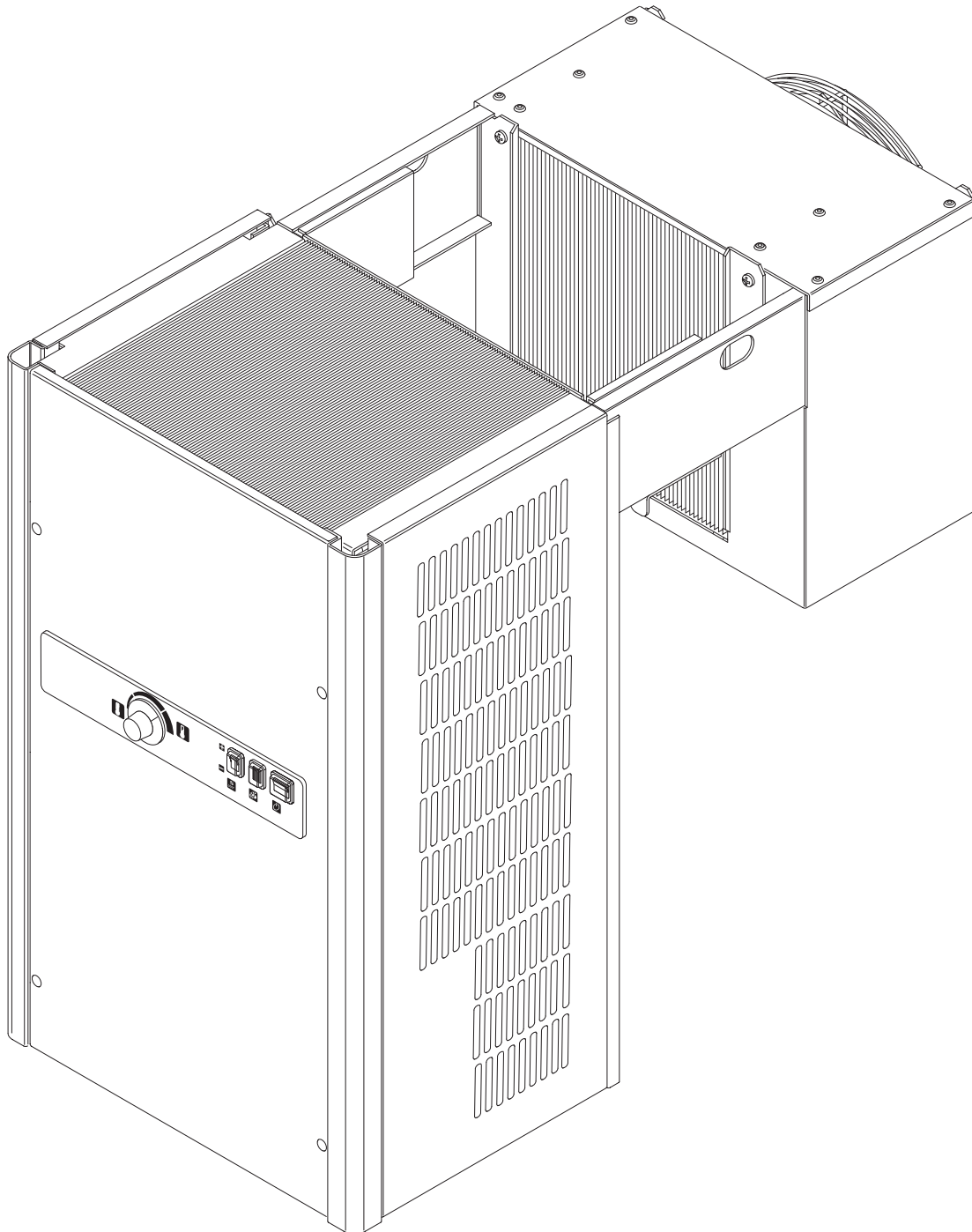


# Wall-hanging refrigeration units with thermostatic control

## TectoRefrigo WMF1

## TectoRefrigo WMC1



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**Please read carefully the following prior to beginning work on the refrigeration unit:**

Assembly, maintenance, cleaning and repair may only be done by companies specialising in refrigerant technology.

Technical changes and manipulation are prohibited.

In case of non-compliance our guarantees are void.

Work on the refrigeration unit may only be carried out if the plug is removed from the power supply. Suitable warnings must be posted to prevent the refrigeration unit from being restarted while work is in progress. The regulations of VDE 0105 Part 1 - for work on electrical equipment must be observed.

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General notice (liability): the details of this technical documents serve for description. Consents regarding the availability of certain features or regarding a certain purpose always require a special written agreement.

