
H	Lwa sound power level indoors	dB	-
I	Operation only during dead hours	-	No
J	Specific precautions	-	-
K	Nominal heat output (colder climate condition)	Average temperature	kW 7
		Low temperature	kW 7
	Nominal heat output (warmer climate condition)	Average temperature	kW 8
		Low temperature	kW 8
L	Annual energy consumption for room heating (colder climate condition)	Average temperature	kWh 6333
		Low temperature	kWh 4426
	Annual energy consumption for room heating (warmer climate condition)	Average temperature	kWh 2658
		Low temperature	kWh 1664
	Annual energy consumption for water heating (colder climate condition)	kWh	-
	Annual energy consumption for water heating (warmer climate condition)	kWh	-
M	Seasonal energy efficiency of room heating (colder climate condition)	Average temperature	% -
		Low temperature	% -
	Seasonal energy efficiency of room heating (warmer climate condition)	Average temperature	% -
		Low temperature	% -
N	Lwa sound power level outdoors	dB	63

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Average temperature table (47/55) average zones UI Pre Plumbed 200 + UE Hydro HP8

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Model		UIPRE-PLUMB 200 + UE HYDRO HP8							
Air/water heat pump		yes	Low temperature heat pump			no			
Water/water heat pump		no	With Supplementary heater			no			
Brine/water heat pump		no	Mixed central heating device with heat pump:			yes			
The parameters are declared for average temperature application, except for low temperature heat pumps. The parameters for low temperature heat pumps are declared for low temperature application									
The parameters are declared for average climatic conditions									
Element		Symbol	Value	Unit	Element	Symbol	Value	Unit	
Nominal heat output		$P_{nomi-nale}$	8,0	kW	Room central heating seasonal energy efficiency	η_s	126,0	%	
Central heating capacity declared with a partial load and indoor temperature equivalent to 20°C and outdoor temperature T_j				Performance coefficient declared with indoor temperature equivalent to 20°C and outdoor temperature T_j					
$T_j = -7\text{ °C}$		Pdh	7,1	kW	$T_j = -7\text{ °C}$	COPd	1,90	-	
$T_j = +2\text{ °C}$		Pdh	4,30	kW	$T_j = +2\text{ °C}$	COPd	3,11	-	
$T_j = +7\text{ °C}$		Pdh	2,80	kW	$T_j = +7\text{ °C}$	COPd	4,55	-	
$T_j = +12\text{ °C}$		Pdh	2,40	kW	$T_j = +12\text{ °C}$	COPd	5,77	-	
$T_j =$ bivalent temperature		Pdh	7,1	kW	$T_j =$ bivalent temperature	COPd	1,9	-	
$T_j =$ operating limit temperature		Pdh	6,8	kW	$T_j =$ operating limit temperature	COPd	1,66	-	
for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)		Pdh	-	kW	for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)	COPd	-	-	
Bivalent temperature		T_{biv}	-7	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C	
Central heating capacity cycle intervals		Pcyh	-	kW	Cycle intervals efficiency	COPcyc o PERcyc	-	-	
Degradation coefficient		Cdh	0,9	-	Water heating temperature operating limit	WTOL	-	°C	
Different mode of energy consumption from the active mode				Supplementary heater					
OFF mode		P_{OFF}	0,022	kW	Nominal heat output	P_{sup}	-	kW	
Thermostat mode off		P_{TO}	0,022	kW	Type of energy supply voltage	power reduction			
Standby mode		P_{SB}	0,022	kW					
Guard heating mode		P_{CK}	0,000	kW					
Other items									
Capacity control		variable		For air/water heat pumps: nominal air output to outside		-	3960	m ³ /h	
Indoor/outdoor sound level		L_{WA}	- / 63	dB	For water or brine/water heat pumps: nominal flow of brine or water, outdoor heat exchanger		-	-	m ³ /h
Annual energy consumption		Q_{HE}	5116	kWh or GJ					
For mixed central heating appliances with a heat pump									
Stated load profile		XL		Water central heating energy efficiency		η_{wh}	106	%	
Daily electrical power consumption		Q_{elec}	7	kWh	Daily fuel consumption		Q_{fuel}	-	kWh
Annual energy consumption		AEC	1577	kWh	Annual fuel consumption		AFC	-	GJ
Contact information		Immergas S.p.A. via Cisa Ligure n.95							

