

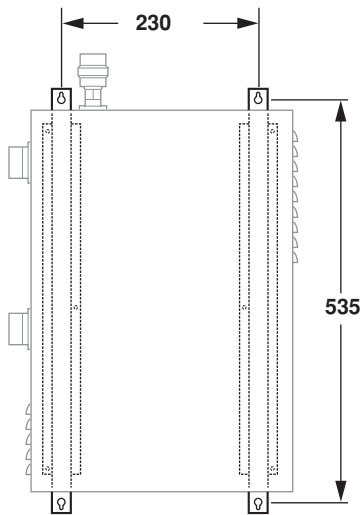


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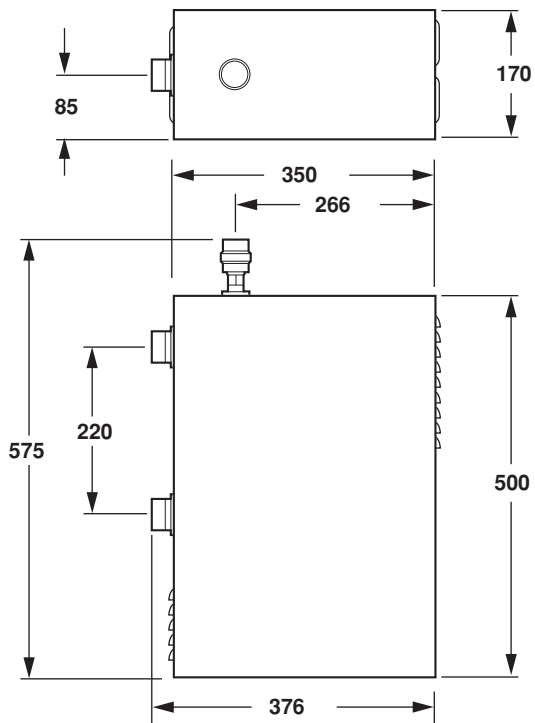
# INSTALLATION AND OPERATION MANUAL

**Heater kit for air to water heat pump system**

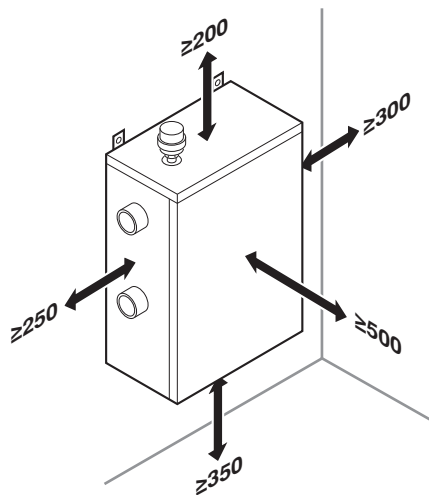
EKMBUHBA6V3



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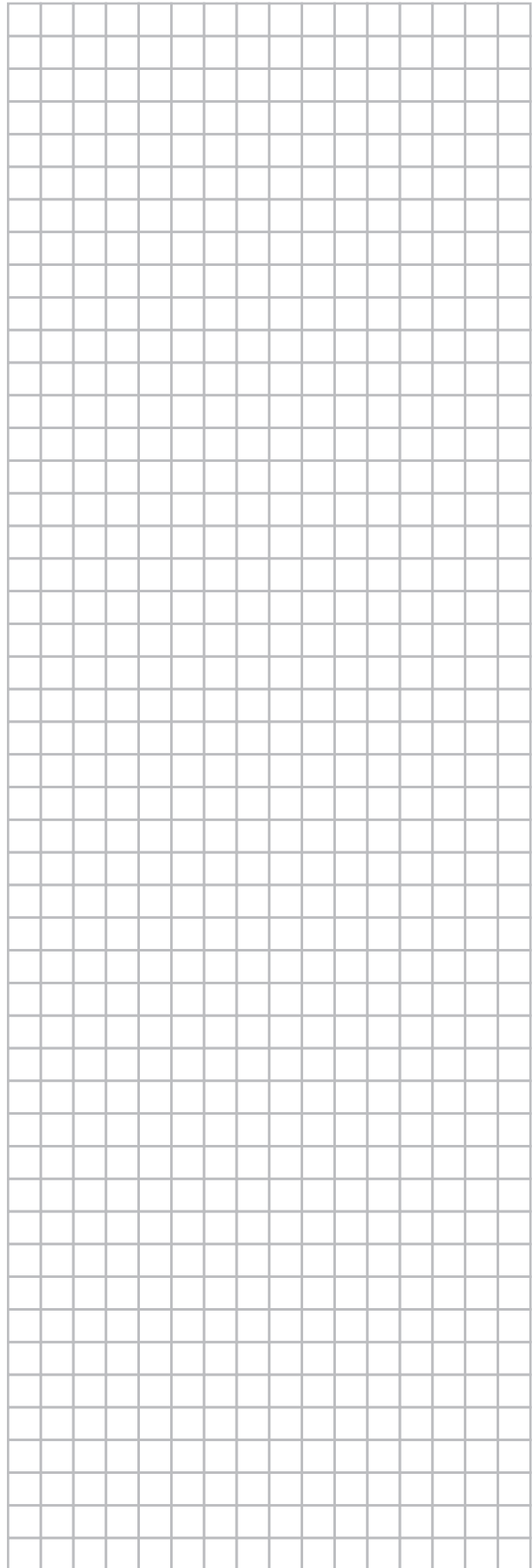


