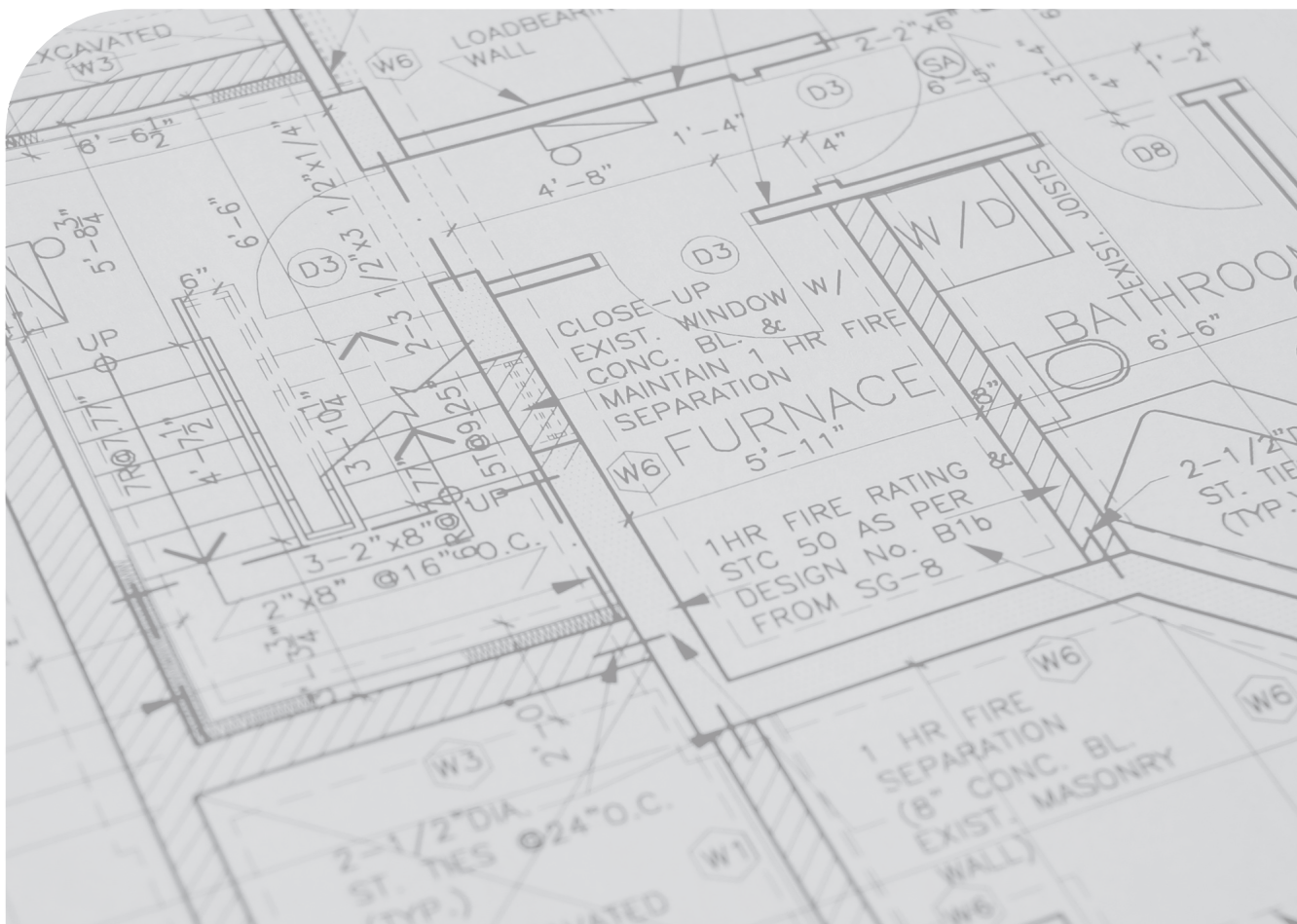


HYBRID SYSTEMS

EUREKA

Hybrid air-to-air heat pump
with wall-mounted condensing unit



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EUREKA

1

EUREKA DESCRIPTION



EUREKA is the IMMERGAS range of hybrid air-to-air heat pumps with wall-mounted condensing units, consisting of reversible air conditioners with inverter technology and top-of-the-range condensing boilerers. The range includes 8 packages, with monosplit (9,000 or 12,000 BTU/h) or multisplit air-conditioners (combinable with 2 or 3 indoor units) and 24.1 or 32 kW instantaneous wall-mounted condensing boilerers for central heating.

UCI EUREKA is the instantaneous wall-mounted condensing boilerer of the **EUREKA** system, as mentioned, available in 24.1 or 32 kW outputs (25.4 or 33 kW for domestic hot water). These boilerers feature a stainless steel primary heat exchanger that guarantees high flow rates and heads with low risk of clogging, as well as an advanced P.C.B for electronic fuel gas switching with a self-adapting combustion control system.

The entire system is managed by the *UCI EUREKA* control panel, which determines the operating logic between the condensing boilerer and air conditioner, programmable operating calendars and many other available functions.

These new appliances are designed for outdoor operation in partially protected places. Regarding the DHW production, *UCI EUREKA* is equipped as standard with the Aqua Celeris system and flow regulator, in order to optimise DHW comfort while remaining on a boilerer with instantaneous plate heat exchanger. The entire *UCI EUREKA* range can work with 20% hydrogen mixtures, certified Hydrogen Ready 20%.

Different types of air conditioners are available depending on the chosen **EUREKA** package. In addition to monosplit versions with the *UE THOR* (9,000 or 12,000 BTU/h) range, multisplit ranges are available that can be combined with 2 or 3 indoor units (respectively *UE MULTI 18 DUAL* and *UE MULTI 27 TRIAL*). All ranges can be combined with *UI THOR* indoor units (optional), available in different power sizes (9,000, 12,000 or 18,000 BTU/h).

The *UI THOR* indoor units, coupled with the system **EUREKA** system, are called **UI CLIM**.

All air conditioners have a single-phase power supply and are supplied as standard with an infrared remote control, to manage the air conditioner in summer mode, with the option of remote control via smartphone app.

As all are direct expansion machines, R32 refrigerant is used on all ranges.

Replacing the existing boilerer and air conditioner with the **EUREKA** system allows you to have an automatically managed hybrid generator, working on two separate and distinct systems, without the need for masonry work.

A single product can meet central heating demands during winter and cooling demands during summer, in addition to the DHW service managed by *UCI EUREKA*.

Having to make the cooling connections, the F-GAS license is required for the refrigerant connection.

The electronics of the **EUREKA** system allow you to manage up to 3 independent hydraulic heating zones (1 direct and 2 mixed), where each of these can be paired with up to 3 **UI CLIM**, compatible with the chosen products. The *External Probe* is supplied as standard and must be installed, as this component is required for system operation.

EUREKA complies with the requirements of Directives ErP (2009/125/EC) and ELD (2010/30/EC), in addition to any more restrictive requirements established by Regions and/or Autonomous Provinces; several optional kits are available that allow for flexible use in any situation.



Hybrid direct expansion heat pump, consisting of a reversible air conditioner with inverter technology and a condensing boilerer.

The packages include:

- **UE CLIM Outdoor unit** which mainly includes rotary compressor, inverter electronics, capillary or expansion valve, 4-way valve for cycle inversion, finned exchange coil with outdoor air (with single fan). The cooling circuit is already precharged (refrigerant R32); it is equipped with shut-off valves for the cooling circuit.

Various versions and power outputs are available:

- **UE THOR 9** or **UE THOR 12**, can be paired with 1 indoor unit;

- **UE MULTI 18 DUAL**, can be paired to up to 2 indoor units;

- **UE MULTI 27 TRIAL**, can be paired to up to 3 indoor units;

- **UCI EUREKA condensing indoor unit**, Instantaneous wall-mounted unit with sealed chamber and fan assisted with a nominal useful output of 24.1 kW or 32.0 kW in central heating (25.4 or 33.0 kW in domestic hot water), ecological, high efficiency and forced circulation for room heating.

It can be installed in configurations C₁₃-C₃₃-C₄₃-C₅₃-C₈₃-C₉₃-C₍₁₀₎₃-C₍₁₂₎₃-C₍₁₅₎₃-B_{23p}-B₅₃-B_{53p}.

- **External probe**, whose installation is mandatory.

- **UI CLIM interface board**, to be installed inside the air conditioning indoor units for connection to UCI EUREKA.

- **12 Vdc power supply**, used to power the *UI CLIM interface board*.

- **USB stick**, to be installed inside UI CLIM, allows you to control of the air conditioner in cooling mode from your smartphone app.

The following can be combined, purchased separately:

- **UI CLIM (UI THOR) indoor unit**, split with wall-mounted direct expansion, containing the rest of the components of the cooling circuit for connection to the outdoor unit, as well as the relative management and communication electronics; Supplied as standard with infrared remote control, batteries included, to be used in cooling mode to control the air conditioner. Various versions and power outputs are available:

- *UI THOR 9*, 9,000 BTU/h air-conditioner indoor unit;

- *UI THOR 12*, 12,000 BTU/h air-conditioner indoor unit;

- *UI THOR 18*, 18,000 BTU/h air-conditioner indoor unit.

Backlit pop-up display, Installation template supplied as standard.

UCI EUREKA main components

- total pre-mixing combustion system with stainless steel cylindrical burner, complete with ignition electrode and ionisation control;
- electronic gas valve and control system of the self-adapting combustion that allows for electronic gas change through parameter setting from the board;
- primary gas/water heat exchanger in stainless steel;
- fan for flue gas expulsion with electronically variable speed;
- circuit for discharge of condensate including siphon and flexible drain hose;
- hydraulic unit composed of electric 3-way valve, low power consumption modulating circulation pump with automatic speed control on the basis of the ΔT measured between system flow and return adjustable and excludable by-pass, primary circuit absolute pressure switch, system drain fitting, filling cock;

- flow regulator, varies the domestic hot water flow rate based on the temperatures read at the inlet and outlet of the plate heat exchanger;
- Aqua Celeris system, 3.2 litres technical water micro storage tank, heated by a 35 W modulating electric resistance, used to have domestic hot water promptly available;
- primary circuit safety valve at 3 bar; discharge of the safety valve is conveyed together with the condensate discharge;
- 10 nominal litre system expansion vessel for all models with 1.0 bar preload;
- flue control probe and heat exchanger safety flow probe;
- electronic ignition with ionisation control;
- ignition delay during central heating, pump anti-blocking function, post-ventilation function and chimney sweep function;
- the connection unit is supplied as standard;
- magnetic cyclonic filter supplied as standard (to be fitted), protecting the boilerer components from impurities in the system.

Supplied complete with sample points for combustion analysis, lower protection frame. Appliance running on methane, LPG, propane air and Hydrogen Ready 20% of category II2HY20M3P - I2NY20Z192.

EUREKA main electronic features & functions

- can control space heating via two different generators, either with a direct expansion system or with a hydraulic system;
- replacement of the existing boilerer and air conditioner with a single generator with automatic logic, without requiring masonry work;
- swing function from infrared remote control to automatically swing the UI CLIM horizontal fins, to direct the air flow vertically (manual vertical fins);
- remote control via the Clima Smart smartphone app supplied as standard, for the cooling service;
- up to 3 independent hydraulic thermal zones can be managed (1 dir. zone + 2 mixed zones), with Optional Kits controlling pumps and mixing valves;
- high comfort DHW service thanks to the use of the Aqua Celeris system and flow regulator;
- management of programmable calendars on independent time slots for central heating, cooling and DHW;
- antifreeze function so as not to drop below a minimum settable room temperature, available using the Remote Panel (optional) and/or Wireless Room Probes (optional);
- holiday program, to suspend system operation when away from home for a prolonged period, ensuring the anti-freeze function;
- screed heating function, defining the max./min. temperature flow setpoints and the dwell time of those setpoints;
- 6 pre-set Auto programs for managing the boilerer and air conditioning switch-on logic;
- the Auto programs can be customised by defining the switch-on priorities of the generators, switch-on times and fan speed of UI CLIM;
- up to 3 Remote Panels (optional) can be used to read the room temperature and manage the calendars of the relevant coupled hydraulic zone;
- up to 3 Wireless Room Probes (optional) can be used to read the room temperature, without the need of electrical wiring;
- by installing DOMINUS V2 (optional) the entire system can be controlled remotely via smartphone app.



EUREKA

EUREKA FEATURES (CONTINUED)

Main specifications UI CLIM controlled by infrared remote control - recommended in summer cooling mode

- Breeze Away function to prevent an air flow directly to the body, thus providing greater comfort (monosplit only);
- No risk of pipes freezing (important in cold climates);
- Wide operating range in cooling and central heating mode;
- Possibility of setting a time range, so that air-conditioning automatically switches on and off;
- The Swing function automatically oscillates the horizontal fins of the indoor unit to vertically direct the air flow (manual vertical fins);
- Dual level energy-saving mode: ECO and GEAR (monosplit only);
- Night-time energy saving via sleep function;
- Automatic cleaning of the indoor unit from any bacteria with the Clean function (monosplit only);
- To quickly reach the room setpoint, Turbo mode can be activated to reach the maximum air flow rate;
- Very quiet operation thanks to the Silence function that reduces noise to a minimum (monosplit only);
- Maximum comfort by means of the Follow Me function to be able to read the room temperature near the remote control.
- Control of air conditioning via the Clima Smart smartphone app

The following packages are available:

- **EUREKA MONO 9/26** code 3.036622
- **EUREKA DUAL 18/26** code 3.036623
- **EUREKA TRIAL 27/26** code 3.036624
- **EUREKA MONO 12/26** code 3.036625
- **EUREKA MONO 9/35** code 3.036628
- **EUREKA DUAL 18/35** code 3.036629
- **EUREKA TRIAL 27/35** code 3.036630
- **EUREKA MONO 12/35** code 3.036631

Can be coupled with UI CLIM indoor units, to be purchased separately:

- **UI THOR 9** code 3.035031
- **UI THOR 12** code 3.035033
- **UI THOR 18** code 3.035035

EC Declaration Of Conformity.

3

EUREKA PACKAGES COMPOSITION

Depending on the chosen **EUREKA** package, different components are supplied as standard. Both the *UI CLIM Interface Board Kit* and the *USB Stick Wi-Fi Kit* will be installed inside the *UI CLIM (UI THOR) indoor units, to be purchased separately*. Specifically, the *UI CLIM Interface Board Kit*, to be supplied with *power supply provided as standard*, for communication between *UCI EUREKA* air conditioner and boilerer.

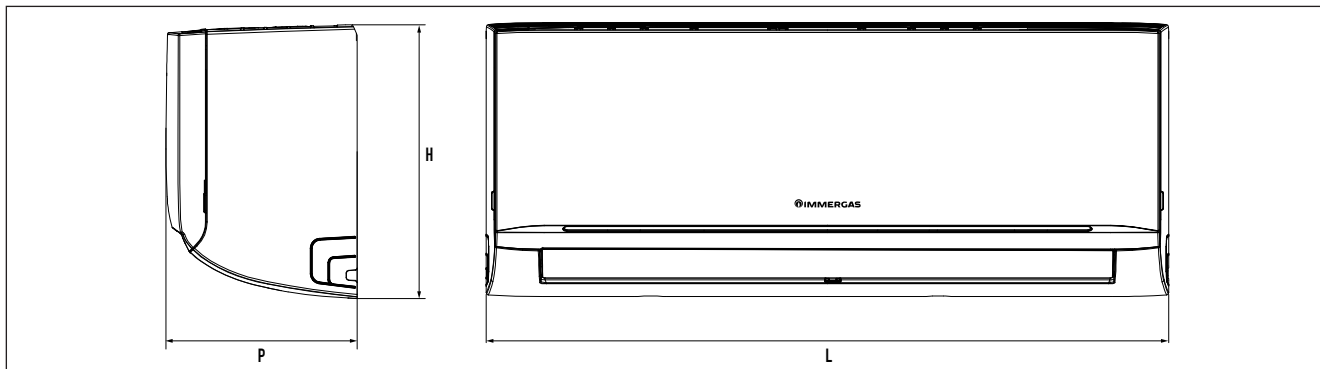
Furthermore, the **EUREKA TRIAL** packages are supplied as standard with a connection for the refrigerant gas pipe from 3/8" (9.52 mm) to 1/2" (12.7 mm), useful when coupled with UI THOR 18. Lastly, *UI THOR* indoor units are supplied with an infrared remote control - usable in cooling mode - with batteries included.

Package Name	Outdoor unit	Boilerer	Accessories			
EUREKA MONO 9/26 code 3.036622	UE THOR 9	UCI EUREKA 26	1 External Probe Kit	1 Power supply unit 8W - 12Vdc	1 UI CLIM Interface Board Kit	1 Wi-Fi Kit USB stick
EUREKA DUAL 18/26 code 3.036623	UE MULTI 18 DUAL				2 UI CLIM Interface Board Kits	2 Wi-Fi Kits USB stick
EUREKA TRIAL 27/26 code 3.036624	UE MULTI 27 TRIAL				3 UI CLIM Interface Board Kits	3 Wi-Fi Kits USB stick
EUREKA MONO 12/26 code 3.036625	UE THOR 12				1 UI CLIM Interface Board Kit	1 Wi-Fi Kit USB stick
EUREKA MONO 9/35 code 3.036628	UE THOR 9	UCI EUREKA 35	1 External Probe Kit	1 Power supply unit 8W - 12Vdc	1 UI CLIM Interface Board Kit	1 Wi-Fi Kit USB stick
EUREKA DUAL 18/35 code 3.036629	UE MULTI 18 DUAL				2 UI CLIM Interface Board Kits	2 Wi-Fi Kits USB stick
EUREKA TRIAL 27/35 code 3.036630	UE MULTI 27 TRIAL				3 UI CLIM Interface Board Kits	3 Wi-Fi Kits USB stick
EUREKA MONO 12/35 code 3.036631	UE THOR 12				1 UI CLIM Interface Board Kit	1 Wi-Fi Kit USB stick



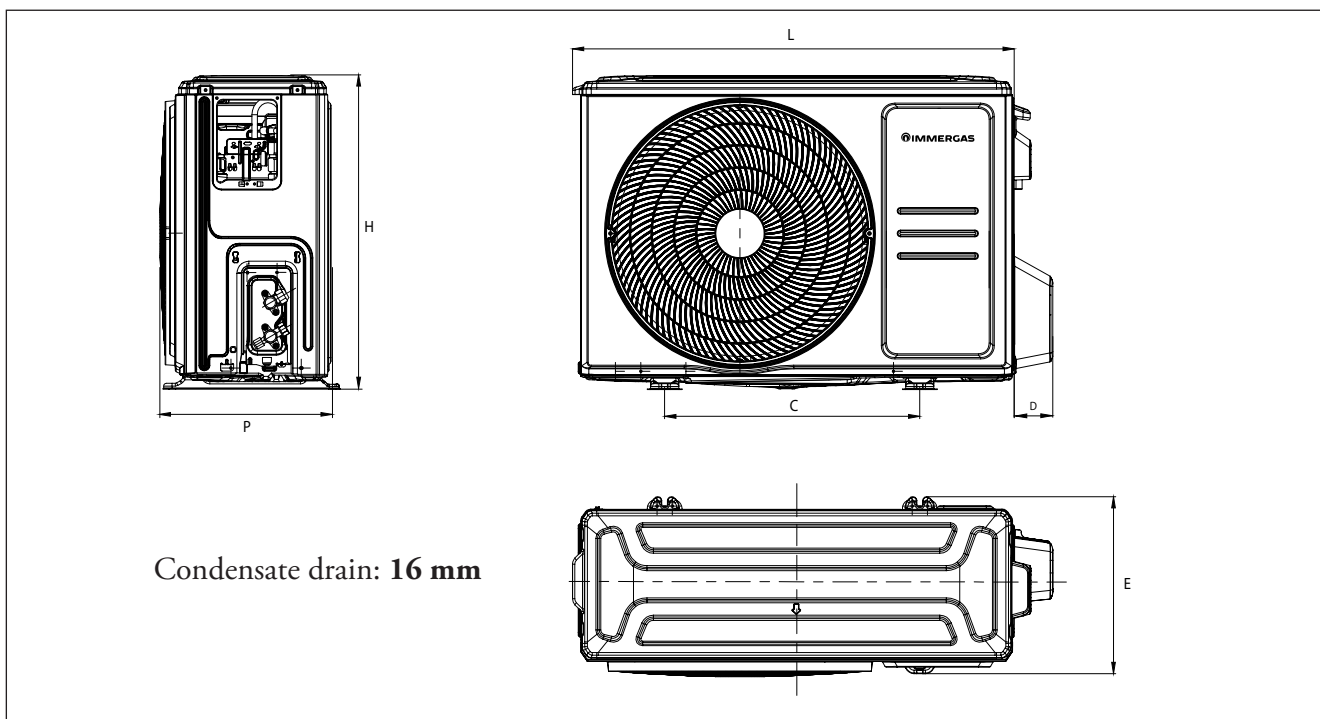
EUREKA

4 THOR INDOOR UNIT DIMENSIONS AND CONNECTIONS



Model	Dimensions HxLxD [mm]	Liquid refrigerant R32	Gas refrigerant R32	Net weight [Kg]	Condensate drain [mm]
UI THOR 9	292x729x204	1/4"(6.35 mm)	3/8"(9.52 mm)	8.0	16
UI THOR 12	296x805x205	1/4"(6.35 mm)	3/8"(9.52 mm)	8,7	16
UI THOR 18	321x971x230	1/4"(6.35 mm)	1/2"(12.7 mm)	11,2	16

4.1 THOR OUTDOOR UNIT DIMENSIONS AND CONNECTIONS

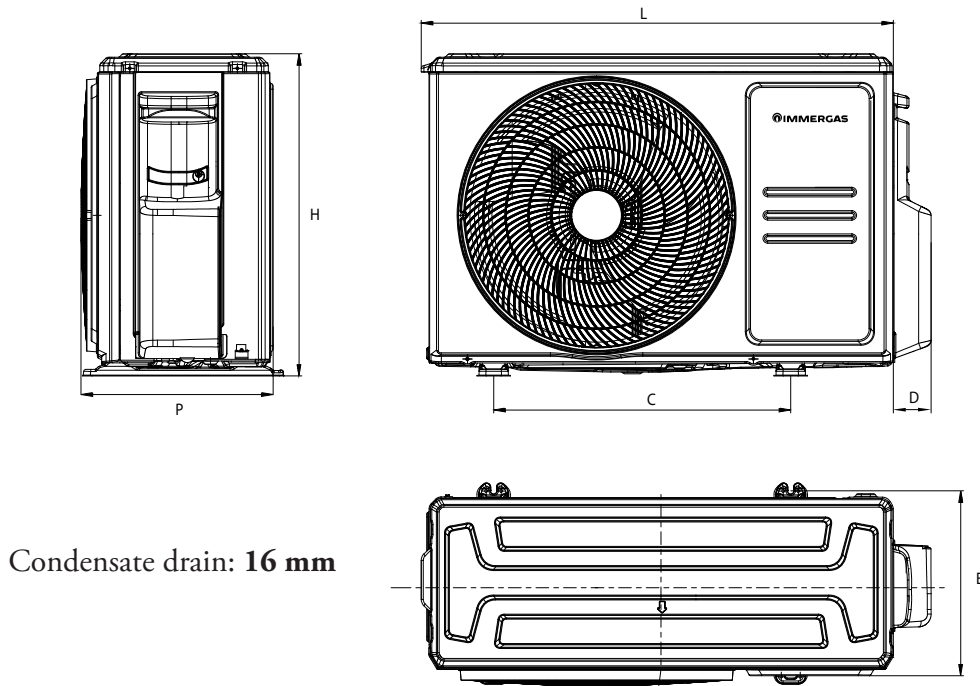


Model	Dimensions [mm]						Liquid refrigerant R32	Gas refrigerant R32	Net weight [Kg]
	H	L	P	C	D	E			
UE THOR 9	495	720	270	452	70	281	1/4"(6.35 mm)	3/8"(9.52 mm)	23,5
UE THOR 12	495	720	270	452	70	281	1/4"(6.35 mm)	3/8"(9.52 mm)	23,7



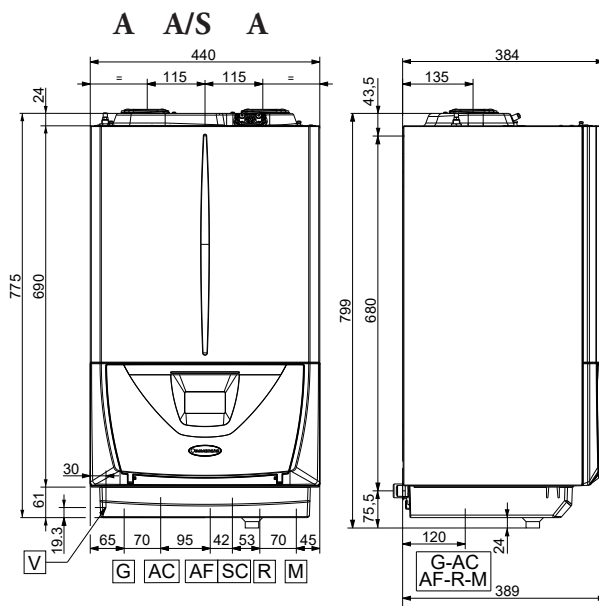
EUREKA

4.2 MULTI OUTDOOR UNIT DIMENSIONS AND CONNECTIONS



Model	Dimensions [mm]						Liquid refrigerant R32	Gas refrigerant R32	Net weight [Kg]
	H	L	P	C	D	E			
UE MULTI 18 DUAL	554	805	330	511	65	317	2 x 1/4"	2 x 3/8"	35.0
UE MULTI 27 TRIAL	673	890	342	663	100	348	3 x 1/4"	3 x 3/8"	48,0

5 UCI EUREKA INDOOR UNIT DIMENSIONS AND CONNECTIONS



← Casing upper line

Distance between casing upper line and Ø 60/100 concentric bend axis: **100 mm**
 Distance between casing upper line and Ø 80/125 concentric bend axis: **190 mm**
 Distance between casing upper line and separator bends Ø 80/80: **A/S = 140; mm A = 140**

SC = Condensate drain (min. internal Ø= 13 mm)

A/S = intake/exhaust

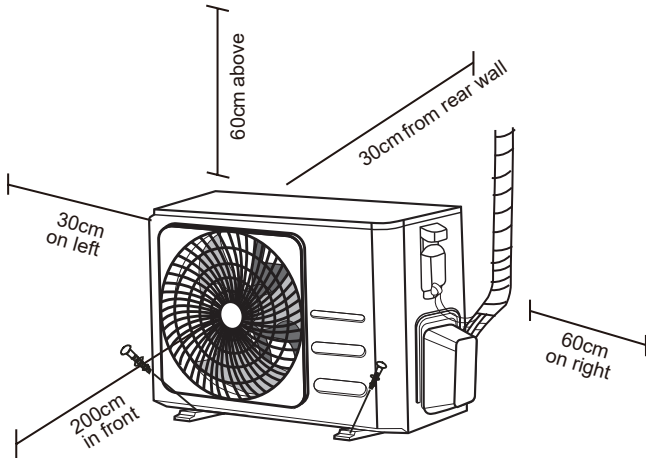
A = intake

Flow System	Return system	DHW Cold Inlet	DHW Hot Outlet	Gas	Expansion vessel Litres
M 3/4"	R 3/4"	AF 1/2"	AC 1/2"	G 3/4"	10 (useful 4.7)



6 MINIMUM OUTDOOR UNIT INSTALLATION DISTANCES

Install the unit following local regulations, as there could be slight differences between different countries.