4.4 UI PRE PLUMBED 200 + UE HYDRO HP12 PRODUCT FICHE (IN ACCORDANCE WITH REGULATION 811/2013)

A	Supplier's name or trademark	-	Immergas S.p.A	
B	Supplier's model identifier	-	UI PRE-PLUMB 200 + UE HYDRO HP12	
C	For space heating	Application temperature	-	Average temperature
	For water heating	Stated load profile	-	XL
D	Seasonal energy efficiency class of room heating	Average temperature	-	A++
		Low temperature	-	A+++
	Energy efficiency class of water heating	-	A	
E	Nominal heat output (average climate condition)	Average temperature	kW	12
		Low temperature	kW	13
F	Annual energy consumption for room heating (average climate condition)	Average temperature	kWh	7051
		Low temperature	kWh	5725
	Annual energy consumption for water heating (average climate condition)	kWh	1613	
G	Seasonal energy efficiency of room heating (average climate condition)	Average temperature	%	138
		Low temperature	%	185
	Energy efficiency of water heating (average climate condition)	%	104	
H	Lwa sound power level indoors	dB	-	
I	Operation only during dead hours	-	No	
J	Specific precautions	-	-	
K	Nominal heat output (colder climate condition)	Average temperature	kW	11
		Low temperature	kW	12
	Nominal heat output (warmer climate condition)	Average temperature	kW	12
		Low temperature	kW	13
L	Annual energy consumption for room heating (colder climate condition)	Average temperature	kWh	10310
		Low temperature	kWh	8082
	Annual energy consumption for room heating (warmer climate condition)	Average temperature	kWh	4164
		Low temperature	kWh	2731
	Annual energy consumption for water heating (colder climate condition)	kWh	-	
	Annual energy consumption for water heating (warmer climate condition)	kWh	-	
M	Seasonal energy efficiency of room heating (colder climate condition)	Average temperature	%	-
		Low temperature	%	-
	Seasonal energy efficiency of room heating (warmer climate condition)	Average temperature	%	-
		Low temperature	%	-
N	Lwa sound power level outdoors	dB	63	

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Average temperature table (47/55) average zones UI Pre Plumbed 200 + UE Hydro HP12

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Model		UIPRE-PLUMB 200 + UE HYDRO HP12							
Air/water heat pump		yes	Low temperature heat pump			no			
Water/water heat pump		no	With Supplementary heater			no			
Brine/water heat pump		no	Mixed central heating device with heat pump:			yes			
The parameters are declared for average temperature application, except for low temperature heat pumps. The parameters for low temperature heat pumps are declared for low temperature application									
The parameters are declared for average climatic conditions									
Element		Symbol	Value	Unit	Element	Symbol	Value	Unit	
Nominal heat output		$P_{nomi-nale}$	12,0	kW	Room central heating seasonal energy efficiency	η_s	138,0	%	
Central heating capacity declared with a partial load and indoor temperature equivalent to 20°C and outdoor temperature T_j				Performance coefficient declared with indoor temperature equivalent to 20°C and outdoor temperature T_j					
$T_j = -7\text{ °C}$		Pdh	10,6	kW	$T_j = -7\text{ °C}$	COPd	2,16	-	
$T_j = +2\text{ °C}$		Pdh	6,50	kW	$T_j = +2\text{ °C}$	COPd	3,45	-	
$T_j = +7\text{ °C}$		Pdh	4,20	kW	$T_j = +7\text{ °C}$	COPd	4,57	-	
$T_j = +12\text{ °C}$		Pdh	4,40	kW	$T_j = +12\text{ °C}$	COPd	6,12	-	
$T_j =$ bivalent temperature		Pdh	12,0	kW	$T_j =$ bivalent temperature	COPd	1,96	-	
$T_j =$ operating limit temperature		Pdh	12,0	kW	$T_j =$ operating limit temperature	COPd	1,96	-	
for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)		Pdh	-	kW	for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)	COPd	-	-	
Bivalent temperature		T_{biv}	-10	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C	
Central heating capacity cycle intervals		Pcyh	-	kW	Cycle intervals efficiency	COPcyc o PERcyc	-	-	
Degradation coefficient		Cdh	0,9	-	Water heating temperature operating limit	WTOL	-	°C	
Different mode of energy consumption from the active mode				Supplementary heater					
OFF mode		P_{OFF}	0,022	kW	Nominal heat output	P_{sup}	-	kW	
Thermostat mode off		P_{TO}	0,022	kW	Type of energy supply voltage	power reduction			
Standby mode		P_{SB}	0,022	kW					
Guard heating mode		P_{CK}	0,000	kW					
Other items									
Capacity control		variable		For air/water heat pumps: nominal air output to outside		-	5940	m ³ /h	
Indoor/outdoor sound level		L_{WA}	- / 63	dB	For water or brine/water heat pumps: nominal flow of brine or water, outdoor heat exchanger		-	-	m ³ /h
Annual energy consumption		Q_{HE}	7059	kWh or GJ					
For mixed central heating appliances with a heat pump									
Stated load profile		XL		Water central heating energy efficiency		η_{wh}	104	%	
Daily electrical power consumption		Q_{elec}	8	kWh	Daily fuel consumption		Q_{fuel}	-	kWh
Annual energy consumption		AEC	1613	kWh	Annual fuel consumption		AFC	-	GJ
Contact information		Immergas S.p.A. via Cisa Ligure n.95							