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## NOTES



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READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION. KEEP THIS MANUAL IN A HANDY PLACE FOR FUTURE REFERENCE.

IMPROPER INSTALLATION OR ATTACHMENT OF EQUIPMENT OR ACCESSORIES COULD RESULT IN ELECTRIC SHOCK, SHORT-CIRCUIT, LEAKS, FIRE OR OTHER DAMAGE TO THE EQUIPMENT. BE SURE ONLY TO USE ACCESSORIES MADE BY DAIKIN WHICH ARE SPECIFICALLY DESIGNED FOR USE WITH THE EQUIPMENT AND HAVE THEM INSTALLED BY A PROFESSIONAL.

ALL ACTIVITIES DESCRIBED IN THIS MANUAL SHALL BE CARRIED OUT BY A LICENSED TECHNICIAN.

BE SURE TO WEAR ADEQUATE PERSONEL PROTECTION EQUIPMENT (PROTECTION GLOVES, SAFETY GLASSES, ...) WHEN PERFORMING INSTALLATION, MAINTENANCE OR SERVICE TO THE UNIT.

IF UNSURE OF INSTALLATION PROCEDURES OR USE, ALWAYS CONTACT YOUR DAIKIN DEALER FOR ADVICE AND INFORMATION.

THE UNIT DESCRIBED IN THIS MANUAL IS DESIGNED FOR INDOOR INSTALLATION ONLY AND FOR AMBIENT TEMPERATURES RANGING 5°C~35°C.

The English text is the original instruction. Other languages are translations of the original instructions.

## 1. DEFINITIONS

## 1.1. Meaning of warnings and symbols

Warnings in this manual are classified according to their severity and probability of occurrence.

**DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE**

Indicates situations that may result in equipment or property-damage accidents only.



This symbol identifies useful tips or additional information.

Some types of danger are represented by special symbols:



Electric current.



Danger of burning and scalding.

## 1.2. Meaning of used terms

**Installation manual:**

Instruction manual specified for a certain product or application, explaining how to install, configure and maintain it.

**Operation manual:**

Instruction manual specified for a certain product or application, explaining how to operate it.

**Maintenance instructions:**

Instruction manual specified for a certain product or application, which explains (if relevant) how to install, configure, operate and/or maintain the product or application.

**Dealer:**

Sales distributor for products as per the subject of this manual.

**Installer:**

Technical skilled person who is qualified to install products as per the subject of this manual.

**User:**

Person who is owner of the product and/or operates the product.

**Service company:**

Qualified company which can perform or coordinate the required service to the unit.

**Applicable legislation:**

All international, European, national and local directives, laws, regulations and/or codes which are relevant and applicable for a certain product or domain.

### Accessories:

Equipment which is delivered with the unit and which needs to be installed according to instructions in the documentation.

### Optional equipment:

Equipment which can optionally be combined to the products as per the subject of this manual.

### Field supply:

Equipment which needs to be installed according to instructions in this manual, but which are not supplied by Daikin.

## 2. GENERAL SAFETY PRECAUTIONS

All activities described in this manual shall be carried out by an installer.

Be sure to wear adequate personal protection equipment (protection gloves, safety glasses, ...) when performing installation, maintenance or service to the unit.

If not sure of installation procedures or operation of the unit, always contact your local dealer for advice and information.

Improper installation or attachment of equipment or accessories could result in electric shock, short-circuit, leaks, fire or other damage to the equipment. Be sure only to use accessories and optional equipment made by Daikin which are specially designed for use with the products as of subject in this manual and have them installed by an installer.

The precautions listed here are divided into the following four types. They all cover very important topics, so be sure to follow them carefully.