**1. General notes**

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- 1.2 Requirements for installation area
- 1.3 Transport
- 1.4 Supplied condition
- 1.5 Unpacking and handling
- 1.6 Cleaning and maintenance of the refrigeration unit

**2. Installation of the refrigeration unit in a Viessmann coldroom****3. Electrical power supply in the coldroom**

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- 3.2 Installed socket  
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- 3.3 Connecting doorswitch
  - 3.3.1 Thermostatic control T
- 3.4 Connection and wiring diagram for deep-freezing regulator for TectoRefrigo WMF1
- 3.5 Connection and wiring diagram for refrigeration regulator for TectoRefrigo WMC1

## 1.1 Extract from the conditions of guarantee

No guarantee is assumed for damage resulting from improper use, improper assembly or operation by the buyer or other parties, natural wear, improper or negligent handling, or chemical/electro chemical influence, insofar as this is not our fault, or resulting from inattention to the assembly, operation and maintenance instructions, improper alterations or maintenance done by the buyer or third parties, or as a result of use of parts supplied by other manufacturers.

## 1.2 Requirements for installation area

The refrigeration unit may not be installed outdoors.

**For economical operation of the refrigeration unit, the ambient temperature should be between +5°C to +25°C.**

The room must be well ventilated to remove heat generated. Direct heat radiation on the refrigeration unit must be avoided. Heating the room must also be avoided, otherwise the use of electrical power will increase.

The refrigeration unit is designed to provide free access in regard to suction and release of air. If air ducts are required, these must be designed and installed by an approved specialist company.

There must be enough space in front of the suction and air release vents of the refrigeration unit to guarantee proper ventilation:

- at least 250 mm in front of all suction and air release vents.

**Do not install units in plants where there is a danger of fire.**

**According to DIN VDE 0100-482 (VDE 0100 Part 482): 1997-08** *these are rooms or places in rooms or outdoors where there is a danger that, depending on the local and plant conditions, easily flammable materials in dangerous quantities could be close enough to the electrical equipment such that higher temperatures or electrical sparks could cause fire. These could be: work or drying areas, storerooms, or parts of room, as well as such areas outdoors, e.g. paper, wood, textile or wood-working plants, hay, straw, jute, and flax storage areas.*

**Do not install the unit in areas where there is a danger of explosion!**

## 1.3 Transport

Because of the oil in the condenser, the refrigeration unit may only be transported in a standing position. If the unit is to be transported further, only the original packing may be used.

## 1.4 Supplied condition

The refrigeration unit is delivered ready for operation, with cable and plug, packed in a carton.

## 1.5 Unpacking and handling

- Prior to and during packing a visual check of the refrigeration unit must be made in order to determine if any damage has occurred during transport.
- Please inspect for loose parts, dents, scratches, visible loss of oil, etc.
- During handling, the unit should be gripped only on the housing or on the frame.
- Before the packing material is disposed of, ensure that no loose parts are in it.
- In order to process the damage claim properly, we request exact details of the damage (pictures) as well as type designation and serial number.
- To prevent damaging of the unit, it may only be transported and stored in the position of use. Non compliance will cause loss of guarantee protection.

## 1.6 Cleaning and maintenance of the refrigeration unit

During cleaning the refrigeration unit and the coldroom should be cut off from the power supply.

**Remove the plug from the power supply during such work and secure against the plug being reinserted, or switch off the power supply at source and secure against switching on.**

- The cooling unit should be inspected periodically after beginning operation and, if necessary, cleaned. Depending on requirements, the intervals between inspection and cleaning have to be determined. The cleaning intervals depend on the condition of the surroundings.
- The condenser and evaporator can be cleaned with a soft brush, compressed air or, in case of oil residues, with a high pressure cleaner. Do not use any sharp or pointed objects. The fins should not be bent or damaged during cleaning.

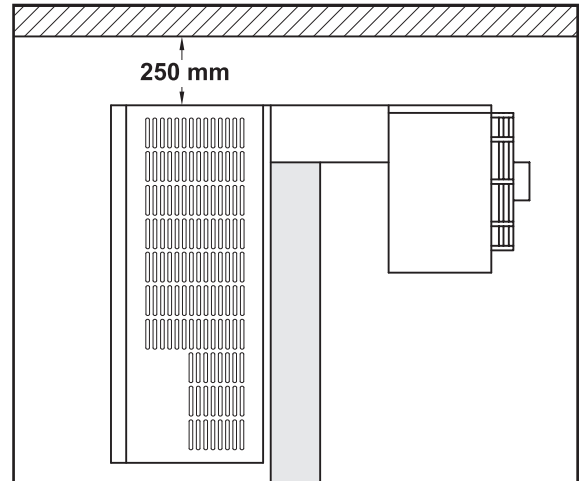
## 2. Installation of the refrigeration unit in a Viessmann coldroom

The minimum distance to the ceiling must be 250 mm to have a proper ventilation.



**Attention!**

**This minimum distance must be checked prior to the assembly of the refrigeration unit!**



For installation in the coldroom, a wall element with the appropriate pre cut and drilled holes can be supplied.

