

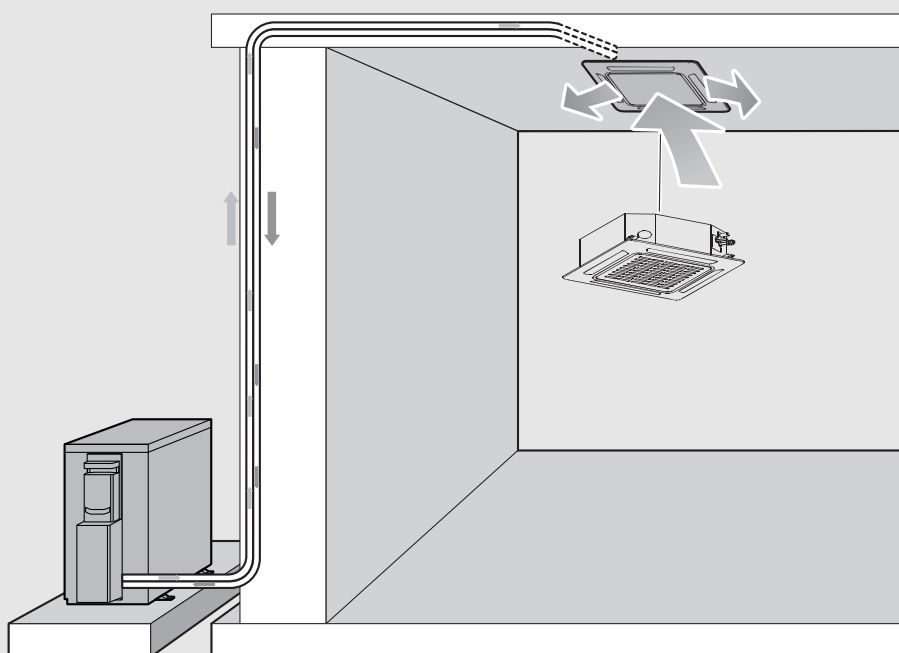


# BOSCH

## Climate 5000 L • Climate 5000i U/L

CL5000L 35 E • CL5000iU 4CC 35 E | CL5000L 53 E • CL5000iU 4CC 53 E |  
CL5000L 70 E • CL5000iU 4C 70 E | CL5000L 88 E • CL5000iL 4C 88 E |  
CL5000L 105 E • CL5000iL 4C 105 E | CL5000L 105 E-3 • CL5000iL 4C 105 E |  
CL5000L 125 E • CL5000iL 4C 125 E | CL5000L 140 E-3 • CL5000iL 4C 140 E |  
CL5000L 160 E-3 • CL5000iL 4C 160 E

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## 1 Explanation of symbols and safety instructions

### 1.1 Explanation of symbols

#### Warnings

In warnings, signal words at the beginning of a warning are used to indicate the type and seriousness of the ensuing risk if measures for minimizing danger are not taken.

The following signal words are defined and can be used in this document:



**DANGER**

**DANGER** indicates that severe or life-threatening personal injury will occur.



**WARNING**

**WARNING** indicates that severe to life-threatening personal injury may occur.



**CAUTION**

**CAUTION** indicates that minor to medium personal injury may occur.

**NOTICE**

**NOTICE** indicates that material damage may occur.

#### Important information



The info symbol indicates important information where there is no risk to people or property.





Symbol	Meaning
	Warning regarding flammable substances: the refrigerant R32 used in this product is a gas with low combustibility and low toxicity (A2L or A2).
	Wear protective gloves during installation and maintenance work.
	Maintenance by a qualified person should be done while following the instructions of the service manual.
	For operation follow the instructions of the user manual.

Table 1

## 1.2 General safety instructions

### Notices for the target group

These installation instructions are intended for qualified persons who are skilled in dealing with refrigeration engineering and HVAC technology and also electrical systems. All system-relevant instructions must be observed. Failure to comply with instructions may result in material damage and personal injury, including danger to life.

- ▶ Before carrying out the installation, read the installation instructions of all system components.
- ▶ Observe the safety instructions and warnings.
- ▶ Follow national and regional regulations, technical regulations and guidelines.
- ▶ Record all work carried out.

### General dangers posed by the refrigerant

- ▶ This appliance is filled with refrigerant R32. If the refrigerant gas gets into contact with fire, it may generate toxic gas.
- ▶ Thoroughly ventilate the room if refrigerant leaks during the installation.
- ▶ Check the tightness of the system following the installation.
- ▶ Do not let any other substance than the specified refrigerant (R32) into the refrigerant cycle.

### Safety of electrical devices for domestic use and similar purposes

The following requirements apply in accordance with EN 60335-1 in order to prevent hazards from occurring when using electrical appliances:

“This appliance can be used by children of 8 years and older, as well as by people with reduced physical, sensory or mental capabilities or lacking in experience and knowledge, if they are supervised and have been given instruction in the safe use of the appliance and understand the resulting dangers. Children shall not play with the appliance. Cleaning and user maintenance must not be performed by children without supervision.”

“If the power cable is damaged, it must be replaced by the manufacturer, its customer service department or a similarly qualified person, so that risks are avoided.”

### Handover to the user

When handing over the air conditioning system, explain the operation and operating conditions to the user.

- ▶ Explain operation – with particular emphasis on all safety-related actions.
- ▶ Highlight the following points in particular:
  - Point out that modifications or repairs may be carried out only by an approved contractor.
  - To ensure safe and environmentally compatible operation, an annual inspection, and also cleaning and maintenance if required, must be carried out.
- ▶ Point out the possible consequences (personal injury and possible danger to life or material damage) of not carrying out inspection, cleaning and maintenance correctly, or omitting it altogether.
- ▶ Hand over the installation and operating instructions to the user for safekeeping.

## 1.3 Notices regarding these instructions


The figures are shown together at the end of these instructions. The text contains references to the figures.

Depending on the model, the products may be different to those shown in these instructions.

## 2 Product Information

### 2.1 Declaration of conformity

The design and operating characteristics of this product comply with the European and national requirements.

 The CE marking declares that the product complies with all the applicable EU legislation, which is stipulated by attaching this marking.

The complete text of the Declaration of Conformity is available on the Internet: [worcester-bosch.co.uk](http://worcester-bosch.co.uk).

### 2.2 Scope of delivery

The appliances are shown as an example and deviations are possible. The scope of delivery is shown in Figs.:

#### Scope of delivery, Fig. 1 and 2:

- [1] Outdoor unit (filled with refrigerant)
- [2] Indoor unit (filled with nitrogen)
- [3] Copper nut (2x)
- [4] Drainage elbow with gasket
- [5] Remote controller
- [6] Remote control Holder with fixing screw
- [7] 4 anti-vibration couplings for the outdoor unit
- [8] Magnetic ring (number depends on appliance type)
- [9] Ceiling hook and supporting bolt (4 in each case)
- [10] Set of printed documents for product documentation
- [11] Only CL5000iL 4C ...: mounting template
- [12] Only CL5000iL 4C ...: connecting cable and holder (used for the optional accessory IP-Gateway)
- [13] Only CL5000iL 4C ...: heat insulation for pipe
- [14] Only CL5000iL 4C ...: cable clip

## 2.3 Twin combination

The appliances can be installed as so-called twin combination. In doing so, an outdoor unit is combined with two indoor units of the same type. The indoor units must be installed at the same height.

- ▶ Observe the possible combinations in table 2.
- ▶ Observe the dimensions in Fig. 30.
- ▶ Arrange the branch joints horizontally.

Outdoor unit	Indoor Unit
CL5000L 140 E-3	2 × CL5000iU 4C 70 E
CL5000L 160 E-3	2 × CL5000iL 4C 88 E

Table 2 Possible twin combinations

## 2.4 Product dimensions and minimum clearances

### 2.4.1 Indoor unit and outdoor unit

#### Indoor unit CL5000iU 4CC ...

Figs. 4 and 6.

- [1] Refrigerant lines
- [2] Condensate pipe

#### Indoor unit CL5000iL 4C ...

Figs 5 and 6.

- [1] Refrigerant lines
- [2] Condensate pipe
- [3] Connection for outside air duct (round)
- [4] Connection for air conduit (rectangular; exemplary position)

#### Outdoor Unit

Figs. 7 to 8.

### 2.4.2 Refrigerant lines

#### Key to figure 9:

- [1] Pipe on gas side
- [2] Pipe on liquid side
- [3] Siphon-shaped elbow as oil separator



If the indoor units are positioned lower than the outdoor unit, install a siphon-shaped elbow on the gas side after no more than 6 m and every 6 m thereafter (→ figure 9, [1]).

- ▶ Observe maximum pipe length and maximum difference in height between indoor unit and outdoor unit.

Appliance type	Maximum pipe length [m]	Maximum height difference [m]
CL5000L 35 E	≤ 25	≤ 10
CL5000L 53 E	≤ 30	≤ 20
CL5000L 70 E	≤ 50	≤ 25
CL5000L 88 E		
CL5000L 105 E	≤ 75	≤ 30
CL5000L 105 E-3		
CL5000L 125 E		
CL5000L 140 E-3		
CL5000L 160 E-3		

Table 3 Piping lengths

- ▶ Observe pipe diameter and further specifications.

Pipe diameter [mm]	Alternative pipe diameter [mm]
6.35 (1/4")	6
9.53 (3/8")	10
12.7 (1/2")	12
15.9 (5/8")	16

Table 4 Alternative pipe diameter

Specification of the pipes	
Min. piping length	3 m
Additional refrigerant to be added if the pipe length exceeds 5 m (liquid side)	With Ø 6.35 mm (1/4"): 12 g/m With Ø 9.53 mm (3/8"): 24 g/m
Pipe thickness with pipe diameter from Ø 6.35 mm to 12.7 mm	≥ 0.8 mm
Pipe thickness with 15.9 mm pipe diameter	≥ 1.0 mm
Thickness of insulation against heat	≥ 6 mm
Material of insulation against heat	Polyethylene foam

Table 5

## 2.5 Information on refrigerant

This device contains **fluorinated greenhouse gases** as refrigerant. The device is hermetically sealed. You will find the information on the refrigerant according to the Regulation (EU) No 517/2014 on fluorinated greenhouse gases in the operating instructions of the device.



Information for the installer: If you refill refrigerant, enter the additional charge size and the total charge size of the refrigerant in the table "information on refrigerant" of the operating instructions.

## 3 Installation

### 3.1 Before installation



#### CAUTION

#### Risk of injury from sharp edges!

- ▶ Wear protective gloves during installation.



#### CAUTION

#### Danger of burns!

During operation the pipes become hot.

- ▶ Make sure, that the pipes cooled down before touching them.
- ▶ Check the scope of delivery for damage.
- ▶ Check whether a hissing sound due to negative pressure can be detected when opening the pipes of the indoor unit.

### 3.2 Requirements for installation site

- ▶ Observe minimum clearances (→ Chapter 2.4 on page 50).
- ▶ Observe minimum room area.

Device type	Installation height [m]	Minimum room area [m <sup>2</sup> ]
CL5000iU 4CC 35 E	≥ 2.2	≥ 4
CL5000iU 4CC 53 E	≥ 2.2	≥ 4
CL5000iU 4C 70 E	≥ 2.2	≥ 6
CL5000iL 4C 88 E	≥ 2.2	≥ 7
CL5000iL 4C 105 E	≥ 2.2	≥ 10
CL5000iL 4C 125 E	≥ 2.2	≥ 12
CL5000iL 4C 140 E	≥ 2.2	
CL5000iL 4C 160 E	≥ 2.2	

Table 6 Minimum room area

#### Notices regarding the indoor unit

- ▶ Do not install the indoor unit in a room in which open ignition sources (for example: open flames, an operating wall mounted gas boiler or an operating electric heating system) are in operation.
- ▶ The installation location must not be higher than 2000 m above sea level.
- ▶ Keep the air inlet and air outlet clear of any obstacles to allow the air to circulate freely. Otherwise poor performance and higher noise levels may occur.
- ▶ Keep TV, radio and similar appliances at least 1 m away from the unit and the remote control.
- ▶ Do not install the indoor unit in rooms with a high humidity (e.g. bathrooms or utility rooms).
- ▶ Indoor units with a cooling capacity of 2.0 to 5.3 kW are designed for a single room.
- ▶ The ceiling construction and suspension system (on site) must be able to support the weight of the appliance.