### DANGER: ELECTRICAL SHOCK

- Switch off all power supply before removing the service panel or before making any connections or touching electrical parts.  
To avoid electric shock, be sure to disconnect the power supply 1 minute or more before servicing the electrical parts. Even after 1 minute, always measure the voltage at the terminals of main circuit capacitors or electrical parts and, before touching, be sure that those voltages are 50 V DC or less.
- When service panels are removed, live parts can be easily touched by accident.  
Never leave the heater kit unattended during installation or servicing when the service panel is removed.
- Do not touch the internal parts during and immediately after operation.  
Your hands may suffer burns if you touch the internal parts. To avoid injury, give the internal parts time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Do not touch any switch with wet fingers. Touching a switch with wet fingers can cause electrical shock.



### DANGER: DO NOT TOUCH PIPING AND INTERNAL PARTS

Do not touch the refrigerant piping, water piping or internal parts during and immediately after operation. The piping and internal parts may be hot or cold depending on the working condition of the unit.

Your hand may suffer burns or frostbite if you touch the piping or internal parts. To avoid injury, give the piping and internal parts time to return to normal temperature or, if you must touch them, be sure to wear protective gloves.




### WARNING

- Tear apart and throw away plastic packaging bags so that children will not play with them.  
Children playing with plastic bags face danger of death by suffocation.
- Safely dispose of packing materials. Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.



### CAUTION

- Earth the heater kit.  
Earthing resistance should be according to local laws and regulations.  
Be sure to establish an earth. Do not earth the heater kit to a utility pipe, surge absorber, or telephone earth. Incomplete earth may cause electrical shock. 
- Gas pipe.  
Ignition or explosion may occur if the gas leaks.
- Water pipe.  
Hard vinyl tubes are not effective earths.
- Lightning conductor or telephone earth wire.  
Electric potential may rise abnormally if struck by a lightning bolt.
- Install the power wire at least 1 meter away from televisions or radios to prevent image interference or noise.  
(Depending on the radio waves, a distance of 1 meter may not be sufficient to eliminate the noise.)
- Do not rinse the heater kit. This may cause electric shocks or fire.
- Do not install the heater kit in places such as the following:
- Where there is mist of mineral oil, oil spray or vapour.
  - Plastic parts may deteriorate, and cause them to fall out or water to leak.
  - Where corrosive gas, such as sulphurous acid gas, is produced.
  - Corrosion of copper pipes or soldered parts may cause the refrigerant to leak.
  - Where there is machinery which emits electromagnetic waves.
  - Electromagnetic waves may disturb the control system, and cause malfunction of the equipment.
  - Where flammable gases may leak, where carbon fibre or ignitable dust is suspended in the air or where volatile flammables, such as thinner or gasoline, are handled.
  - Such gases may cause a fire.
  - Where the air contains high levels of salt.
  - Where voltage fluctuates a lot, such as that in factories.
  - In vehicles or vessels.
  - Where acidic or alkaline vapour is present.

## 3. INTRODUCTION

### 3.1. General information

Thank you for purchasing this heater kit.

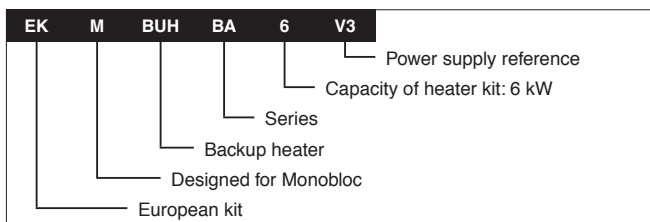
The heater kit can only be connected to the EBHQ outdoor unit (water piping) and to the EKCB indoor unit (electrical wiring).

The kit is designed for wall mounted indoor installation. It can operate during normal heat pump operation or as emergency heater. During normal operation the heater kit can assist if there is a capacity shortage. During emergency operation, heating is only done by the heater kit, not by the heat pump.

### 3.2. Scope of this manual

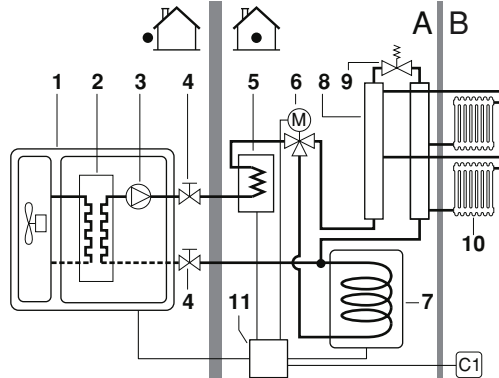
This manual describes the procedures for handling, installing and connecting the heater kit. This manual has been prepared to ensure adequate maintenance of the heater kit, and it will provide help if problems occur.