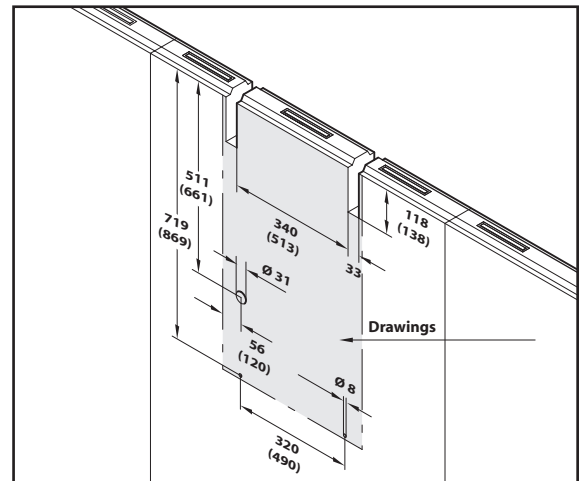
**Otherwise the necessary openings must be made by a refrigeration installation specialist using the drawings or templates.**

**All cut edges must be rust-proofed.**



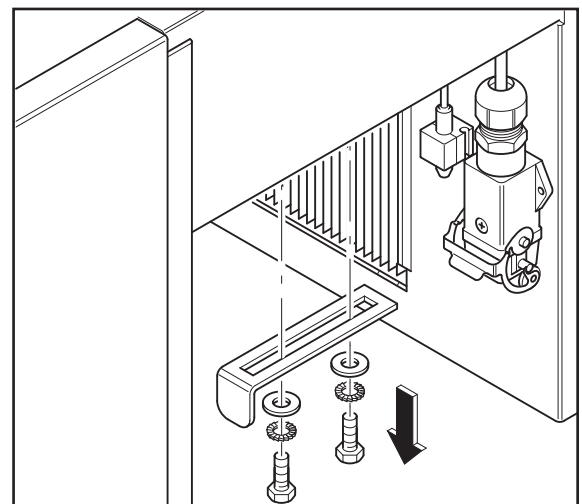
**Attention!**

**Do not connect the electrical power supply until operation begins danger to life!**

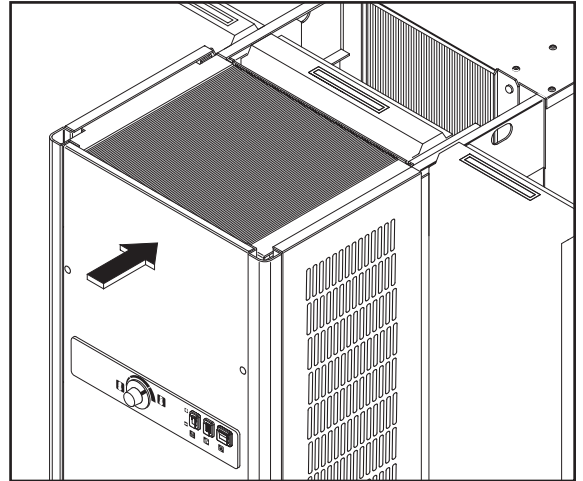


**Clamp sizes only for TectoRefrigo WMF1 1400, WMF1 1800, WMF1 2400, WMC1 2000 und WMC1 2800.**

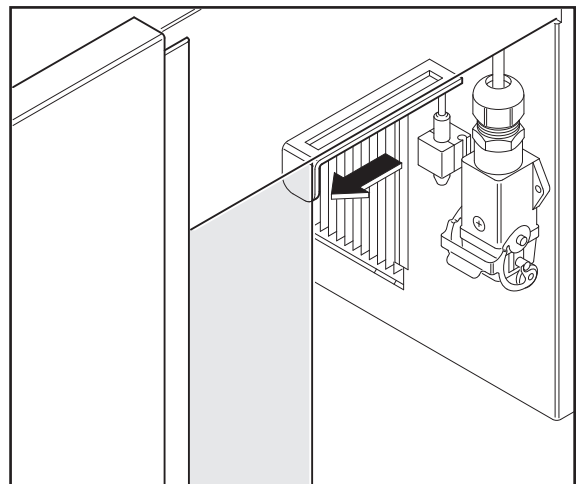
Release angle holder from unit.



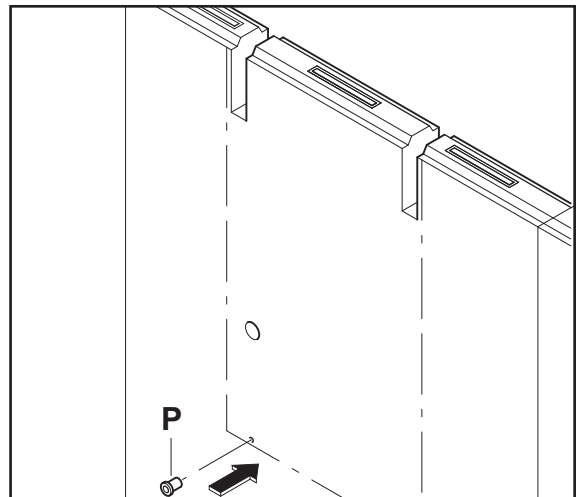
Hang the unit onto the coldroom wall and press against it from the outside of the wall.