#### Notices regarding the outdoor unit

- ▶ The outdoor unit must not be exposed to machine oil vapour, hot spring vapour, sulphur gas, etc.
- ▶ Do not install the outdoor unit directly next to water or where it is exposed to sea air.
- ▶ The outdoor unit must always be kept free of snow.
- ▶ There must be no disruption caused by extract air or operating noise.
- ▶ Air should be able to circulate freely around the outdoor unit, but the appliance must not be exposed to strong wind.
- ▶ Condensate that forms during operation must be able to drain off easily. Lay a drain hose if required. In cold regions, installation of the drain pipe is not advisable as freezing could result.
- ▶ Place the outdoor unit on a stable base.

### 3.3 Unit installation

#### NOTICE

#### Incorrect assembly can cause material damage.

If the appliance is mounted incorrectly, it may drop off the ceiling

- ▶ Only mount the appliance on a solid flat ceiling. The ceiling must be able to carry the weight of the appliance.
- ▶ Only use screws and wall plugs that are suitable for the ceiling type and appliance weight.

#### 3.3.1 Installing the indoor unit in the ceiling



We recommend preparing the pipes before hanging the indoor unit so that only the pipes need to be connected.

- ▶ Open the box at the top and lift the indoor unit out and up.
- ▶ Determine the installation location, taking the minimum clearances and orientation of the pipes into consideration: → Figs. 4 to 6.



Make sure that the appliance fits between the structural ceiling and suspended ceiling.

- ▶ The fascia must be flush with the suspended ceiling.
- ▶ Define and mark the position of the suspension bolts on the ceiling.



#### DANGER

#### Risk of injury!

The ceiling attachment must be suitable for carrying the weight of the indoor unit. We recommend using threaded rods in order to be able to adjust the height precisely. Suitable nuts and washers are included in the scope of delivery of the indoor unit.



#### DANGER

#### Risk of injury!

At least two persons are required to hang the appliance and fasten it securely.

- ▶ Do not install the appliance on your own.
- ▶ Hang the appliance on the suspension bolts with the washers and nuts included in the scope of delivery.
- ▶ Position the indoor unit at the correct height and align horizontally by turning the nuts on the threaded rods.

#### NOTICE

If the appliance is not level condensate may leak out.

- ▶ Use a spirit level to align the appliance horizontally.
- ▶ Secure the appliance at the correct installation position with lock nuts.
- ▶ Establish pipe connections as described in chapter 3.5.1.

#### 3.3.2 Assembly of cover CL5000iU 4CC ...

- ▶ Remove the air inlet grille from the cover (→ Fig. 20).
- ▶ Attach cover to the indoor unit with screws provided, paying attention to orientation (→ Fig. 21). The display [2] must be located opposite the "shorter" side of the L-shaped electronics [1].
- ▶ The cover must rest evenly and tightly against the indoor unit.

Only reinstall the air inlet grille when establishing the electrical connection.

### 3.3.3 Assembly of cover CL5000iL 4C ...

- ▶ Remove the air inlet grille from the cover (→ Fig. 22).
- ▶ Remove the cover at the 4 corners (→ Fig. 23).

#### NOTICE

#### Damage to the cover and display

The display is fixed at one of the removable corner covers and can be damaged when removing the corner.

- ▶ Carefully lever the corner clamps with a screwdriver and lift off the corners.
- 
- ▶ Attach the 4 corner hooks of the cover in the tabs of the indoor unit, paying attention to the orientation (→ Fig. 24). If required, bring the cover into the correct position by turning it. The corner with the display [2] must be orientated on the electronics [3] and be located above the refrigerant lines [1].
  - ▶ Evenly tighten the screw hooks until the thickness of the foam between the casing and the air outlet on the cover is roughly 4-6 mm. The edge of the cover should be tight against the ceiling.
  - ▶ Remove the foam parts from the inside of the unit.

Only reinstall the air inlet grille when establishing the electrical connection.

### 3.3.4 Installing the outdoor unit

- ▶ Place the box so it is facing upwards.
- ▶ Cut and remove the packing straps.
- ▶ Pull the box up and off and remove the packaging.
- ▶ Prepare and install a floor or wall mounting bracket, depending on the type of installation.
- ▶ Set up or hang the outdoor unit.
- ▶ When installing on the floor or wall mounting bracket, attach the supplied drainage elbow and gasket (→ Fig. 10).
- ▶ Remove the cover for the pipe connections (→ Fig. 14 and 15).
- ▶ Establish pipe connections as described in chapter 3.5.1.

### 3.4 Installing the outside air duct

There is an outside air intake opening on side the appliance, which can be used if required (→ Fig. 4 and Fig. 5, [3]).



No more than 5% of the air volumetric flow rate can be introduced via the outside air intake opening.

### 3.5 Pipework connection

#### 3.5.1 Connecting refrigerant lines to the indoor and outdoor unit



#### CAUTION

#### Discharge of refrigerant due to leaky connections

Refrigerant may be discharged if pipe connections are incorrectly installed. Reusable mechanical connections and flared connections are not permitted indoors.

- ▶ Tighten flared connections only once.
- ▶ After releasing, always fabricate the flared connection again.



Copper pipes are available in metric and imperial sizes, the flare nut thread is however the same. The flared fittings on the indoor and outdoor unit are intended for imperial sizes.

- ▶ When using metric copper pipes, replace the flare nuts with nuts of a suitable diameter (→ Tab. 7).
- 
- ▶ Determine pipe diameter and length (→ Page 50).
  - ▶ Cut the pipe to length using a pipe cutter (→ Fig. 11).
  - ▶ Deburr the inside of the pipe at both ends and tap to remove swarf.
  - ▶ Insert the nut onto the pipe.
  - ▶ Widen the pipe using a flaring tool to the size indicated in the tab. 7. It must be possible to slide the nut up to the edge but not beyond it.
  - ▶ Connect the pipe and tighten the screw fitting to the torque specified in the tab. 7.
  - ▶ Repeat the above steps for the other pipes.

#### NOTICE

#### Reduced efficiency due to heat transfer between refrigerant pipes

- ▶ Thermally insulate the refrigerant lines separately.
- 
- ▶ Fit the insulation on the pipes and secure.

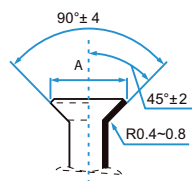
External diameter of pipe Ø [mm]	Tightening torque [Nm]	Flared opening diameter (A) [mm]	Flared pipe end	Pre-assembled flare nut thread
6.35 (1/4")	18-20	8.4-8.7		3/8"
9.53 (3/8")	32-39	13.2-13.5		3/8"
12.7 (1/2")	49-59	16.2-16.5		5/8"
15.9 (5/8")	57-71	19.2-19.7		3/4"

Table 7 Key data of pipe connections

### 3.5.2 Connecting condensate pipe to the indoor unit

Depending on the type of installation, the condensate pipe must either be connected to the integrated condensate pump or the condensation catch pan.

- ▶ Use PVC pipes with 32 mm inside diameter and 5-7 mm wall thickness.
- ▶ Insulate drain pipe to prevent condensate formation.
- ▶ Connect drain pipe to indoor unit and secure connection with a hose clip.
- ▶ Install drain pipe on slope (→ Fig. 25). With a condensate pump installed, the outlet of the drain pipe may be higher than the indoor unit if the dimensions and wiring diagram are observed.

#### NOTICE

#### Danger due to water damage!

If the pipes are routed incorrectly, water may be discharged, or may flow back into the indoor unit and cause the water level switch to malfunction.

- ▶ To prevent the pipes from sagging, install a support every 1–1.5 m.
- ▶ Route a drain pipe to the sewer via a siphon.

### 3.5.3 Testing the condensate pipe



Testing the condensate pipe ensures that all connections are tight.

- ▶ Test the condensate pipe before closing the cover.

if the condensate pump can only be tested once the electrical connection has been established.

- ▶ Fill the condensation catch pan or water injection pipe with roughly 2 l of water.
- ▶ Switch on cooling mode. The drainage pump can be heard.
- ▶ Make sure that the condensate drains away properly.
- ▶ Check tightness of all connections.

### 3.5.4 Checking tightness and filling the system

#### Checking tightness

Observe the national and local regulations when carrying out the tightness test.

- ▶ Remove the caps of the valves of a connection pair (→ Fig. 14 and 15, [1], [2] and [3]).
- ▶ Connect the Schrader opener [6] and pressure gauge [4] to the service socket [1].
- ▶ Open Schrader valve [1].
- ▶ Leave valves [2] and [3] closed and fill the pipes with nitrogen until the pressure is 10% above the maximum operating pressure (→ Page 60).
- ▶ Check whether the pressure is still the same after 10 minutes.
- ▶ Discharge the nitrogen until the maximum operating pressure is reached.
- ▶ Check whether the pressure is still the same after at least 1 hour.
- ▶ Discharge nitrogen.

### Filling the system

#### NOTICE

#### Malfunction due to incorrect refrigerant

The outdoor unit is filled with refrigerant R32 at the factory.

- ▶ If refrigerant needs to be topped up, only use the same refrigerant. Do not mix refrigerant types.
- ▶ Evacuate and dry the pipes with a vacuum pump (→ Fig. 14 and 15, [5]) for at least 30 minutes at roughly –1 bar (approx. 500 microns).
- ▶ Open valve [3] on liquid side.
- ▶ Use a pressure gauge to [4] check whether the flow is unobstructed.
- ▶ Open valve [2] on gas side.  
The refrigerant is distributed round the connected pipes.
- ▶ Afterwards, check the pressure ratios.
- ▶ Close Schrader valve [1] on the service socket side.
- ▶ Remove the vacuum pump, pressure gauge and Schrader opener.
- ▶ Reattach the valve caps.
- ▶ Reattach the cover for pipe connections to the outdoor unit.

### 3.6 Electrical connection

#### 3.6.1 General notes



#### WARNING

#### Risk to life from electric shock!

Touching live electrical parts can cause an electric shock.

- ▶ Before working on electrical parts, disconnect all phases of the power supply (fuse/circuit breaker) and lock the isolator switch to prevent unintentional reconnection.
- ▶ Work on the electrical system must only be carried out by an authorised electrician.
- ▶ An authorised electrician must determine the correct conductor cross-section and circuit breaker. The maximum current consumption of the technical data (→ see chapter 9, page 60) is decisive for this purpose.
- ▶ Observe safety measures according to national and international regulations.
- ▶ If you identify a safety risk in the mains voltage, or if a short circuit occurs during installation, inform the operator in writing and do not install the appliances, until the problem has been resolved.
- ▶ All electrical connections must be made in accordance with the electrical connection diagram.
- ▶ Only use a special tool to cut cable insulation.
- ▶ Connect the cable to the existing mounting clips / cable glands using suitable cable ties (scope of delivery).
- ▶ Do not connect any additional consumers to the mains power supply of the device.
- ▶ Do not mix up live and PEN conductor. This can lead to malfunctions.
- ▶ If the mains power supply is fixed, install an overvoltage protector and isolator which is designed for 1.5 times the maximum power input of the appliance.
- ▶ For devices with a fixed mains power supply in which the leakage current is potentially higher than 10 mA, we recommend installing a residual current device (RCD) with a maximum rated residual operating current of 30 mA.

### 3.6.2 Connecting the indoor unit


#### Connect CL5000iU 4CC ...

The indoor unit is connected via a 4-wire communication cable. Use cables of the type H07RN-F with sufficient conductor cross-section.