### 3.3. Model identification



### 3.4. General system setup

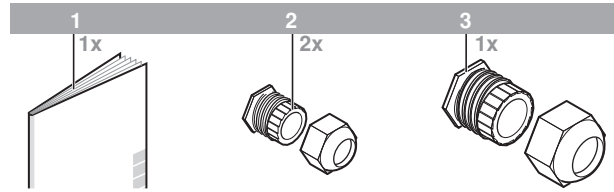
The heater kit is to be installed in series with the space heating water outlet of the EBHQ outdoor unit as shown in the figure below.



- 1 Outdoor unit
- 2 Heat exchanger
- 3 Pump
- 4 Shut-off valve
- 5 Heater kit
- 6 Motorized 3-way valve (optional)
- 7 Domestic hot water tank (optional)
- 8 Collector (field supply)
- 9 By-pass valve (field supply)
- 10 Radiator (field supply)
- 11 Control box
- A Installation place
- B Living room
- C1 Remote controller

## 4. ACCESSORIES

### 4.1. Accessories supplied with the heater kit



- 1 Installation and operation manual
- 2 Cable gland - small
- 3 Cable gland - large

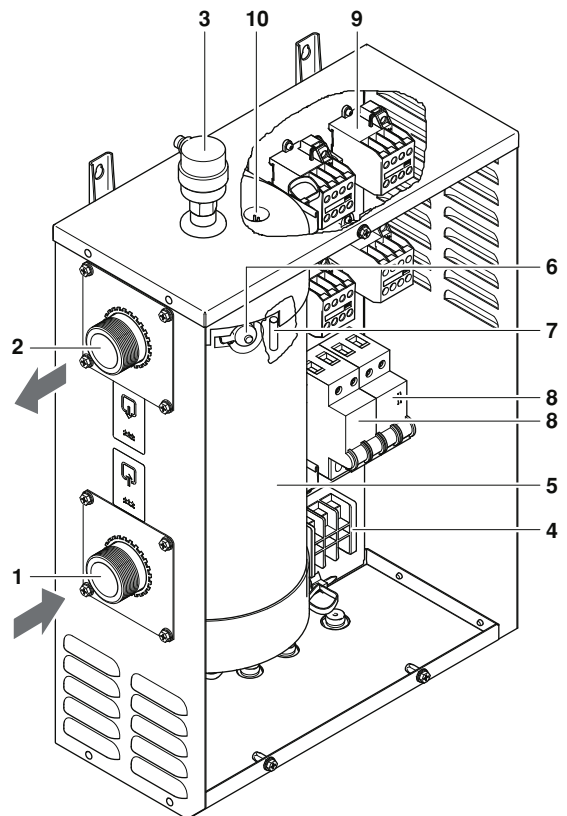
## 5. OVERVIEW OF THE HEATER KIT



### CAUTION

The total system (indoor and outdoor unit) is designed for combination with a Daikin heater kit. In case another heater kit is being used in combination with the Daikin indoor unit, Daikin cannot guarantee neither good operation nor reliability of the system. For those reasons Daikin cannot give warranty of the system in such case.

### 5.1. Main components



- 1 Water IN connection
  - 2 Water OUT connection
  - 3 Air purge
  - 4 Electrical connections
  - 5 Heater
  - 6 Thermal protector - manual reset
  - 7 Thermistor
  - 8 Overcurrent fuse
  - 9 Contactors
  - 10 Thermal fuse
- ➔ Flow direction

## 5.2. Safety devices



### CAUTION

The heater kit air purge connection may not be used for other purposes.

- Thermal protector — The heater in the heater kit is equipped with a thermal protector. The thermal protector is activated when the temperature becomes too high. When activated, the protector has to be reset on the heater of the heater kit by pressing the red button (for access, remove the cover of the kit).



### CAUTION

- The electrical box lid must only be opened by a licensed electrician.
- Switch off the power supply before opening the electrical box lid.

- Pressure relief valve — In case valves are installed between the outdoor unit and the heater kit and between the outlet and the load, a pressure relief valve (field supply) in accordance with relevant local laws and regulations, and with an opening pressure of maximum 4 bar must be installed on the water inlet of the heater kit.

## 6. INSTALLATION OF THE HEATER KIT



### CAUTION

- The heater kit can only be installed and used in combination with the EBHQ outdoor unit and EKCB indoor unit.
- The heater of the heater kit can only be connected to the space heating water outlet of the EBHQ outdoor unit. Other connections are not allowed.
- Only one heater kit can be connected to the EBHQ outdoor unit. It is not allowed to combine multiple heater kits in series or parallel.