Push the anchoring angle piece against the coldroom wall and fix it with one or two screws.

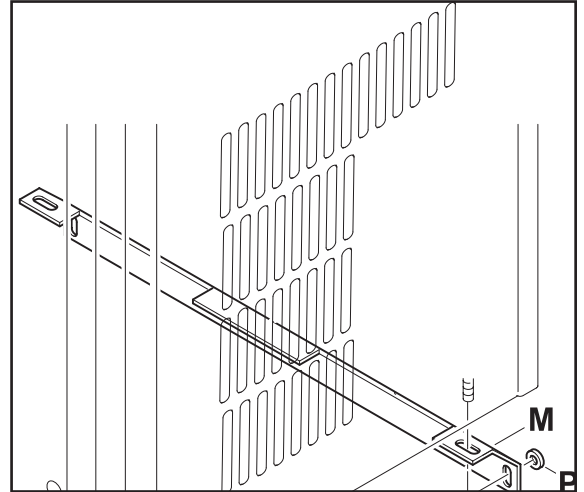


Insert the enclosed nuts (P) in the drill holes ( $\varnothing$  8 mm).



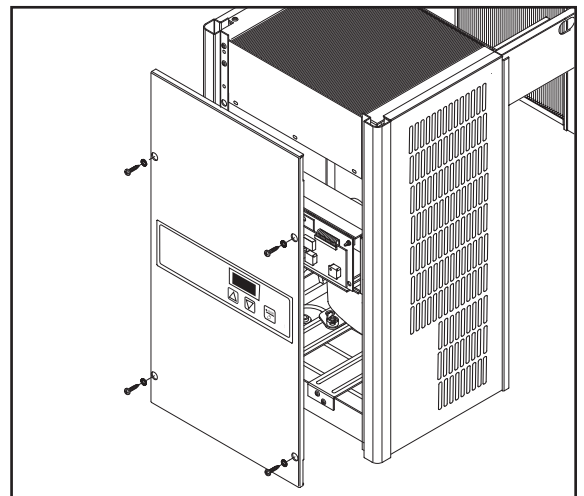
Screw the enclosed anchoring angle plates (M) onto the housing of the unit and the coldroom wall:

- M4 x15 (H) with nuts (P) in the coldroom wall;
- Hexagonal nuts (L) with washers (K) in the housing.

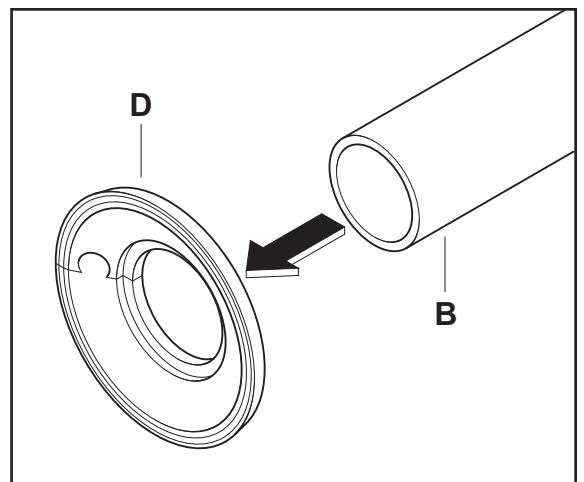


Release the locking screws from the front panel (4pcs).

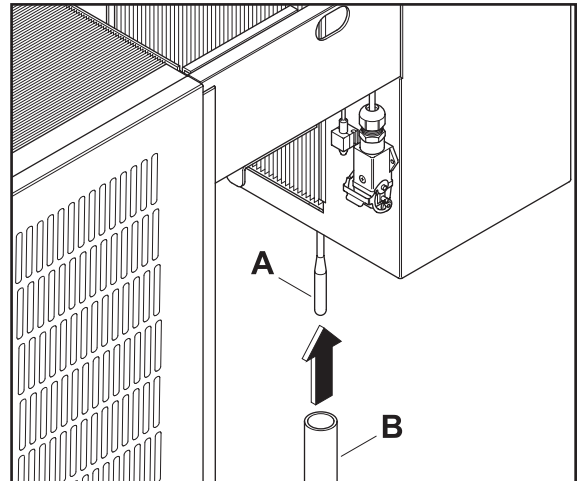
Remove front panel with an upward and forward movement.



Push enclosed plastic ring (D) over the condensate run-off tubing (B).



Insert condensation water heating unit (A) into the condensation water tubing (B). Tubing should be reasonably straight for easy insertion.