#### NOTICE

#### Material damage can be caused by connecting the indoor unit incorrectly

Voltage is supplied to every indoor unit via the outdoor unit.

- ▶ Only connect the indoor unit to the outdoor unit.
- 
- ▶ Remove the cover of the indoor unit electronics.
  - ▶ Connect the cable of the cover and the communication cable to the indoor unit (→ Fig. 26) and secure to the strain relief.
    - Plug the cables of the cover into the connections provided.
    - With several product types, connect the communication cable to the terminals L, N, S and <sup>1)</sup>.
    - If necessary, connect other accessories.
  - ▶ Note assignment of communication cable wires to the terminals.
  - ▶ Hook in air inlet grille on one side (→ Fig. 28).
  - ▶ Reattach the cover of the electronics and close the air inlet grille (→ Fig. 29).
  - ▶ Route the cable to the outdoor unit.


#### Connect CL5000iL 4C ...

The indoor unit is connected via a 4-wire communication cable. Use cables of the type H07RN-F with sufficient conductor cross-section.

#### NOTICE




#### Material damage can be caused by connecting the indoor unit incorrectly

Voltage is supplied to the indoor unit via the outdoor unit.

- ▶ Only connect the indoor unit to the outdoor unit.
- 
- ▶ Remove the cover of the indoor unit electronics.
  - ▶ Connect the cable of the cover to the control unit, (→ Fig. 27) and secure to the strain relief.
    - Plug the cables of the cover into the connections provided.
    - With several product types, connect the communication cable to the terminals 1(L), 2(N), S and .
    - If necessary, connect other accessories.
  - ▶ Hook in air inlet grille on one side (→ Fig. 28).
  - ▶ Close and secure the air inlet grille with the screw.
  - ▶ Attach the cover of the corners again.
  - ▶ Route the cable to the outdoor unit.

### 3.6.3 Connecting the outdoor unit

A power supply cable (3-wire) and the communication cable of the indoor unit (4-wire) are connected to the outdoor unit. Use cables of the type H07RN-F with sufficient conductor cross-section and protect the mains power supply with a fuse.

- ▶ Secure the communication cable to the strain relief and connect to the terminals 1(L), 2(N), S and  (assignment of wires to terminals same as indoor unit) (→ Fig. 18 and 19).
- ▶ Attach 1 magnetic ring to the communication cable, as close as possible to the outdoor unit.
- ▶ Secure power cable to the strain relief and connect.
  - CL5000L ... E: terminals L, N and 
  - CL5000L ... E-3: terminals L1, L2, L3, N and 
- ▶ Fasten cover for connections.


1) L=1(L) and N=2(N).

### 3.6.4 Connection as twin combination

With the twin combination, two indoor units are connected in series. With the slave unit, terminal S is omitted. Instead of that, communication takes place between the indoor units via terminals X, Y and E.

#### Key to Fig. 31 and 32:

IDU-M Master unit (indoor unit 1)  
IDU-S Slave unit (indoor unit 2)

- ▶ Connect master unit as described in chapter 3.6.2.
- ▶ Connect slave unit to the master unit via terminals L, N and <sup>2)</sup>.
- ▶ Connect master unit and slave unit additionally to terminals X, Y and E via a communication cable. In doing so, earth the shield.



The central controller and twin combination both use the X/Y/E terminal. For this reason, a decision must be made in advance if a twin combination or central controller is installed.

### 3.6.5 Connecting external accessories

Connection	Description
CN8	External fan for supply of fresh air <ul style="list-style-type: none"> <li>• Integrated power supply for maximum 200 W or 1 A (relay recommended).</li> <li>• External fan switches on / off simultaneously with the fan of the indoor unit.</li> <li>• In test mode or manual operation, the external fan remains off.</li> </ul>
CN23	On / Off contact switch <ul style="list-style-type: none"> <li>• Volt free terminal</li> <li>• When using jumper connector, remove J6 next to the connection.</li> <li>• Open contact:               <ul style="list-style-type: none"> <li>– Indoor unit off</li> <li>– Remote control / room controller inactive (<b>CP</b> in the display)</li> </ul> </li> <li>• Closed contact:               <ul style="list-style-type: none"> <li>– Indoor unit on</li> <li>– Remote control / room controller active</li> </ul> </li> </ul>
CN33	Alarm signal output <ul style="list-style-type: none"> <li>• Volt free terminal</li> <li>• Connection, maximum 24 V DC, 500 mA</li> <li>• Open contact: Alarm off</li> <li>• Closed contact: Alarm on</li> </ul>
CN38 <sup>1)</sup>	For connection of the gateway (WLAN) without connection accessories
CN40	Connection for room controller

1) Only CL5000iL 4C ...

Table 8

2) L=1(L) and N=2(N).



## 4 On-site configuration

### 4.1 DIP switch setting



**WARNING**

**Risk to life from electric shock!**



Touching live electrical parts can cause an electric shock.


- ▶ Before working on electrical parts, disconnect all phases of the power supply (fuse/circuit breaker) and lock the isolator switch to prevent unintentional reconnection.








All DIP switches have been configured before delivery. The default setting is highlighted bold.

- ▶ Only professional maintenance personnel should change these settings.
- ▶ Improper DIP switch settings may cause condensation, noise, or unexpected system malfunction.

Definition of DIP switch 0/1:	
	Definition 0
	Definition 1






ENC1	Code	Capacity setting <sup>1)</sup>
	0	20
	1	26
	2	32 - 35
	4	36 - 53
	5	54 - 71
	7	72 - 90
	8	91 - 105
	9	109 - 140
	A	141 - 160
	B	161 - 200

1) Default depending on the model

S1	S1 Setting	S2	Network address
	0 - F		0 - 15 <sup>1)</sup>
	0 - F		16 - 31
	0 - F		32 - 47
	0 - F		48 - 63







1) Default

### CL5000iU 4CC ...

DIP switch	Definition of DIP Switches <sup>1)</sup>
Fan OFF temperature when heating (anti-cold air function)	
SW1 	<ul style="list-style-type: none"> <li>• [00]: 24°</li> <li>• [01]: 8 °C</li> <li>• [10]: 15 °C</li> <li>• [11]: Reserved</li> </ul>
Behaviour of the fan once the room target temperature has been reached	
SW2 	<ul style="list-style-type: none"> <li>• <b>[0]: Fan off</b></li> <li>• [1]: Fan on (anti-cold air function deactivated)</li> </ul>
Auto restart	
SW3 	<ul style="list-style-type: none"> <li>• <b>[0]: Note setting</b></li> <li>• [1]: Do no note setting</li> </ul>
Set master and slave unit	
SW5 	<ul style="list-style-type: none"> <li>• <b>[00]: Master unit only, no slave unit</b></li> <li>• [01]: Master unit (heating)</li> <li>• [10]: Master unit (cooling)</li> <li>• [11]: Slave unit</li> </ul>
Temperature compensation (heating)	
SW6 	<ul style="list-style-type: none"> <li>• <b>[00]: 6 °C</b></li> <li>• [01]: 2 °C</li> <li>• [10]: 4 °C</li> <li>• [11]: Reserved</li> </ul>

1) Default highlighted in bold

### CL5000iL 4C ...

DIP switch	Definition of DIP Switches <sup>1)</sup>
Fan OFF temperature when heating (anti-cold air function)	
SW1 	<ul style="list-style-type: none"> <li>• [00]: 24 °C</li> <li>• [01]: 15 °C</li> <li>• [10]: 8 °C</li> <li>• [11]: Reserved</li> </ul>
Behaviour of the fan once the room target temperature has been reached	
SW2 	<ul style="list-style-type: none"> <li>• <b>[0]: Fan off</b></li> <li>• [1]: Fan on (anti-cold air function deactivated)</li> </ul>
Auto restart	
SW3 	<ul style="list-style-type: none"> <li>• <b>[0]: Automatic restart on</b></li> <li>• [1]: Automatic restart off</li> </ul>
Set master and slave unit	
SW5 	<ul style="list-style-type: none"> <li>• <b>[00]: Master unit only, no slave unit</b></li> <li>• [01]: Master unit (heating)</li> <li>• [10]: Master unit (cooling)</li> <li>• [11]: Slave unit</li> </ul>
Temperature compensation (heating)	
SW6 	<ul style="list-style-type: none"> <li>• <b>[00]: 6 °C</b></li> <li>• [01]: 2 °C</li> <li>• [10]: 4 °C</li> <li>• [11]: Reserved</li> </ul>
Default cooling and heating or only cooling	
SW7 	<ul style="list-style-type: none"> <li>• <b>[0]: Cooling and heating</b></li> <li>• [1]: Cooling only</li> </ul>

1) Default highlighted in bold

## 5 Commissioning

### 5.1 Commissioning checklist

1	Outdoor unit and indoor units are correctly installed.	
2	Pipes are correctly <ul style="list-style-type: none"> <li>• connected,</li> <li>• thermally insulated,</li> <li>• and checked for tightness.</li> </ul>	
3	Electrical connection has been correctly established. <ul style="list-style-type: none"> <li>• Power supply is in the normal range.</li> <li>• Protective conductor is properly attached.</li> <li>• Connection cable is securely attached to the terminal strip.</li> <li>• Optional external accessories properly connected and DIP switch correctly set.</li> <li>• WLAN-Gateway (optional accessories) Connection is correct and established according to the Gateway installation instructions.</li> </ul>	
4	Condensate pump and condensate pipe is properly installed and tested.	
5	All covers are fitted and secured.	

Table 9

### 5.2 Function check

The system can be tested once the installation including tightness test has been carried out and the electrical connection has been established:

- ▶ Connect the power supply.
- ▶ Switch on indoor unit with the remote control.
- ▶ Switch on cooling mode and set the lowest temperature.
- ▶ Test cooling mode for 5 minutes.
- ▶ Switch on heating mode and set the highest temperature.
- ▶ Test heating mode for 5 minutes.



Observe the operating instructions provided for operation of the indoor units.

### 5.3 Handover to the user

- ▶ When the system has been set up, hand over the installation manual to the customer.
- ▶ Explain to the customer how to use the system, referring to the operation manual.
- ▶ Advise the customer to carefully read the operation manual.

## 6 Troubleshooting

### 6.1 Faults with indication (Self diagnosis function)



#### WARNING

#### Risk to life from electric shock!

Touching live electrical parts can cause an electric shock.

- ▶ Before working on electrical parts, disconnect all phases of the power supply (fuse/circuit breaker) and lock the isolator switch to prevent unintentional reconnection.

If a fault occurs during operation, the LEDs flash for an extended period or an error code is displayed (e.g. EH 02).

If a fault is present for more than 10 minutes:

- ▶ Briefly interrupt the power supply and switch the indoor unit back on.

If a fault persists:

- ▶ Call customer service and provide the fault code and details of the appliance.