### 6.1. Selecting an installation location

The heater kit is to be wall mounted in an indoor location that meets the following requirements:

- The installation location is frost-free.
- The space around the heater kit is adequate for servicing. (See [figure 3](#)).
- The space around the heater kit allows for sufficient air circulation.
- The installation surface is a flat and vertical non-combustible wall, capable of supporting the operation weight of the heater kit.
- There is no danger of fire due to leakage of inflammable gas.
- All piping lengths and distances have been taken into consideration.

Requirement	Value
Maximum allowable distance between the heater kit and the outdoor unit.	10 m

- During normal operation the heater kit will produce sound which could be observed as noise. The sound origin can be contactor activation. Therefore it is advisable to install the heater kit on a firm wall and not in nor close to a sound sensitive environment (e.g. bedroom).
- Do not install the heater kit in places with high humidity (e.g. bathroom).
- The equipment is not intended for use in a potentially explosive atmosphere.
- Do not install the heater kit in places often used as work place. In case of construction works (e.g. grinding works) where a lot of dust is created, the heater kit must be covered.
- Take care that in the event of a water leak, water can not cause any damage to the installation space and surroundings.
- Do not place any objects or equipment on top of the heater kit.
- Make sure that there are no external magnetic fields in the immediate vicinity of the flow switch, since these can impair device functioning.

### 6.2. Dimensions and service space

Unit of measurement: mm.

Dimensions of the heater kit, see [figure 2](#).

Required service space, see [figure 3](#).

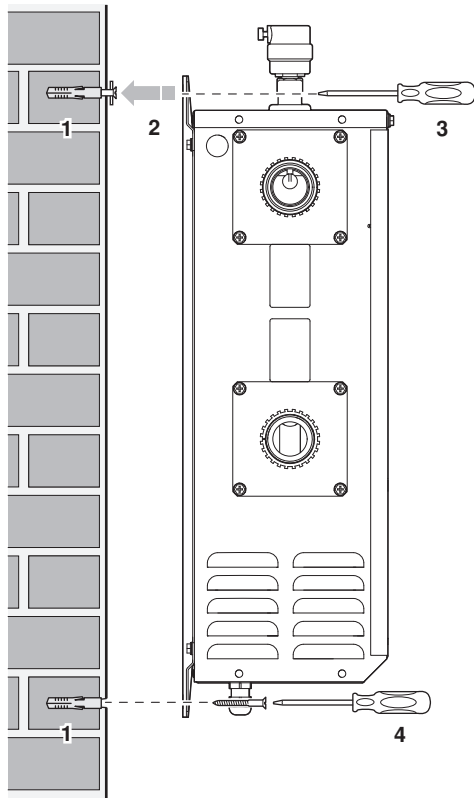
### 6.3. Installing the heater kit

- At delivery, the heater kit must be checked and any damage must be reported immediately to the carrier claims agent.
  - Check if all heater kit accessories (see "4. Accessories" on page 3) are enclosed.
- 1 Mark the fixation positions on the wall (2 on top and 2 at the bottom).

Make sure that the marks (2 by 2) are completely level and the dimensions of the marks are corresponding according to figure 1.

When the heater kit is not installed level, air might get trapped in the water circuit resulting in malfunctioning of the heater.

- 2 Drill 4 holes and install 4 plugs (suitable for M6).  
Plugs and screws are field supply.
- 3 Put the screws in the top plugs and hang the heater kit on the top screws.
- 4 Put the screws in the bottom plugs and fix the 4 screws firmly.



### 6.4. Connecting the water circuits

For details on connecting the water circuits and charging the system with water refer to the outdoor unit installation manual.

- 1 If required (see "5.2. Safety devices" on page 4) connect a pressure relief valve on the inlet of the heater kit (field supply, opening pressure maximum 4 bar).
- 2 Connect the heater water inlet to the space heating water outlet of the indoor unit. Connect the heater water outlet to the load. See figure in section "3.4. General system setup" on page 3.



#### NOTICE

Be careful not to deform the heater piping by using excessive force when connecting the piping.

Deformation of the piping can cause the heater to malfunction.

- 3 Charge the system with water.



#### NOTICE

Make sure the air purge of the heater is open (at least 2 turns).