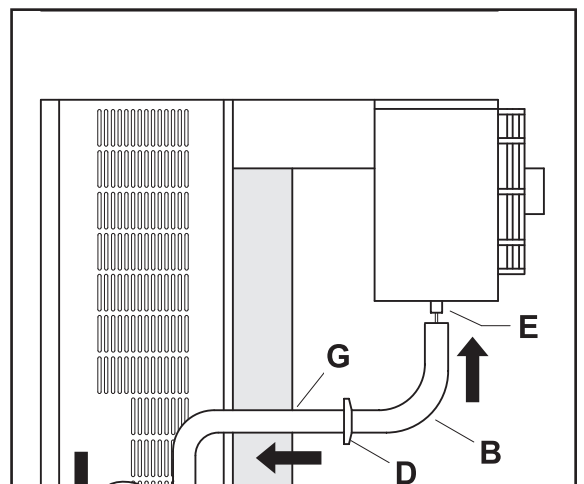
Siphon (C) only for deep-freezing units.

Insert water condensation tubing (B) from the inside into the hole (G,  $\varnothing$  31 mm) in the coldroom wall (F). If required, a lubricant can be used.

Place the condensation tubing (B) on the drain duct (E) of the evaporation plate.

For refrigeration units insert the condensation tubing into the condensation water plate.

Cover opening (G) for condensation tubing (B) with plastic ring (D)



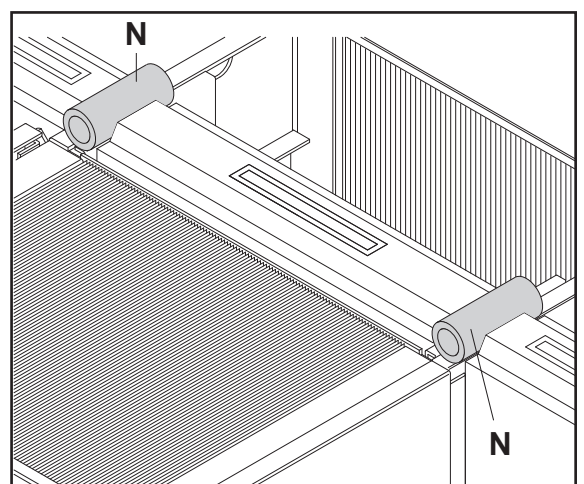
Fill the area above the handling rail of the refrigeration unit with the enclosed Armaflex tubing (N) as sealing material.

Attach front panel with screws ST 3,9 x 19 and washers A 4.3 on the refrigeration unit.



**Attention!**

**If cable channels or similar are to be mounted at the side of the refrigeration unit, there must be a gap of 30 mm between the cable channel and the unit, so that the side wall of the unit can be removed during maintenance work.**



### 3. Electrical power supply in the coldroom

The refrigeration unit has a pre installed multiple pole socket for electrical power supply in the coldroom for other purposes (e.g. lighting, max. 250 Watt).



**Attention!**

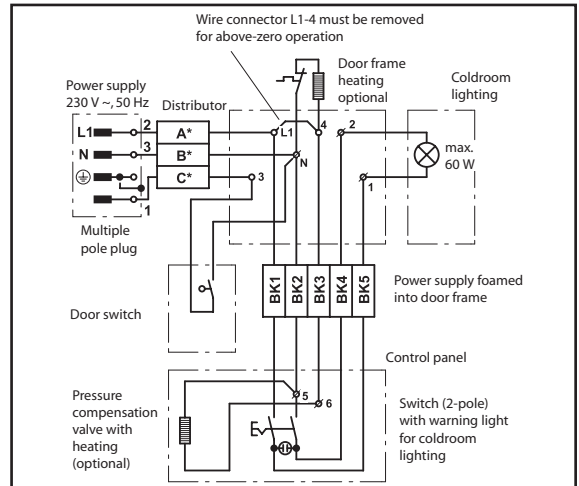
**Do not turn on electrical power until operation begins  
Danger to life!**

#### 3.1 Connection

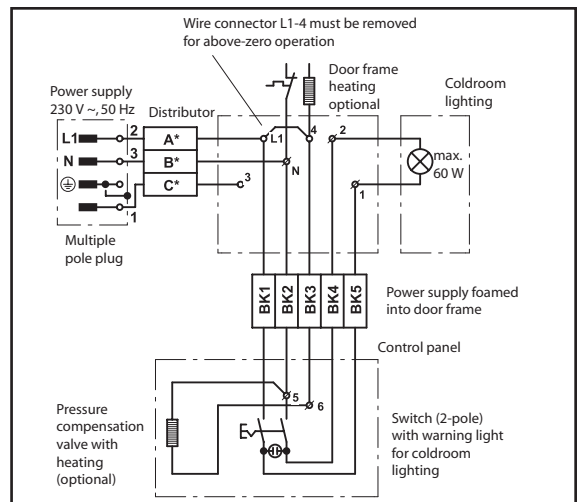
Work on the electrical connections and protective devices may only be undertaken by a specialist company according to IEC 364, local regulations and the conditions of the respective energy supply companies!

Insert plug only in a properly grounded socket (AC 230 V ~ 50 Hz).