**4C Indoor Unit**

Fault code	Content
EH 00/EH 0A	Indoor unit EEPROM fault
EL 01	Communication fault between outdoor and indoor unit
EH 03	Indoor unit fan outside the normal range (with some units)
EH 60	Temperature sensor T1 (room temperature sensor) switched off or short-circuited
EH 61	Temperature sensor T2 (pipe temperature sensor) switched off or short-circuited
EL 0C	Refrigerant leakage detector (with some units)
EH 0b	Communication fault of the indoor unit main board
EH 0E	Malfunction of the water level alarm
EC 53	Temperature sensor T4 (outside temperature) switched off or short-circuited
EC 52	Temperature sensor T3 (pipe temperature sensor) switched off or short-circuited
EC 54	Temperature sensor TP (compressor discharge temperature protection) switched off or short-circuited
EC 56	Temperature sensor T2B (pipe temperature) switched off or short-circuited
EC 51	Outdoor unit EEPROM fault
EC 07	Outdoor unit fan outside the normal range (with some units)
PC 00	IPM malfunction or IGBT overvoltage protector
PC 01	Overvoltage or low-voltage protection
PC 02	Maximum temperature protection of compressor or high temperature protection of IPM module
PC 04	Compressor control system failure of inverter
PC 03	High or low-pressure protection (with some units)
EC 0d	Malfunction of outdoor unit

Table 10 Fault codes of type 4C indoor unit

**4CC Indoor Unit**

Content	Timer lamp	Operation lamp (flashes)
Indoor unit EEPROM fault	OFF	1
Communication fault between outdoor and indoor unit	OFF	2
Indoor unit fan outside the normal range (with some units)	OFF	4
Temperature sensor T3 (pipe temperature sensor) switched off or short-circuited	OFF	5
Temperature sensor T4 (outside temperature) switched off or short-circuited	OFF	5
Temperature sensor TP (compressor discharge temperature protection) switched off or short-circuited	OFF	5
Temperature sensor T1 (room temperature sensor) switched off or short-circuited	OFF	6
Temperature sensor T2 (pipe temperature sensor) switched off or short-circuited	OFF	6
Refrigerant leakage detector (with some units)	OFF	7
Malfunction of the water level alarm	OFF	9
Outdoor unit fan outside the normal range (with some units)	OFF	12
Outdoor unit is faulty (for old communication protocol)	OFF	14
Outdoor unit EEPROM fault (with some units)	ON	5
IPM malfunction	FLASH (at 2Hz)	7
Overvoltage or low-voltage protection	FLASH (at 2Hz)	2
Maximum temperature protection of compressor or high temperature protection of IPM module	FLASH (at 2Hz)	3
High or low-pressure protection (with some units)	FLASH (at 2Hz)	7
Compressor control system failure of inverter	FLASH (at 2Hz)	5

Table 11 Fault codes of type 4CC indoor unit

### Outdoor Unit

Fault code	Content
EC 51	Outdoor unit EEPROM fault
EL 01	Communication fault between outdoor and indoor unit
PC 40	Communication fault between PCI and printed circuit board of outdoor unit
PC 08	Overcurrent protection of outdoor unit
PC 10	Low-voltage protection of outdoor unit AC voltage
PC 11	Overvoltage protector of DC-bus for outdoor unit PCB
PC 12	Overvoltage protector of DC-bus for outdoor unit PCB/341/MCE fault
PC 00	IPM module protection
PC 0F	PFC module protection
EC 71	Overvoltage defect in fan motor (DC current) of outdoor unit
EC 72	Missing phase detection of outdoor unit fan motor (direct current)
EC 07	Fan speed of outdoor unit out of control
PC 43	Phase detection protection of outdoor unit compressor
PC 44	Zero speed protection of outdoor unit
PC 45	IR control failure (outdoor unit)
PC 46	Compressor speed out of control
PC 49	Overvoltage defect in compressor
PC 30	High-pressure protection
PC 31	Low-pressure protection
PC 0A	Condenser high-temperature protection
PC 06	Compressor discharge temperature protection
PC 02	Maximum temperature protection of compressor
EC 52	Temperature sensor T3 (pipe temperature sensor) switched off or short-circuited
EC 53	Temperature sensor T4 (outside temperature) switched off or short-circuited
EC 54	Temperature sensor TP (compressor discharge temperature protection) switched off or short-circuited

Table 12 Outdoor unit fault codes

### 6.2 Faults not indicated

Fault	Possible cause	Remedy
The output of the indoor unit is too low.	Heat exchanger of the outdoor or indoor unit contaminated or partially blocked.	▶ Clean heat exchanger of outdoor or indoor unit.
	Shortage of refrigerant	▶ Check tightness of pipes, reseal if required. ▶ Refill refrigerant.
Outdoor unit or indoor unit is not working.	No current	▶ Check power connection. ▶ Power on the IDU.
	Leakage protector or fuse installed in the device <sup>1)</sup> has blown.	▶ Check power connection. ▶ Check the leakage protection and fuse.
Outdoor unit or indoor unit starts and stops continuously.	Insufficient refrigerant in the system.	▶ Check tightness of pipes, reseal if required. ▶ Refill refrigerant.
	Too much refrigerant in the system.	Remove refrigerant with refrigerant recovery unit.
	Moisture or impurities in the refrigerant circuit.	▶ Evacuate refrigerant circuit. ▶ Fill with new refrigerant.
	Voltage fluctuations too high.	▶ Install voltage regulator.
	Defective compressor.	▶ Replace compressor.

1) A fuse for the overcurrent protection is located on the main PCB. The specification is printed on the main PCB and can also be found in the technical data on page 60. Use only ex-protected ceramic fuses.

Table 13

## 7 Environmental protection and disposal

Environmental protection is a fundamental corporate strategy of the Bosch Group.

The quality of our products, their economy and environmental safety are all of equal importance to us and all environmental protection legislation and regulations are strictly observed.

We use the best possible technology and materials for protecting the environment taking account of economic considerations.

### Packaging

Where packaging is concerned, we participate in country-specific recycling processes that ensure optimum recycling.

All of our packaging materials are environmentally compatible and can be recycled.

### Used appliances

Used appliances contain valuable materials that can be recycled.

The various assemblies can be easily dismantled. Synthetic materials are marked accordingly. Assemblies can therefore be sorted by composition and passed on for recycling or disposal.

### Old electrical and electronic appliances



This symbol means that the product must not be disposed of with other waste, and instead must be taken to the waste collection points for treatment, collection, recycling and disposal.

The symbol is valid in countries where waste electrical and electronic equipment regulations apply, e.g. "European Directive 2012/19/EC on old electronic and electrical appliances". These regulations define the framework for the return and recycling of old electronic appliances that apply in each country.

As electronic devices may contain hazardous substances, it needs to be recycled responsibly in order to minimize any potential harm to the environment and human health. Furthermore, recycling of electronic scrap helps preserve natural resources.

For additional information on the environmentally compatible disposal of old electrical and electronic appliances, please contact the relevant local authorities, your household waste disposal service or the retailer where you purchased the product.

You can find more information here:

[www.weee.bosch-thermotechnology.com/](http://www.weee.bosch-thermotechnology.com/)

### Batteries

Batteries must not be disposed together with your household waste.

Used batteries must be disposed of in local collection systems.

### Refrigerant R32



The appliance contains fluorinated gas R32 (global warming potential 675<sup>1)</sup>) mild combustibility and low toxicity (A2L or A2).

Contained quantity is indicated on the equipment outdoor unit name label.

Refrigerant is hazardous to the environment and must be collected and disposed of separately.

## 8 Data Protection Notice



We, **Bosch Thermotechnology Ltd., Cotswold Way, Warndon, Worcester WR4 9SW, United Kingdom**

process product and installation information, technical and connection data, communication data, product registration and client history data to provide product functionality (art. 6 (1) sentence 1 (b)

GDPR), to fulfil our duty of product surveillance and for product safety and security reasons (art. 6 (1) sentence 1 (f) GDPR), to safeguard our rights in connection with warranty and product registration questions (art. 6 (1) sentence 1 (f) GDPR) and to analyze the distribution of our products and to provide individualized information and offers related to the product (art. 6 (1) sentence 1 (f) GDPR). To provide services such as sales and marketing services, contract management, payment handling, programming, data hosting and hotline services we can commission and transfer data to external service providers and/or Bosch affiliated enterprises. In some cases, but only if appropriate data protection is ensured, personal data might be transferred to recipients located outside of the European Economic Area. Further information are provided on request. You can contact our Data Protection Officer under: Data Protection Officer, Information Security and Privacy (C/ISP), Robert Bosch GmbH, Postfach 30 02 20, 70442 Stuttgart, GERMANY.

You have the right to object, on grounds relating to your particular situation or where personal data are processed for direct marketing purposes, at any time to processing of your personal data which is based on art. 6 (1) sentence 1 (f) GDPR. To exercise your rights, please contact us via [privacy.ttgb@bosch.com](mailto:privacy.ttgb@bosch.com) To find further information, please follow the QR-Code.

1) Based on ANNEX I of REGULATION (EU) No 517/2014 of the European Parliament and of the Council of 16 April 2014.

## 9 Technical data

Set		CL5000iL-Set 35 4CCE	CL5000iL-Set 53 4CCE	CL5000iL-Set 70 4CE
Indoor Unit		CL5000iU 4CC 35 E	CL5000iU 4CC 53 E	CL5000iU 4C 70 E
Outdoor Unit		CL5000L 35 E	CL5000L 53 E	CL5000L 70 E
<b>General</b>				
Refrigerant	-	R32	R32	R32
Design pressure (max./min.)	MPa	4.3/1.7	4.3/1.7	4.3/1.7
<b>Cooling</b>				
Rated output	kW	3.52	5.28	7.03
Rated output	kBtu/h	12	18	24
Power input at rated output	W	1010	1633	2320
Cooling load (Pdesignc)	kW	3.5	5.3	7
Output (min. - max.)	kW	0.85-4.11	2.90-5.59	3.30-7.91
Power input (min. - max.)	W	168-1434	720-2088	780-2748
Max. current consumption	A	4.45	7.2	10.2
Energy efficiency class		A++	A++	A++
Coefficient of Performance in cooling mode (SEER)	W/W	6.6	6.3	6.2
<b>Heating</b>				
Rated output	kW	3.81	5.57	7.62
Rated output	kBtu/h	13	19	26
Power input at rated output	W	1019	1540	1900
Heating load (Pdesignh)	kW	2.7	4.2	6
Output (min. - max.)	kW	0.47-4.31	2.37-6.10	2.81-8.94
Power input (min. - max.)	W	124-1376	700-1930	610-2700
Max. current consumption	A	4.73	6.8	8.5
Energy efficiency class		A+	A+	A+
Coefficient of Performance in heating mode (SCOP)	W/W	4.1	4.0	4.0
<b>Indoor unit</b>				
Ex-protected ceramic fuse on main board	-	T 20A/250V	T 20A/250V	T 20A/250V
Power infeed	V/Hz	220-240 / 50 single phase	220-240 / 50 single phase	220-240 / 50 single phase
Volumetric flow rate (high/medium/low)	m <sup>3</sup> /h	569/485/389	680/584/479	1247/1118/992
Sound pressure level (high/medium/low/noise reduction)	dB(A)	42/37.5/34.5/28.5	45.4/44/39/31.6	50/47.5/42/38
Sound power level (high)	dB(A)	57	59	59
Permissible ambient temperature (cooling/heating)	°C	16...32/0...30	16...32/0...30	16...32/0...30
Total net weight	kg	18.8	18.5	27.6
Net weight (casing/cover)	kg	16.3/2.5	16.0/2.5	21.6/6.0
<b>Outdoor unit</b>				
Maximum power consumption	W	1850	2950	3700
Maximum power consumption	A	9	13.5	19
Ex-protected ceramic fuse on main board	-	T 20A/250V	T 20A/250V	T 20A/250V
Power infeed	V/Hz	220-240 / 50 single phase	220-240 / 50 single phase	220-240 / 50 single phase
Vol. flow rate	m <sup>3</sup> /h	2200	2100	3500
Sound pressure level	dB(A)	53.6	56	60
Sound power level	dB(A)	62	65	69
Permissible ambient temperature (cooling/heating)	°C	-15...50/-15...24	-15...50/-15...24	-15...50/-15...24
Net weight	kg	26.6	32.5	43.9