### 6.5. Field wiring



#### CAUTION

- A main switch or other means for disconnection, having a contact separation in all poles, must be incorporated in the fixed wiring in accordance with relevant local laws and regulations.
- Switch off the power supply before making any connections.
- Use only copper wires.
- All field wiring and components must be installed by a licensed electrician and must comply with relevant local laws and regulations.
- Be sure to install the required fuses as mentioned on the electrical wiring diagram.
- The field wiring must be carried out in accordance with the wiring diagram supplied with the heater kit and the instructions given below.
- Never squeeze bundled cables and make sure that it does not come in contact with the piping and sharp edges.  
Make sure no external stress is applied to the terminal connections.
- Be sure to use a dedicated power supply. Never use a power supply shared by another appliance.
- Be sure to establish an earth. Do not earth the heater kit to a utility pipe, surge absorber, or telephone earth. Incomplete earth may cause electrical shock.
- Make sure all field wiring is insulated from the heater kit and piping or can resist temperatures up to 90°C.
- Be sure to install an earth leakage protector in accordance with relevant local laws and regulations. Failure to do so may cause electrical shock.



### CAUTION

- Equipment complying with EN/IEC 61000-3-12<sup>(a)</sup>
- This equipment complies with EN/IEC 61000-3-11<sup>(b)</sup> provided that the system impedance  $Z_{sys}$  is less than or equal to  $Z_{max}$  at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a system impedance  $Z_{sys}$  less than or equal to  $Z_{max}$ .  $Z_{max} = 0.29 \Omega$

- (a) European/International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current  $>16$  A and  $\leq 75$  A per phase.
- (b) European/International Technical Standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current  $\leq 75$  A.

## 6.6. Cable requirements

Item	Cable bundle	Description	Required number of conductors	Maximum running current
1	PS	Power supply	2 + GND	(a)
2	HV	Indoor unit control signal (High Voltage) and heater kit error feedback signal (Low Voltage)	5	(b)
3	LV	Backup heater R12T thermistor signal	2	(b)

- (a) Refer to the nameplate of the heater kit  
 (b) Minimum cable section is  $0.75 \text{ mm}^2$

Refer to the chapter "Field wiring" of the EKCB indoor unit installation manual for details where to use high voltage (HV) and low voltage (LV) cables.



### CAUTION

Select all cables and wire sizes in accordance with relevant local and national regulations.

## 6.7. Internal wiring - Parts table

Refer to the internal wiring diagram supplied with the heater kit (on the inside of the heater kit). The abbreviations used are listed below.

Part number	Description
E1H, E2H	Backup heater elements
F1B, F2B	Fuse backup heater (20 A 400 V)
F1U	Fuse (5 A T 250 V)
F1T	Thermal fuse backup heater
K1M, K2M	Contactor backup heater step
K5M, K6M	Contactor for backup heater (all pole disconnection)
Q1DI	Earth leakage protector (field supply)
Q1L	Thermal protector backup heater (manual reset)
R12T	Backup heater outlet thermistor
X1M, X2M, X15M	Terminal strip

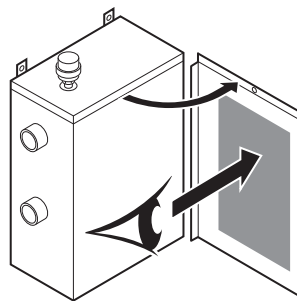
## 6.8. Procedure

### Connections to be made in the heater kit

Refer to the wiring diagram sticker on the inside of the heater kit front panel.



The electrical connection diagram can be found on the inside of the switch box cover.



#### 1 Power supply

Using the appropriate cable, connect the power supply cable to the appropriate terminals.



### CAUTION

Use a dedicated power circuit for the heater kit. Never use a power circuit shared by another appliance.



### NOTICE

The heater kit needs to be connected to a normal power supply. Connecting the heater kit to a benefit kWh rate power supply is only allowed in case the power supply is not shut off when benefit kWh rate is active. For details on benefit kWh rate power supplies, refer to the outdoor unit installation manual.

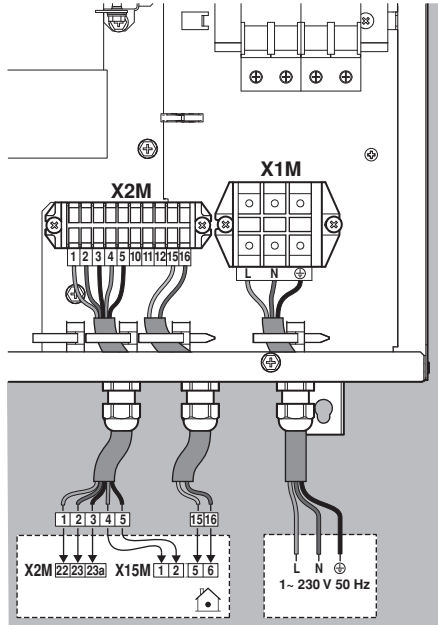


## 2 Heater kit step control, error feedback and thermistor connections

The EKMBUH\*6V3 heater kit default operates as a 2-step 6 kW heater. Step 1 delivers 3 kW heating capacity, step 2 delivers 6 kW heating capacity. These steps are controlled by the EKCB indoor unit automatically.