Outdoor unit positioning

Before installing the outdoor unit, choose an appropriate position. The following standards will help you to choose an appropriate position for the unit.

Correct installation positions meet the following standards:

- ✔ Meets all the space requirements shown in the image below.
- ✔ Good air flow and ventilation.
- ✔ The product must be installed in a stable place that can support the unit and does not vibrate.
- ✔ Protected against extended periods of sunlight or rain.
- ✔ If heavy snow is expected, take appropriate measures to prevent the buildup of ice.

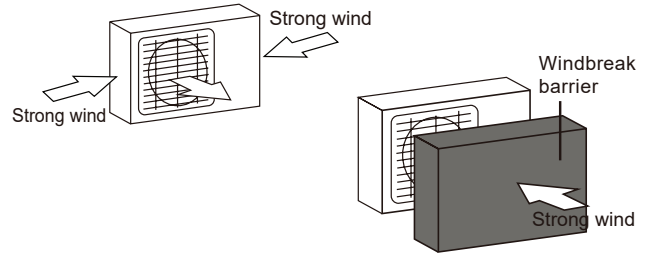
DO NOT install the unit in the following places:

- ⊘ Close to an obstacle that blocks the air inlets and outlets
- ⊘ Close to a public road or crowded areas
- ⊘ Close to installations that could be damaged by hot air exhaust
- ⊘ Close to any source of combustible gas
- ⊘ In areas exposed to a large amount of dust

Special considerations for extreme climatic conditions

If the unit is exposed to strong wind:

Install the unit so that the air outlet fan is at a right angle with respect to the wind direction. If necessary, build a barrier in front of the unit to protect it against extremely strong winds.

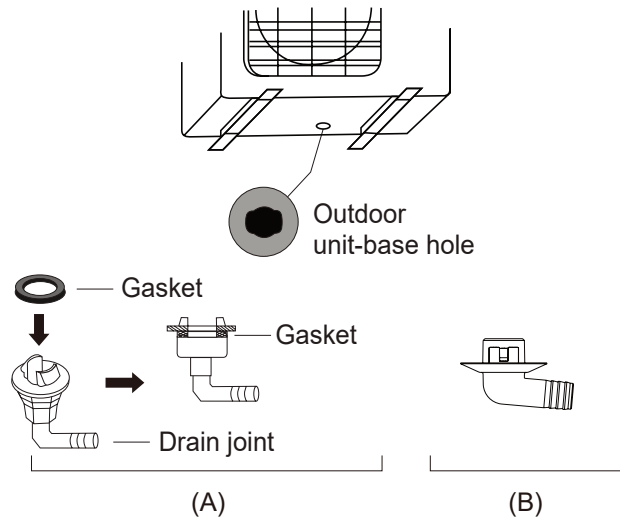


Condensate draining

Before bolting the outdoor unit, install a drainage joint at the bottom.

The drainage joint is equipped with a rubber gasket. Install it as follows:

1. Mount the rubber gasket at the end of the drainage joint that will be connected to the outdoor unit.
2. Insert the drainage joint into the hole of the base tank of the unit.
3. Rotate the drainage joint 90° until it clicks in position towards the front side of the unit.
4. Connect a drain pipe extension (not included) to the drainage joint to re-channel the water from the unit during central heating mode.

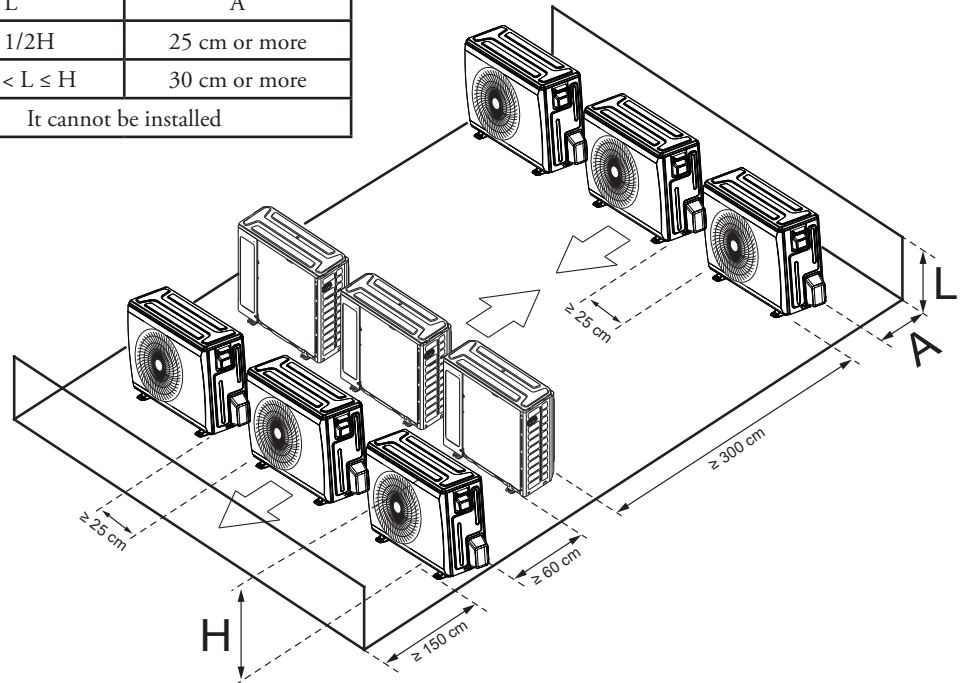


MINIMUM OUTDOOR UNIT INSTALLATION DISTANCES (CONTINUED)

Minimum installation distances in rows of several outdoor units

The relations between H, A and L are the following.

	L	A
L ≤ H	L ≤ 1/2H	25 cm or more
	1/2H < L ≤ H	30 cm or more
L > H	It cannot be installed	



6.1 MINIMUM THOR INDOOR UNIT INSTALLATION DISTANCES

Before installing the indoor unit, choose an appropriate place. The following standards will help you to choose an appropriate position for the unit.

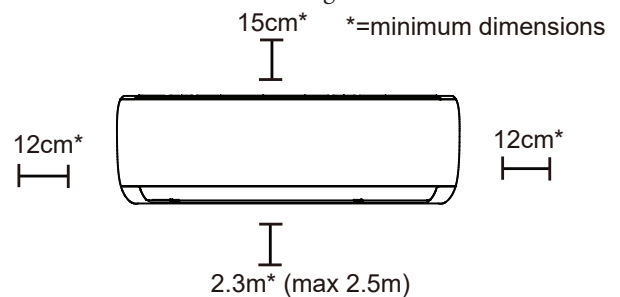
Correct installation places meet the following standards:

- ✓ Good air flow
- ✓ Single drainage
- ✓ Make sure that the mount can bear the weight of the unit and does not vibrate.
- ✓ A position at least 1 m from all other electric devices (e.g. TV, radio, computer)

DO NOT install the unit in the following places:

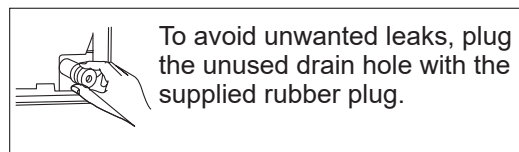
- ⊘ Close to any source of heat, vapour or combustible gas
- ⊘ Close to flammable objects such as curtains and clothing
- ⊘ Close to any obstacle they can block the air circulation
- ⊘ Near the door
- ⊘ In a place under direct sunlight

Refer to the following diagram to check the correct distance from the wall and from the ceiling:



Condensate draining

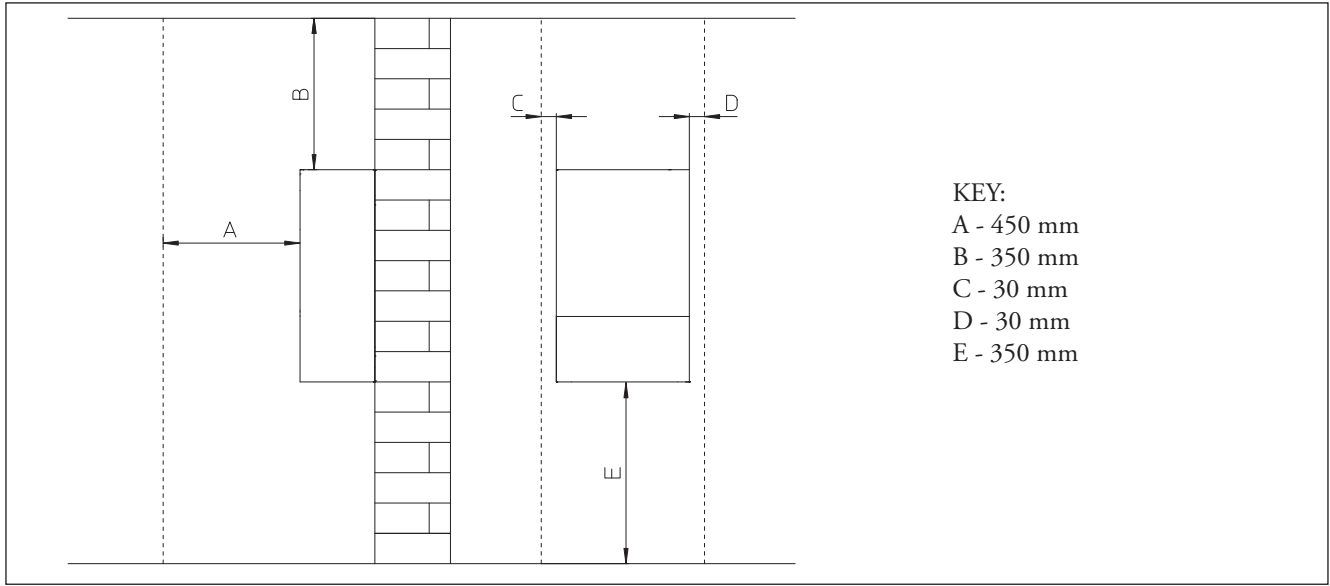
By default, the drain pipe is connected on the right side of the unit (looking at the unit from the front). However, it can also be connected on the left side.



UCI EUREKA

7 MINIMUM UCI EUREKA INSTALLATION DISTANCES

For the installation of the UCI EUREKA condensing indoor unit, the following minimum distances must be respected:



UCI EUREKA antifreeze protection is thus only ensured if:

- the appliance is correctly connected to gas and electricity power supply circuits;
- the appliance is powered constantly;
- the appliance is not off;
- the appliance is not faulty;
- the appliance essential components are not faulty.

The condensing indoor unit is equipped as standard with an antifreeze function for the hydraulic system, which switches on the pump and burner when the water temperature inside the appliance drops below 4°C. This protects UCI EUREKA against freezing down to an outside temperature of -5°C. For lower temperatures, a dedicated optional kit can be provided to guarantee protection of the appliance at temperatures as low as -15°C.

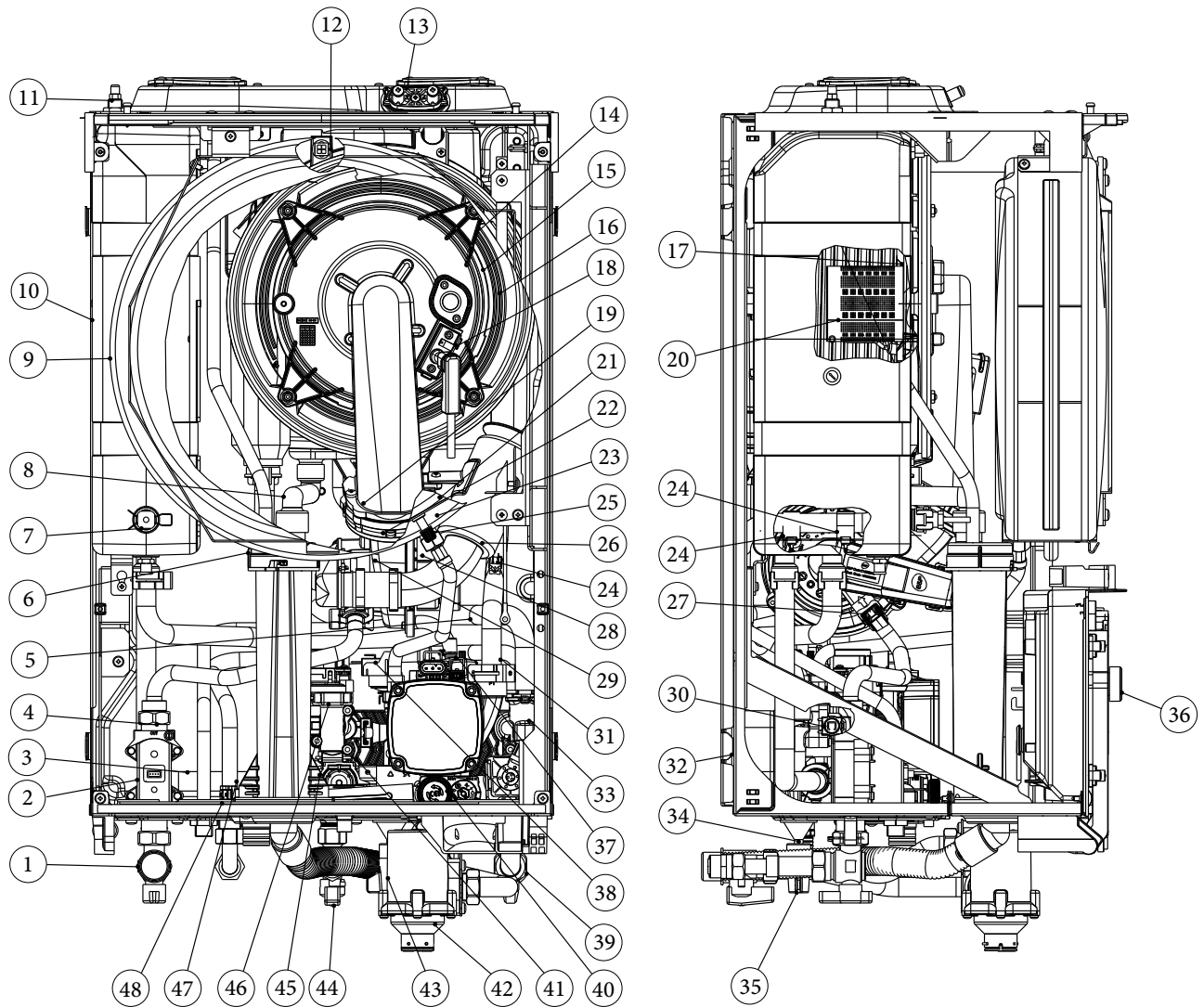
For even lower temperatures, you must follow these instructions:

- Protect the hydraulic central heating circuit from freezing by inserting a good-quality antifreeze liquid, which is specially suited for central heating systems and which is manufacturer guaranteed not to cause damage to the heat exchanger or other components. The antifreeze liquid must not be harmful to one's health. The instructions of the manufacturer of this liquid must be 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 appliances resist 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).

UCI EUREKA

8

UCI EUREKA MAIN COMPONENTS



KEY:

1	Gas cock	18	Ignition / detection electrode	34	System filling cock
2	Gas valve	19	Flue gas non-return valve	35	Hydraulic unit knob
3	Aqua Celeris device outlet pipe	20	Burner	36	Control panel unit
4	Mixing gas valve pipe	21	Fan gasket	37	Hydraulic unit
5	Manifold module flow pipe	22	Fan assembly	38	Absolute pressure switch
6	Condensate drain siphon	23	Flue gas non-return valve spacer	39	System shut off valve
7	Wired resistance	24	NTC probe	40	3-bar safety valve
8	Condensate drain extension	25	Flexible hose with cup fitting	41	DHW inlet body Aqua Celeris
9	Expansion vessel	26	Air intake pipe	42	Magnetic cyclonic filter
10	Aqua Celeris Device Tank	27	Gas diaphragm	43	Condensate drain flexible hose
11	Aqua Celeris air vent cock	28	Fan	44	Cold water inlet cock
12	Double flue probe	29	Gas mixer	45	Flow regulator and flow meter unit
13	Flue gas sampling cap with pressure point	30	Quick coupling NTC probe	46	Aqua Celeris inlet pipe
14	Burner gas manifold	31	Module pump-return pipe	47	Hot water outlet pipe
15	Module gasket	32	Plate heat exchanger	48	Ø14 pipe NTC probe
16	Heat exchanger	33	3-way flow manifold assembly		
17	Ecological fibre panel				

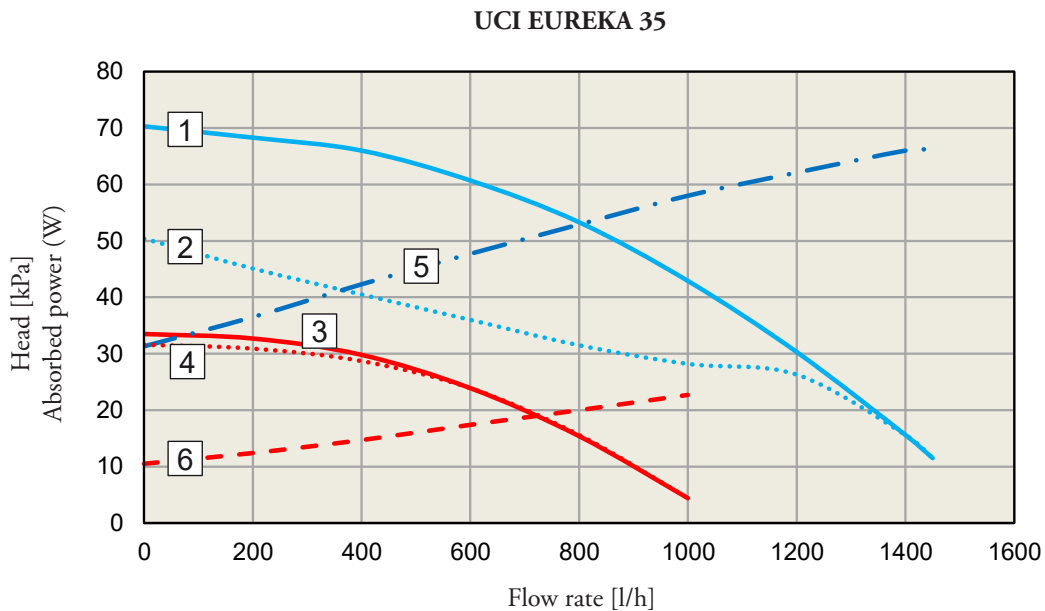
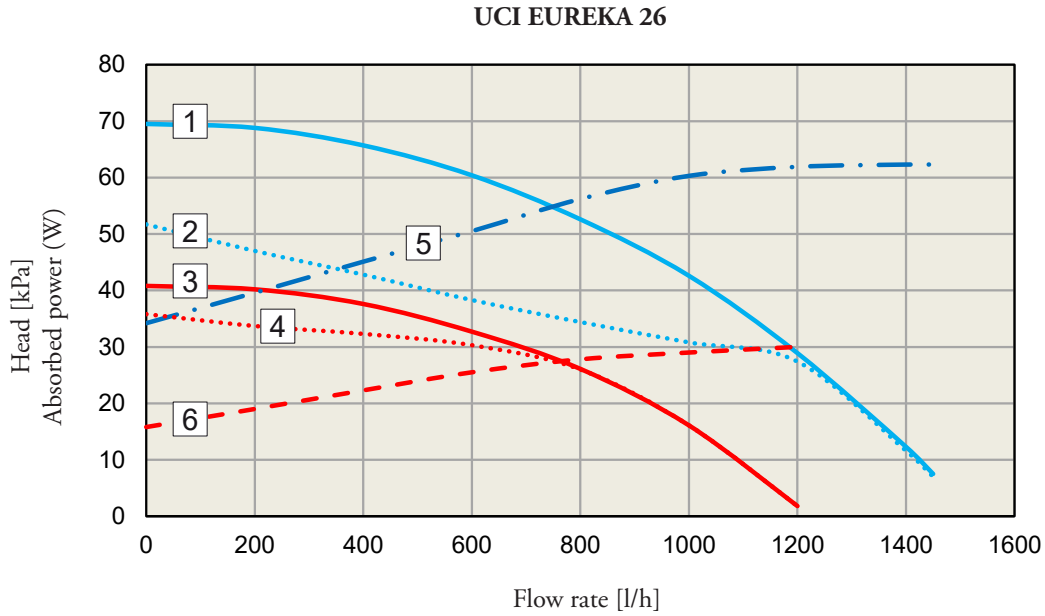


UCI EUREKA

9 HEAD FLOW RATE AVAILABLE TO THE SYSTEM GRAPHS

UCI EUREKA is equipped as standard with a variable-speed, low-power pump, which operates the central heating system.

Pump performance is shown in the following graphs, *these are to be considered net of the head losses of the appliance and of the magnetic cyclonic filter supplied as standard.*



KEY:

- 1 = Head available to the system at Speed 9 with by-pass closed
- 2 = Head available to the system at Speed 9 with by-pass open
- 3 = Head available to the system at Speed 6 with by-pass closed
- 4 = Head available to the system at Speed 6 with by-pass open
- 5 = Absorbed power by the pump at Speed 9 with by-pass closed
- 6 = Absorbed power by the pump at Speed 6 with by-pass closed
- 7 = Absorbed power by the pump at Speed 9 with by-pass open
- 8 = Absorbed power by the pump at Speed 6 with by-pass open

- Area between curves 1 and 3 = Available head to the system with by-pass closed
- Area between curves 2 and 4 = Available head to the system with by-pass open
- Area between curves 5 and 6 = Absorbed power by the pump with by-pass closed



UCI EUREKA

HEAD FLOW RATE AVAILABLE TO THE SYSTEM GRAPHS (CONTINUED)

Pump settings and configurations

In central heating mode, the following operating modes are available:

- **$\Delta T = 0$** : the pump speed varies according to the power emitted by the burner, the greater the power the greater the speed. Moreover, within the parameter, one can also adjust the pump operating range by setting the maximum speed (*adjustable from 6 to 9*) and the minimum speed (*adjustable from 6 to the max. set speed*).