4.5 UIPRE PLUMBED 200 + UE HYDRO HP16 PRODUCT FICHE (IN ACCORDANCE WITH REGULATION 811/2013)

A	Supplier's name or trademark	-	Immergas S.p.A
B	Supplier's model identifier	-	UIPRE-PLUMB 200 + UEHYDRO HP16
C	For space heating	Application temperature	Average temperature
	For water heating	Stated load profile	XL
D	Seasonal energy efficiency class of room heating	Average temperature	A++
		Low temperature	A+++
	Energy efficiency class of water heating	-	A
E	Nominal heat output (average climate condition)	Average temperature	kW 16
		Low temperature	kW 16
F	Annual energy consumption for room heating (average climate condition)	Average temperature	kWh 9379
		Low temperature	kWh 7385
	Annual energy consumption for water heating (average climate condition)	kWh	1708
G	Seasonal energy efficiency of room heating (average climate condition)	Average temperature	% 138
		Low temperature	% 176
	Energy efficiency of water heating (average climate condition)	%	98
H	Lwa sound power level indoors	dB	-
I	Operation only during dead hours	-	No
J	Specific precautions	-	-
K	Nominal heat output (colder climate condition)	Average temperature	kW 15
		Low temperature	kW 15
	Nominal heat output (warmer climate condition)	Average temperature	kW 16
		Low temperature	kW 16
L	Annual energy consumption for room heating (colder climate condition)	Average temperature	kWh 14017
		Low temperature	kWh 10390
	Annual energy consumption for room heating (warmer climate condition)	Average temperature	kWh 5449
		Low temperature	kWh 3378
	Annual energy consumption for water heating (colder climate condition)	kWh	-
	Annual energy consumption for water heating (warmer climate condition)	kWh	-
M	Seasonal energy efficiency of room heating (colder climate condition)	Average temperature	% -
		Low temperature	% -
	Seasonal energy efficiency of room heating (warmer climate condition)	Average temperature	% -
		Low temperature	% -
N	Lwa sound power level outdoors	dB	66

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Average temperature table (47/55) average zones UI Pre Plumbed 200 + UE Hydro HP16