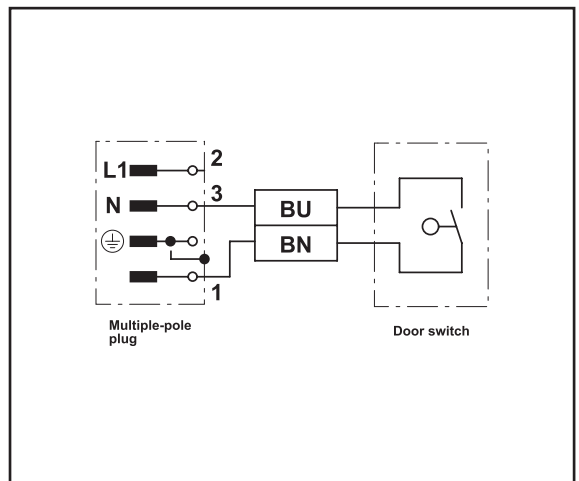
Designation Circuit Diagram	to DIN/ IEC	Coloured Wires	Numbered Wires
A*	BK	black	BK 1
B*	BU	blue	BK 2
C*	BN	brown	BK 3



**Connection diagram for multiple-pole plug - electrical power supply for coldroom (Viessmann Freezer) with door contact switch**



**Connection diagram for multiple-pole plug - electrical power supply for coldroom (Viessmann coldroom) without door contact switch**



**Connection diagram for multiple pole plug - door contact switch (without electrical power supply for the coldroom)**

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### 3.2 CEE-mains plug (only refrigeration unit WMF1 1800 and WMF1 2400)

Release locking screws of the front cover (4 off).  
Take care that the washers are not lost.

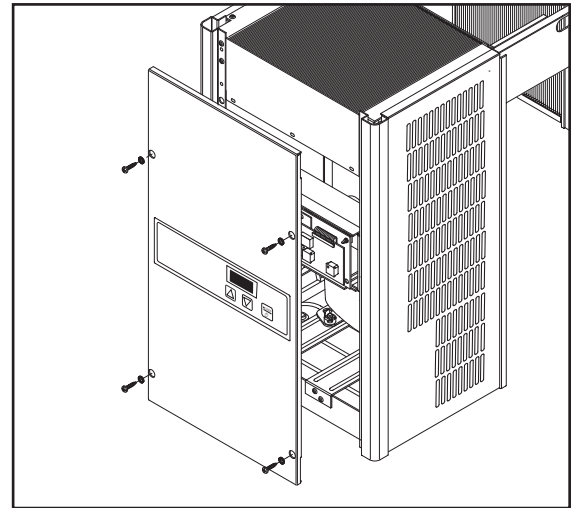
Push front cover slightly upwards and pull off to the front.

Release the retaining screw located inside the right side part at the side, slide side part (Y) upward and remove.

Guide the mains connection lead with CEE-plug (Q) to the outside. Reinsert the side part (Y), slide downward and secure with the retaining screw.

Plug the CEE-plug into the CEE-socket (3+N+PE, AC 400V, 16A, 50 Hz).

Insert front cover and fasten to the unit with the self-tapping screws ST 3.9 x 19 and the washers A 4.3 provided.



### 3.3 Connecting door contact switch.

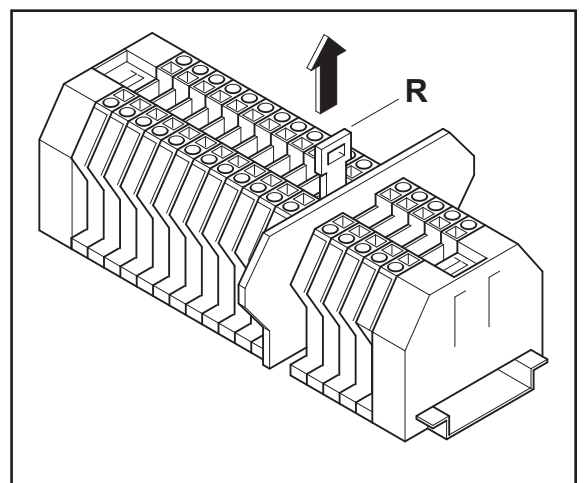
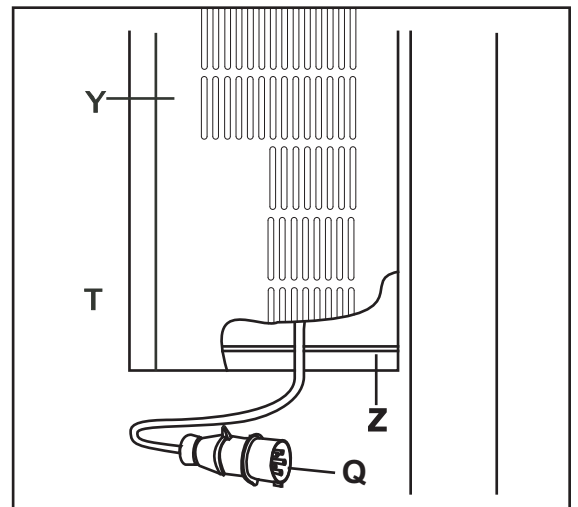
When the coldroom door is open, the evaporation ventilator should be switched off. We recommend installation of switch free of potential electricity.