In case only limited heater capacity is required, the EKMBUH\*6V3 heater kit can be installed as a single step 3 kW heater as well.

- Possibility 1: 2 step, 6 kW installation  
Connect all heater step control signals as shown on the wiring diagram and in the figure below.



<b>X2M - 22</b>	Common
<b>X2M - 23</b>	Heater step 1 (3 kW)
<b>X2M - 23a</b>	Heater step 2 (6 kW)
<b>X15M - 1-2</b>	Heater kit error feedback signal
<b>X15M - 5-6</b>	R12T thermistor

- Possibility 2: single step, 3 kw installation  
Connect all heater step control signals as shown on the wiring diagram and in the figure above, except the connection of number 3 on the heater kit with number 23a on X2M at the EKCB\* indoor unit (heater step 2).  
Connect the error feedback and thermistor signals to the appropriate terminals.

- 3 Fix the cables with the cable ties inside the heater kit.  
Make sure to ensure strain relief of the cable by correct use of the PG nipples and nut (provided with the accessory bag).

### Connections to be made in the EKCB indoor unit switch box

For details on connecting signals to the indoor unit refer to the chapters "Overview of the indoor unit" and "Electrical wiring work" of the outdoor unit installation manual.

- 1 Connect the indoor unit control signal to X2M 14, 15, 16.
- 2 Connect the heater kit error feedback signal to X801M 2, 5 of the demand PCB.



Only relevant wiring is shown.

## 7. START-UP AND CONFIGURATION

### 7.1. Pre-operation checks



#### DANGER

Switch off all relevant power supply before making any connections.

After the installation of the heater kit, check the following before switching on the circuit breaker:

- Filled with water  
Make sure that the heater of the heater kit is completely filled with water.
- Air purge  
Make sure the air purge is open (at least 2 turns).
- Field wiring  
Make sure that the field wiring has been carried out according to the instructions, according to the wiring diagram and according to the European and national regulations.
- Fuses and protection devices  
Check that the fuses or the locally installed protection devices are of the size and type specified in the chapter "12. Technical specifications" on page 9. Make sure that neither a fuse nor a protection device has been bypassed.
- Earth wiring  
Make sure that the earth wires have been connected properly and that the earth terminals are tightened.
- Internal wiring  
Visually check the inside of the heater kit on loose connections or damaged electrical components.
- Power supply voltage  
Check the power supply voltage on the local supply panel. The voltage must correspond to the voltage on the identification label of the heater kit.
- Shut-off valves  
Make sure all necessary shut-off valves are open and water flow is possible.
- Fixation  
Check that the heater kit is properly fixed.
- Damaged equipment  
Check the inside of the heater kit on damaged components or squeezed pipes.



#### NOTICE

Operating the system with the heater not completely filled with water will damage the heater.

Once all checks are fulfilled, the heater kit and indoor unit must be closed and only then they can be powered up.

## 8. FINAL CHECK AND TEST RUN

### 8.1. Final check

Before switching on the heater kit, read the following:

- When the complete installation and all necessary settings have been carried out, make sure that the service panel of the heater is closed.
- The service panel of the heater can only be opened by a licensed electrician.

It is the responsibility of the installer to make sure that the air is purged out of the heater and system.

### 8.2. Test run


If required, the installer can perform a test run operation on the entire system (EBHQ + EKCB + EKMBUH).

How to perform the test run operation, refer to the EBHQ + EKCB installation manual

## 9. OPERATING INSTRUCTIONS

### 9.1. Normal operation

During normal heat pump system operation the heater kit can assist if there is a capacity shortage (for example due to low outdoor temperatures).

When the heater is operating, this icon  will appear on the remote controller.

## 10. MAINTENANCE AND SERVICE

In order to ensure optimal availability of the heater kit, a number of checks and inspections on the heater kit and the field wiring have to be carried out at regular intervals.

This maintenance should be carried out by your local Daikin technician.