Table 14 Technical data

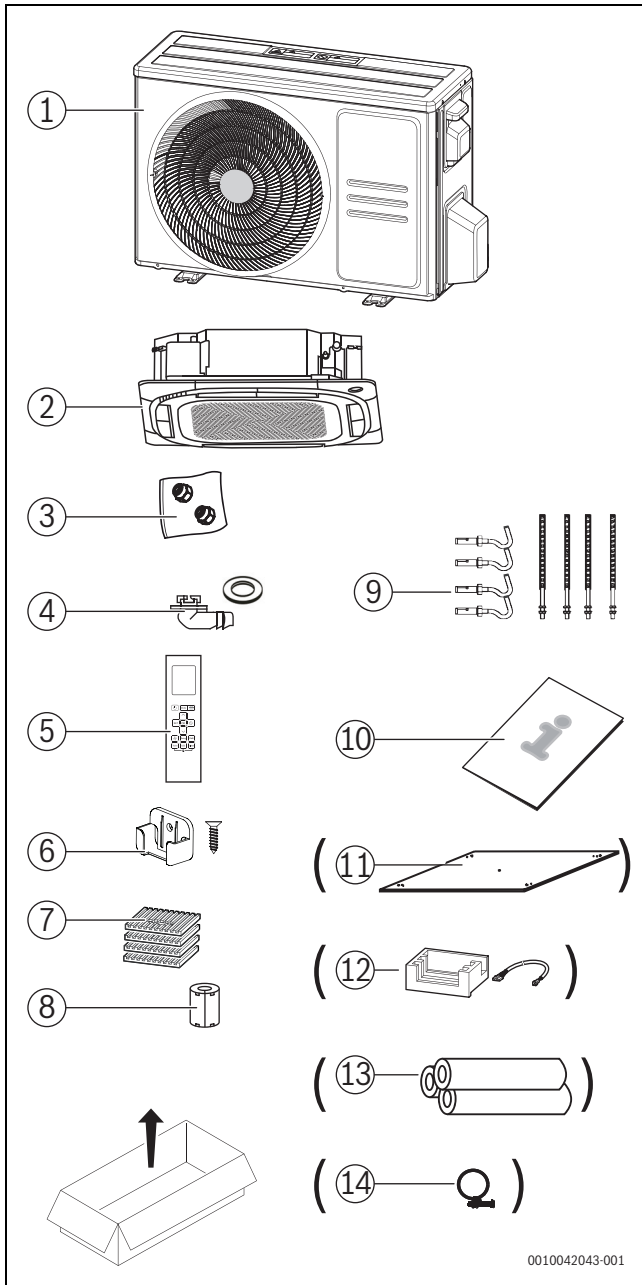
Set		CL5000iL-Set 88 4CE	CL5000iL-Set 105 4CE	CL5000iL-Set 105 4CE-3
Indoor Unit		CL5000iL 4C 88 E	CL5000iL 4C 105 E	CL5000iL 4C 105 E
Outdoor Unit		CL5000L 88 E	CL5000L 105 E	CL5000L 105 E-3
<b>General</b>				
Refrigerant	-	R32	R32	R32
Design pressure (max./min.)	MPa	4.3/1.7	4.3/1.7	4.3/1.7
<b>Cooling</b>				
Rated output	kW	8.8	10.5	10.5
Rated output	kBtu/h	30	36	36
Power input at rated output	W	2750	3950	4000
Cooling load (Pdesignc)	kW	8.79	10.55	10.55
Output (min. - max.)	kW	2.23-9.38	2.70-11.43	2.70-11.43
Power input (min. - max.)	W	190~3000	900~4200	890~4150
Max. current consumption	A	12.0	17.5	6.5
Energy efficiency class	-	A++	A++	A++
Coefficient of Performance in cooling mode (SEER)	W/W	6.6	6.7	6.3
<b>Heating</b>				
Rated output	kW	9.38	11.14	11.14
Rated output	kBtu/h	32	38	38
Power input at rated output	W	2450	3000	3000
Heating load (Pdesignh)	kW	7.8	8.5	8.0
Output (min. - max.)	kW	2.70-9.73	2.78-12.30	2.78-12.66
Power input (min. - max.)	W	430~2550	800~3950	780~4000
Max. current consumption	A	11.0	13.5	5.0
Energy efficiency class	-	A+	A+	A
Coefficient of Performance in heating mode (SCOP)	W/W	4.2	4.0	3.9
<b>Indoor unit</b>				
Ex-protected ceramic fuse on main board	-	T 30A/250V	T 30A/250V	T 30A/250V
Power infeed	V / Hz	220-240 / 50 single phase	220-240 / 50 single phase	220-240 / 50 single phase
Volumetric flow rate (high/medium/low)	m <sup>3</sup> /h	1700/1530/1300	1700/1530/1300	1700/1530/1300
Sound pressure level (high/medium/low/noise reduction)	dB(A)	50.5/48/46/40	51/48/46/40.5	51/49/46/40
Sound power level (high)	dB(A)	63	64	64
Permissible ambient temperature (cooling/heating)	°C	16...32/0...30	16...32/0...30	16...32/0...30
Total net weight	kg	30.6	33.2	33.2
Net weight (casing/cover)	kg	24.6/6.0	27.2/6.0	27.2/6.0
<b>Outdoor unit</b>				
Maximum power consumption	W	4500	5000	5000
Maximum power consumption	A	20	22.5	10
Ex-protected ceramic fuse on main board	-	T 30A/250V	T 30A/250V	T 30A/250V
Power infeed	V / Hz	220-240 / 50 single phase	220-240 / 50 single phase	380-415 / 50 three phase
Vol. flow rate	m <sup>3</sup> /h	3800	4000	4000
Sound pressure level	dB(A)	62	63	63
Sound power level	dB(A)	70	70	70
Permissible ambient temperature (cooling/heating)	°C	-15...50/-15...24	-15...50/-15...24	-15...50/-15...24
Net weight	kg	52.8	66.9	80.5

Table 15 Technical data

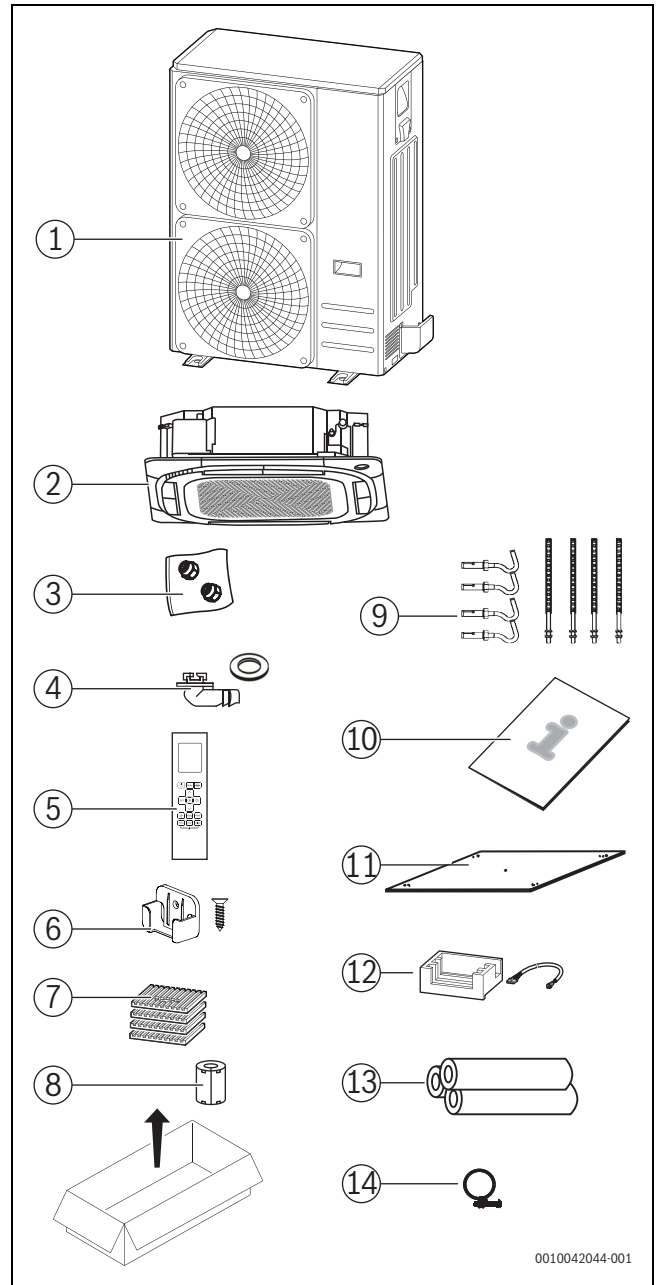
Set		CL5000iL-Set 125 4CE	CL5000iL-Set 140 4CE-3	CL5000iL-Set 160 4CE-3
Indoor Unit		CL5000iL 4C 125 E	CL5000iL 4C 140 E	CL5000iL 4C 160 E
Outdoor Unit		CL5000L 125 E	CL5000L 140 E-3	CL5000L 160 E-3
<b>General</b>				
Refrigerant	-	R32	R32	R32
Design pressure (max./min.)	MPa	4.3/1.7	4.3/1.7	4.3/1.7
<b>Cooling</b>				
Rated output	kW	12.1	14.0	15.3
Rated output	kBtu/h	41	48	52
Power input at rated output	W	4200	4650	5000
Cooling load (Pdesignc)	kW	12.02	14.07	15.24
Output (min. - max.)	kW	2.93-12.31	3.52-15.83	4.10-16.71
Power input (min. - max.)	W	680-4350	800-5900	980-6200
Max. current consumption	A	18.8	8.1	8.6
Energy efficiency class	-	A++	A++	A++
Coefficient of Performance in cooling mode (SEER)	W/W	6.1	6.1	6.3
<b>Heating</b>				
Rated output	kW	13.48	16.12	18.17
Rated output	kBtu/h	46	55	62
Power input at rated output	W	3700	4580	5550
Heating load (Pdesignh)	kW	9.5	11.0	11.9
Output (min. - max.)	kW	3.37-14.07	4.10-17.29	4.40-19.9
Power input (min. - max.)	W	750~4250	900 – 5500	1020 – 6700
Max. current consumption	A	16.3	8.0	9.6
Energy efficiency class	-	A+	A+	A+
Coefficient of Performance in heating mode (SCOP)	W/W	4.0	4.0	4.0
<b>Indoor unit</b>				
Ex-protected ceramic fuse on main board	-	T 30A/250V	T 30A/250V	T 30A/250V
Power infeed	V / Hz	220-240 / 50 single phase	220-240 / 50 single phase	220-240 / 50 single phase
Volumetric flow rate (high/medium/low)	m <sup>3</sup> /h	1900/1750/1600	1900/1750/1600	2000/1850/1650
Sound pressure level (high/medium/low/noise reduction)	dB(A)	52.5/50/47.5/40	52.5/50.5/48/41.5	54.5/52/49.5/44
Sound power level (high)	dB(A)	66	66	66
Permissible ambient temperature (cooling/heating)	°C	16...32/0...30	16...32/0...30	16...32/0...30
Total net weight	kg	35.3	35.3	35.3
Net weight (casing/cover)	kg	29.3/6.0	29.3/6.0	29.3/6.0
<b>Outdoor unit</b>				
Maximum power consumption	W	5000	6900	7500
Maximum power consumption	A	22.5	13	14
Ex-protected ceramic fuse on main board	-	T 30A/250V	T 30A/250V	T 30A/250V
Power infeed	V / Hz	220-240 / 50 single phase	380-415 / 50 three phase	380-415 / 50 three phase
Vol. flow rate	m <sup>3</sup> /h	4000	7500	7500
Sound pressure level	dB(A)	63	63.5	64
Sound power level	dB(A)	72	74	75
Permissible ambient temperature (cooling/heating)	°C	-15...50/-15...24	-15...50/-15...24	-15...50/-15...24
Net weight	kg	71	103.7	107

Table 16 Technical data

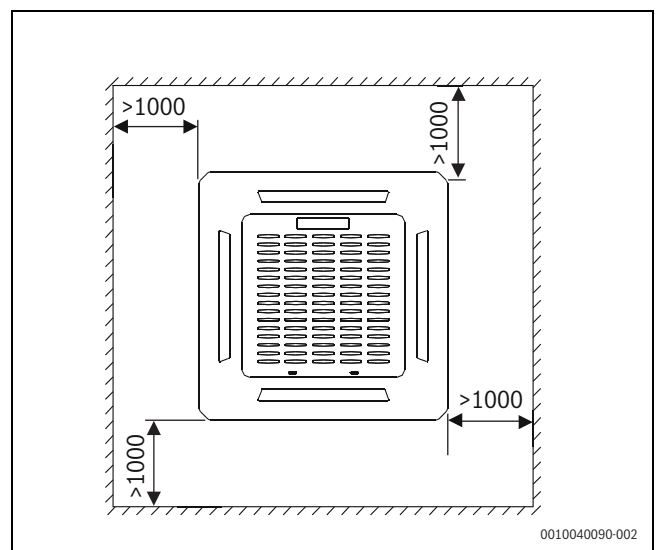




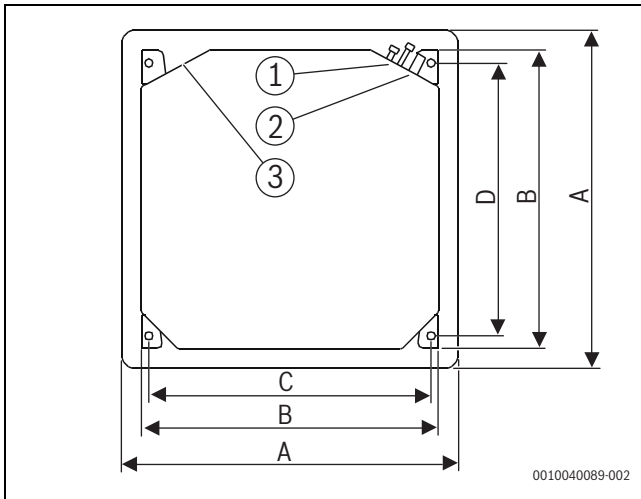
1 CL5000L 35~125...