Connection is made via the multiple pole socket on the refrigeration unit.

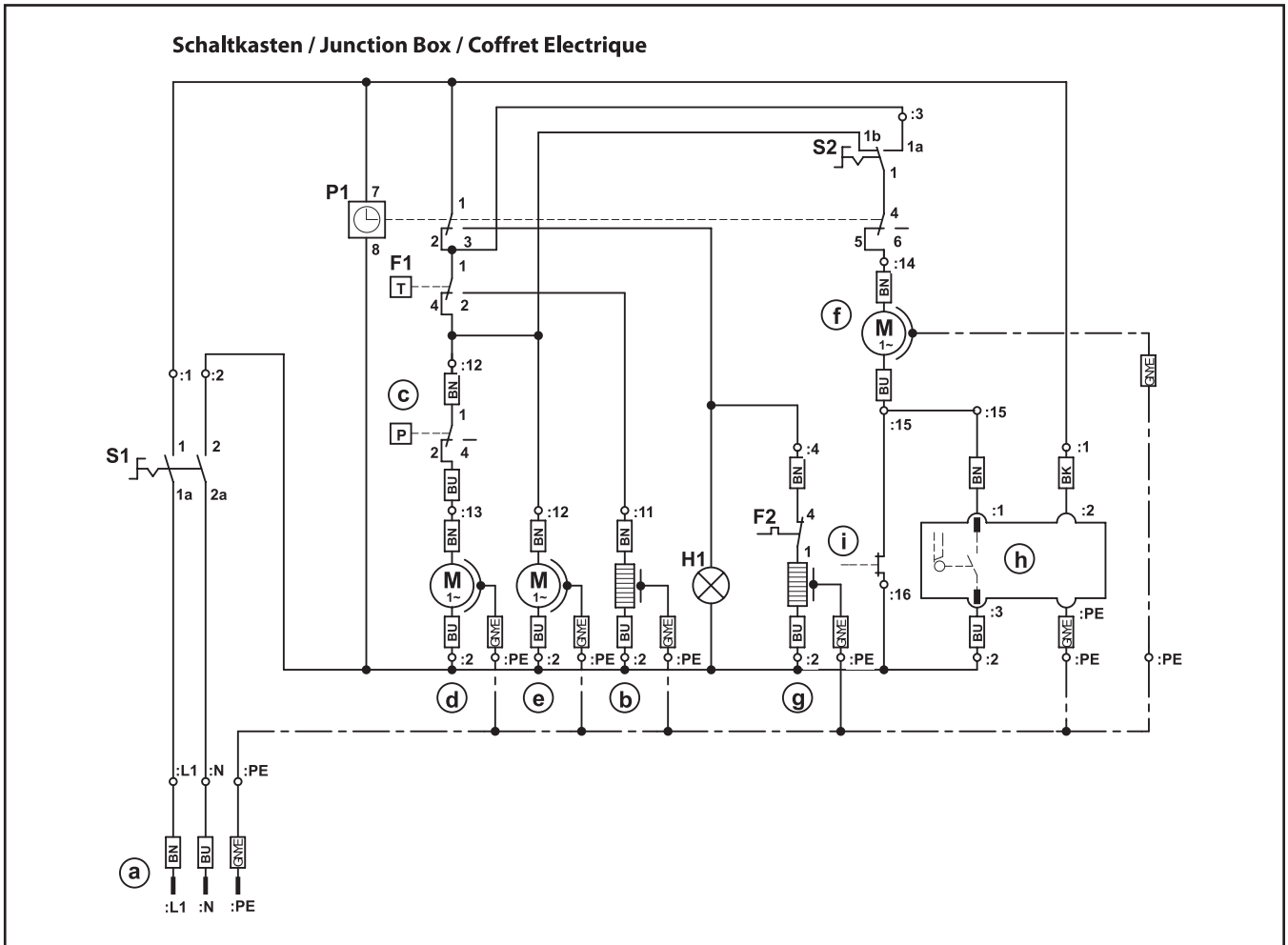
In the condition supplied, the unit functions without an external door contact switch.

#### 3.3.1 Thermostatic control T

If a doorswitch is connected to the refrigeration unit, the separating clamp in the control housing (R) must be pulled between connectors 15 and 16. For this, the front panel of the refrigeration unit and the cover on the regulator housing must be removed.