### WARNING

- Before carrying out any maintenance or repair activity, always switch off the circuit breaker on the supply panel or remove the fuses.
- Do not rinse the heater kit. This may cause electric shocks or fire.
- Do not touch water pipes during and immediately after operation as the pipes may be hot. Your hands may suffer burns. To avoid injury, give the piping time to return to normal temperature or be sure to wear proper gloves.
- Do not touch internal parts during and immediately after operation. Your hands may suffer burns. To avoid injury, give the piping time to return to normal temperature or be sure to wear proper gloves.

The described checks must be executed at least **once a year** by qualified personnel.

- 1 Heater vessel insulation cover  
Check that the heater insulation cover is fastened tightly around the heater vessel.
- 2 Heater electrical parts and connections
  - Carry out a visual inspection of the switch box and look for obvious defects such as loose connections or defective wiring.
  - Check for correct operation of contactors and relays by use of an ohmmeter.

## 11. TROUBLESHOOTING

This section provides useful information for diagnosing and correcting certain troubles which may occur in the heater kit.

This troubleshooting and related corrective actions may only be carried out by your local Daikin technician.

### 11.1. General guidelines

Before starting the troubleshooting procedure, carry out a thorough visual inspection of the heater kit and look for obvious defects such as loose connections or defective wiring.



#### WARNING

- Before carrying out any maintenance or repair activity, always switch off the circuit breaker on the supply panel or remove the fuses.
- Do not touch water pipes during and immediately after operation as the pipes may be hot. Your hands may suffer burns. To avoid injury, give the piping time to return to normal temperature or be sure to wear proper gloves.
- Do not touch internal parts during and immediately after operation. Your hands may suffer burns. To avoid injury, give the piping time to return to normal temperature or be sure to wear proper gloves.

When a safety device was activated, stop the heater kit and find out why the safety device was activated before resetting it. Under no circumstances safety devices may be bridged or changed to a value other than the factory setting. If the cause of the problem can not be found, call your local dealer.

### 11.2. General symptoms

#### Symptom 1: Space heating capacity shortage at low outdoor temperatures

POSSIBLE CAUSES	CORRECTIVE ACTION
Backup heater operation is not activated.	Check that the "backup heater operation status" field setting [4-00] is turned on. Refer to the chapter "Field installations" in the installation manual of the EKCB* indoor unit. Check if booster heater and backup heater are configured to operate simultaneously (field setting [4-01]).
The backup heater equilibrium temperature has not been configured correctly.	Raise the 'equilibrium temperature' field setting [5-01] to activate backup heater operation at a higher outdoor temperature. Refer to the chapter "Field installations" in the installation manual of the EKCB* indoor unit
The over current fuse has operated.	Check and switch over current fuse back on.
The thermal protector has operated.	Check and reset the thermal protector by pushing the button.
The thermal fuse has operated.	Check if the thermal fuse is open.
There is air in the system.	Purge air.
Broken contactor.	Check contactors and relays by use of an ohmmeter.

### 11.3. Error codes

When a safety device is activated, the user interface LED will be flashing, and an error code will be displayed.

A list of all errors and corrective actions can be found in the table below.

For more details regarding error codes, refer to chapter "Error codes" in the installation manual of the indoor unit.

Error code	Failure cause	Corrective action
RR	Heater kit thermal protector or thermal fuse error	<ul style="list-style-type: none"> <li>• Make sure the circuit is filled with water (no air inside).</li> <li>• Make sure waterflow is possible (open all valves in the circuit).</li> </ul>
	Check the reset button of the thermal protector. If both the thermal protector and the controller are reset, but the RR error code persists, the backup heater thermal fuse has blown.	Contact your local dealer.

## 12. TECHNICAL SPECIFICATIONS

<b>Heater capacity</b>		
• step 1	(kW)	3
• step 2	(kW)	6
<b>Dimensions H x W x D</b>		(mm) 575 x 380 x 170
<b>Weight</b>		(kg) 12
<b>Connections</b>		
• water inlet		G 1"1/4 (male)
• water outlet		G 1"1/4 (female)
<b>Maximum water pressure</b>		(bar) 4
<b>Power supply</b>		
• Phase		1~
• Frequency	(Hz)	50
• Voltage range		
Minimum	(V)	220
Maximum	(V)	240
• Voltage tolerance		-10%/+6%
• Maximum running current	(A)	26.1
• Recommended field fuse	(A)	32

## 13. DISPOSAL REQUIREMENTS

Dismantling of the unit, treatment of the refrigerant, of oil and of other parts must be done in accordance with the applicable legislation.



Your product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

Do not try to dismantle the system yourself: the dismantling of the system, treatment of the refrigerant, of oil and other parts must be done by a qualified installer in accordance with the applicable legislation.

Units must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed off correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.



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