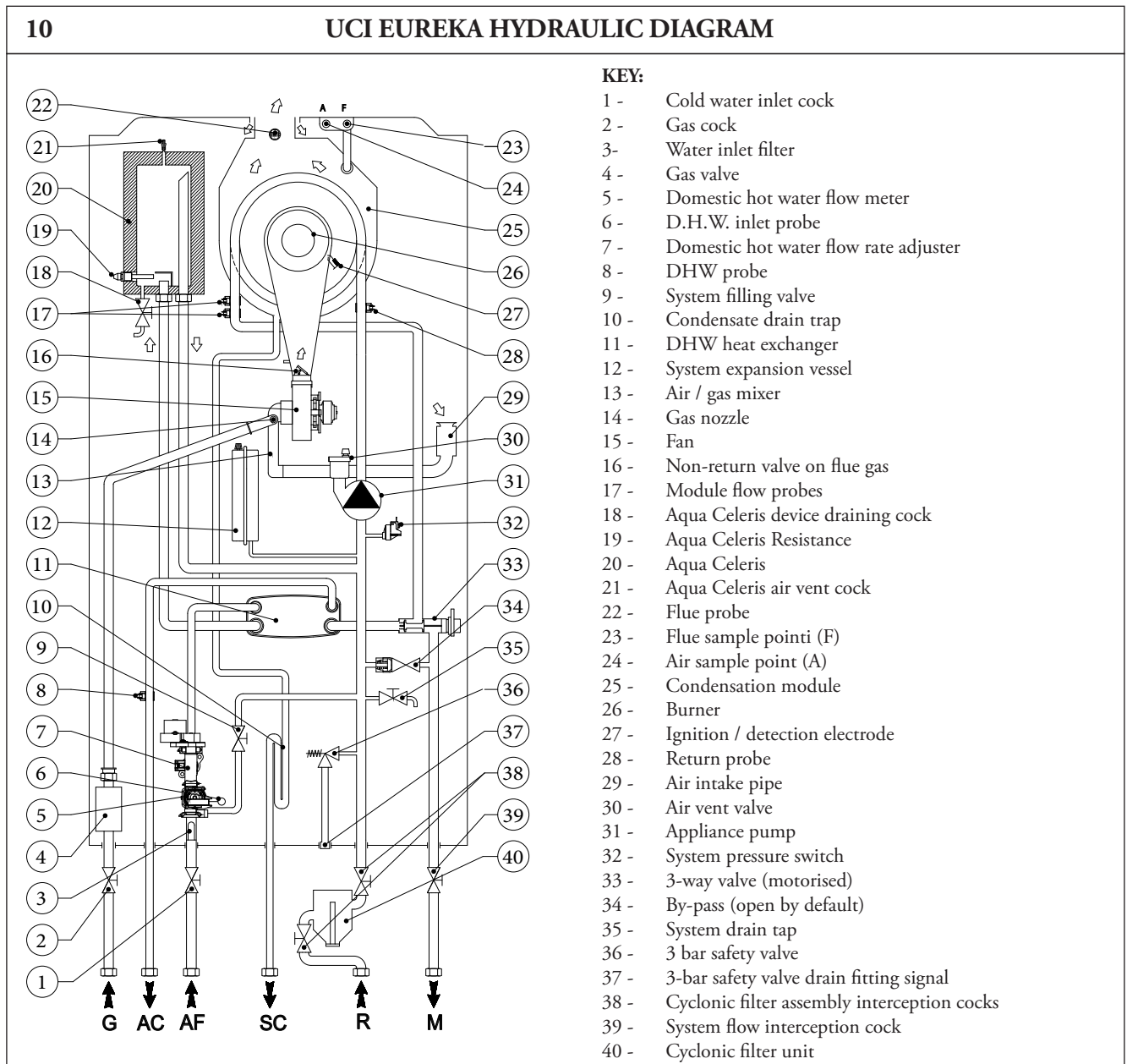
- **$\Delta T = 5 \div 25$ K**: the pump speed varies to keep the ΔT constant between the system flow and return according to the set value (default 15°C).

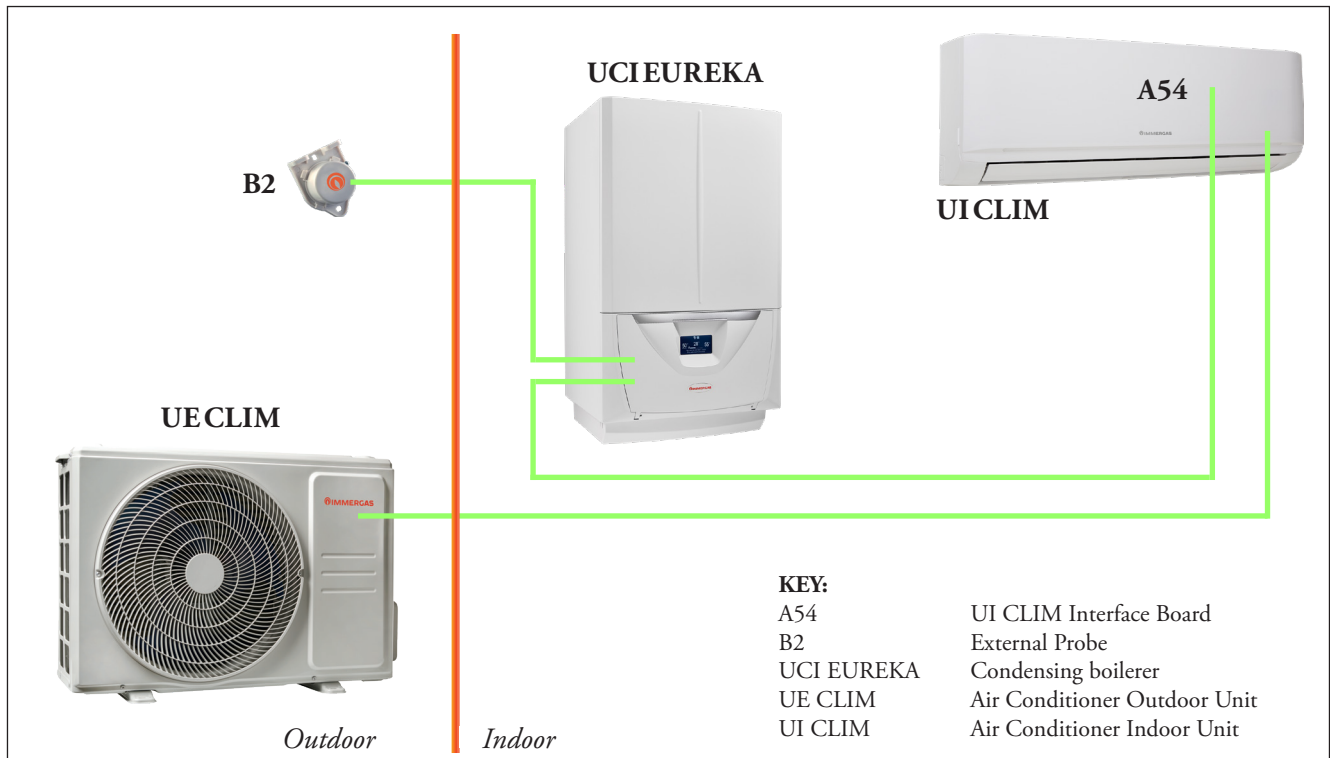
- **Fixed (6 ÷ 9)**: by setting the same values in the maximum speed and minimum speed parameters, the pump runs at constant speed.

By-pass Regulation

UCI EUREKA comes standard with a By-pass, set to open by default. If necessary, the bypass can be regulated to system requirements from minimum (bypass closed) to maximum (bypass open).

Adjust using a flat-head screwdriver. Turning clockwise opens the bypass and anticlockwise closes it. The bypass ensures minimum circulation of the water in the appliance and its correct operation if the systems are divided into more than one zone.





EUREKA hybrid heat pumps are packages consisting of:

- **UCI EUREKA** condensing boilerer;
- **UE CLIM** outdoor unit (**monosplit UE THOR** or **multisplit UE MULTI**).

Each EUREKA package comes with as standard with **external probe** and one or more **UI CLIM interface boards** (with relative power supply unit) to be installed inside the UI CLIM split units (*UI THOR*), in addition to one or more **USB sticks** to control the air conditioner from a smartphone app during cooling service.

The installation of the external probe is a mandatory condition for operation of the EUREKA electronics. Without it, the condensing boilerer and the air conditioner will only be able to operate independently, without any management logic for the hybrid heat pump.

Depending on the package chosen, there will be a number of USB sticks and UI CLIM interface boards equal to the number of indoor units that can be coupled with the system.

The indoor units of the air conditioners are **not** supplied as standard and must be purchased separately, compatible with the combinations declared suitable. The following nomenclature is used to refer to the UI THOR indoor units:

- *UI CLIM-A*, UI THOR first indoor unit;
- *UI CLIM-B*, UI THOR second indoor unit;
- *UI CLIM-C*, UI THOR third indoor unit.

With EUREKA electronics you can control up to **3 independent hydraulic heating zones**, where each of these zones can be paired with up to 3 UI CLIM.

EUREKA electronics can therefore manage thermal zones where only UI CLIM is present, without any pairing with a hydraulic heating zone.

Regardless of whether the UI CLIMs are controlled by EUREKA electronics or by infrared remote control, the inclination of the horizontal deflectors of UI CLIM is always managed only by the infrared remote control (manual vertical deflectors).

All EUREKA system settings are made from the control panel of the UCI EUREKA condensing unit, from which it will also be possible to set the operating logic between the hydronic system and the air system. Up to **3 Remote Panels (optional)** can be installed, one for each hydraulic heating zone, to be used as a digital room thermostat, also managing the calendars and temperature settings of the area.

Lastly, in case the existing thermostats are not installed in a suitable position for reading the room temperature, **Wireless Room Probes (optional)** can be provided to achieve more precise temperature values, no longer being bound to electrical wiring.

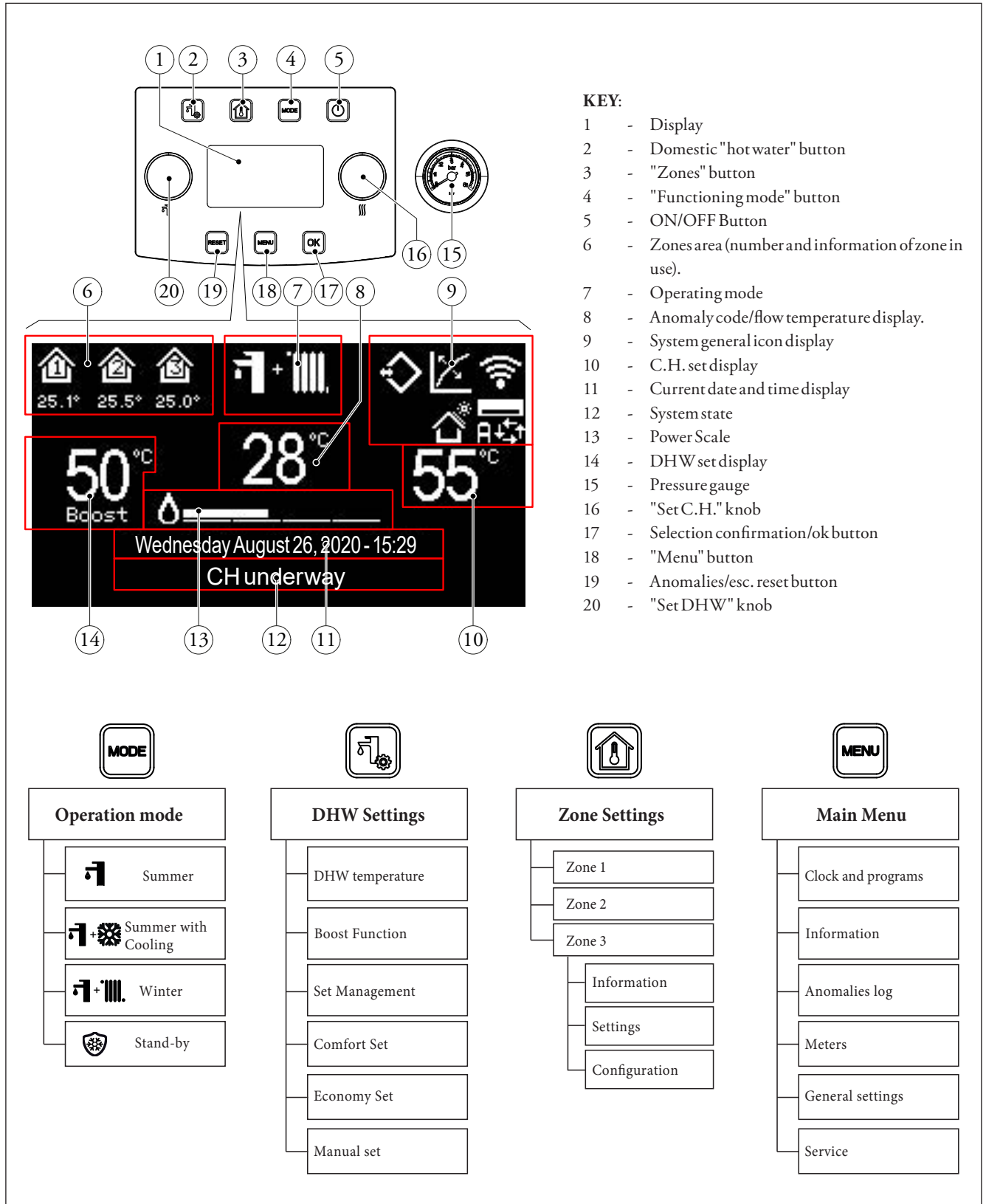
The following pages describe in detail the functions that can be set within the 4 available menus.

EUREKA

EUREKA ELECTRONICS (CONTINUED)

The dashboard of the UCI EUREKA condensing boiler features a large display, backlit touch buttons and knobs for managing the temperature settings.

System settings are made through this interface. Below is a description of the control panel's layout and the main menu items that will be described in detail.



EUREKA

EUREKA ELECTRONICS (CONTINUED)



Operation mode

The **Operating mode** menu allows you to change the operating mode of EUREKA according to the settings shown in the following table.

Operating mode	Description	DHW	Cooling	Central heating	Protection function (Anti-freeze...)
OFF	Off	Disabled	Disabled	Disabled	Disabled
	Summer	Enabled	Disabled	Disabled	Activated
	Summer with Cooling	Enabled	Enabled	Disabled	Activated
	Winter	Enabled	Disabled	Enabled	Activated
	Stand-by	Disabled	Disabled	Disabled	Activated



DHW Settings

This menu allows you to manage and set the DHW production parameters. For the DHW production, only the UCI EUREKA condensing boilerer will be activated, overriding any central heating requests..

DHW Temperature

The UCI EUREKA boilerer contains a flow regulator and inlet and outlet probes from the plate heat exchanger, capable of reading the temperature of the cold and hot water. When the *Aqua Celeris* system and *flow regulator* are available, high DHW comfort is guaranteed. This parameter displays the temperature of the domestic hot water exiting the heat exchanger.

Boost Function

This function activates the AQUA CELERIS system, which maintains the temperature of the 3.2-litre micro storage tank using a 35W modulating electric resistance. This provides almost instantaneous delivery of domestic hot water, with the option of choosing between the following operating modes:

- *Boost ON*, the technical water micro storage tank is always heated;
- *Boost OFF*, the function is deactivated, only the boilerer will activate in domestic hot water mode in the event of DHW demands;
- *Boost AUTO*, the AQUA CELERIS system is activated according to the DHW comfort time slots, which can be set by

programming the weekly calendar.

Set Management

It is possible to select the desired operating mode from those available:

- *AUTO*, a DHW temperature equal to **Comfort Set** is maintained within the time slots and the **Economy Set** value outside of these;
- *MAN*, the DHW temperature set in the parameter **Manual Set** is kept constant throughout the day. In this case, to change the Set value, you can also act on the specific knob inside the control panel.





Zone Settings

In the menu **Zone Settings** there are several submenus available to define the various parameters of the system's heating zones. Up to 3 independent hydraulic heating zones can be managed, with the following settings programmable for each of them.

Zone Information

The first submenu provides information relating to the hydraulic heating zone regarding:

- *Room temperature* read on the zone, not available when coupled with an on-off thermostat;
- *Room temperature set* in the zone, displayed only when a Remote Panel (with room probe enabled) or a Wireless Room Probe is installed, both optional;
- *Room thermostat status*, is shown if there is a system request;
- *Heating set*, flow temperature calculated for the hydronic system relating to the thermal zone;
- *System*, information about the type and presence or absence of room probes and the temperature read by the probes;
- *Hybrid System*, it displays which generators are active:
 - a) **Off**, both generators are off;
 - b) **CH Only**, only the condensing boilerer is on;
 - c) **IU only**, only the direct expansion split is on;
 - d) **CH + IU**, both the condensing boilerer and direct expansion split are on.

Zone Settings

You can set the following parameters for the hydraulic zones:

- *Operating mode*, the following modes are available:
 - a) **MAN**, it maintains constant throughout the day the room temperature set in parameter *Set Man.*;
 - b) **AUTO**, it maintains the room temperature *Set Auto Comfort* set within the time slots and value *Reduced Set Auto* outside of these;
- *Climate curve offset.*, if the external probe is not installed in an ideal position, this parameter corrects the flow temperature based on the external temperature;
- *Maximum flow set*, maximum flow temperature of the hydraulic system at which UCI EUREKA can work.

This submenu also contains the parameters relating to the operating logic of the *Hybrid System* in central heating and cooling.

Zone Settings - Hybrid System - Central Heating

This submenu allows you to set the alternative or simultaneous operating logics between the UCI EUREKA boilerer and the UI CLIM split units during central heating. There are several preset logics available, listed in the table below

Hybrid CH Syst. Mode	CH UI CLIM Fan Set	Activation time (min)	Generator priority
Only Boiler.	-	-	Boilerer
Only IU	Auto	-	UI CLIM
Auto 1	Auto	15	1 UI CLIM - Boiler.
Auto 2	Min	15	2 UI CLIM - [Boiler+UI CLIM]
Auto 3	Auto	60	5 Boiler - [Boiler+UI CLIM]
Auto 4	Min	30	3 [Boiler+UI CLIM] - Boiler
Auto 5	Min	120	5 Boiler - [Boiler+UI CLIM]
Auto 6	Min	20	1 UI CLIM - Boiler.

Within these pre-set **Auto** logics, when a central heating demand is made, the generator defined in the **Activation Phase** is switched on, then when the **Activation Time** has elapsed, the generator of the **Next Phase** is switched on.

For each hydraulic thermal zone present, it will be possible to set an independent operating logic.

The next page explores these pre-set logics in more detail, describing how they work and suggesting the contexts in which they can be used. The term controller will refer to a device for reading the room temperature, without distinguishing between a Remote Panel, Wireless Room Probe or Room Thermostat.



EUREKA

EUREKA ELECTRONICS (CONTINUED)

Zone Settings - Hybrid System - Central Heating - CH Only

If the user does not want the EUREKA system to control the UI CLIMs, they may set the parameter **CH Only**; any changes to the UI CLIM via remote control and/or app will not be overwritten by the system and will remain permanently active until further action by the user.

Request management from the EUREKA system is inhibited and the boilerer manages requests as if no air conditioners were present.

This configuration should be selected if the EUREKA system management is unable to guarantee the comfort required by the user.

Zone Settings - Hybrid System - Central Heating - Auto 1

This setting is recommended for radiator systems with UI CLIM near the controller.

In the Activation Phase only the UI CLIM heats the air in the area and in all the rooms connected to it; after the Activation Time (15 min) has elapsed at the start of the Next Phase the UI CLIM switches off and only the boilerer switches on to heat the radiators in the rooms in the area.

This reduced activation time and the exclusive operation of the boilerer in the subsequent phase guarantee heating of all the rooms in the area, when the flow of hot air from the UI CLIM only partially affects the same rooms.

For example, it is suggested to make this first trial setting in those installations where UI CLIM is positioned very close to the controller, but the room(s) to be heated is/are very large and partially affected by the UI CLIM air flow. In this type of installation, the minimum relative distance between UI CLIM and the controller may not guarantee uniform heating of the rooms in the area.

Zone Settings - Hybrid System - Central Heating - Auto 2

This setting is recommended for radiator systems with very large rooms.

In the Activation Phase only the UI CLIM heats the air in the rooms in the area; after the Activation Time (15 min) has elapsed at the start of the Next Phase the boilerer also turns on and contributes to heating through the emitters (radiators) present in the rooms in the area.

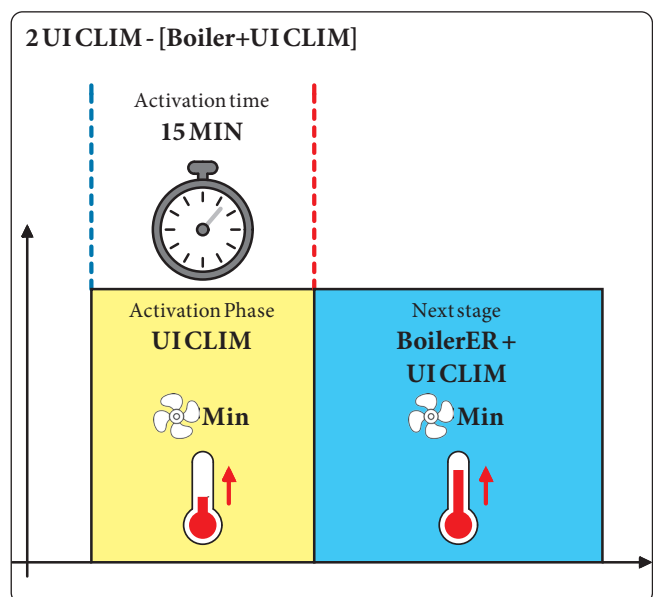
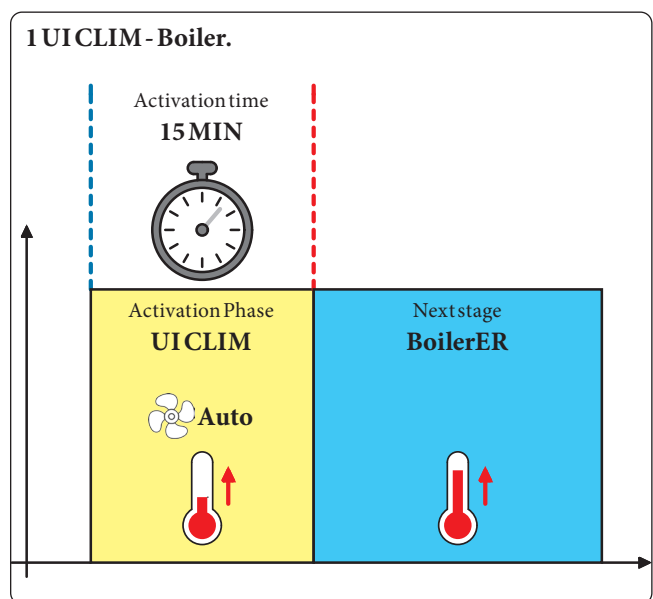
This reduced activation time and the simultaneous operation of the two generators in the subsequent phase, promote heating of all the rooms in the area, when the flow of hot air from the UI CLIM alone is unable to reach all these rooms..

For example, it is suggested to make this trial setting in those installations where UI CLIM is installed in the very large room(s) to be heated and only partially affected by the UI CLIM air flow. The initial activation of the UI CLIM provides additional power in the room where it is installed and the subsequent simultaneous use of the two generators ensures more uniform heating in all the rooms in the area.

Zone Settings - Hybrid System - Central Heating - IU Only

Selecting the parameter **IU only**, central heating demands are only met by the direct expansion terminals using the settings made on the EUREKA system.

The EUREKA system controls the UI CLIMs, therefore any changes made using the remote control and/or app will follow the logic established by the system.



EUREKA

EUREKA ELECTRONICS (CONTINUED)

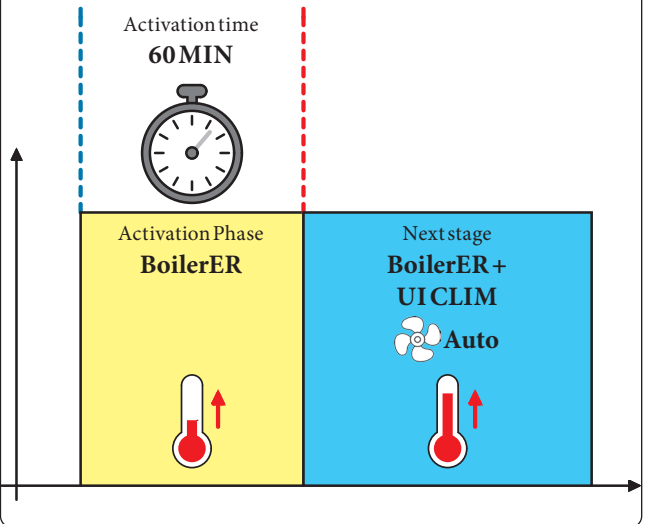
Zone Settings - Hybrid System - Central Heating - Auto 3

This setting is recommended for radiator systems with very large rooms and with UI CLIM located far from the controller.

In the Activation Phase only the boilerer provides heating through the (radiators) present in the rooms in the area; after the Activation Time (60 min.) has elapsed at the start of the Next Phase, UI CLIM also turns on and contributes to heating the rooms in the area.

For example, it is suggested to make this trial setting in those installations where UI CLIM is installed in the very large room(s) to be heated and only partially affected by the UI CLIM air flow. The subsequent activation of the UI CLIM provides the room where it is installed with additional heating power using the emitters alone. In this way it is not necessary to increase the working temperature of the UCI EUREKA boilerer on the hydraulic system side to ensure uniform heating of the room where the UI CLIM is installed.

5 Boiler - [Boiler+UI CLIM]



Zone Settings - Hybrid System - Central Heating - Auto 4

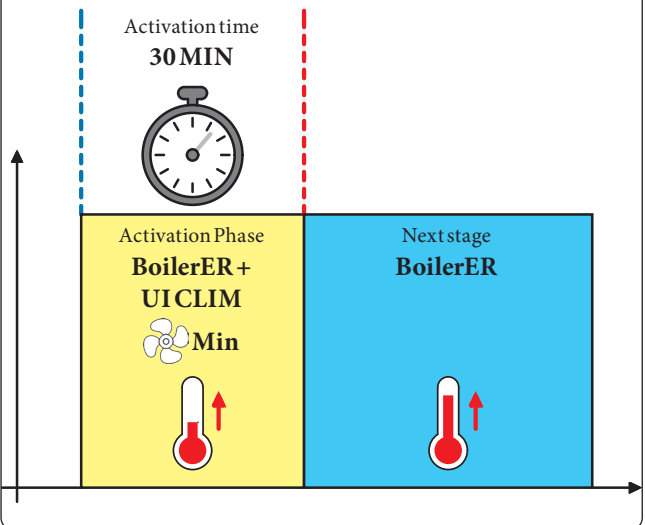
This setting is recommended for radiant panel systems with UI CLIM located far from the controller.

In the Activation Phase, the simultaneous operation of UI CLIM and the boilerer guarantees heating of all the rooms in the area; after the Activation Time (30 min) has elapsed at the start of the Next Phase, UI CLIM switches off and only the boilerer remains on for heating via the emitters (radiant panels) present in the rooms in the area.

In **Auto 4**, as with all recommended trial settings for radiant panel systems, the UI CLIM fan speed is set to minimum.