### 3.4 Connection and wiring diagram for deep-freezing regulator for TectoRefrigo WMF1

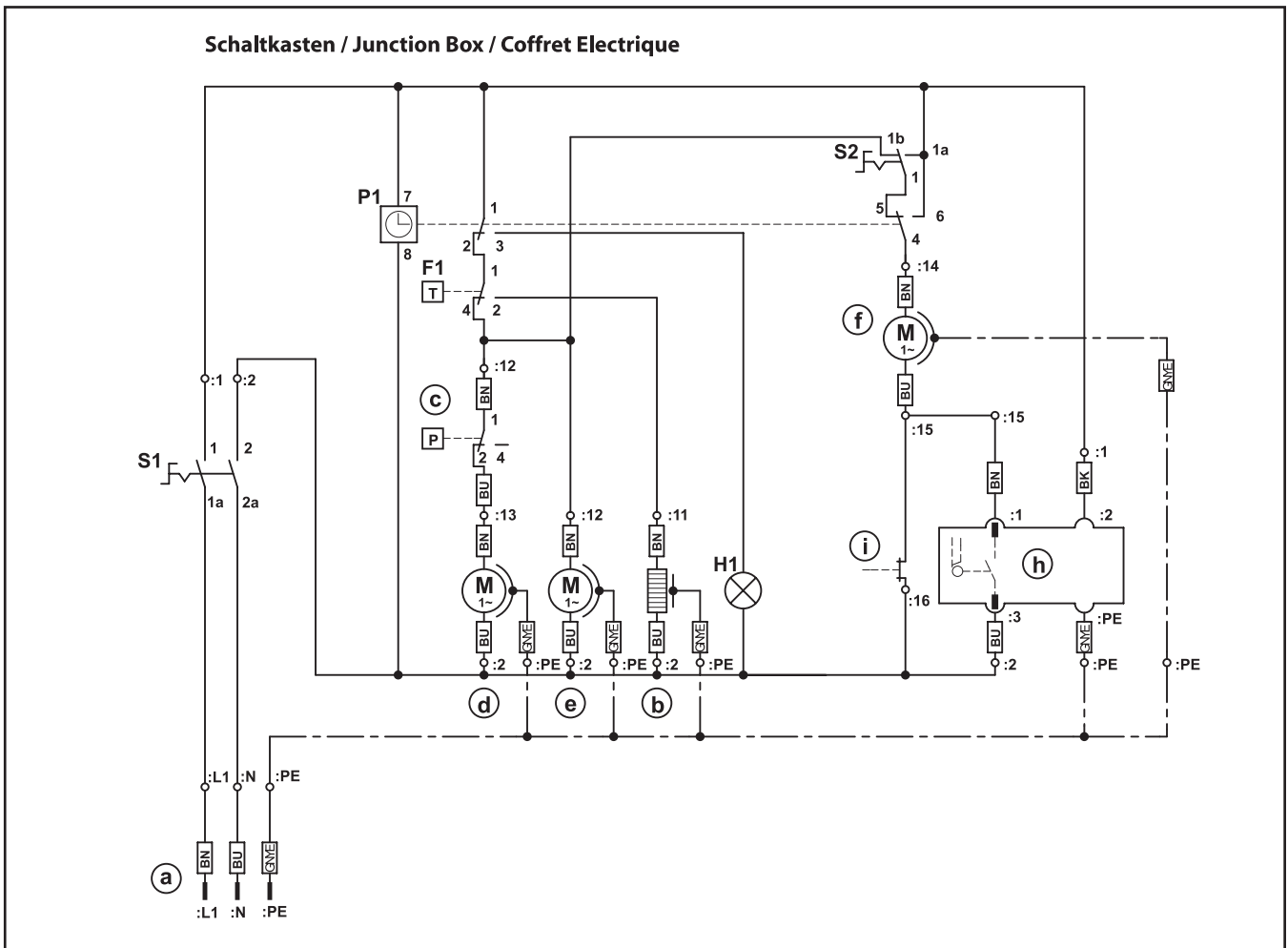


- (a) Power supply 230 V ~ 50 Hz
- (b) Oil heater
- (c) Pressostat
- (d) Condenser
- (e) Condensing ventilator
- (f) Evaporation ventilator
- (g) Evaporation heating
- (h) Multiple-pole socket
- (i) Separating clamp (Option door contact switch)
- S1 Operating switch
- S2 Humidity switch
- P1 Defrosting Timer
- F1 Temperature regulator
- F2 Safety monitor - temperature
- H1 Defrosting Gauge

DIN/IEC	D	GB	F
BU	blau	blue	bleu
BN	braun	brown	brun
BK	schwarz	black	noir
GNYE	grün/gelb	green/yellow	vert/joune

This diagram is only valid with the use of Viessmann products!

### 3.5 Connection and wiring diagram for refrigeration regulator for TectoRefrigo WMC1



- (a) Power supply 230 V ~ 50 Hz
- (b) Oil heater
- (c) Pressostat
- (d) Condenser
- (e) Condensing-Ventilator
- (f) Evaporatration-Ventilator
- (h) Multiple-pole socket
- (i) Separating clamp ( Option door contact switch)
- S1 Operation switch
- S2 Humidity switch
- P1 Defrosting Timer
- F1 Temperature Regulator
- H1 Defrosting gauge

DIN/IEC	D	GB	F
BU	blau	blue	bleu
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GNYE	grün/gelb	green/yellow	vert/joune

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