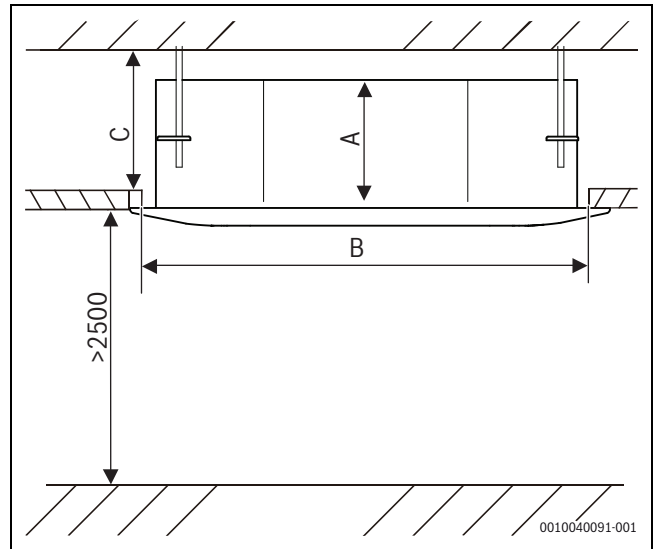
2 CL5000L 140~160...



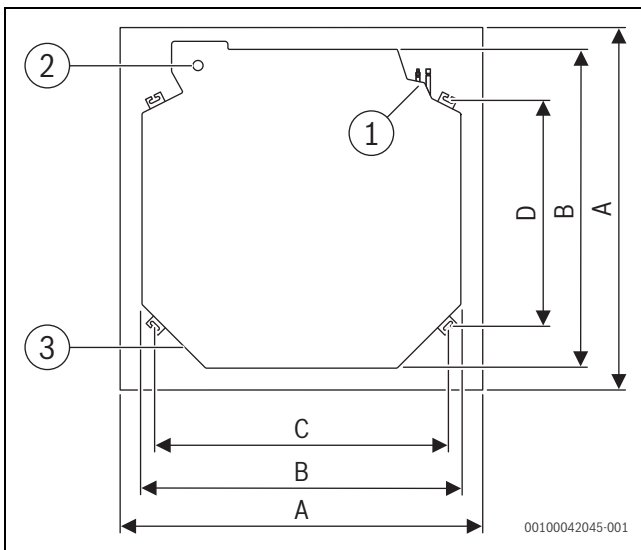
3 [mm]



4 CL5000iU 4CC...



6 [mm]



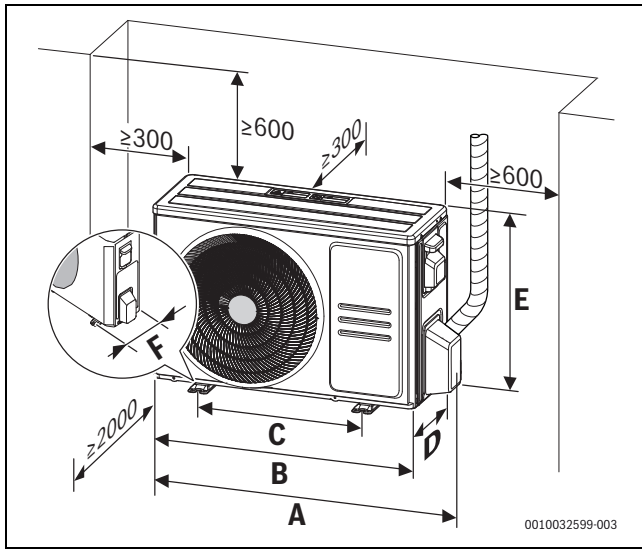
5 CL5000iL 4C...

	A [mm]	B [mm]	C [mm]
CL5000iU 4CC 35 E	260	600	> 290
CL5000iU 4CC 53 E	260	600	> 290
CL5000iU 4C 70 E	205	880	> 235
CL5000iL 4C 88 E	245	880	> 275
CL5000iL 4C 105 E	245	880	> 275
CL5000iL 4C 125 E	287	880	> 317
CL5000iL 4C 140 E	287	880	> 317
CL5000iL 4C 160 E	287	880	> 317

18

	A [mm]	B [mm]	C [mm]	D [mm]
CL5000iU 4CC 35 E	647	570	545	523
CL5000iU 4CC 53 E	647	570	545	523
CL5000iU 4C 70 E	950	830	770	670
CL5000iL 4C 88 E	950	830	770	670
CL5000iL 4C 105 E	950	830	770	670
CL5000iL 4C 125 E	950	830	770	670
CL5000iL 4C 140 E	950	830	770	670
CL5000iL 4C 160 E	950	830	770	670

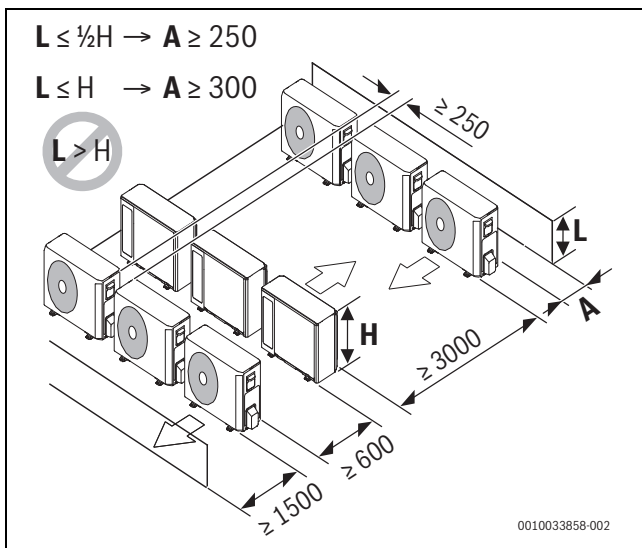
17



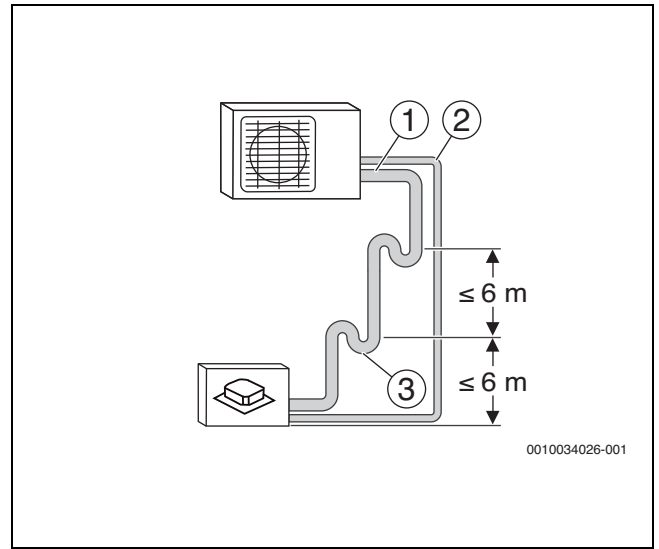
7 [mm]

	A	B	C	D	E	F
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
CL5000L 35 E	835	765	452	303	555	286
CL5000L 53 E	874	805	511	330	554	317
CL5000L 70 E	955	890	663	342	673	354
CL5000L 88 E	1030	946	673	410	810	403
CL5000L 105 E	1030	946	673	410	810	403
CL5000L 105 E-3	1030	946	673	410	810	403
CL5000L 125 E	1030	946	673	410	810	403
CL5000L 140 E-3	1045	952	634	415	1333	404
CL5000L 160 E-3	1045	952	634	415	1333	404