For example, this trial setting is recommended in those installations where an initial activation of UI CLIM can contribute to a faster and more uniform heating of the room where it is installed.

3 [Boiler+UI CLIM] - Boiler



EUREKA

EUREKA ELECTRONICS (CONTINUED)

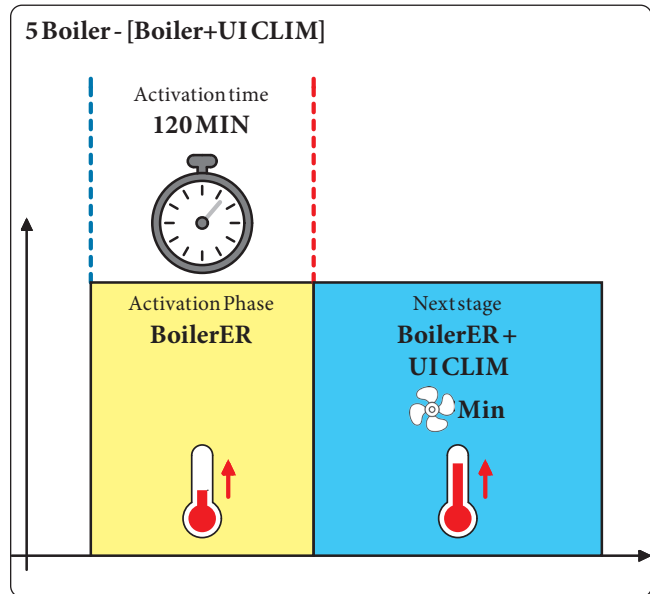
Zone Settings - Hybrid System - Central Heating - **Auto 5**

This setting is recommended for radiant panel systems with very large rooms.

In the Activation Phase only the boilerer provides heating through the emitters (radiant panels) present in the rooms in the area; after the Activation Time (120 min.) has elapsed at the start of the Next Phase, UI CLIM also turns on and contributes to heating the rooms in the area.

In **Auto 5**, as with all recommended trial settings for radiant panel systems, the UI CLIM fan speed is set to minimum.

For example, this setting is recommended when the room(s) to be heated is very large and the simultaneous operation of the two generators, in a later phase, can be useful to achieve more uniform heating.



Zone Settings - Hybrid System - Central Heating - **Auto 6**

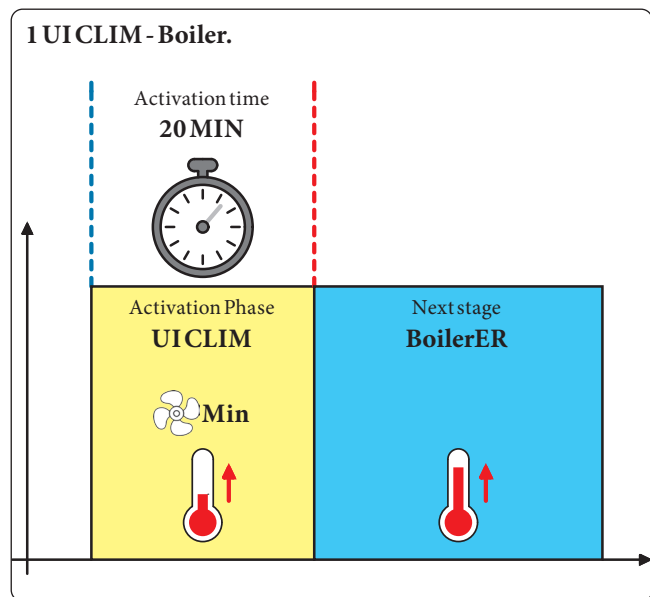
This setting is recommended for radiant panel systems with UI CLIM close to the controller.

In the Activation Phase only the UI CLIM heats the air in the rooms in the area; after the Activation Time (20 min.) has elapsed at the start of the Next Phase the UI CLIM switches off and only the boilerer turns on to heat through the emitters (radiant panels) present in the rooms in the area.

This reduced Activation Time and the exclusive operation of the boilerer in the subsequent phase guarantee heating of all the rooms in the area, when the flow of hot air from the UI CLIM only partially affects the same rooms.

In **Auto 6**, as with all recommended trial settings for radiant panel systems, the UI CLIM fan speed is set to minimum.

For example, it is suggested to make this trial setting in those installations where UI CLIM is positioned very close to the controller, but the room(s) to be heated is/are very large and partially affected by the UI CLIM air flow. In this installation, the minimum relative distance between UI CLIM and the controller does not guarantee uniform heating of the rooms in the area.



EUREKA

EUREKA ELECTRONICS (CONTINUED)

Zone Settings - Hybrid System - Central Heating - Personal.

The **Auto** settings previously described pre-set the operating logic of the EUREKA system.

Editing any of these parameters will automatically configure the **Personal** mode. The following table shows the editable parameters and what values you can enter.

Parameter	Settable values
<p>Activation time when set time has elapsed, it goes to the next phase</p>	from 5 to 240 minutes
<p>CH UI CLIM Fan Set UI CLIM fan speed in CH</p>	Auto Min. Medium Max.
<p>Generator priority when a central heating demand is made, the generator defined in the Activation Phase is switched on, then when the Activation Time has elapsed, the generator of the Next Phase is switched on.</p>	1 UI CLIM - Boiler. 2 UI CLIM - [Boiler+UI CLIM] 3 [Boiler+UI CLIM] - Boiler 4 [Boiler+UI CLIM] - UI CLIM 5 Boiler - [Boiler+UI CLIM] 6 Boiler - UI CLIM

Zone Settings - Hybrid System - Cooling

Any cooling service is clearly met by the UI CLIM only. It is possible to set 3 different UI CLIM management logics in cooling mode:

Zone Settings - Hybrid System - Cooling - Room T

Operation of the hybrid heat pump is shared with CH mode, where cooling requests can come from the Room Thermostat (if the device allows it), Remote Panel and/or Wireless Room Probe.

Zone Settings - Hybrid System - Cooling - Digital

With this setting, the UI CLIM activation demand is managed exclusively by the calendar in digital mode.

The UI CLIMs will be:

- always on for the entire duration of the time slots with *Set Auto Comfort*;
- always off during the time slots with *Set Auto Economy*.

This setting is recommended when no thermostat is suitable for cooling management and/or the controller is installed in an unfavourable position.

Digital management logic prohibits use of MAN mode.

Zone Settings - Hybrid System - Cooling - Remote IU

In cooling mode only, the management of UI CLIMs is entirely user-dependent via the INFRARED remote control (supplied as standard by the user).

Using **Remote IU** logic with infrared remote control also allows you to control room cooling remotely using the *Clima Smart* app downloadable for free. For remote control from the app, install the USB sticks supplied as standard with the EUREKA system inside UI CLIM.

The specifics of the infrared remote control will be discussed in the next chapters.

Zone Configuration

This menu is mainly dedicated to the **Service**, where set the parameters relating to the climate curves and the presence of Wireless Room Probes may be set.

Lastly, you can change the parameter *Maximum Delivery Set* reachable on the hydronic system by UCI EUREKA.





Main Menu

The following submenus are available within this last path.

Clock and Programs

In addition to setting the date and time, this menu also allows you to set the calendars used in AUTO modes for central heating and cooling for the various hydraulic thermal zones and domestic hot water.

Caution: with on-off room thermostats, the central heating calendar, both in terms of time slots and room temperature setpoint, must be set in such a way as to mirror the settings made on the thermostat or chrono-thermostat. This must be done to allow the EUREKA electronics to correctly manage the UI CLIM Room Temperature Setpoints, as there is no communication between the system and the room thermostat.

This procedure is not valid when using a Remote Panel and/or Wireless Room Probes, as these devices can communicate to EUREKA what temperature is present in the room.

Finally, you can set a holiday program to deactivate EUREKA in the event of a prolonged absence from home; the antifreeze function is always guaranteed.

System Information

Various information relating to the EUREKA system is displayed, including system flow rate, temperatures near the relevant probes, room setpoint and domestic hot water setpoint. In particular, with regards to UI CLIMs it is possible to view:

- *Set Temperat. UI CLIM*, room setpoint provided to UI CLIM to maintain;
- *Oper. mode UI CLIM*, it displays which operating mode is active between central heating, cooling, dehumidification and ventilation (the last two managed only via the infrared remote control supplied as standard);
- *Paired Zone*, hydraulic thermal zone to which UI CLIM has been paired. As previously mentioned, in order for UI CLIM to be managed by EUREKA electronics, it must be paired with a hydraulic thermal zone. Up to 3 UI CLIMs or none can be paired with each hydraulic zone present;
- *Sp. Vent. UI CLIM*, displays the fan speed of UI CLIM;
- *Room Temp. UI CLIM*, the current value of the room temperature detected by UI CLIM is displayed.

For a complete list of parameters, please refer to the EUREKA Instruction Booklet.

Anomalies Log

From this menu you can view the various errors that can be triggered due to a system malfunction. In addition to having a log of all the errors that have appeared, it is also possible to reset them by logging in as **Service**.

Meters

Through this submenu, completely reserved for the **Service**, it is possible to see how many times the burner of the UCI EUREKA boilerer has ignited and for how many hours it has worked.

General Settings

You can set the operating language and adjust the display contrast. Finally, the item *Access Level* allows you to login as **Service**, required to view and manage the next submenu.

Service

Finally, from the password-protected service menu, access can be made to all the functions and settings dedicated to our IMMERGAS after sales service centres. Below is a short, non-comprehensive list of the main functions available; for a complete list of parameters, please refer to the Instruction Booklet.

Service - Special functions - Deaeration

Using this command, you can remove any air within the hydraulic system, and you can define how many hours to keep the function active.

Service - Special Features - Screed Heating

In the case of a newly made radiant system, this function can be used to perform thermal shock, as required by current legislation. Furthermore, it will be possible to set the maximum and minimum operating temperatures and the times at these temperatures.

Service - Hybrid System - System Management - Min. CH integr. Temp.

This parameter sets the minimum temperature for UI CLIM operation. Below this threshold, only the UCI EUREKA condensing boilerer will operate. By default, the minimum temperature is set to 5°C, modifiable by the service centre.

Service - Hybrid System - UI CLIM

Finally, in this section it is possible to couple the various UI CLIMs to the reference hydraulic thermal zones. In order to take air stratification into account, a Set Room value increased by a certain offset is sent and displayed by UI CLIM. The value *Offset CH UI CLIM*, by default equal to 2°C, can be edited.

For example, if a room temperature of 20°C has been set - via the Remote Panel, Wireless Room Probe or heating calendar schedule on UCI EUREKA, the set point for the UI CLIMs will be 22°C.



The following is the infrared remote control supplied as standard with UI THOR which allows you to control of the air conditioner only (power batteries are included.)

Caution: *using the remote control inhibits the operating logic provided by EUREKA's electronics to the air conditioner until the next set time slot is activated.*

It is therefore recommended to use this remote control **to manage room cooling** coupled with the Smart Kit Wi-Fi control supplied as standard. In this case, set the parameter *Rem.Con. IU* in *Zone Settings - Hybrid System - Cooling - Remote IU*.

KEY:

1. ON \ OFF : Switch the Indoor Unit on or off.
2. TEMP ^ : Increase the temperature at 1°C steps (maximum temperature 30°C).
3. SET: Select the operating functions, such as:
 - Sleep
 - FollowMe
 - ApMode
4. TEMP v: Decrease the temperature at 1°C steps (minimum temperature 16°C).
5. FAN SPEED: Select the fan speed in the following order:
 - AU 20%
 - 40%
 - 60%
 - 80%
 - 100%
6. TURBO: Allows the unit to reach the set temperature in as short a time as possible.
7. LED: Activates and deactivates the LED display on the indoor unit and the buzzer on the air conditioner.
8. MODE: Goes to the next mode according to the following order;
 - Auto
 - Cool
 - Dry
 - Heat
 - Fan
9. ECO\GEAR: To access energy-saving mode according to the following sequence:
 - Eco
 - Gear (75%)
 - Gear (50%)
 - Previous ECO setting mode.
10. OK: Pressed to confirm the selected functions
11. TIMER: To set the automatic starting time to activate or deactivate the unit
12. SWING: Activates and deactivates movement of the horizontal deflector.
13. INDIRECT AIR FLOW: Function only available in COOL, FAN or DRY mode.
14. CLEAN: Activates/deactivates the Automatic Cleaning function.

UI THOR INFRARED REMOTE CONTROL (CONTINUED)

Basic functions

- *AUTO mode*, the unit will automatically select the *COOL*, *FAN* or *HEAT* function based on the set temperature. If UI CLIMs (UI THOR) are managed by the EUREKA system electronics, this mode is prohibited and must not be used;
- *COOL mode*, the unit will cool the rooms;
- *DRY mode*, the unit will reduce the room humidity;
- *HEAT mode*, the unit will heat the rooms;
- *FAN mode*, the unit is activated for ventilation only.

It is recommended to use the remote control for COOL only function. There is also a passive *anti-mould* function, so when you turn the unit off from COOL, AUTO or DRY modes, the air conditioner continues to operate at very low power to dry out the condensed water and prevent mould growth.

Advanced functions

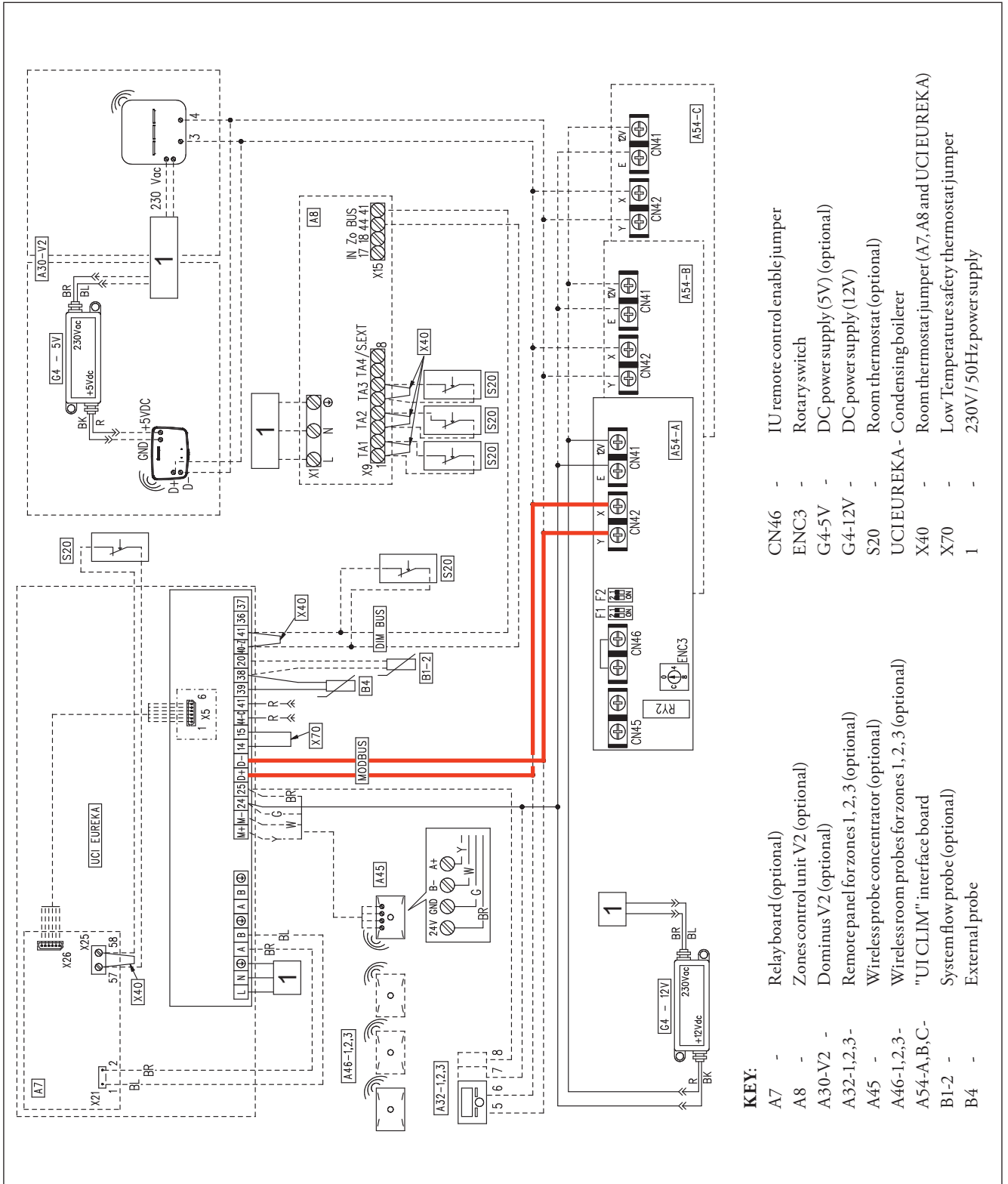
- By pressing the *SET button*, you can scroll through three different functions:
 - a) *Sleep function*, reduces energy consumption, in *HEAT* mode the temperature is lowered by 1°C for each hour of operation, up to a maximum of 2°C, vice versa in *COOL* mode (only via remote control);
 - b) *Follow Me function*, allows the remote control to detect the room temperature in its vicinity, this value is sent to the air conditioner every 3 minutes, in order to optimize climate comfort inside the home;
 - c) *AP function*, choose this mode to configure the wireless network, you can remotely control the unit via the CLIMA SMART smartphone app;
- *ECO/GEAR function*, with the *ECO function* in cooling mode, the remote control automatically adjusts the fan speed and the room temperature is set to 24°C, to save energy. With the *GEAR function* you can reduce electricity consumption by up to 75% or up to 50%;
- *SWING function*, the horizontal deflector can be set at five different inclinations, or it can be swung automatically;

- *TURBO function*, the indoor unit sends hot or cold air at maximum power to quickly start the heating or cooling process;
- *LED function*, used to turn the indoor unit display on or off or, by holding down the dedicated button for more than 5 seconds, the room temperature will be displayed;
- *LOCK function*, pressing the Turbo and Clean buttons simultaneously for at least 5 seconds locks the remote control buttons;
- *SILENCE function*, by holding down the Fan button for more than 2 seconds the compressor's sound frequency is reduced;
- *FP function (antifreeze protection)*, which can only be activated in the *HEAT mode* to prevent the room temperature from dropping below 8°C;
- *CLEAN function*, the indoor unit's coil is automatically cleaned from any bacteria that may form during operation, which can only be activated in *COOL* or *DRY* mode;
- *TIMER function*, sets the time range, in hours, at the end of which the air conditioner automatically switches on/off;
- *BREEZE AWAY function*, prevents the air conditioning flow from being blown directly on the user.

For the CLIMA SMART app, which can be downloaded free of charge and used for the remote control of the air conditioner only, you need to install the Smart Wi-Fi Kit supplied as standard inside UI THOR. In addition to all the settings described above, a weekly calendar can be set via app to program operation of the air conditioner only.

NOTE: When coupling UI THOR with MULTI multisplit outdoor units, the following functions are not available: *CLEAN*, *SILENCE*, *BREEZE AWAY* and *ECO*.





KEY:

- A7 - Relay board (optional)
- A8 - Zones control unit V2 (optional)
- A30-V2 - Dominus V2 (optional)
- A32-1,2,3 - Remote panel for zones 1, 2, 3 (optional)
- A45 - Wireless probe concentrator (optional)
- A46-1,2,3 - Wireless room probes for zones 1, 2, 3 (optional)
- A54-A,B,C - "UI CLIM" interface board
- B1-2 - System flow probe (optional)
- B4 - External probe
- CN46 - IU remote control enable jumper
- ENC3 - Rotary switch
- G4-5V - DC power supply (5V) (optional)
- G4-12V - DC power supply (12V)
- S20 - Room thermostat (optional)
- UCIEUREKA - Condensing boilerer
- X40 - Room thermostat jumper (A7, A8 and UCIEUREKA)
- X70 - Low Temperature safety thermostat jumper
- 1 - 230V / 50Hz power supply

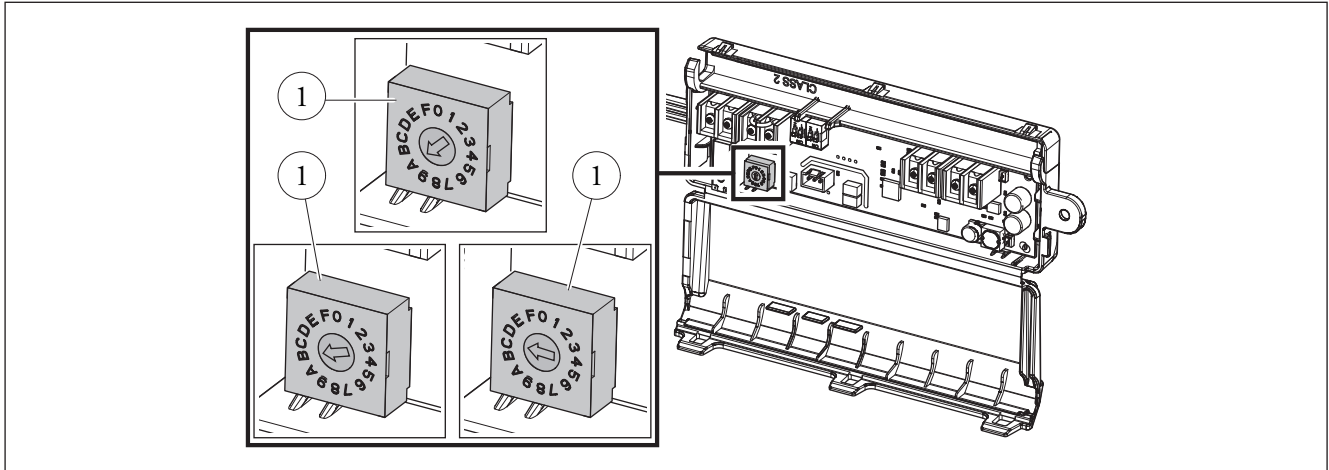
In red the connection between the UI CLIM Interface Board and the UCI EUREKA condensing boilerer is highlighted. Each UI CLIM Interface Board must be powered at 12 Vdc, using the power supply supplied as standard.

The next chapter describes how to install these interface boards within UI CLIM.

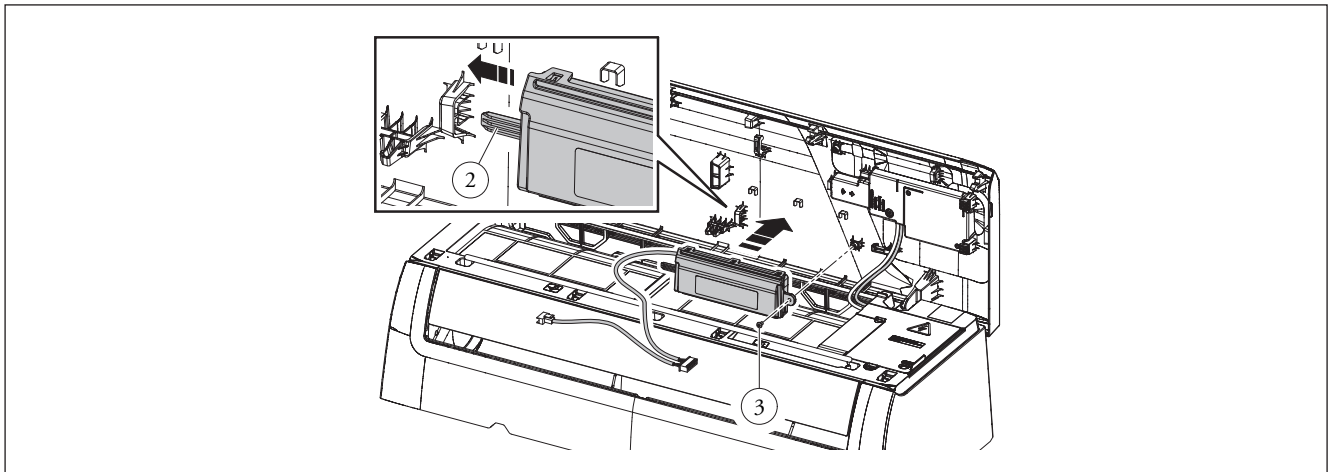
The following instructions will be carried out on each UI CLIM interface board. This board is necessary for the connection and communication between UI CLIM direct expansion terminals and UCI EUREKA condensing boilerers, and therefore for the control of the entire system through the EUREKA system electronics.

At the end of the operations, from the UCI EUREKA control panel the direct expansion terminals will have to be correctly coupled to the reference hydraulic thermal zone, choosing the pre-set address on the interface board.

To install the interface board, you need to set the **potentiometer (1)** arrow at a position that must be unique and different from the value "0" (we recommend A for UI CLIM-A, B for UI CLIM-B and C for UI CLIM-C).

