

# Operating instructions Distribution Box WV 4/16 A IP44 and WV 4/32 A IP44

#### **IMPORTANT:**

Please read these operating instructions and keep them for future reference. Please observe and follow the safety instructions.

### Introduction

Please read these operating instructions completely and carefully. They refer to the distribution box you have purchased and contain important information on the installation, operation and handling of the device.

### Symbols



# This symbol marks information which refer to the handling by an expert.



### PACKAGING

This symbol provides information on the utility cycle of the packaging.



### INFORMATION

This marks additional, useful information on a certain topic.



#### DANGER

This warning marks immediate danger. Non-compliance will lead to fatal or severe injuries.



### WARNING

This warning marks a possibly dangerous situation. Non-compliance can lead to fatal or severe injuries.



#### DISPOSAL

Mandatory self-declaration according to the WEEE directive on the disposal of equipment.

### Intended use

The distribution box is used as an indoor or outdoor power distributor for wall mounting or as a mobile distributor.

This product is designed for professional use. Installation and permanent connection to the supply network may only be performed by trained experts.

Any use which is not specified as intended use will be considered as misuse. The manufacturer will not assume any liability for damages resulting from misuse. The user bears the entire risk.

Unauthorised modifications and conversions will void the CE conformity and with it any warranty claims. Modifications may cause hazards for life and limb as well as damage to the distribution box or connected loads.

Factory labels on the distribution box must not be removed, changed or made illegible.

### Protection against foreign objects and weather

The protection type of this distribution box is IP44 according to DIN EN 60529 (VDE 0470-1) provided that the correct operating position is observed. See "Mounting and commissioning" section. This means:

- Protected against solid foreign objects with a diameter of more than 1.0 mm, e. g. wire.
- Protection against water splashing from any direction.

Not suitable for continuous exposure to water.

# **General safety instructions**

### **\ Qualified electrician**

Mounting, disassembly, installation, commissioning and servicing of the device may only be performed by a qualified electrician. The qualified electrician must meet and observe the following requirements:

- Intended use of the device.
- Compliance with the installation and operating instructions.
- Knowledge and application of the relevant electrotechnical provisions (e. g. DIN VDE 0100 Part 600, DIN VDE 0100 Part 410) as well as the country-specific provisions regarding the construction of electrotechnical systems.
- Knowledge and application of the general and specific safety and accident prevention regulations.
- Ability to recognise risks and prevent possible hazards.
- Handover of the installation and operating instruction to the operator/user of the device.

### **Operation/Use**

- Safe use is only ensured if these instructions are fully observed.
- Read these instructions thoroughly prior to installation, commissioning or operation.
- The distribution box is to be properly installed, maintained and commissioned by qualified experts in compliance with the relevant laws, regulations and standards.
- Never cover the distribution box to prevent trapped heat and the resulting fire hazard.
- Keep easily flammable and explosive substances away from the distribution box.
- Protect the cables
  - by pulling at the plug and not at the cable to disconnect the device,
  - by preventing mechanical damage to the cables,
  - by keeping them away from intense heat.
- Protect the housing from mechanical damage such as impacts or powerful blows.
- Never operate the distribution box if it is defective.
- Avoid tripping hazards.

# Packaging and transport

#### D Packaging

Packaging material is valuable raw material and can be reused. This is why packaging material should be recycled. If this is not possible, dispose of the packaging material according to the applicable local regulations.

#### Transport

Check your delivery for completeness and damages. If you notice any transport damage or if the delivery is incomplete, please notify your distributor immediately.

# **Distribution box layout**



Fig. A: Example of 32 A distribution box

- Bottom of housing 0
- 2 Top of housing
- Carry handle 3
- 4 Window
- 6 Residual current device
- 6 Protective equipment
- Pre-assembled cable feeds



Fig. B: Example of 32 A distribution box

- 8 CEE socket
- Schuko socket
- Housing screws
- Mounting holes
- 1 Threaded holes
- Connection socket

# Installation and commissioning



The activities described in this chapter may only be performed by a qualified electrician!



The device is intended for vertical wall mounting only.

The proper operating position is with the hinged lids of the sockets opening upwards.

### WARNING

Connecting the device to a supply cable with insufficient cable cross-section and/or an insufficient upstream fuse could result in a fire which may cause injuries or lead to an overload and damage the device. Please observe the information on the name plate!



### DANGER

Working at live parts may cause severe or fatal injuries.