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Model		UIPRE-PLUMB 200 + UE HYDRO HP16							
Air/water heat pump		yes	Low temperature heat pump			no			
Water/water heat pump		no	With Supplementary heater			no			
Brine/water heat pump		no	Mixed central heating device with heat pump:			yes			
The parameters are declared for average temperature application, except for low temperature heat pumps. The parameters for low temperature heat pumps are declared for low temperature application									
The parameters are declared for average climatic conditions									
Element		Symbol	Value	Unit	Element	Symbol	Value	Unit	
Nominal heat output		$P_{nomi-nale}$	16,0	kW	Room central heating seasonal energy efficiency	η_s	138,0	%	
Central heating capacity declared with a partial load and indoor temperature equivalent to 20°C and outdoor temperature T_j				Performance coefficient declared with indoor temperature equivalent to 20°C and outdoor temperature T_j					
$T_j = -7\text{ °C}$		Pdh	14,2	kW	$T_j = -7\text{ °C}$	COPd	2,06	-	
$T_j = +2\text{ °C}$		Pdh	8,60	kW	$T_j = +2\text{ °C}$	COPd	3,31	-	
$T_j = +7\text{ °C}$		Pdh	5,50	kW	$T_j = +7\text{ °C}$	COPd	5,23	-	
$T_j = +12\text{ °C}$		Pdh	4,50	kW	$T_j = +12\text{ °C}$	COPd	6,57	-	
$T_j =$ bivalent temperature		Pdh	14,2	kW	$T_j =$ bivalent temperature	COPd	2,06	-	
$T_j =$ operating limit temperature		Pdh	14,0	kW	$T_j =$ operating limit temperature	COPd	1,82	-	
for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)		Pdh	-	kW	for air/water heat pumps: $T_j = -15\text{ °C}$ (se TOL < -20 °C)	COPd	-	-	
Bivalent temperature		T_{biv}	-7	°C	For air/water heat pumps: Operating limit temperature	TOL	-10	°C	
Central heating capacity cycle intervals		Pcyh	-	kW	Cycle intervals efficiency	COPcyc o PERcyc	-	-	
Degradation coefficient		Cdh	0,9	-	Water heating temperature operating limit	WTOL	-	°C	
Different mode of energy consumption from the active mode				Supplementary heater					
OFF mode		P_{OFF}	0,022	kW	Nominal heat output	P_{sup}	-	kW	
Thermostat mode off		P_{TO}	0,022	kW	Type of energy supply voltage	power reduction			
Standby mode		P_{SB}	0,022	kW					
Guard heating mode		P_{CK}	0,000	kW					
Other items									
Capacity control		variable		For air/water heat pumps: nominal air output to outside		-	7080	m ³ /h	
Indoor/outdoor sound level		L_{WA}	- / 66	dB	For water or brine/water heat pumps: nominal flow of brine or water, outdoor heat exchanger		-	-	m ³ /h
Annual energy consumption		Q_{HE}	9379	kWh or GJ					
For mixed central heating appliances with a heat pump									
Stated load profile		XL		Water central heating energy efficiency		η_{wh}	98	%	
Daily electrical power consumption		Q_{elec}	8	kWh	Daily fuel consumption		Q_{fuel}	-	kWh
Annual energy consumption		AEC	1708	kWh	Annual fuel consumption		AFC	-	GJ
Contact information		Immergas S.p.A. via Cisa Ligure n.95							

4.6 PARAMETERS FOR FILLING IN THE PACKAGE FICHE

Should you wish to install an assembly starting from the Magis Pro V2 package, use the package fiche shown in (Fig. 23). To complete it properly, fill the relevant spaces (as shown in the package fiche facsimile Fig. 22) with the values shown in tables "Parameters to fill in the low temperature package fiche (30/35)", "Parameters to fill in the average temperature package fiche (47/55)". The remaining values must be obtained from the technical data sheets of the products used to make up the assembly (e.g. solar devices, integration hydronic module, temperature controllers). Use board (Fig. 23) for "assemblies" related to the central heating mode (e.g.: heat pump + temperature controller).



Since the product is standard supplied with a temperature controller, the package fiche must always be completed.

Facsimile for filling in the package fiche for room central heating systems.

Room central heating seasonal energy efficiency of the heat pump [] %

Temperature control + [] %
 From temperature control board

Class I = 1 %, Class II = 2 %,
 Class III = 1.5 %, Class IV = 2 %,
 Class V = 3 %, Class VI = 4 %,
 Class VII = 3.5 %, Class VIII = 5 %

Supplementary boiler [] %
 From boiler board

Seasonal central heating energy efficiency of the room (%)

$$(\text{[]} - \text{'I'}) \times \text{'II'} = - \text{[]} \%$$

Solar contribution
 From the board of the solar device

Dimensions of the manifold (in m²)

Volume of the tank (in m³)

Efficiency of the manifold (in %)

Classification of the tank
 A* = 0.95, A = 0.91,
 B = 0.86, C = 0.83,
 D-G = 0.81

$$(\text{'III'} \times \text{[]} + \text{'IV'} \times \text{[]}) \times 0.45 \times (\text{[]} / 100) \times \text{[]} = + \text{[]} \%$$