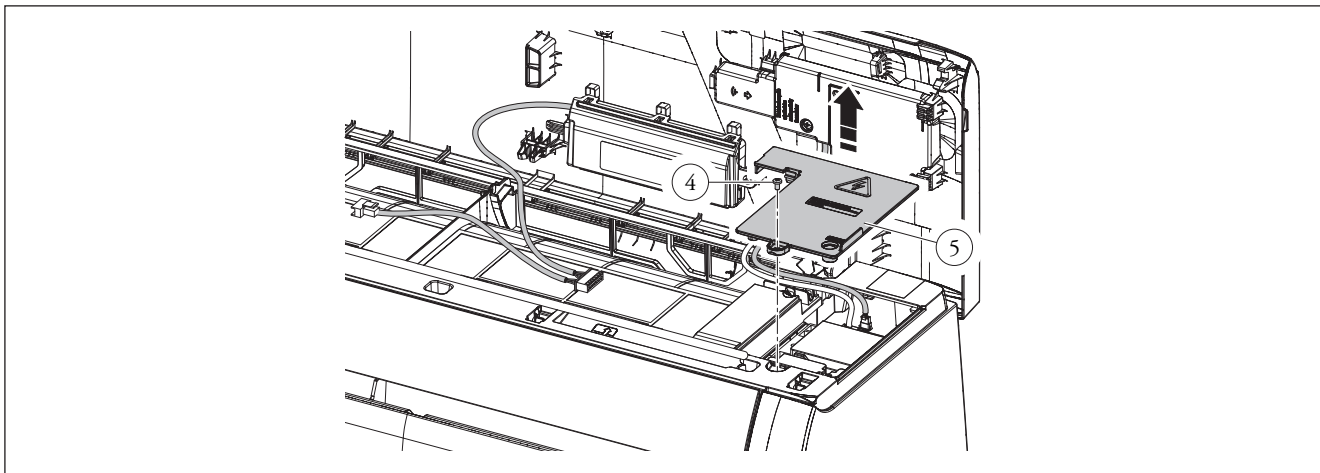


1. Close the cover of the interface board, insert the **pin (2)** in the relevant slot on the UI CLIM and turn the **screw supplied (3)**, without tightening it all the way.

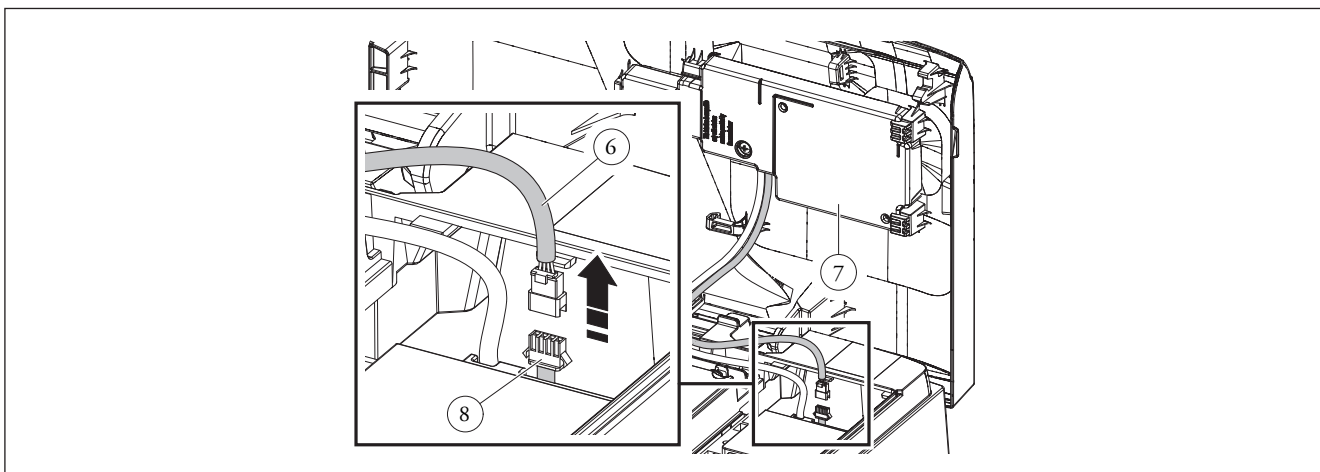


UI CLIM INTERFACE BOARD INSTALLATION (CONTINUED)

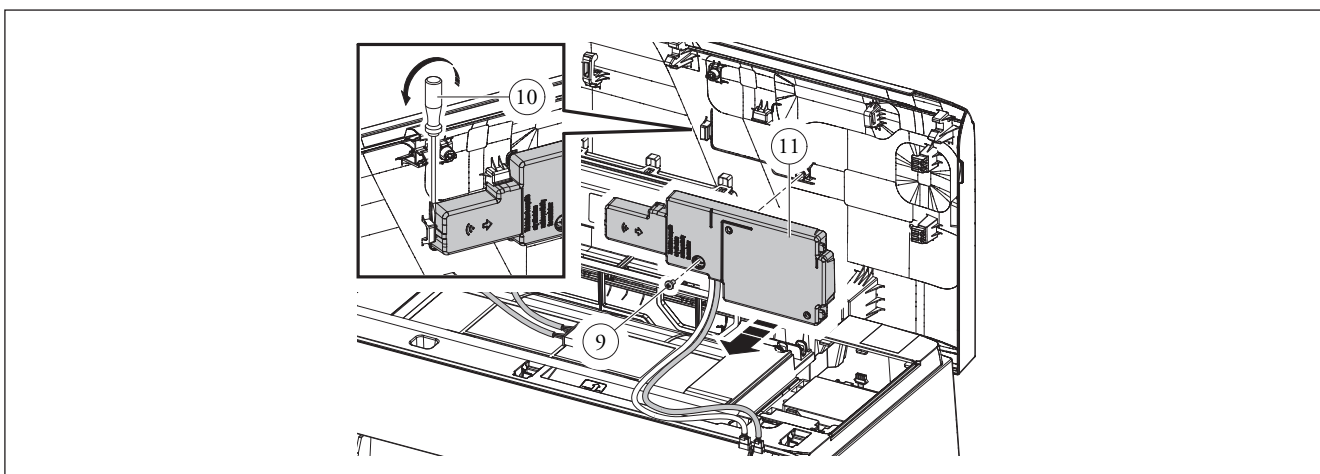
2. Unscrew the **screw (4)** and remove the **connection sink cover (5)** from its slot.



3. Disconnect the **cable (6)** of the **display board (7)** from the connector inside the **connection sink (8)**.

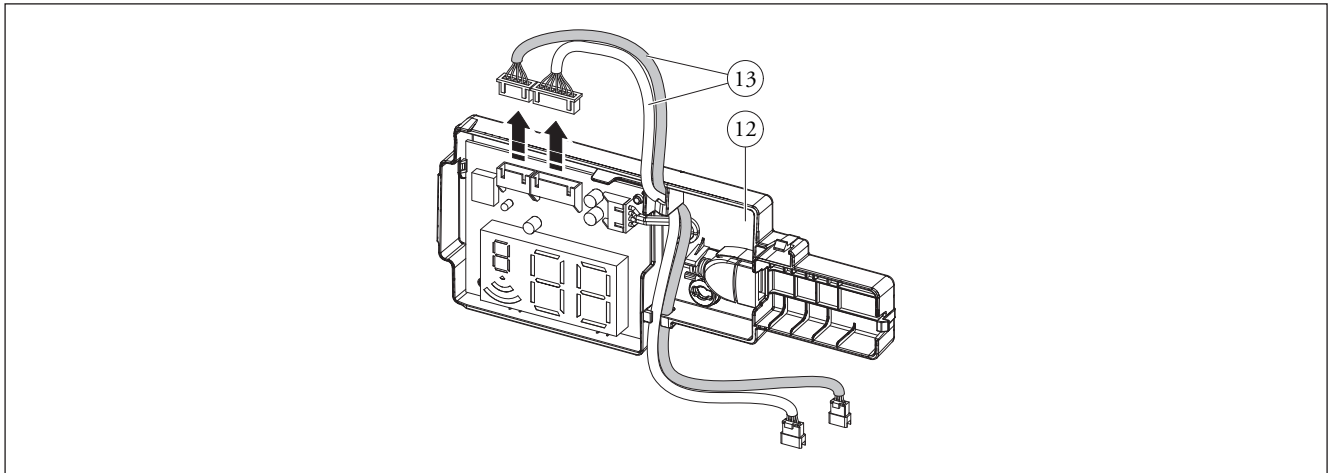


4. Unscrew the **screw (9)** and, with the help of a **screwdriver (10)**, dismantle the **display board (11)**.

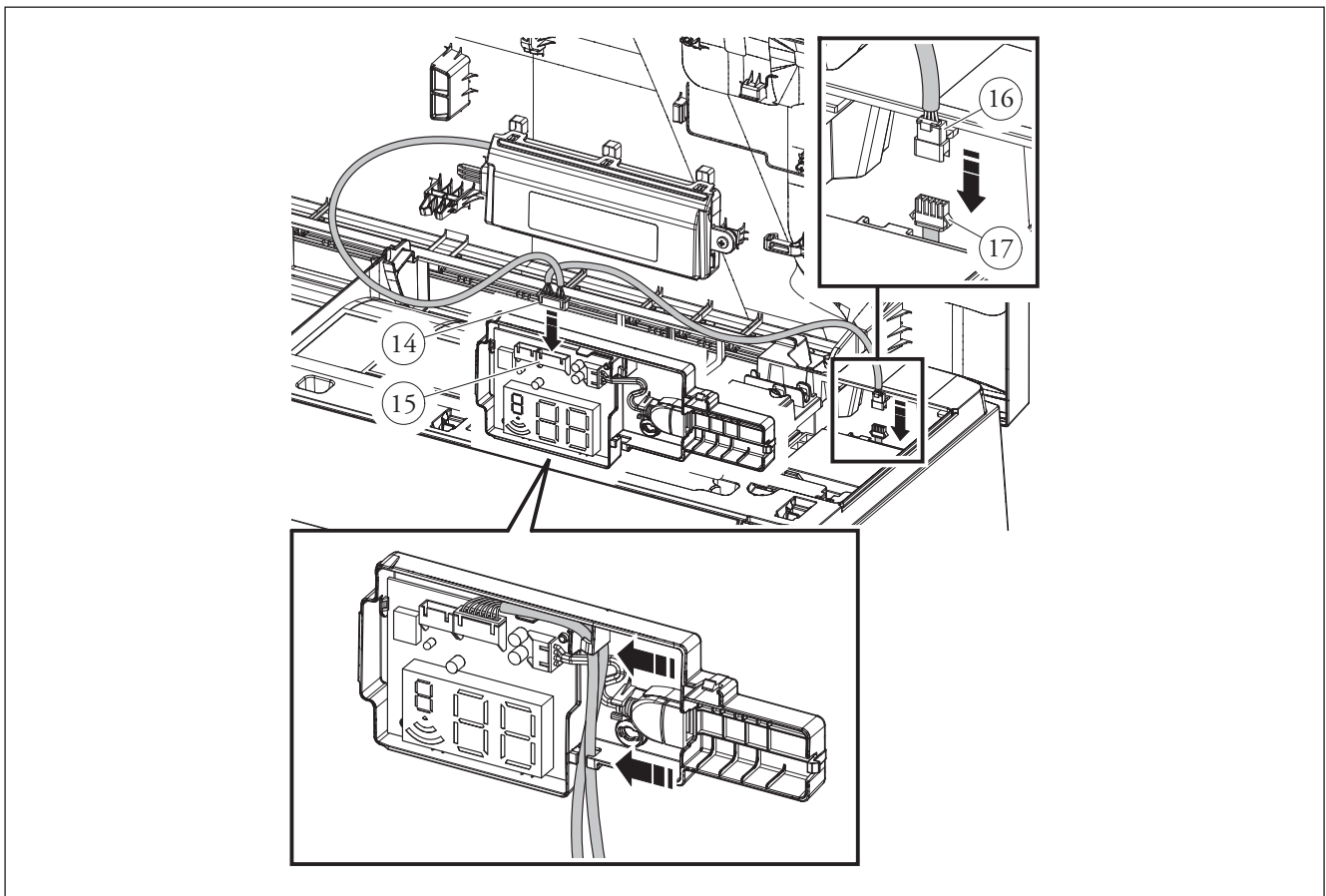


UI CLIM INTERFACE BOARD INSTALLATION (CONTINUED)

5. Disconnect and remove from the **cables (13) from the display board (12)**.

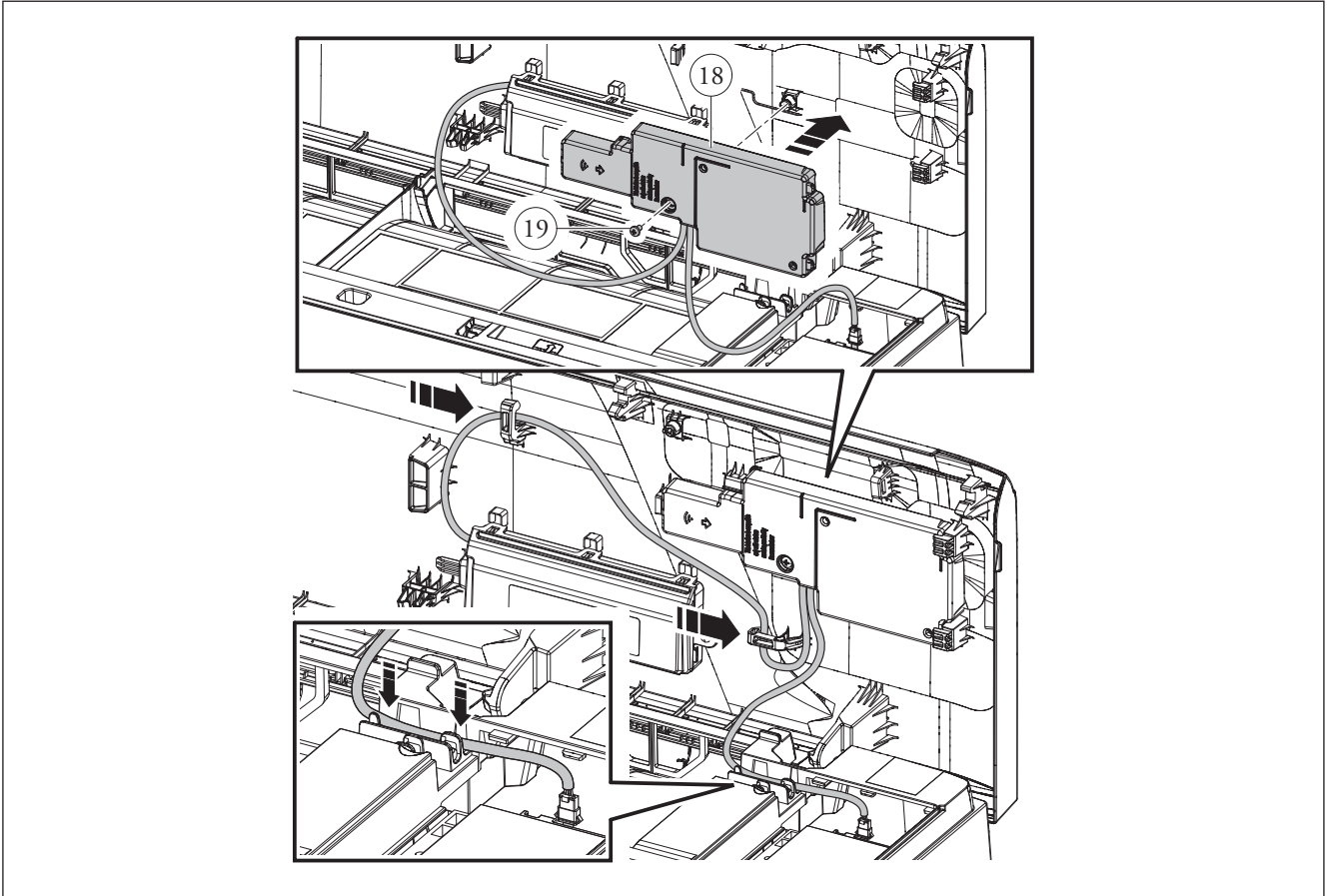


6. Connect the **connector (14) at the display board (15)** and the **connector (16)** to the **connector (17)** previously disconnected inside the connection sink. Reposition the cables so that they are not crushed and that the display board can be reassembled without it being left up (the cable route is the same as the cables previously disconnected).

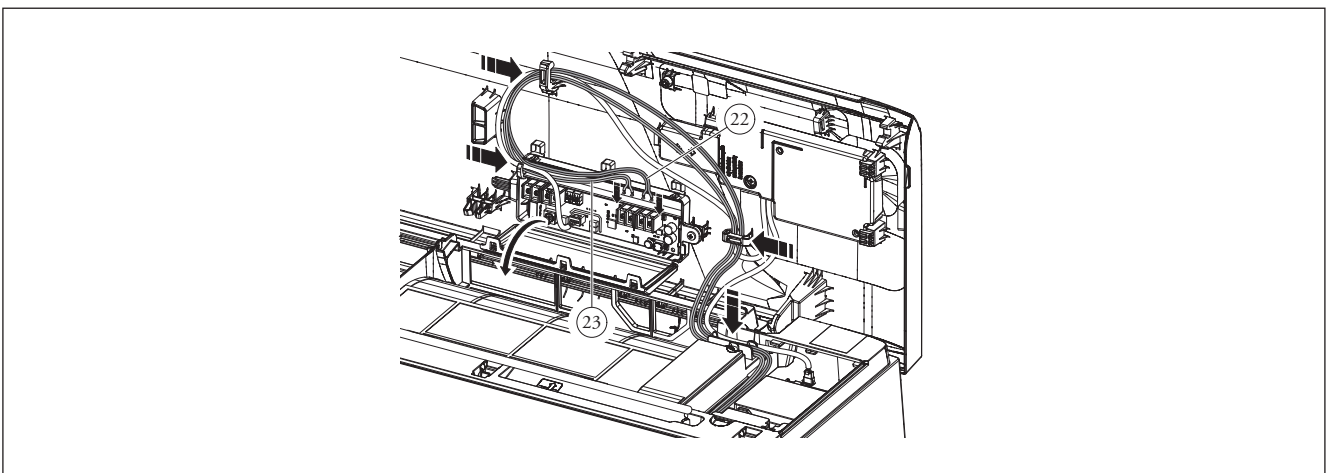


UI CLIM INTERFACE BOARD INSTALLATION (CONTINUED)

7. Thread the cable through the fairleads and secure the **display board (18)** in its original position using the **screw (19)** previously unscrewed.

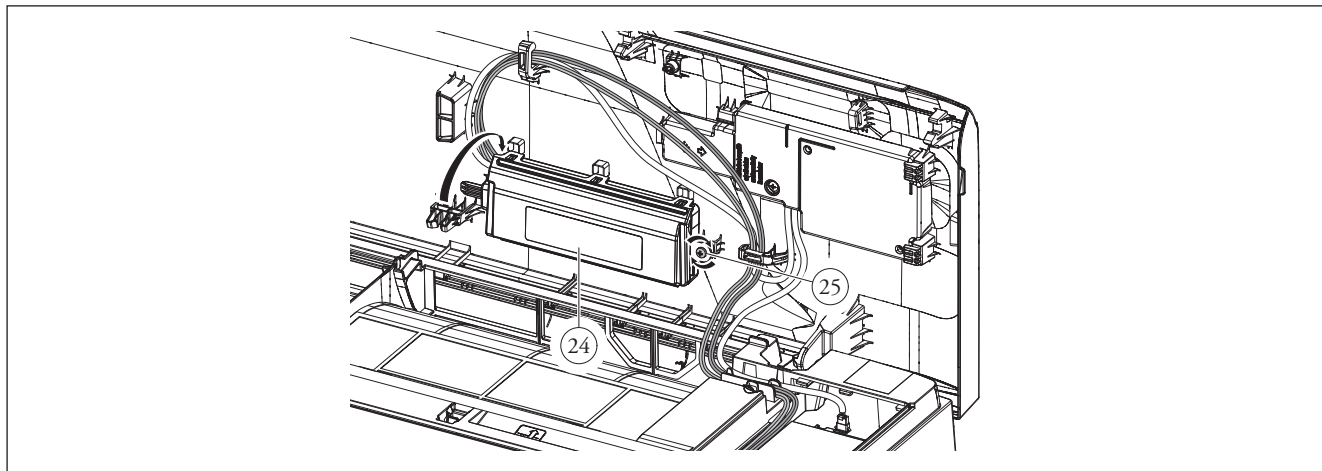


8. Thread the **interface board power cable (22)** and the **Modbus cable (23)** through the connection area, connecting them to the interface board referring to the wiring diagram shown in the previous chapter. Thread the **interface board power cable (22)** and the **Modbus cable (23)** through the fairleads. These cables must exit the wall with a minimum length of 1 metre; the 12 Vac power supply supplied as standard must be mounted in an inaccessible place.

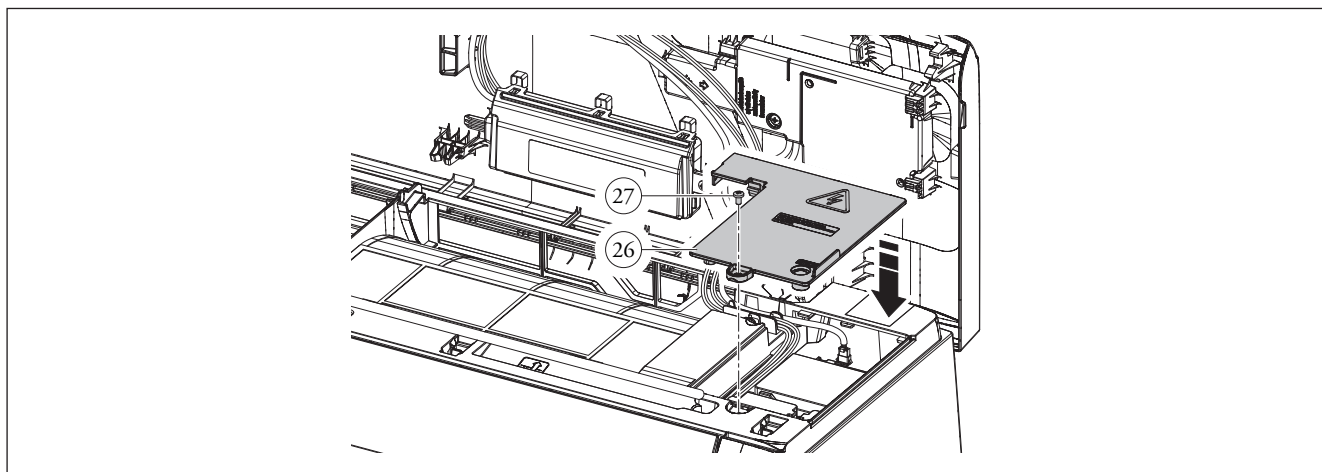


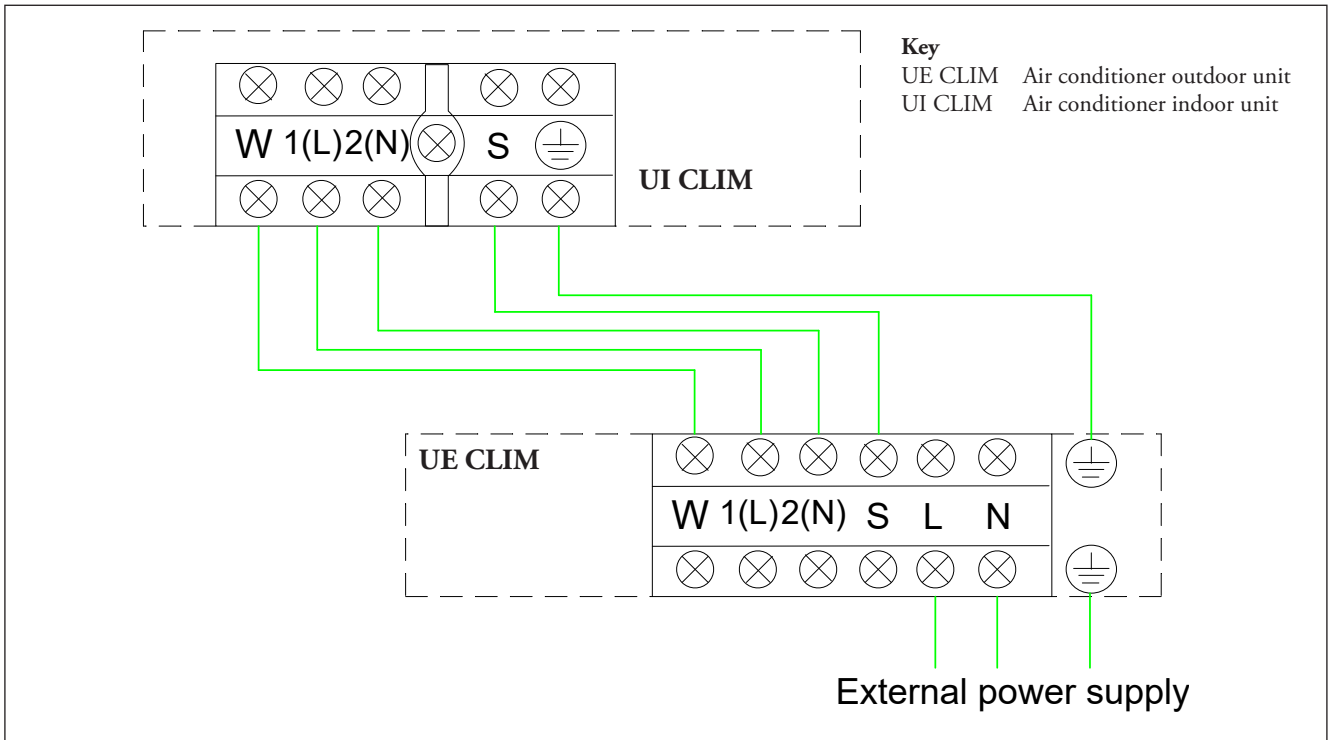
UI CLIM INTERFACE BOARD INSTALLATION (CONTINUED)

9. Close the cover of the **interface board (24)** and tighten the **screw (25)**.



10. Close the **connection area cover (26)**, tightening the **screw (27)**.





Connection cables features

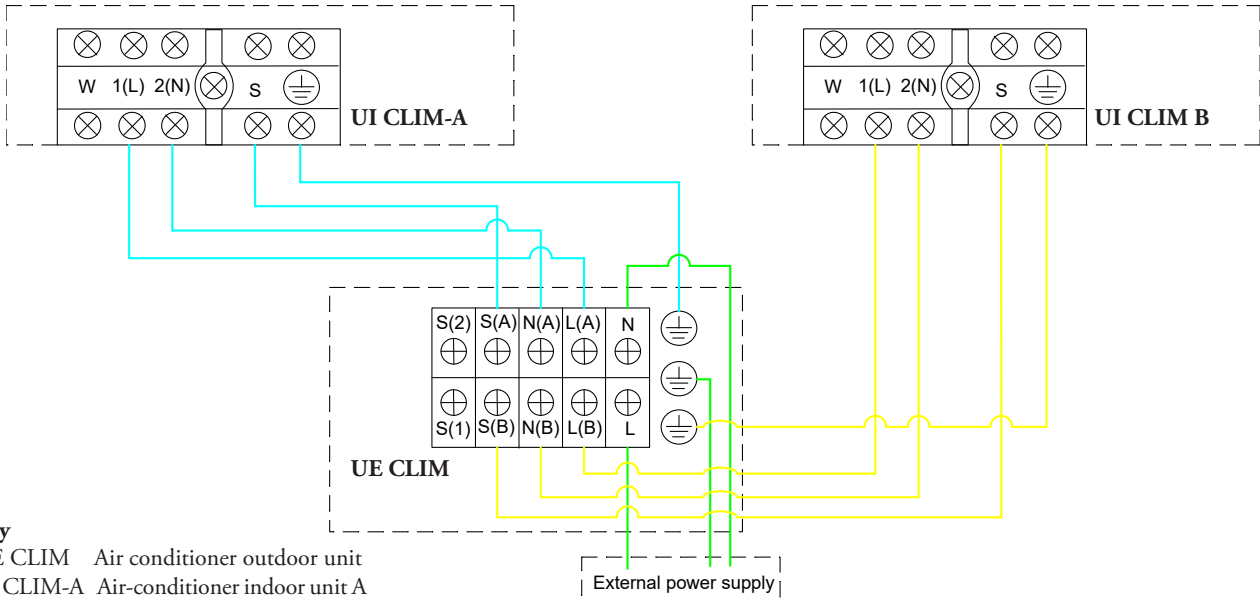
To power the outdoor unit, use a 3-wire HO7RN-F type multipolar cable (not supplied). The minimum conductor cross-sections are indicated in the following tables. The outdoor unit must be connected to a power supply line by a circuit breaker or fuse and RCD. The RCD must not have a residual current greater than 30 mA, and be at least type A (do not use type AC).