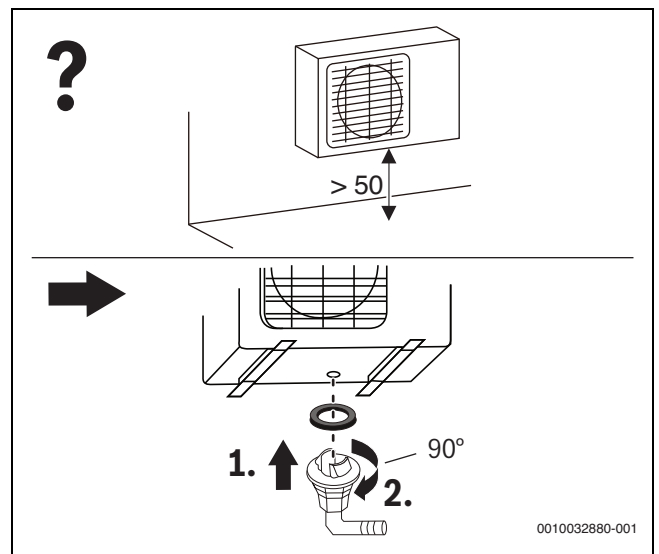
19



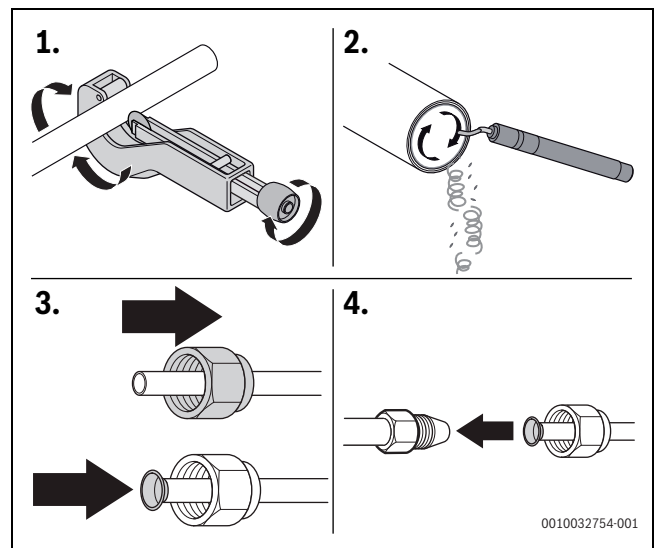
8



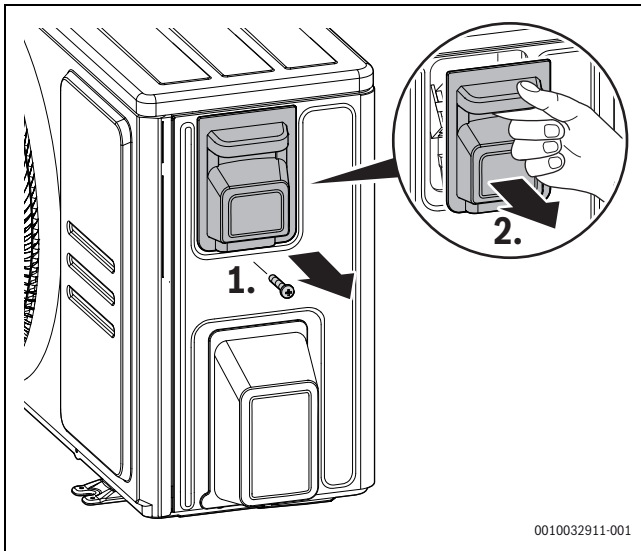
9



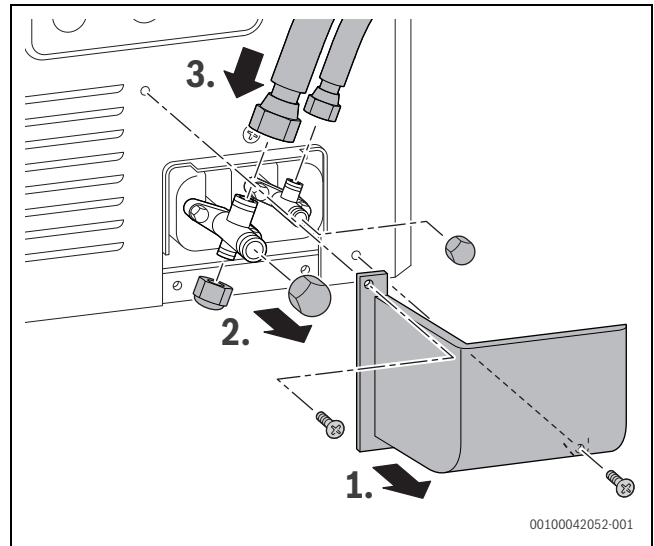
10



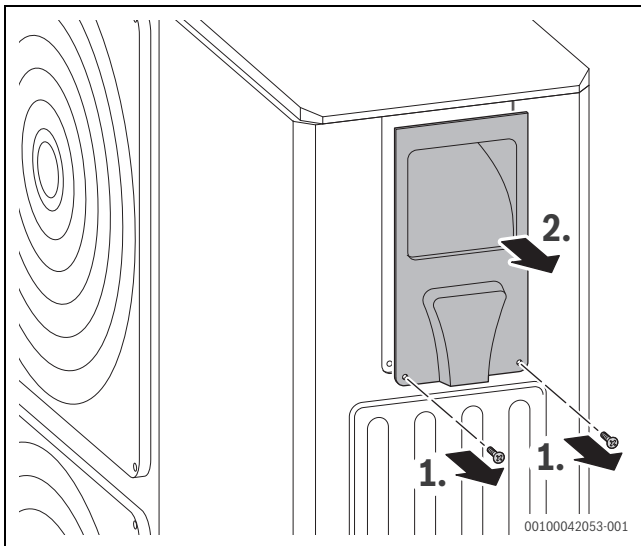
11



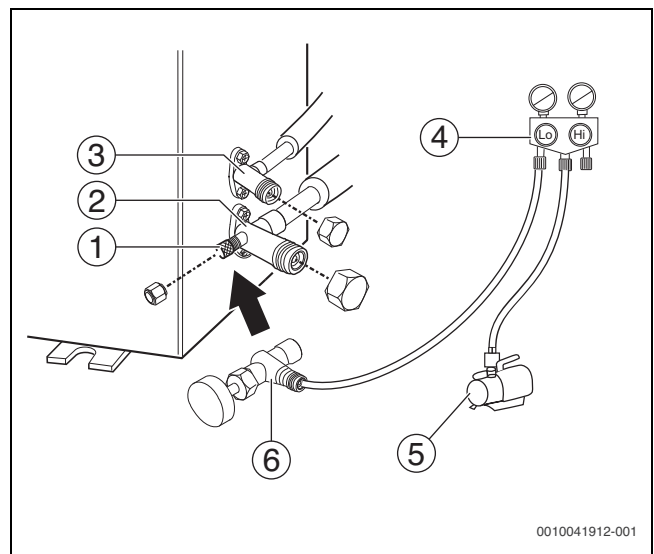
12 CL5000L 35~125...



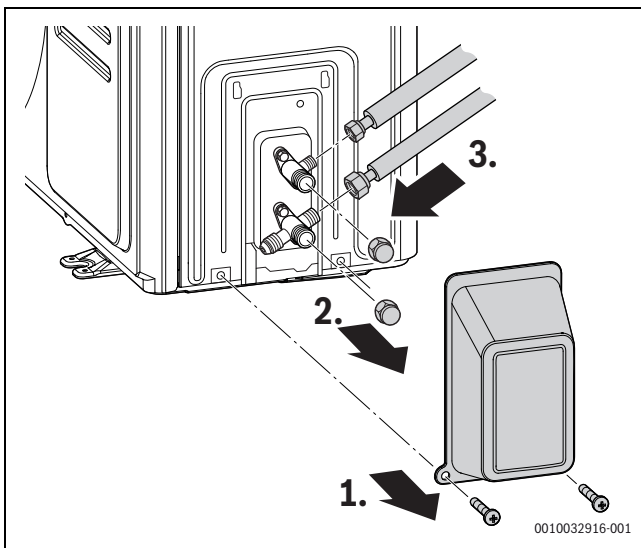
15 CL5000L 140~160...



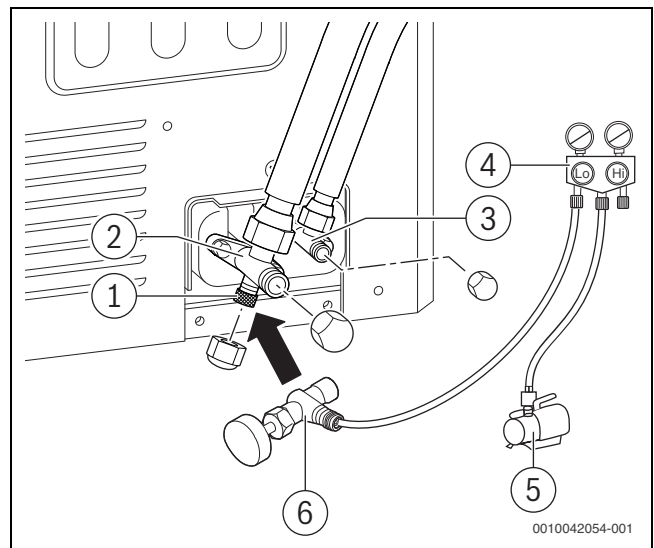
13 CL5000L 140~160...



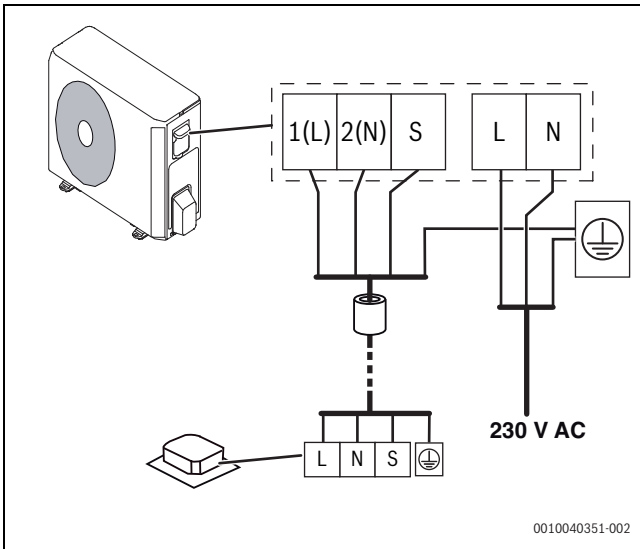
16 CL5000L 35~125...



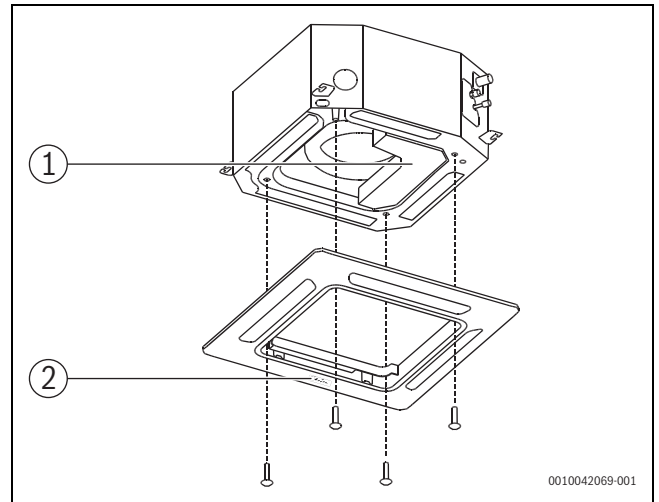
14 CL5000L 35~125...



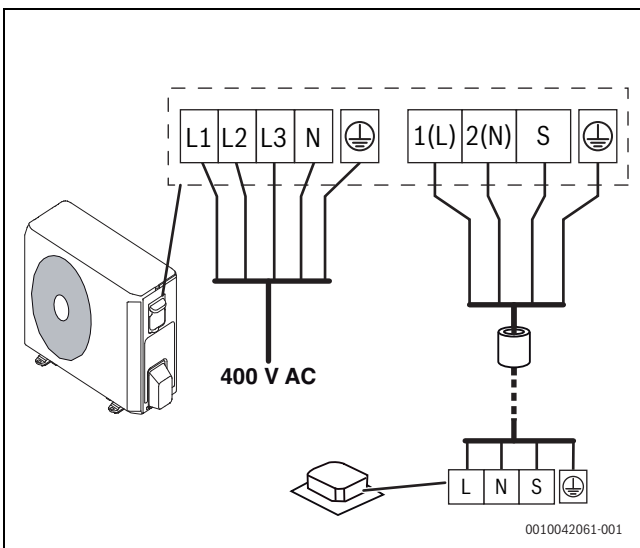
17 CL5000L 140~160...



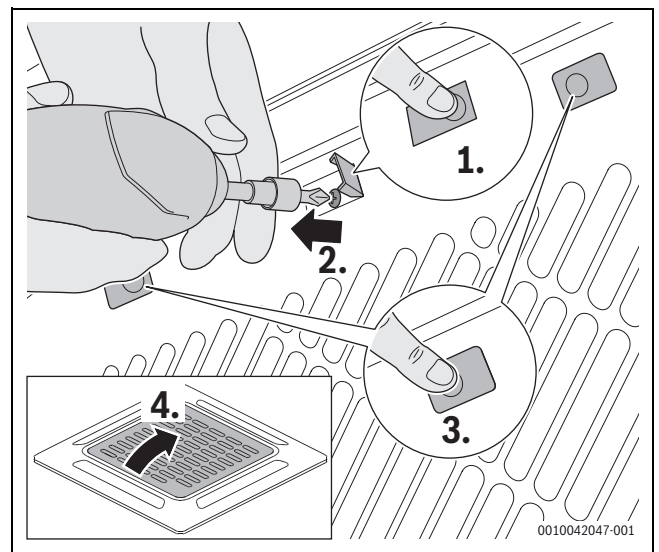
18 CL5000L...E



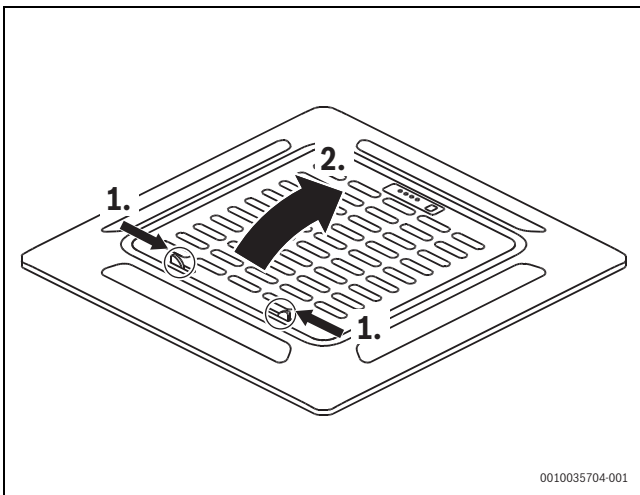
21 CL5000iU 4CC...