Room central heating seasonal energy efficiency of the assemble in average climate conditions [] %

Room central heating seasonal energy efficiency class of the assemble in average climate conditions

□	□	□	□	□	□	□	□	□	□
G	F	E	D	C	B	A	A⁺	A⁺⁺	A⁺⁺⁺
< 30 %	≥ 30 %	≥ 34 %	≥ 36 %	≥ 75 %	≥ 82 %	≥ 90 %	≥ 98 %	≥ 125 %	≥ 150 %

Room central heating seasonal energy efficiency in colder and hotter climate conditions

Colder: [] - 'V' = [] % Hotter: [] + 'VI' = [] %

The energy efficiency of the set of products indicated in this sheet may not reflect the actual energy efficiency after installation since such efficiency is affected by additional factors, such as the heat loss in the distribution system and the size of the products compared to the size and features of the building.

Parameters to fill in the low temperature package fiche (30/35)

Pre Plumbed 200 + UE Hydro HP5

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	-	-
"IV"	-	-	-

Pre Plumbed 200 + UE Hydro HP8

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	-	-
"IV"	-	-	-

Pre Plumbed 200 + UE Hydro HP12

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	-	-
"IV"	-	-	-

Pre Plumbed 200 + UE Hydro HP16

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	-	-
"IV"	-	-	-

* to be determined according to Regulation 811/2013 and transient calculation methods as per Notice of the European Community no. 207/2014.

Parameters to fill in the average temperature package fiche (47/55)

Pre Plumbed 200 + UE Hydro HP5

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	5,35	-
"IV"	-	2,09	-

Pre Plumbed 200 + UE Hydro HP8

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	3,34	-
"IV"	-	1,31	-

Pre Plumbed 200 + UE Hydro HP12

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	2,23	-
"IV"	-	0,87	-

Pre Plumbed 200 + UE Hydro HP16

Parameter	Colder zones	Average zones	Hotter zones
	■	■	■
"I"	-	-	-
"II"	*	*	*
"III"	-	1,67	-
"IV"	-	0,65	-

* to be determined according to Regulation 811/2013 and transient calculation methods as per Notice of the European Community no. 207/2014.

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

Room central heating system package fiche.

Room central heating seasonal energy efficiency of the heat pump

%

Temperature control
From temperature
control board

Class I = 1 %, Class II = 2 %,
Class III = 1.5 %, Class IV = 2 %,
Class V = 3 %, Class VI = 4 %,
Class VII = 3.5 %, Class VIII = 5 %

+ %

Supplementary boiler
From boiler board

Seasonal central heating energy efficiency of the room (%)

(-) x = - %

Solar contribution

From the board of the solar device

Dimensions of the manifold (in m²)

Volume of the tank (in m³)

Efficiency of the manifold (in %)

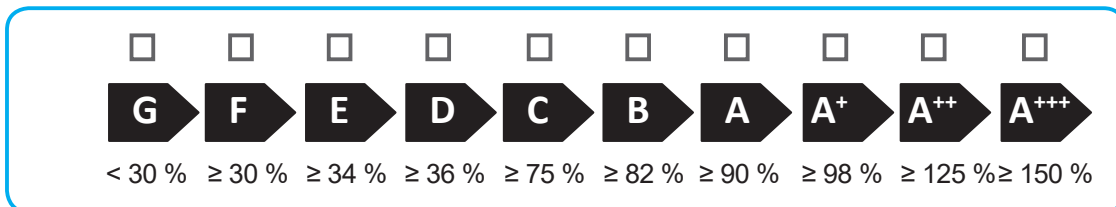
Classification of the tank
A* = 0.95, A = 0.91,
B = 0.86, C = 0.83,
D-G = 0.81

(x + x) x 0.45 x (/ 100) x = + %

Room central heating seasonal energy efficiency of the assemble in average climate conditions

%

Room central heating seasonal energy efficiency class of the assemble in average climate conditions



Room central heating seasonal energy efficiency in colder and hotter climate conditions



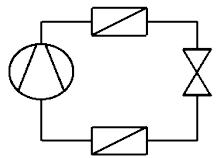
Colder: - = %

Hotter: + = %

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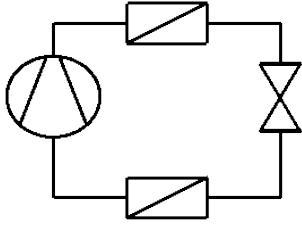
4.7 KEY FOR DATA NAMEPLATE

Md.	Cod.Md.	Sr N°	CHK
T.A.			
 	MPa Max.		GWP PS HI PS LO

24



The technical data are provided on the data plate on the appliance.