To connect the outdoor and indoor units, use a 5-wire multipolar cable type HO7RN-F (not supplied). The minimum conductor cross-sections are indicated in the following tables. The product comes with ferrite rings that help reduce interference; assembly is at the discretion of the installer.

Indoor Unit	Nominal Values		Field of Tolerable Voltage		Wiring with outdoor unit mm ²
	Hz	V	V	V	
UI THOR 9	50	220-240	198	264	5 x 1.5
UI THOR 12					

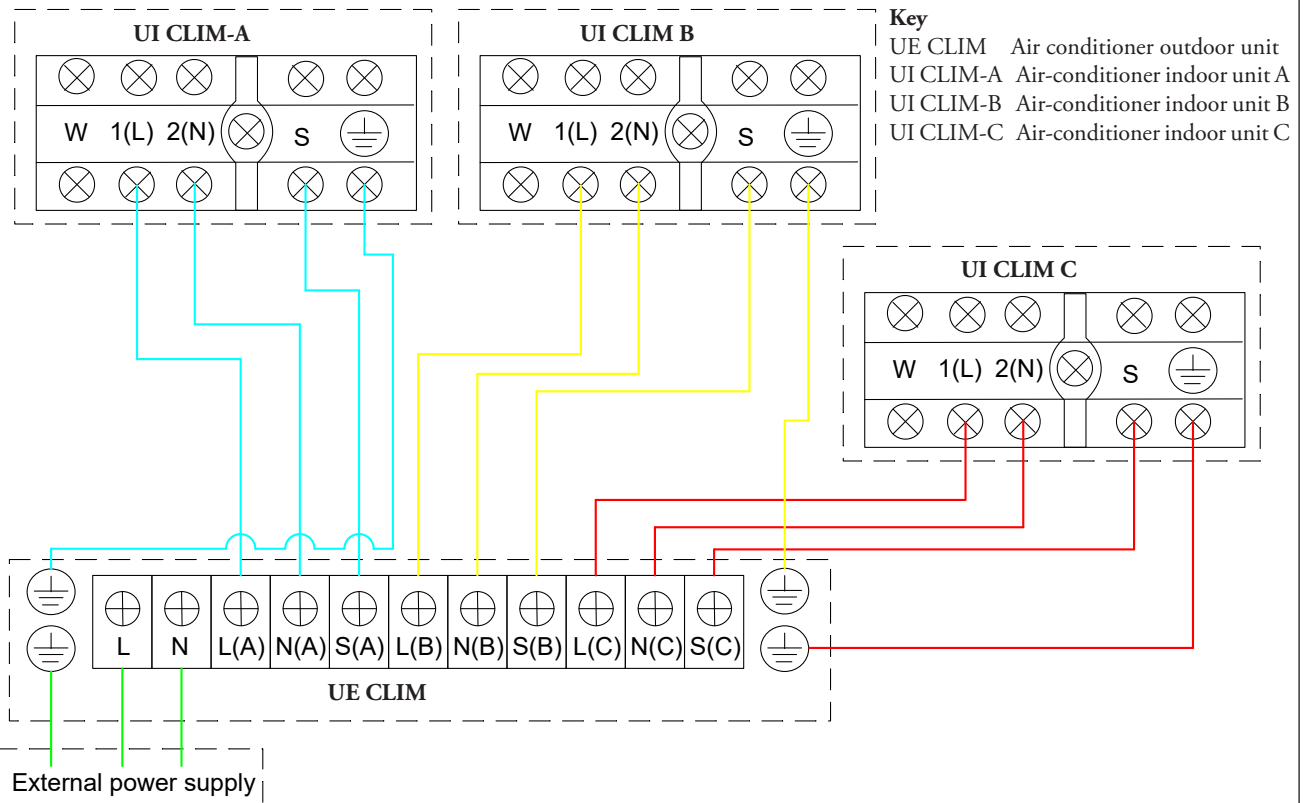
Outdoor Unit	Nominal Values		Voltage Field Tolerable		Maximum current absorbed A	Maximum power absorbed W	Power cable mm ²
	Hz	V	V	V			
UE THOR 9	50	220-240	198	264	10	2150	3 x 1.5
UE THOR 12							

UE MULTI 18 DUAL wiring diagram



- Key**
 UE CLIM Air conditioner outdoor unit
 UI CLIM-A Air-conditioner indoor unit A
 UI CLIM-B Air-conditioner indoor unit B

UE MULTI 27 TRIAL wiring diagram



- Key**
 UE CLIM Air conditioner outdoor unit
 UI CLIM-A Air-conditioner indoor unit A
 UI CLIM-B Air-conditioner indoor unit B
 UI CLIM-C Air-conditioner indoor unit C

MULTI UE CLIM POWER SUPPLY AND ELECTRICAL CONNECTIONS (CONTINUED)

Connection cables features

To power the outdoor unit, use a 3-wire HO7RN-F type multipolar cable (not supplied). The minimum conductor cross-sections are indicated in the following tables. The outdoor unit must be connected to a power supply line by a circuit breaker or fuse and RCD. The RCD must not have a residual current greater than 30 mA, and be at least type A (do not use type AC).

To connect the outdoor unit to the indoor unit, use a 4-wire HO7RN-F type multipolar cable (not supplied). The minimum conductor cross-sections are indicated in the following tables. Terminal **W** on UI THOR does not need to be connected; the product comes with ferrite rings that help reduce interference; assembly is at the discretion of the installer.

Indoor Unit	Nominal Values		Field of Tolerable Voltage		Wiring with Outdoor Unit
	Hz	V	V	V	mm ²
UI THOR 9	50	220-240	198	264	4 x 1.5
UI THOR 12					
UI THOR 18					

Outdoor Unit	Nominal Values		Voltage Field Tolerable		Maximum current absorbed	Maximum power absorbed	Supply voltage
	Hz	V	V	V	A	W	mm ²
UE MULTI 18 DUAL	50	220-240	198	264	13	3050	3 x 1.5
UE MULTI 27 TRIAL					18	4100	3 x 2.5



EUREKA

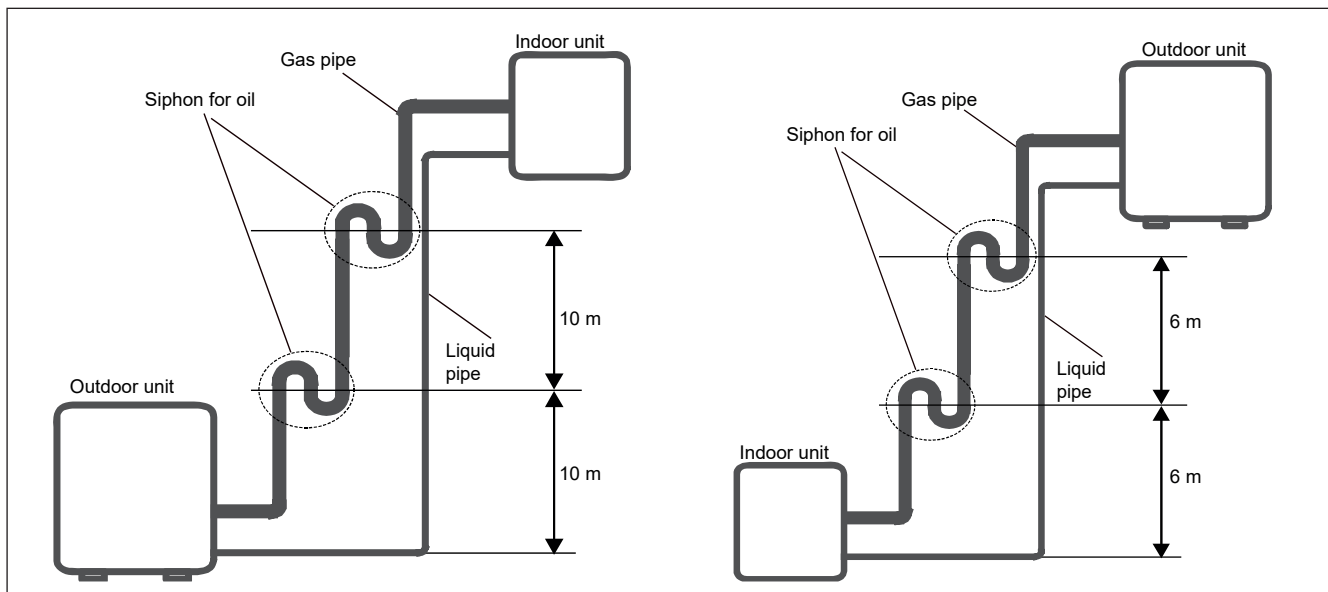
16 INSTALLING THE REFRIGERANT LINES - MONOSPLIT

The cooling circuit of THOR air conditioners uses the refrigerant R32, therefore, it is necessary to take some measures for the proper operation of the machine:

- nominal efficiency was tested on the unit with a pipe 5 m long.
- A minimum length of 3 m is required for operation;
- make sure that the minimum bending radius of the pipes is at least 10 cm;

- only use equipment and fittings for R32;
- for especially elevated height differences, siphons must be installed on the gas pipes for the deposit of oil, as indicated in the figure below;
- the length of the pipes between the outdoor and indoor unit and the height difference must not exceed the indicated limits.

Outdoor Unit	Gas pipe outside diameter [mm - inch]	Liquid line pipe outside diameter [mm - inch]	Maximum length R32 preload (liquid pipe)	Maximum length with top up (liquid pipe)	Indoor unit-outdoor unit maximum height difference	R32 refrigerant pre-charge	Top-up for every additional metre of the liquid line
UE THOR 9	Ø 9.52 - 3/8"	Ø 6.35 - 1/4"	≤ 5 m	25 m	10 m	0.6 kg	12 g/m
UE THOR 12	Ø 9.52 - 3/8"	Ø 6.35 - 1/4"	≤ 5 m	25 m	10 m	0,65 kg	12 g/m



Insulating the chiller lines.

- during operation, the gas and liquid pipes could reach very high or very low temperatures, making it necessary to insulate them efficiently. Otherwise, product performance would be ruined, with the possible breakage of the compressor;
- the insulation material must be able to withstand temperatures exceeding 120°C;
- the gas and liquid pipes must be insulated separately. Insulating them together would reduce performance.

Minimum installation areas

When using a flammable refrigerant, if it exceeds 1,84 kg of refrigerant, the indoor unit must be installed in a room with minimum dimensions that guarantee the safe operation of the product. Please refer to the instruction booklet to check the minimum size of the installation room to be guaranteed, as well as to verify that the minimum installation clearances previously described are respected.

EUREKA

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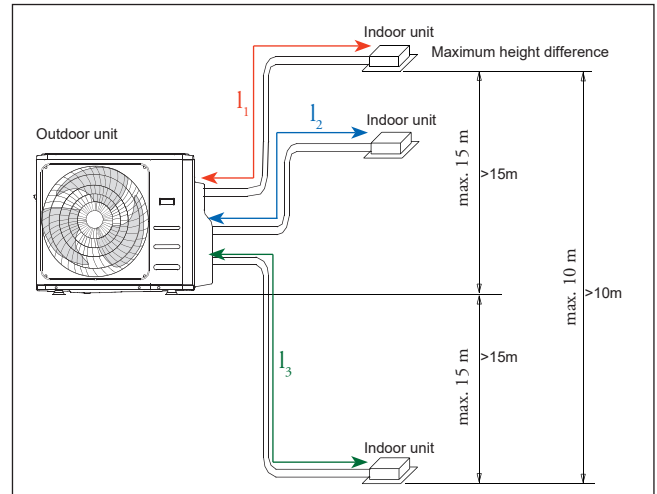
INSTALLING THE REFRIGERANT LINES - MULTISPLIT

The cooling circuit of MULTI-air conditioners uses the refrigerant R32, therefore, it is necessary to take some measures for the proper operation of the machine:

- nominal efficiency was tested on the unit with a pipe 7.5 m long. A minimum length of 3 m is required for operation;
- minimum bending radius of 10 cm pipes;
- only use equipment and fittings for R32;
- for especially elevated height differences (every 6 metres of height difference) siphons must be installed on the gas pipes for the deposit of oil;

- the length of the pipes between the outdoor and indoor unit and the height difference must not exceed the indicated limits.

Outdoor Unit	Gas pipe outside diameter [inch]	Liquid line pipe outside diameter [inch]	Maximum length of liquid pipe with R32 preload (for each line)	R32 refrigerant pre-charge
UE MULTI 18 DUAL	2 x 3/8"	2 x 1/4"	≤ 7.5 m	1.25 kg
UE MULTI 27 TRIAL	3 x 3/8"	3 x 1/4"	≤ 7.5 m	1.8 kg



Maximum lengths and refrigerant top up.

The following table shows the maximum linear distances that apply for the various ranges of MULTI multisplit air-conditioners

Outdoor Unit	Maximum length for all lines [m] $l_1 + l_2 + l_3$	Max. line length for 1 indoor unit [m] l_1 or l_2 or l_3	Indoor unit-outdoor unit maximum height difference [m]	Maximum height difference between indoor units [m]
DUAL	40	25	15	10
TRIAL	60	30	15	10

The following formula is used to calculate the amount of refrigerant R32 to top up per metre, in addition to the preload length

$$\text{Top up R32 [g]} = (L - l \times N) \times 12 \text{ g/m}$$

where:

L = total pipe length

l = preload pipe length

N = number of indoor units that can be coupled

Insulating the chiller lines.

- during operation, the gas and liquid pipes could reach very high or very low temperatures, making it necessary to insulate them efficiently. Otherwise, product performance would be ruined, with the possible breakage of the compressor;
- the insulation material must be able to withstand temperatures exceeding 120°C;
- the gas and liquid pipes must be insulated separately. Insulating them together would reduce performance.

Minimum installation areas

When using a flammable refrigerant, if it exceeds 1,84 kg of refrigerant, the indoor unit must be installed in a room with minimum dimensions that guarantee the safe operation of the product. Please refer to the instruction booklet to check the minimum size of the installation room to be guaranteed, as well as to verify that the minimum installation clearances previously described are respected.



18 UCI EUREKA (HEAT GENERATOR) TECHNICAL DATA			
	UCI EUREKA	26	35
Heating performance			
Energy class	-	A	A
CH maximum nominal heat input	kW (kcal/h)	24.7 (21,238)	32.8 (28,203)
Maximum nominal useful heating output	kW (kcal/h)	24.1 (20,722)	32.0 (27,515)
Minimum nominal heat input	kW (kcal/h)	2.2 (1,892)	2.2 (1,892)
Minimum nominal useful output	kW (kcal/h)	2.1 (1,806)	2.1 (1,806)
Useful thermal efficiency 80/60°C at 100% Pn* (min.)	%	97.4 (95.6)	97.5 (95.2)
Useful thermal efficiency 50/30°C at 100% Pn* (min.)	%	106.7 (106.1)	105.7 (106.6)
Useful thermal efficiency 40/30°C at 100% Pn* (min.)	%	108.2 (108.6)	107.3 (109.7)
Efficiency at 30% Pn (return at 30°C)	%	109.3	109.3
Space heating seasonal efficiency (η_s)	%	94	94
Efficiency at 100% heat output (η_{100})**	%	97.8	97.5
Efficiency at partial heat load (η_{30})**	%	109.7	109.6
Adjustable central heating temperature (min. / max)	°C	20 ÷ 85	20 ÷ 85
System max. working temperature °	C	90	90
System max. operating pressure	bar	3	3
System expansion vessel pre-charged pressure	bar	1.0	1.0
Nominal system expansion vessel capacity / (useful)	litres	10.0 / (4.7)	10.0 / (4.7)
DHW performance			
Energy class in DHW / load profile	-	A / XL	A / XL
Maximum DHW nominal heat input	kW (kcal/h)	26.0 (22,356)	34.0 (29,235)
Maximum nominal useful DHW output	kW (kcal/h)	25.4 (21,840)	33.0 (28,375)
Domestic hot water production efficiency (η_{wh})	%	83	82
DHW adjustable temperature	°C	30 ÷ 60	30 ÷ 60
Max DHW circuit pressure	bar	10.0	10.0
DHW circuit min. dynamic pressure	bar	0.3	0.3
Minimum domestic hot water withdrawal	litres/min	1.5	1.5
Flow rate in continuous service (ΔT 30°C)	litres/min	12.3	16.1
General data			
Operating room temperature range	°C	-5 ÷ 40	-5 ÷ 40
Gas flow rate to the METHANE burner (G20)	m ³ /h (DHW)	0.23 ÷ 2.61 (2.75)	0.23 ÷ 3.47 (3.60)
Gas flow rate to the LPG burner (G31)	kg/h (DHW)	0.23 ÷ 1.92 (2.02)	0.23 ÷ 2.55 (2.64)
Power supply	V/Hz	230/50	230/50
Nominal power absorption	A	0.8	1.1
Installed electric power	W	115	140
Power absorbed in stand-by	W	5.0	5.0
Electrical insulation rating	IP	X5D	X5D
Sound power dB(A) 51 52			
Appliance water content	litres	2.6	3.0
AQUA CELERIS micro storage tank water content	litres	3.2	3.2
Dimensions (H x W x D)	mm	775x440x389	775x440x389
Appliance weight empty (full)	kg	42.7 (53.2)	44.8 (55.7)

* According to the Legislative Decree 192/05 and subsequent amendments, the measured 100% Pn useful efficiency is $>93+2 \cdot \log(Pn)$

** Useful thermal efficiency calculated according to UNI EN 15502-1



UCI EUREKA 26		Methane (G20)	LPG (G31)
Combustion efficiency 100% Pn (80/60°C)	%	97,5	
Combustion efficiency P min (80/60°C)	%	98,1	
Effective efficiency at 100% Pn (80/60°C)	%	97,4	
Effective efficiency P min (80/60°C)	%	95,6	
Useful efficiency 30% Pn (return at 30°C)	%	109,3	
Chimney losses with burner on (100% Pn) (80/60°C)	%	2,52	
Chimney losses with burner on (P min) (80/60°C)	%	1,9	
Chimney losses with burner off	% (W)	0.04 (9.3)	
Casing losses with burner on (100% Pn) (80/60°C)	%	0,08	
Casing losses with burner on (P min) (80/60°C)	%	2,5	
Casing losses with burner off	% (W)	0.30 (74)	
Flue gas temperature Maximum CH Heat Input	°C	72	70
Flue gas temperature Maximum DHW Heat Input	°C	74	72
Flue gas temperature Minimum Heat Input	°C	59	59
Flue flow rate at Central Heating Maximum Heat Input	kg/h	41	42
Flue flow rate at Maximum Domestic Hot Water Heat Input	kg/h	44	44
Flue flow rate at Minimum Heat Input	kg/h	4	4
CO ₂ at the Maximum Central Heating Heat Input	%	8.8	10,0
CO ₂ at Maximum Domestic Hot Water Heat Input	%	8.8	10,0
CO ₂ at Minimum Heat Input	%	8.8	9.5
CO at the Maximum CH Heat Input	mg/kWh	144	179
CO at Maximum DHW Heat Input	mg/kWh	150	179
CO at Minimum Heat Input	mg/kWh	5	4
NO _x at the Maximum CH Heat Input	mg/kWh	34	42
NO _x at Maximum DHW Heat Input	mg/kWh	35	43
NO _x at Minimum Heat Input	mg/kWh	19	28
Weighted CO	mg/kWh	15	23
Weighted NO _x	mg/kWh	25	45
NO _x class	-	6	
Intake / exhaust available head (Min. - Max.)	Pa	1 - 148	

NOTE: The condensing heat generator can also operate with propane air and with a 20% methane-hydrogen blend.

Gas flow rates refer to the NHV at the temperature of 15° C and pressure of 1013 mbar.

Flue temperature values refer to an air inlet temperature of 15°C and flow/return temperature = 80/60°C.

UCI EUREKA

19.1 UCI EUREKA 35 (HEAT GENERATOR) COMBUSTION FEATURES

UCI EUREKA 35		Methane (G20)	LPG (G31)
Combustion efficiency 100% Pn (80/60°C)	%	97,6	
Combustion efficiency P min (80/60°C)	%	98,1	
Effective efficiency at 100% Pn (80/60°C)	%	97,5	
Effective efficiency P min (80/60°C)	%	95,2	
Useful efficiency 30% Pn (return at 30°C)	%	109,3	
Chimney losses with burner on (100% Pn) (80/60°C)	%	2,40	
Chimney losses with burner on (P min) (80/60°C)	%	1,9	
Chimney losses with burner off	% (W)	0.03 (9.7)	
Casing losses with burner on (100% Pn) (80/60°C)	%	0,10	
Casing losses with burner on (P min) (80/60°C)	%	2,9	
Casing losses with burner off	% (W)	0.24 (80)	
Flue gas temperature Maximum CH Heat Input	°C	82	81
Flue gas temperature Maximum DHW Heat Input	°C	85	84
Flue gas temperature Minimum Heat Input	°C	59	59
Flue flow rate at Central Heating Maximum Heat Input	kg/h	55	55
Flue flow rate at Maximum Domestic Hot Water Heat Input	kg/h	57	58
Flue flow rate at Minimum Heat Input	kg/h	4	4
CO ₂ at the Maximum Central Heating Heat Input	%	8.8	10,0
CO ₂ at Maximum Domestic Hot Water Heat Input	%	8.8	10,0
CO ₂ at Minimum Heat Input	%	8.8	9,5
CO at the Maximum CH Heat Input	mg/kWh	198	221
CO at Maximum DHW Heat Input	mg/kWh	203	242
CO at Minimum Heat Input	mg/kWh	2	2
NO _x at the Maximum CH Heat Input	mg/kWh	34	34
NO _x at Maximum DHW Heat Input	mg/kWh	33	34
NO _x at Minimum Heat Input	mg/kWh	18	25
Weighted CO	mg/kWh	26	39
Weighted NO _x	mg/kWh	30	38
NO _x class	-	6	
Intake / exhaust available head (Min. - Max.)	Pa	1 - 254	

NOTE: The condensation heat generator can also work with propane air.

Gas flow rates refer to the NHV at the temperature of 15° C and pressure of 1013 mbar.

Flue temperature values refer to an air inlet temperature of 15°C and flow/return temperature = 80/60°C.