- De-energize the supply cable of the device for installation and mounting work.
- Secure the system against unintended re-activation of the supply voltage by other persons.
- Ensure that the supply cable is de-energized before starting installation or mounting work. \_
- Ground and short-circuit. \_
- Cover or fence off adjoining live parts.

# Wall mounting

To be used at the wall, the distribution box must be mounted to the wall using wall plugs and screws. The recommended mounting height is with the controls at eye level.

The device is mounted using the mounting holes in the housing, see fig. B (11).



With this type of mounting, protection class II no longer applies without additional cover of the mounting screws in the housing (dangerous voltage). If you would like to maintain protection class II, cover the mounting screws with suitable protective caps.



Fig. C: Drilling dimensions

- Mark the drilling dimensions at the wall according to fig. C.
- Select suitable fastening elements (wall plugs, screws) and observe the manufacturer's specifications for installation (see introduction of Installation and commissioning section).
- Drill the holes and insert the wall plugs. Always consider electric cables which are already installed in the wall.
- Loosen the housing screws, fig. B (10), using a suitable tool.
- Swivel the top of the housing, fig. A (2), downwards.
- Position the device at the wall aligning the mounting holes.
- Insert the mounting screws through the mounting holes, fig. B (11), of the bottom of the housing, fig. A (1), and tighten them.
- Check that the device is secure.
- Close the top of the housing.
- Tighten the housing screws.

Check the connection of the sockets

- Supply the distribution box via the connection socket.
- Open the window, fig. A (4).
- Activate the protective equipment, fig. A (6).
- Check the voltage of each socket, fig. A (8) + (9).



# Operation

- To connect a load, open the hinged lid of the socket and insert the plug of the load completely.
- To remove a load, switch off the connected load first, then lift the hinged lid of the socket slightly and pull the plug out of the socket.

### WARNING

Improper use may damage the device and lead to injuries.

- Always use the plug housing to pull a connected device plug out of the socket.
- Do not pull the plug using the cable.
- Ensure that the cables are not kinked, crushed or run over or come into contact with external heat sources.

# Maintenance

Regular maintenance work increase the service life and support the failure-free and safe operation of the device. In this way, possible faults are detected early and hazards are prevented.

### Check unit for damage

- Check the device for external damage in a visual inspection
- (e. g. missing parts, material changes, cracks, etc.).
- Check the hinged lids of the sockets and windows for proper function.
- Have a qualified electrician replace any damaged hinged lids or windows.
- If you notice any damage at the device, immediately contact a qualified electrician.
- Do not continue to operate the faulty device since the risk of electric shock or damage to property (e. g. due to a fire) may be increased.
- If required, have the device properly repaired or decommissioned by a qualified electrician.

### Check the residual current device

The functionality of the residual current device (RCD), fig. A (5) must be checked regularly. The test is performed by operating a test button which triggers the residual current device.

- Bring the switch lever in the "I-ON" position.
- Press the test "T" button. → The residual current device is triggered, the switch lever moves to the "O-OFF" position.
- If any malfunction occurs during the test procedure or if the residual current device is not triggered, the distribution box must be decommissioned and a qualified electrician must be informed.

# Cleaning and care

The device can be cleaned using a dry or damp cloth depending on the conditions of use and the amount of dirt.

To prevent persistent dirt, we recommend regular cleaning with a dry cloth.

Before starting cleaning work, remove all connected loads from the device (see "operation" section).



### DANGER

Working at live parts may cause severe or fatal injuries.

- For wet cleaning, the device must be de-energized.
- Only clean the outside of the device and the parts (e. g. sockets).
- Do not open the device and keep the sockets closed.
- Never use steam cleaners or high-pressure cleaners.
- Unsuitable cleaning agents, cleaning equipment and excessive water may damage the device.

### Dry cleaning

For dry cleaning, you can use a hand brush and a clean cloth.

- Remove dust and dirt using a hand brush first.
- Then wipe the device using a clean dry cloth.

#### Wet cleaning

Only use clean water for wet cleaning.

- Remove dust and dirt using a hand brush first.
- Then wipe the device using a clean damp cloth.

### Decommissioning and disassembly

### DANGER

Working at live parts may cause severe or fatal injuries.

- De-energize the supply cable of the device for disassembly.
- Secure the system against unintended re-activation of the supply voltage by other persons.
- Ensure that the supply cable is de-energized before starting disassembly.