ENG	
Md.	Model
Code Md.	Model code
Sr N°	Serial Number
CHK	Check
T.A.	Minimum and maximum installation room temperature
 	Achievable temperatures for Cooling and Heating respectively (Minimum and maximum system temperature)
MPa Max.	Maximum water circuit pressure
	Heat pump circuit representation
GWP	Global warming potential of the refrigerant gas versus carbon dioxide
PSHI	Maximum operating pressure of refrigerant gas
PSLO	Minimum operating pressure of refrigerant gas

INSTALLER

USER

MAINTENANCE TECHNICIAN

TECHNICAL DATA

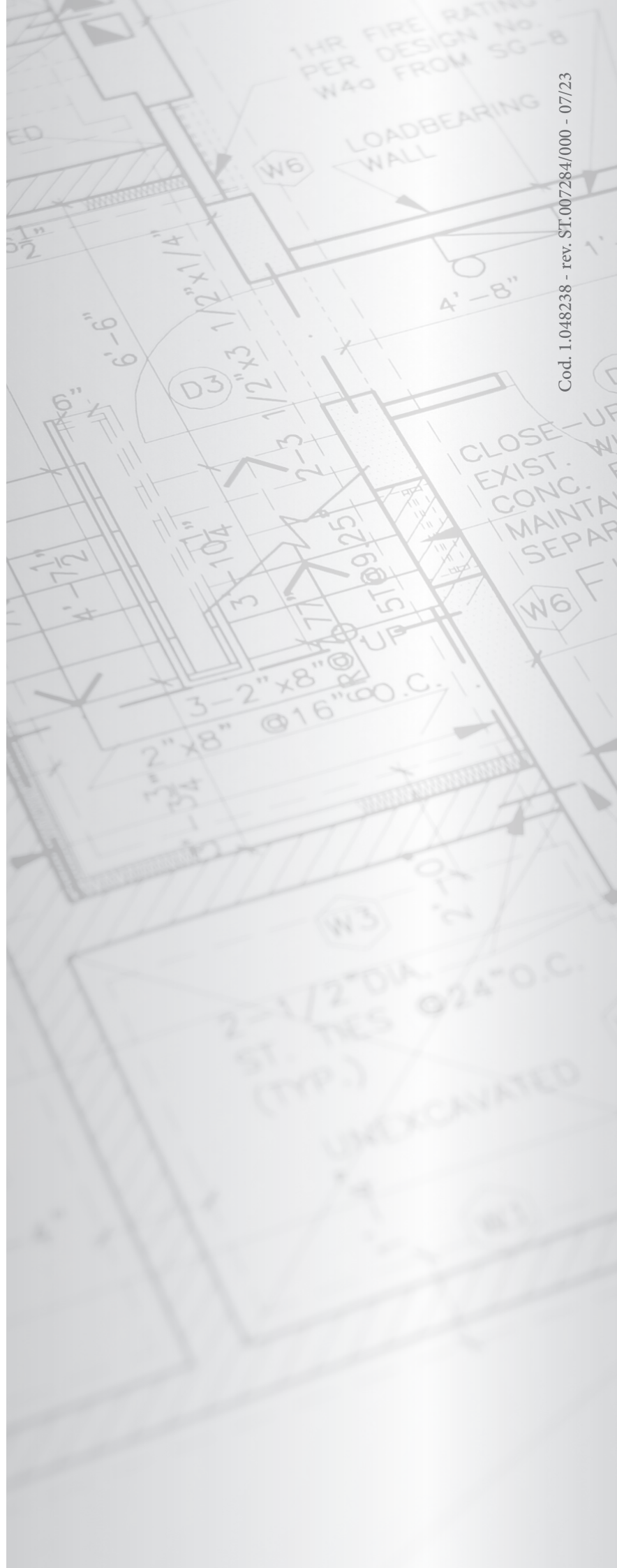


This instruction booklet is made of ecological paper.



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