THOR		9	12
Heating performance			
Rated output power	Btu/h	10.000	13.000
Rated output power	kW	2.93	3,81
Rated absorbed power	W	771	1027
Rated COP	-	3.8	3.71
Rated absorbed current	A	3,35	4,46
Operating temperature	°C	-20/24	-20/24
Energy class (average season)	-	A+	A+
Energy class (warmest season)	-	A+++	A+++
Cooling performance			
Rated output power	Btu/h	9,000	12.000
Rated output power	kW	2.64	3.52
Rated absorbed power	W	733	1.089
Rated EER	-	3,6	3.23
Rated absorbed current	A	3.18	4,73
Operating temperature	°C	-15/50	-15/50
Energy class	-	A++	A++
Indoor unit			
Air flow rate (max. - med. - min.)	m ³ /h	460-300-260	530-400-350
Sound pressure (max. - med. - min.)	dB(A)	37-32-22	37-32-22
Sound power	dB(A)	54	55
Dimensions (H x L x D)	mm	292x729x204	296x805x205
Net/gross weight	kg	8.0/10.5	8.7/11.5
Outdoor unit			
Compressor type	-	Rotary DC inverter	Rotary DC inverter
Air flow rate	m ³ /h	1.850	1.850
Sound pressure	dB(A)	55,5	56
Sound power	dB(A)	62	62
Dimensions (H x L x D)	mm	495x720x270	495x720x270
Net/gross weight	kg	23.5/25.4	23.7/25.5
General data			
Electric power supply	Ph/V/Hz	1 Ph/220-240/50	1 Ph/220-240/50
Max. absorbed power	W	2,150	2,150
Maximum current absorbed	A	10	10
Type of refrigerant/GWP	-	R32/675	R32/675
Refrigerant pre-charge	kg	0,60	0,65
Liquid/gas refrigerant connections	mm(inch)	6.35(1/4)-9.52(3/8)	6.35(1/4)-9.52(3/8)

THE REPORTED NOMINAL DATA REFERS TO THE FOLLOWING CONDITIONS (in compliance with EN 14511)

ROOM	COOLING (°C)	CENTRAL HEATING (°C)
Temp. INTERNAL AIR - EXTERNAL AIR (db/wb)	27/19 - 35/24	20/15 - 7/6



EUREKA

21		MULTI TECHNICAL DATA	
UE MULTI		18 DUAL	27 TRIAL
Heating performance			
Rated output power (min - max)	Btu/h	19,000 (8,000-19,000)	28,000 (8,000-28,000)
Rated output power (min - max)	kW	5.57 (2.35-5.57)	8.21 (2.35-8.21)
Rated absorbed power	W	1.500	2.210
Rated COP	-	3.71	3.71
Rated absorbed current	A	6,33	9,33
Operating temperature	°C	-15/24	-15/24
Cooling performance			
Rated output power (min - max)	Btu/h	18,000 (7,000-18,000)	27,000 (7,000-27,000)
Rated output power (min - max)	kW	5.28 (2.05-5.28)	7.91 (2.05-7.91)
Rated absorbed power	W	1.635	2.450
Rated EER	-	3.23	3.23
Rated absorbed current	A	6,89	10.33
Operating temperature	°C	-15/50	-15/50
Outdoor unit			
Compressor type	-	Rotary DC inverter	Rotary DC inverter
Air flow rate	m ³ /h	2.100	3.000
Sound pressure	dB(A)	54	55
Sound power	dB(A)	65	68
Dimensions (H x L x D)	mm	554x870x330	673x990x342
Net/gross weight	kg	35.0/38.0	48.0/51.8
General data			
Electric power supply	Ph/V/Hz	1 Ph/220-240/50	1 Ph/220-240/50
Maximum absorbed power/current	W	3.050	4.100
Maximum current absorbed	A	13	18
Type of refrigerant/GWP	-	R32/675	R32/675
Refrigerant pre-charge	kg	1,25	1,8
Liquid/gas refrigerant connections	mm(inch)	2x6.35(1/4)-2x9.52(3/8)	3x6.35(1/4)-3x9.52(3/8)
Maximum no. of indoor units that can be coupled	-	2	3

The central heating energy classes vary from A to A+ depending on the combination.

The cooling energy classes vary from A+ to A++ depending on the combination.

THE REPORTED NOMINAL DATA REFERS TO THE FOLLOWING CONDITIONS (in compliance with EN 14511)		
ROOM	COOLING (°C)	CENTRAL HEATING (°C)
Temp. INTERNAL AIR - EXTERNAL AIR (db/wb)	27/19 - 35/24	20/15 - 7/6



21.1

UI THOR TECHNICAL DATA

UI THOR		9	12	18
Heating performance				
Rated output power	Btu/h (kW)	10,000 (2.93)	13,000 (3.81)	18.400 (5,39)
Rated absorbed power	W	21	23	36
Room temperature	°C	0-30	0-30	0-30
Cooling performance				
Rated output power	Btu/h (kW)	9,000 (2.64)	12.000 (3,52)	18.000 (5,28)
Rated absorbed power	W	21	23	36
Room temperature	°C	16-32	16-32	16-32
General data				
Air flow rate (max. - med. - min.)	m ³ /h	460-300-260	530-400-350	800-600-500
Sound pressure (max. - med. - min.)	dB(A)	37-32-22	37-32-22	41-37-31
Sound power	dB(A)	54	55	56
Dimensions (H x L x D)	mm	292x729x204	296x805x205	321x971x230
Net/gross weight	kg	8/10,5	8.7/11.5	11.2/14.6
Liquid/gas refrigerant connections	mm(inch)	6.35 (1/4) 9.52 (3/8)	6.35 (1/4) 9.52 (3/8)	6.35 (1/4) 12.7 (1/2)

THE REPORTED NOMINAL DATA REFERS TO THE FOLLOWING CONDITIONS (in compliance with EN 14511)

ROOM	COOLING (°C)	CENTRAL HEATING (°C)
Temp. INTERNAL AIR - EXTERNAL AIR (db/wb)	27/19 - 35/24	20/15 - 7/6

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COMBINATIONS BETWEEN UE MULTI AND UI THOR

The different EUREKA packages can be coupled to the UI CLIM (THOR UI, to be purchased separately) in different combinations. *The suitable combinations to be respected are shown in the following table*

EUREKA Model	No. of UI THOR indoor units that can be coupled	UI THOR internal units power outputs				
		9	12	18	12+12	12+18
EUREKA MONO 9/26 EUREKA MONO 9/35	1	9	-	-	-	-
EUREKA MONO 12/26 EUREKA MONO 12/35	1	12	-	-	-	-
EUREKA DUAL 18/26 EUREKA DUAL 18/35	2	9+9	9+12	9+18	12+12	12+18
EUREKA TRIAL 27/26 EUREKA TRIAL 27/35	2	9+9	9+12	9+18	12+12	12+18
	3	9+9+9	9+9+12	9+9+18	9+12+12	12+12+12



EUREKA Optionals

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OPTIONALS FOR EUREKA

UI CLIM INTERNAL UNITS THAT CAN BE COUPLED		Code
THOR 9 IU - 9,000 BTU/h wall-mounted direct expansion unit in cooling		3.035031
UI THOR 12 - 12,000 BTU/h wall-mounted direct expansion unit in cooling		3.035033
UI THOR 18 - 18,000 BTU/h wall-mounted direct expansion unit in cooling		3.035035
TEMPERATURE CONTROL OPTIONALS		Code
CRONO 7 - weekly wired digital chrono-thermostat with potential-free contacts		3.021622
CRONO 7 WIRELESS - weekly wireless digital chrono-thermostat with potential-free contacts		3.021624
Wireless Room Probe Concentrator - consisting of a concentrator and a wireless room probe		3.030908
Wireless Room Probe - probe added to the Kit code 3.030908, up to 2 (3 probes) can be provided		3.030906
Remote Panel - weekly wired digital chrono-thermostat with remote control of operating calendars		3.030863
Flow Temperature Probe Kit		3.030913
Safety Marker Thermostat Kit		3.013794
Configurable Relay Interface Kit - to be installed inside UCI EUREKA, features 3 configurable relays		3.015350
Zone Control Unit Kit V2 - P.C.B. to manage up to 3 booster pumps (1 Dir. + 2 Mix.)		3.030912
DOMINUS V2 Kit - to manage system via the Dominus App		3.034903
OTHER OPTIONALS FOR UCI EUREKA		Code
Condensate drain pump kit		3.026374
Condensate passivator kit		3.019857
Granulate reload kit for condensate passivator		3.019865
Antifreeze kit - down to -15°C outside		3.017324
Polyphosphate salt dispenser kit		3.017323
Additional expansion vessel kit (2 litres)		3.032168
Bottom guard kit		3.032167
Universal connection kit		3.011667
System tap kit		3.5324
System tap kit with filter		3.015854
Mixing valve kit - can be used coupled with 3.030912, including flow probe and safety thermostat		3.027084



EUREKA Optionals

OPTIONALS FOR EUREKA (CONTINUED)

OPTIONAL DIM ZONE	Code
ErP BASE DIM Kit - 1 direct zone, to be provided with code 3.015350	3.025606
ErP DIM 2 ZONE Kit- 2 direct zones	3.025607
ErP DIM 3 ZONE Kit- 3 direct zones	3.025608
ErP DIM ABT Kit - 1 direct zone and 1 mixed zone	3.025609
ErP DIM A/2BT Kit - 1 direct zone and 2 mixed zones	3.025610
Low Temperature Safety Kit - to be used with direct low temperature zone	3.013794
Interception cock kit for DIM kit - including two 1" taps and 3/4" reducers	3.014948
OTHER OPTIONALS FOR UE THOR & UE MULTI	Code
Floor mount kit for UE THOR	3.035408
Floor mount kit for UE MULTI	3.035409
Wall bracket kit, depth 700 mm	3.034758
OPTIONAL SOLAR THERMAL SYSTEM	Code
SOLARSMART 110 R - natural circulation solar package with 105-litre DHW tank, red tile	3.029660
SOLARSMART 110 - natural circulation solar package with 105-litre DHW tank, white	3.029661
SOLARSMART 150 R - natural circulation solar package with 140-litre DHW tank, red tile	3.029662
SOLARSMART 150 - natural circulation solar package with 140-litre DHW tank, white	3.029663
SOLARSMART 220 R - natural circulation solar package with 210-litre DHW tank, red tile	3.029664
SOLARSMART 220 - natural circulation solar package with 210-litre DHW tank, white	3.029665
SOLARSMART 260 R - natural circulation solar package with 245-litre DHW tank, red tile	3.029666
SOLARSMART 260 - natural circulation solar package with 245-litre DHW tank, white	3.029667
Pressure reducer - 3/4" M/F couplings, 3 bar calibration	3.029919
Antifreeze electric resistance - frost protection from 0°C to -13°C outside	3.029920
Solar valve kit - to be coupled with wall-mounted instantaneous boilerers	3.018911
3/4" thermostatic mixing valve kit	3.019099



EUREKA Optionals

24

TEMPERATURE CONTROL DEVICES

This chapter describes the temperature control device optionals that can be coupled with the EUREKA system. Also consider that EUREKA comes with an external probe as standard, which must always be installed to ensure the system works properly.

24.1

REMOTE PANEL

It is an electronic device equipped with a back-lit display to control and adjust the room's temperature and humidity.

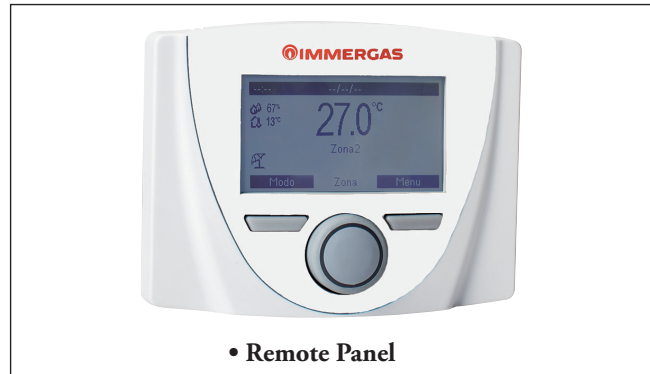
The kit must be connected to the UCI EUREKA ModBus port, where the read room temperature is communicated.

It allows you to set two levels of room temperature setpoint, one called Comfort Setpoint (kept within the time slots) and one called Economy Setpoint (outside the time slots), on a weekly schedule.

The kit is powered at 24 Vdc directly by UCI EUREKA.

• Remote Panel

code 3.030863



• Remote Panel

24.2

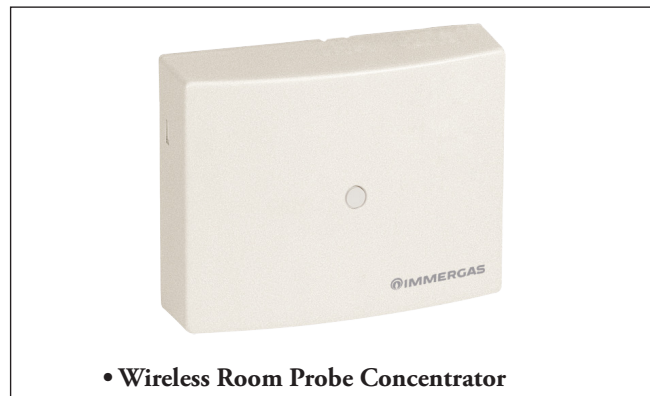
WIRELESS ROOM PROBE

It is a room probe that detects the temperature and humidity in the room. The read temperature is communicated via radio frequency to the data concentrator, connected to the UCI EUREKA terminal block. The *Room Probe Concentrator Kit* consists of the concentrator and 1 wireless room probe, with the possibility of adding another 2 with the *Wireless Room Probe Kit*.

The kit must be connected to the UCI EUREKA M3 BUS port. The concentrator is powered at 24 Vdc directly by UCI EUREKA.

• Wireless Room Probe Concentrator code 3.030908

• Wireless Room Probe code 3.030906



• Wireless Room Probe Concentrator

24.3

CRONO 7 - CRONO 7 WIRELESS

It is a backlit digital On/Off chrono-thermostat. It allows you to set two levels of room temperature setpoint, one called Comfort Setpoint (kept within the time slots) and one called Economy Setpoint (outside the time slots), on a weekly schedule.

Since there is no communication with the EUREKA system, the calendars set on CRONO 7 must be replicated on the UCI EUREKA electronics, from the boilerer control panel.

It is connected to the appliance with only 2 wires, by means of which it requests air conditioning (central heating or cooling). Power is supplied by 2 1.5 V "AA" batteries.

The CRONO 7 WIRELESS version consists of a thermostat and receiver that communicate via radio frequency, avoiding electrical wiring.



• CRONO 7

• CRONO 7

• CRONO 7 WIRELESS

code 3.021622

code 3.021624



EUREKA Optionals

TEMPERATURE CONTROL DEVICES (CONTINUED)

24.4

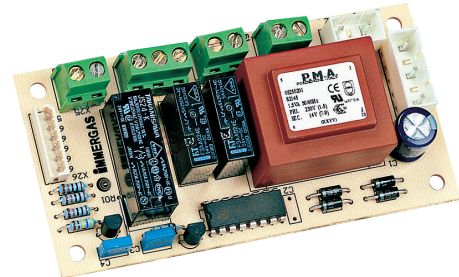
CONFIGURABLE RELAY INTERFACE KIT

This P.C.B. has 3 configurable relays from the UCI EUREKA control panel, which can manage up to 2 direct hydraulic thermal zones.

These zones can be controlled by the various room devices described above.

The kit must be mounted inside the UCI EUREKA control panel, which also powers it.

- **Configurable Relay Interface Kit** code 3.015350



- **Configurable Relay Interface Kit**

24.5

V2 ZONE CONTROL UNIT KIT

This control unit allows you to control up to 3 hydraulic thermal zones (1 direct + 2 mixed).

These zones can be controlled by the various room devices described above.

The kit must be connected to the UCI EUREKA DimBus port. The kit is powered at 230 Vac via a dedicated power supply.

- **Zone Control Unit V2 Kit** code 3.030912



- **V2 Zone Control Unit Kit**

24.6

DOMINUS V2 INTERFACE BOARD KIT

Using the simple and intuitive DOMINUS app, you can control the system and view its operation using a tablet, smartphone and/or laptop.

The DOMINUS V2 interface board kit must be installed interposed with a wireless modem/router (not supplied).

The app can be downloaded for free from all stores of your operating system.

The kit must be connected to the UCI EUREKA ModBus port. The kit is powered at 230 Vac directly by UCI EUREKA.

- **DOMINUS V2** code 3.034903



- **DOMINUS V2**



EUREKA Optionals

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ErP DIM BASE KIT



• ErP DIM BASE Kit code 3.025606

The ErP DIM BASE kit consists of the frame, the open hydraulic manifold, 1 low-power consumption electric pump and pipes with hydraulic fittings.

This pump can operate at different speeds with proportional pressure, constant pressure or constant speed.

In order to connect ErP DIM BASE to UCI EUREKA it is required to install the Configurable Relay Interface Kit code 3.015350, to be purchased separately.

This kit is to be used when the pump supplied as standard with the heat generator is undersized to carry water throughout the entire system. With the acquisition of the outside temperature, the EUREKA electronics allow you to set a climate curve capable of varying the flow temperature based on the outside temperature

25.1

ErP 2-ZONE & 3-ZONE DIM KIT



• ErP 3-Zone DIM Kit code 3.025608

ErP DIM 2-Zone & 3-Zone kits consists of the frame, the open hydraulic manifold, low-consumption electric pumps and pipes with hydraulic fittings.

These pumps can operate at different speeds with proportional pressure, constant pressure or constant speed.

All components are already assembled and ready to work in combination with the UCI EUREKA heat generator, part of the EUREKA package.

Two different kits are:

- ErP 2-Zone DIM Kit code 3.025607;
- ErP 3-Zone DIM Kit code 3.025608.

These kits are to be used for the management of systems divided into two or three zones. With the acquisition of the outside temperature, the EUREKA electronics allows you to set climate curves, one for each zone, capable of varying the flow temperature based on the outside temperature.



EUREKA Optionals

25.2

ErP ABT & A/2BT DIM KIT



The ErP ABT & A/2BT DIM kits are composed of a frame, open hydraulic manifold, low electric consumption electric pumps, three-way mixing valve, pipes with hydraulic fittings and thermometers for temperature reading.

These pumps can operate at different speeds with proportional pressure, constant pressure or constant speed.

All components are already assembled and ready to work in combination with the UCI EUREKA heat generator, part of the EUREKA package.

Two different kits are:

- ErP ABT DIM Kit, 1 direct + 1 mixed code 3.025609;
- ErP A/2BT DIM Kit, 1 direct + 2 mixed code 3.025610.

These kits are to be used to control differential temperature systems and/or divided into two or three zones.

With the acquisition of the outside temperature, the EUREKA electronics allows you to set climate curves, one for each zone, capable of varying the flow temperature based on the outside temperature.

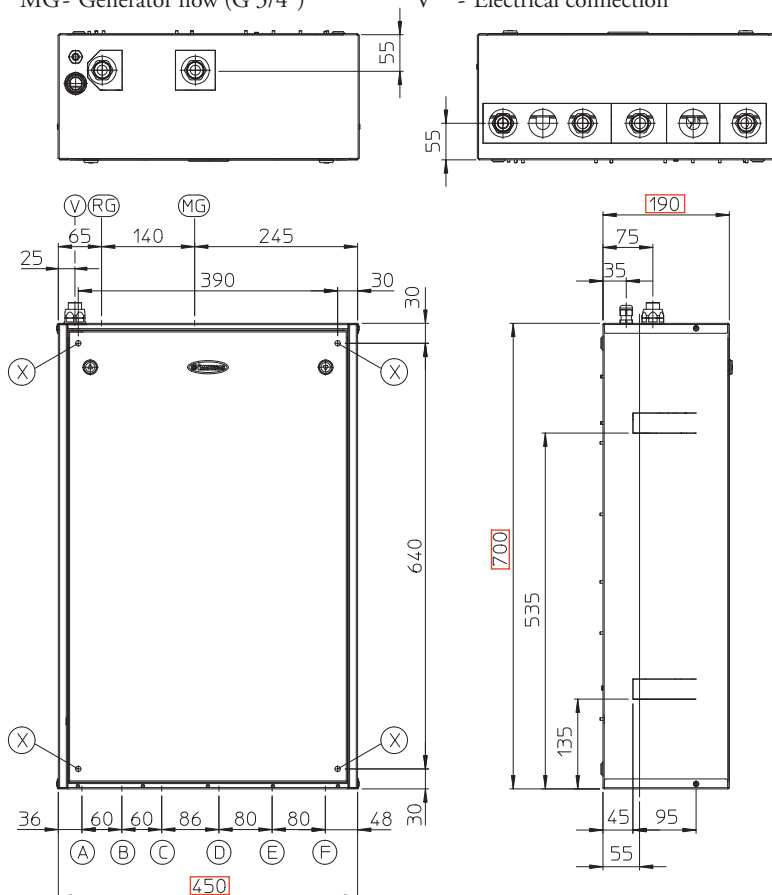
25.3

ErP DIM KIT DIMENSIONS AND COUPLINGS

KEY:

RG - Generator return (G 3/4")
MG - Generator flow (G 3/4")

X - Holes for wall-hanging of Kit (off-wall)
V - Electrical connection



ErP DIM BASE Kit code 3.025606

A - Direct zone 1 return (G 3/4")
F - Direct zone 1 flow (G 3/4")

ErP 2 Zone DIM Kit code 3.025607

A - Direct zone 1 return (G 3/4")
C - Direct zone 2 return (G 3/4")
D - Direct zone 2 flow (G 3/4")
F - Direct zone 1 flow (G 3/4")

ErP 3 Zone DIM Kit code 3.025608

A - Direct zone 1 return (G 3/4")
B - Direct zone 3 return (G 3/4")
C - Direct zone 2 return (G 3/4")
D - Direct zone 2 flow (G 3/4")
E - Direct zone 3 flow (G 3/4")
F - Direct zone 1 flow (G 3/4")

ErP DIM ABT Kit code 3.025609

A - Direct zone 1 return (G 3/4")
B - Mixed zone 2 return (G 1")
E - Mixed zone 2 flow (G 1")
F - Direct zone 1 flow (G 3/4")

ErP DIM A/2BT Kit code 3.025610

A - Direct zone 1 return (G 3/4")
B - Mixed zone 2 return (G 1")
C - Mixed zone 3 return (G 1")
D - Mixed zone 2 flow (G 1")
E - Mixed zone 3 flow (G 1")
F - Direct zone 1 flow (G 3/4")



EUREKA Optionals

25.4

ErP DIM KIT TECHNICAL DATA

		Erp DIM Base kit code 3.025606
Maximum nominal pressure	bar	3
Maximum operating pressure	°C	90
Water content in device	l	0,9
Empty device weight	kg	12,5
Full device weight	kg	13,9
Electrical connection	V/Hz	230/50
Maximum input	A	0,60
Installed electric power	W	60
Power in stand-by	W	0
Electric plant protection	-	IPX5D

		ErP 2-Zone DIM Kit code 3.025607	ErP 3-Zone DIM Kit code 3.025608
Maximum nominal pressure	bar	3	3
Maximum operating pressure	°C	90	90
Water content in device	l	1,3	1,7
Empty device weight	kg	17,3	19,8
Full device weight	kg	18,6	21,5
Electrical connection	V/Hz	230/50	230/50
Maximum input	A	0,62	0,95
Installed electric power	W	100	135
Power in stand-by	W	1.2	1.2
Electric plant protection	-	IPX5D	IPX5D

		ErP ABT DIM KIT code 3.025609	ErP A/2BT DIM Kit code 3.025610
Maximum nominal pressure	bar	3	3
Maximum operating pressure	°C	90	90
Low circuit control temperature minimum set-point temperature	°C	25 or 35	25 or 35
Low circuit control temperature maximum set-point temperature	°C	50 or 75	50 or 75
Safety thermostat (low temperature) trip	°C	55	55
Water content in device	l	1,5	1,9
Empty device weight	kg	19,7	23,2
Full device weight	kg	21,2	25,1
Electrical connection	V/Hz	230/50	230/50
Maximum input	A	0,62	0,95
Installed electric power	W	100	135
Power in stand-by	W	1,2	1,2
Electric plant protection	-	IPX5D	IPX5D

For information on pump performance and available head flow rate-graphs, please refer to the dedicated Instruction Booklets.