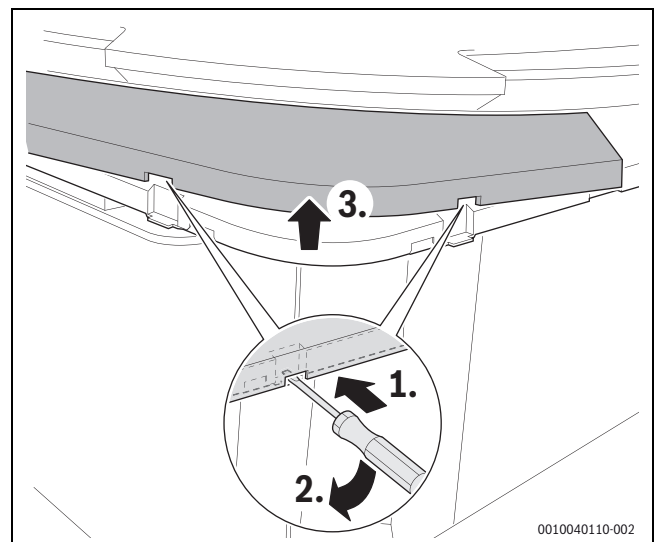
19 CL5000L...E-3



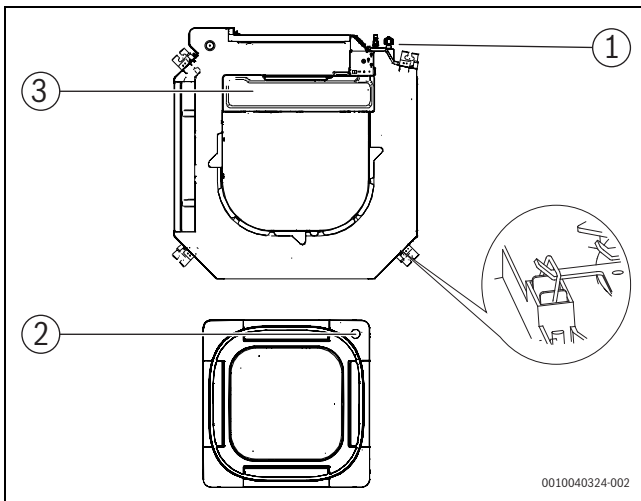
22 CL5000iL 4C...



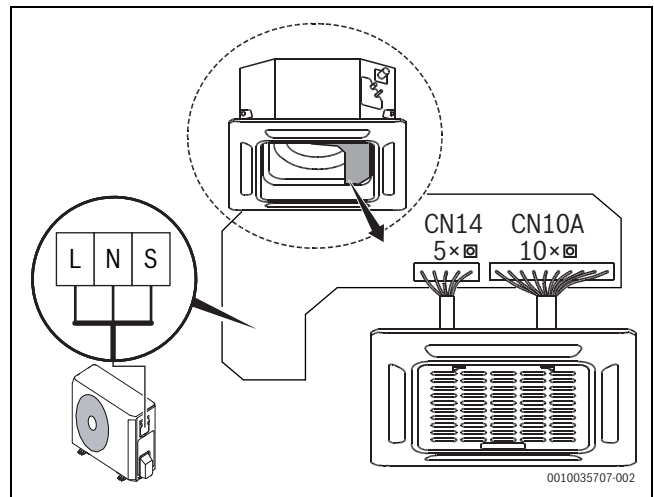
20 CL5000iU 4CC...



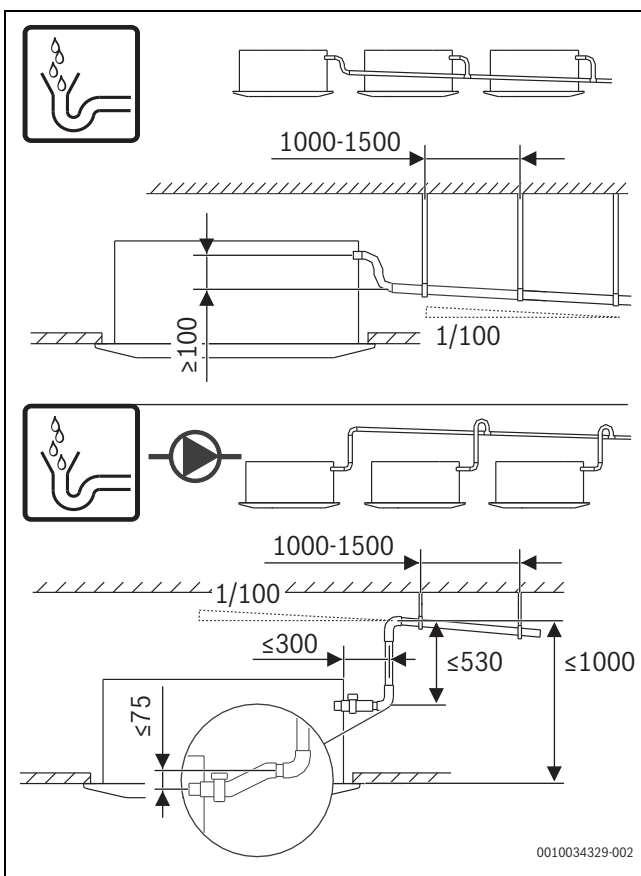
23 CL5000iL 4C...



24 CL5000iL 4C...

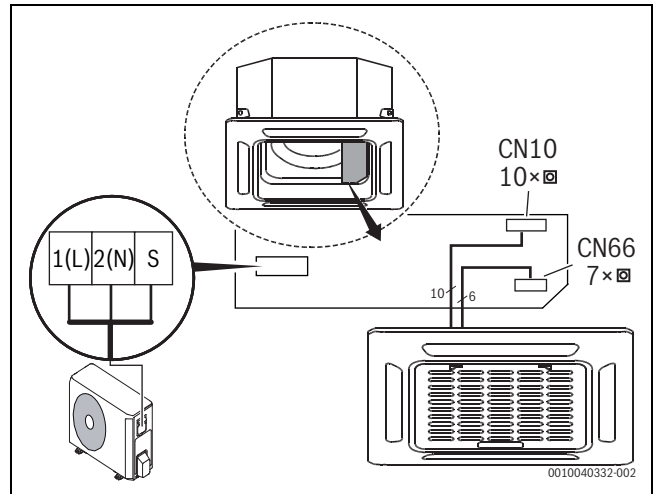


26 CL5000iU 4CC...

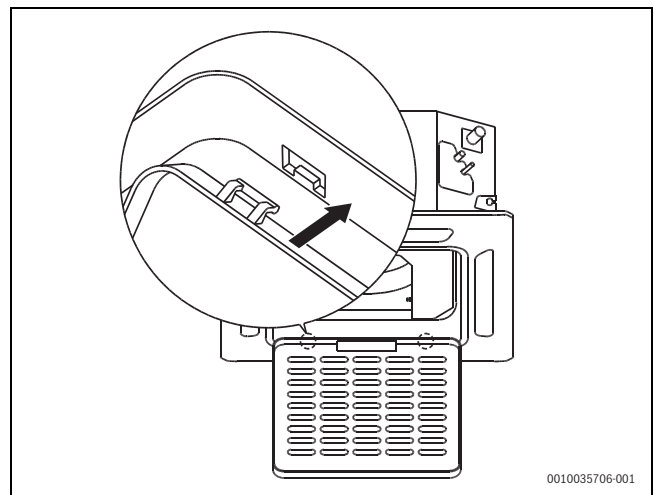


25 [mm]

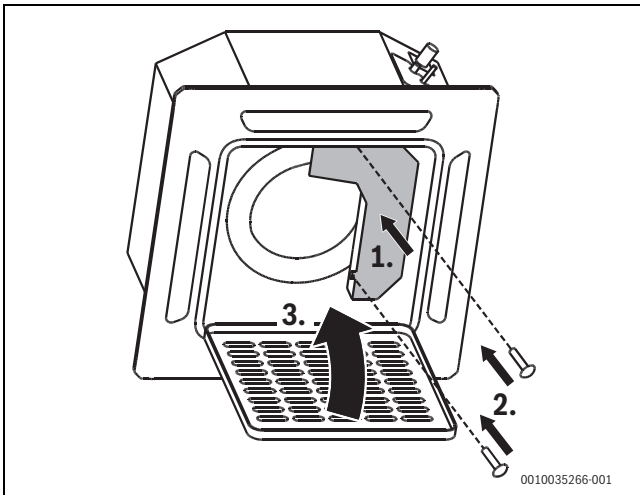
For 4C, the distance should be  $\leq 1000$ . For 4CC, the distance should be  $\leq 750$ .



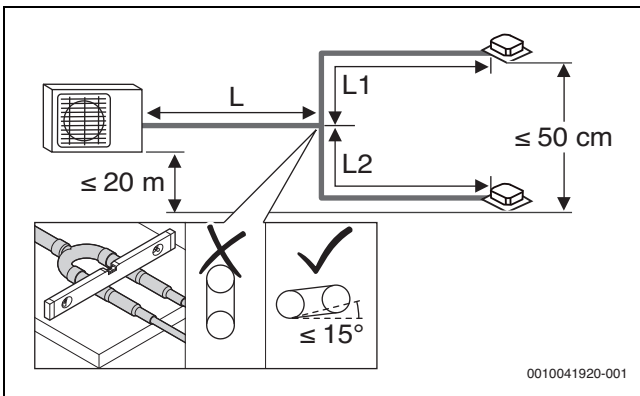
27 CL5000iL 4C...



28



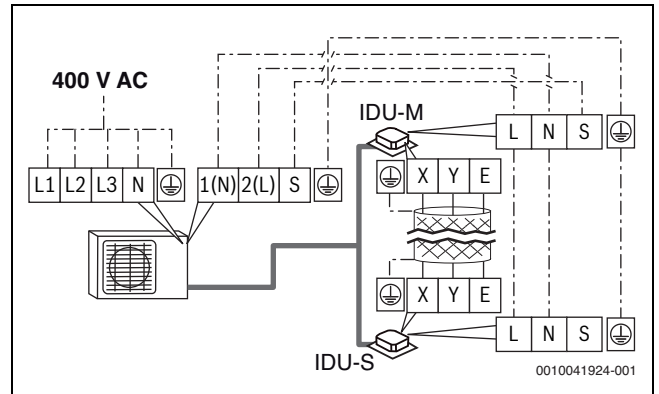
29 CL5000iU 4CC...



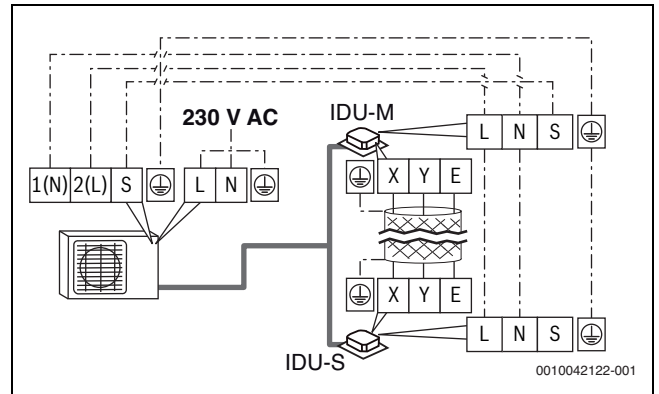
30

	L + L1	L1	L1 - L2
	L + L2	L2	L2 - L1
	[m]	[m]	[m]
2 × CL5000iU 4C 70 E	≤ 65	≤ 15	≤ 10
2 × CL5000iL 4C 88 E	≤ 65	≤ 15	≤ 10

20



31 CL5000L ... E-3



32 CL5000L ... E

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