### Decommissioning and dismounting the device

- Open the device (see "Mounting and commissioning" section).
- The bottom part of the housing is attached to the wall with screws at different positions of the housing. Loosen the screws at the housing bottom and take the device off the wall.

### Storage and disposal

#### Storing the device

For proper storage and to ensure the failure-free operation of the device later, observe the following instructions.

- Clean the device prior to storage. (see "Cleaning and care" section).
- Store the device in its original packaging or in a suitable cardboard box.
- Store the device in a dry and temperature-controlled room at a storage temperature between 0° C and +40° C.

#### Disposing of the device

Recycle the old distribution box or dispose of it properly. Always observe local regulations.

The distribution box must not be disposed of with the household waste.



Proper disposal prevents damage to the environment and hazards to personal health.

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## Malfunctions and troubleshooting

### DANGER

The device contains parts under life-threateningly high electrical voltage.

- Have all repair work performed by specialists.
- Never operate the distribution box if it is defective.
- Electrical loads which are connected to the distribution box may start automatically when triggered
  protective equipment is re-activated and cause injuries.
- Only activate protective equipment when you have switched off all connected loads or disconnected them from the distribution box.

If one of the connected loads is no longer supplied with voltage, proceed as follows:

- 1. Pull the corresponding plug out of the distribution box.
- 2. Check the distribution box and the connected loads for defects in a visual inspection.
- If one of the devices is defective, inform a qualified electrician. Troubleshooting is hereby completed.
  - If this is not the case, proceed with step 3.
- 3. If applicable, check whether the fuse or the residual current device have been triggered. If yes, proceed with step 4; otherwise inform a qualified electrician. Troubleshooting is hereby completed.
- 4. Open the window.
- 5. Switch on the fuse or the residual current device.
- 6. If the fuse is triggered again, the distribution box is faulty. Proceed with step 7.
  - If the fuse is not triggered, proceed with step 9.
- 7. Close the window.
- 8. Decommission the distribution box and inform your supplier immediately. Troubleshooting is hereby completed.
- 9. Re-plug load. If the fuse is triggered again, the load or its supply cable is faulty.
- 10. Close the window.
- 11. Inform a qualified electrician. Troubleshooting is hereby completed.

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# **Technical data**

Туре	WV 4/16 A distribution box	WV 4/32 A distribution box
Rated current	16 A	32 A
Nominal voltage	230/400 V	230/400 V
Nominal frequency	50/60 Hz	50/60 Hz
Max. capacity	11 kW	22 kW
Degree of contamination	3	3
Type of ground connection	TN-C-S	TN-C-S
Sockets	4x Schuko 230 V, 2p 2x CEE 16 A 400 V, 5p	4x Schuko 230 V, 2p 1x CEE 16 A 400 V, 5p 1x CEE 32 A 400 V, 5p
Input connector	CEE 16 A 400 V, 5p	CEE 32 A 400 V, 5p
Fuse	1x RCD 40 A 4p, 30 mA 3x CB 230 V/16 A 1p	1x RCD 40 A 4p, 30 mA 4x CB 230 V/16 A 1p 1x CB 400 V/16 A 3p
Standard	EN 61439-1:2011 EN 61439-4:2013	EN 61439-1:2011 EN 61439-4:2013
IP class	IP 44	IP 44
Admissible ambient temperatures for operation	-25° to + 45°C	-25° to + 45°C
Dimensions LxWxH	28x11.8x34.9 cm	28x11.8x34.9 cm
Weight	2.82 kg	3.40 kg



Fig. D: Housing dimensions

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Fig. F: WV 4/32 A IP44 distribution box



Fig. E: Example of device label WV 4/16 A IP44 distribution box

- Article number
- 2 Type designation
- EAN code
- Manufacturer's address
- IP class
- 6 Mandatory self-declaration (WEEE directive)
- CE mark

- B Input socket
- Output sockets
- Rated voltage/nominal frequency
- Product standard
- Protection class
- B Version
- Nominal fault current RCD

# **Environmental conditions**

For a safe and failure-free operation of the device, the following environmental conditions must be observed:

- Do not install the device in an additional housing or in a building niche without consulting the manufacturer.
- Do not cover the lateral surfaces of the device.
- Do not use the device in explosive atmospheres with flammable liquids, gases or dusts Risk of explosion and fire!
- Only use copper cables as supply cables.

Contact with chemical substances, oils, alkaline solutions, grease or solvents or thermal influences may visually or qualitatively impair the plastic housing.

# **Conformity declaration**

The Declaration of Conformity is filed with the manufacturer.