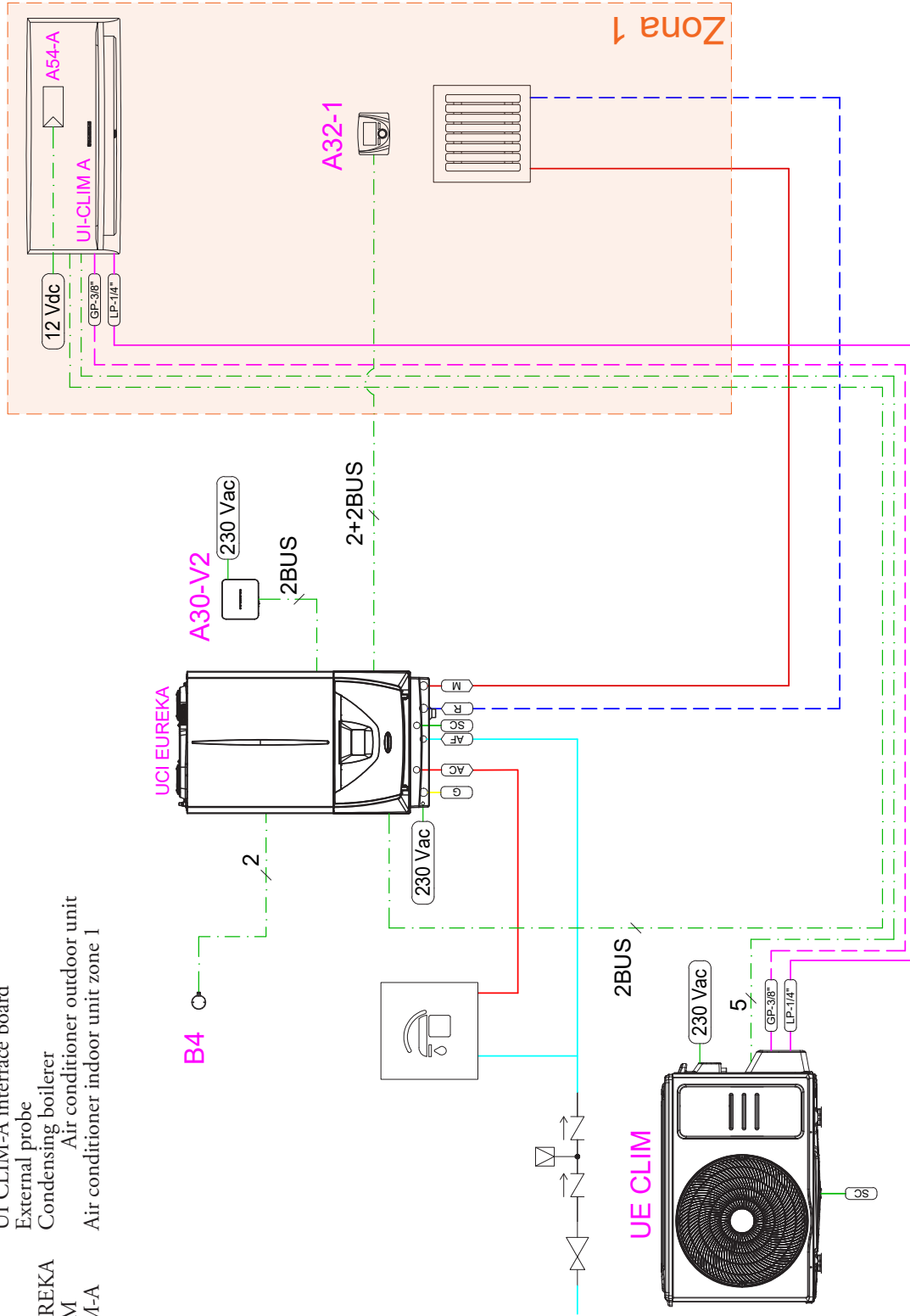


EUREKA Functional Diagrams

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EUREKA MONO WITH SINGLE-ZONE SYSTEM HYDRAULIC DIAGRAM

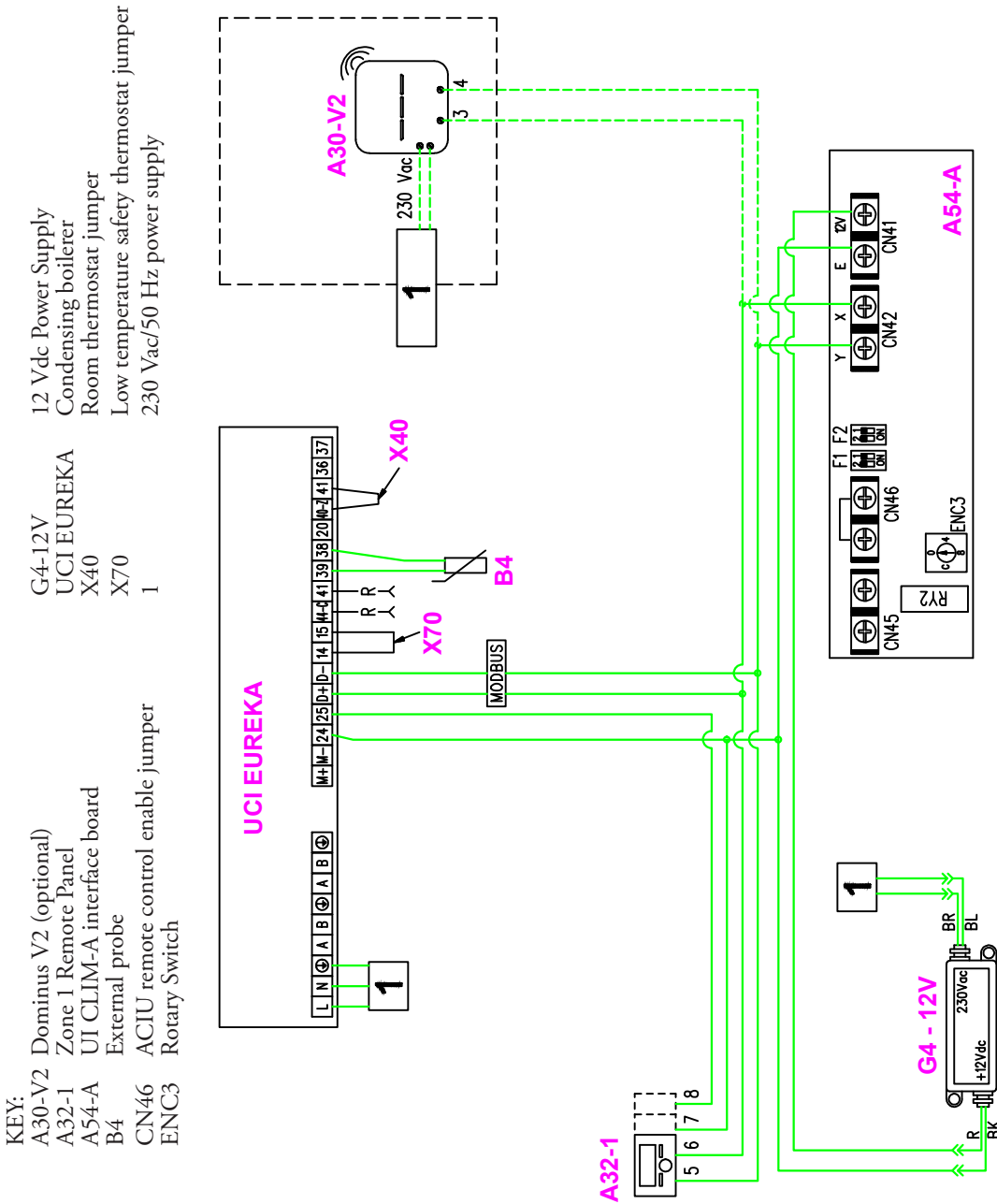
Ref. IM_2162



EUREKA Functional Diagrams

26.1

EUREKA MONO WITH SINGLE-ZONE SYSTEM WIRING DIAGRAM



NOTE: an A54 interface board must be provided for each UI CLIM present, to be installed inside the direct expansion terminal. The same board will need to be powered at 12 Vdc using the power supply supplied as standard. Each A54 board must be identified by an unambiguous address, modifiable by turning the ENC3 rotary switch (recommended A for A54-A, B for A54-B, C for A54-C). For the connection between UI CLIM and UE CLIM, please see [page 31](#).

EUREKA Functional Diagrams

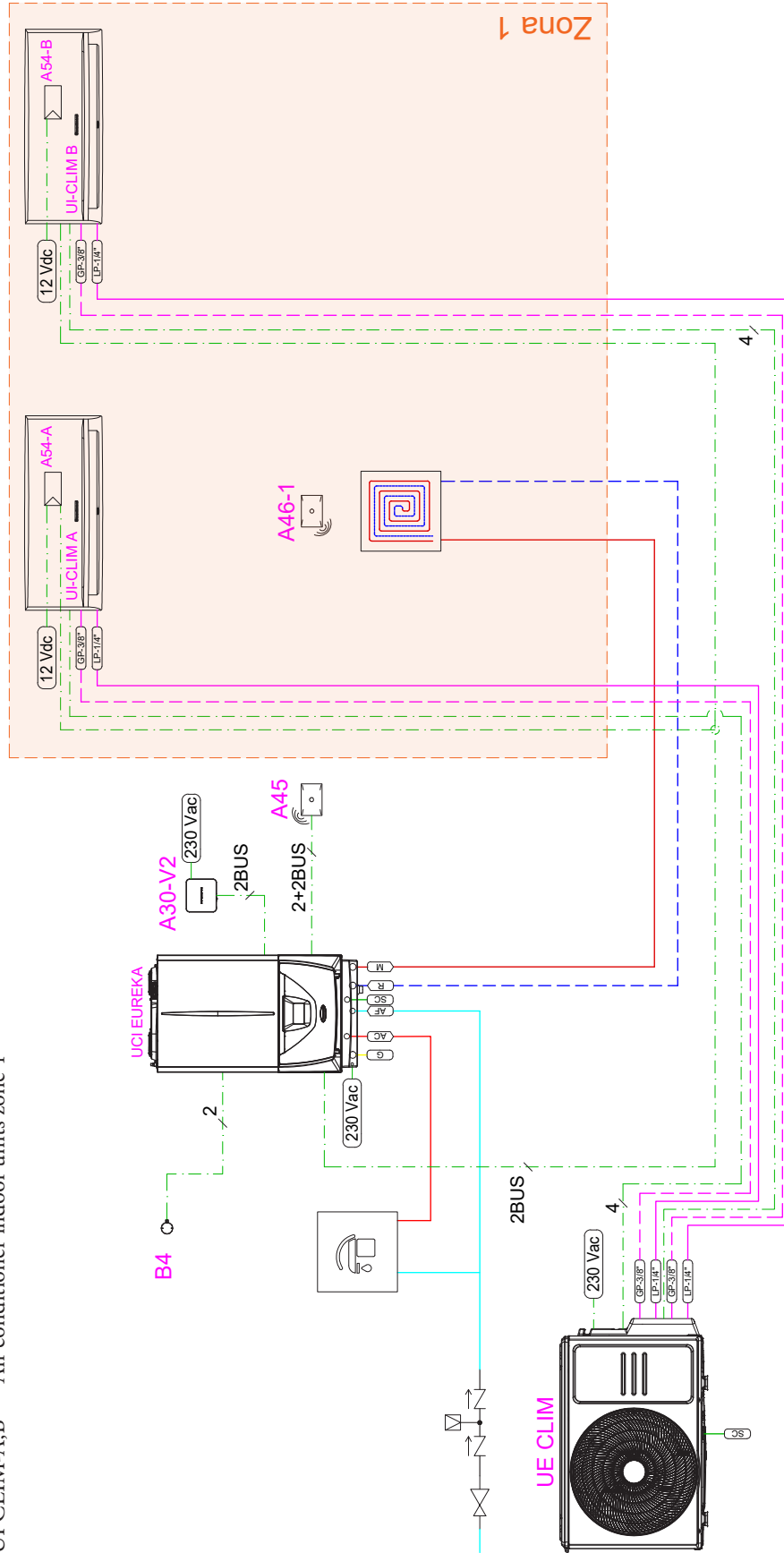
27

EUREKA DUAL WITH SINGLE-ZONE SYSTEM HYDRAULIC DIAGRAM

Ref. IM_2163

- KEY**
 A30-V2
 A45
 A46-1
 A54-A
 A54-B
 B4
 UCI EUREKA
 UE CLIM
 UI CLIM-A,B

- DOMINUS V2
 Room probe concentrator
 Zone 1 Wireless Room Probe
 UI CLIM-A interface board
 UI CLIM-B interface board
 External probe
 Condensing boilerer
 Air conditioner outdoor unit
 Air conditioner indoor units zone 1



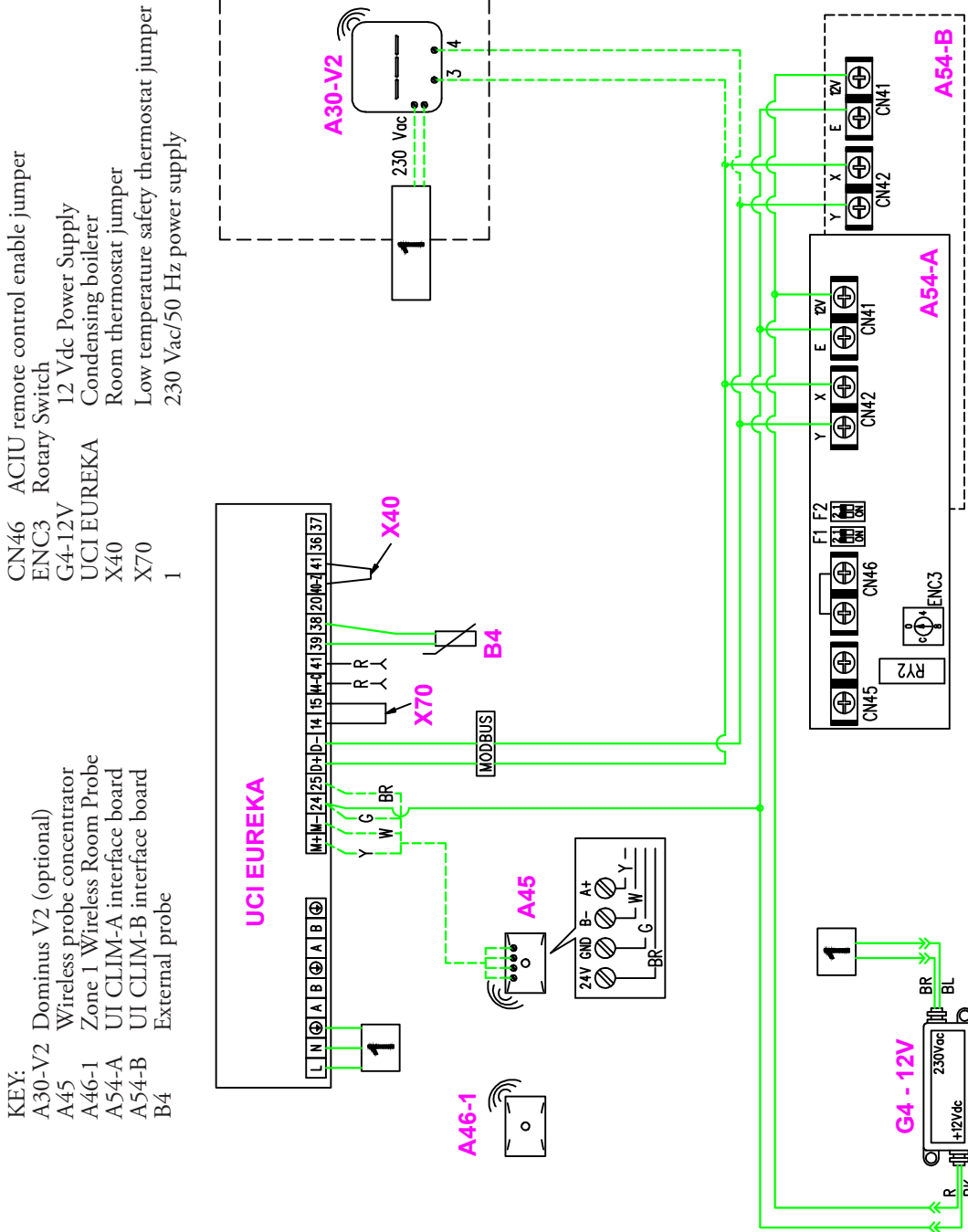
NOTE: this functional diagram is provided by way of example, but not all-comprehensive. It is also necessary to channel the condensate drain from the generators.



EUREKA Functional Diagrams

27.1

EUREKA DUAL WITH SINGLE-ZONE SYSTEM WIRING DIAGRAM



- KEY:
- A30-V2 Dominus V2 (optional)
 - A45 Wireless probe concentrator
 - A46-1 Zone 1 Wireless Room Probe
 - A54-A UI CLIM-A interface board
 - A54-B UI CLIM-B interface board
 - B4 External probe
 - CN46 ACIU remote control enable jumper
 - ENC3 Rotary Switch
 - G4-12V 12 Vdc Power Supply
 - UCI EUREKA
 - X40 Condensing boiler
 - X70 Room thermostat jumper
 - 1 Low temperature safety thermostat jumper
 - 230 Vac/50 Hz power supply

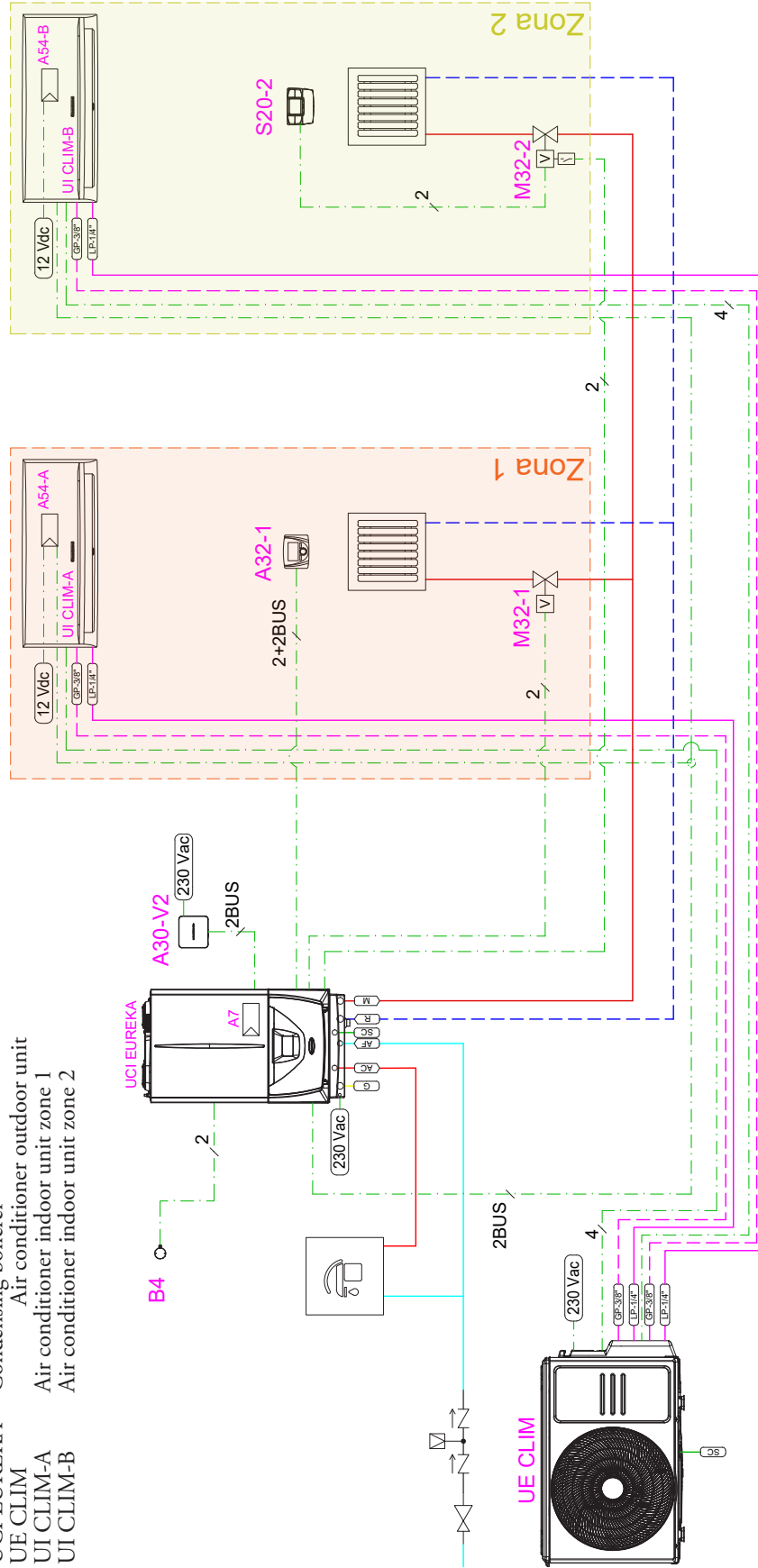
NOTE: an A54 interface board must be provided for each UI CLIM present, to be installed inside the direct expansion terminal. The same board will need to be powered at 12 Vdc using the power supply supplied as standard. Each A54 board must be identified by an unambiguous address, modifiable by turning the ENC3 rotary switch (recommended A for A54-A, B for A54-B, C for A54-C). For the connection between UI CLIM and UE CLIM, please see [page 32, 33](#).

EUREKA Functional Diagrams

Ref. IM_2100

KEY

- A7 Relay interface kit
- A30-V2 DOMINUS V2
- A32-1 Zone 1 Remote Panel
- A54-A UI CLIM-A interface board
- A54-B UI CLIM-B interface board
- B4 External probe
- M32-1 Zone 1 valve
- M32-2 Zone 2 valve
- S20-2 Zone 2 room thermostat
- UCI EUREKA Condensing boilerer
- UE CLIM Air conditioner outdoor unit
- UI CLIM-A Air conditioner indoor unit zone 1
- UI CLIM-B Air conditioner indoor unit zone 2



NOTE: this functional diagram is provided by way of example, but not all-comprehensive. It is also necessary to channel the condensate drain from the generators.



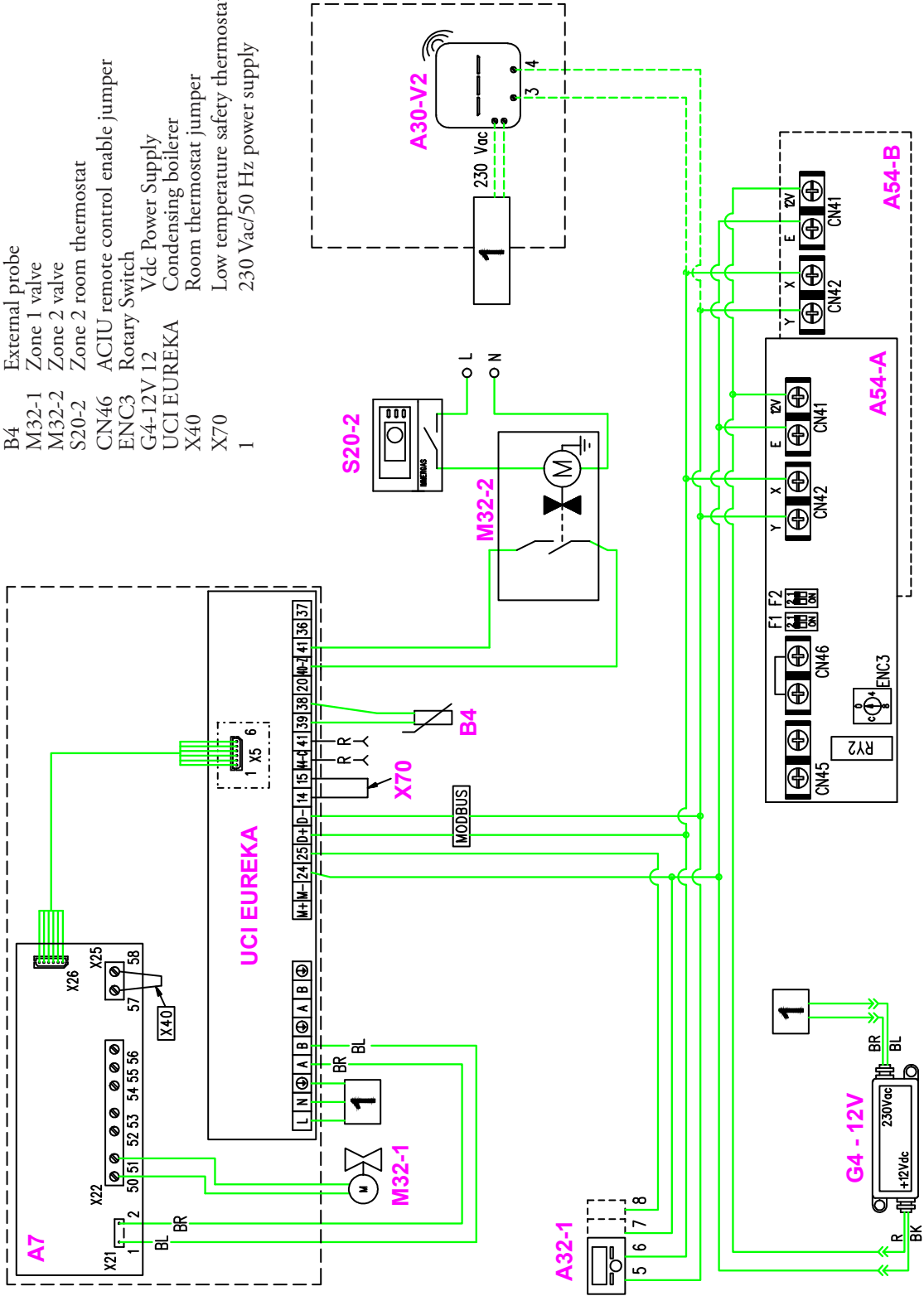
EUREKA Functional Diagrams

28.1

EUREKA DUAL WITH DOUBLE-ZONE SYSTEM WIRING DIAGRAM

NOTE: an A54 interface board must be provided for each UI CLIM present, to be installed inside the direct expansion terminal. The same board will need to be powered at 12 Vdc using the power supply supplied as standard. Each A54 board must be identified by an unambiguous address, modifiable by turning the ENC3 rotary switch (recommended A for A54-A, B for A54-B, C for A54-C). For the connection between UI CLIM and UE CLIM, please see [page 32](#), [33](#).

- KEY:**
- A7 Relay interface kit
 - A30-V2 Dominus V2 (optional)
 - A32-1 Zone 1 Remote Panel
 - A54-A UI CLIM-A interface board
 - A54-B UI CLIM-B interface board
 - B4 External probe
 - M32-1 Zone 1 valve
 - M32-2 Zone 2 valve
 - S20-2 Zone 2 room thermostat
 - CN46 ACIU remote control enable jumper
 - ENC3 Rotary Switch
 - G4-12V 12 Vdc Power Supply
 - UCI EUREKA Condensing boilerer
 - X40 Room thermostat jumper
 - X70 Low temperature safety thermostat jumper
 - 1 230 Vac/50 Hz power supply



During the useful life of the products, performance is affected by external factors, e.g. the hardness of the DHW, atmospheric agents, deposits in the system and so on.

The data declared refer to new products that are correctly installed and used with respect to the Standards in force.

N.B.: correct periodic maintenance is highly recommended.

NOTE: Depending on the specific design and installation conditions, the drawings and graphical elaboration stated in this documentation can request further integration or modifications, according to that envisioned by the Standards and technical regulations in force and applicable. It is the professional's responsibility to identify the applicable provisions, to evaluate compliance with these in each case and the necessity of any changes to diagrams and drawings.

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Design, manufacture and after-sales service
for gas boilers, gas water heaters
and related accessories

To request further specific details, sector Professionals can also
use the following e-mail address:
consulenza@immergas.com

During the useful life of the products, performance is affected by
external factors, e.g. the hardness of the DHW, atmospheric agents,
deposits in the system and so on.

The data declared refer to new products that are correctly installed
and used with respect to the Standards in force.

N.B.: correct periodic maintenance is highly recommended.



The instruction manual is printed on
environmentally-friendly paper.

