# PMC12 Plug & Play Sub-Distribution with Bypass for 4,5 and 6kVA UPS-Systems

DK 7857.448

## Instruction Manual

FRIEDHELM LOH GROUP

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# 1 Contents

# 2 Notes on documentation

These instructions are intended for trained specialists who are familiar with the installation and operation of the Rittal UPS system and PMC12 sub-distributor.
Read these operating instructions prior to installation and be sure to keep them accessible for later use.
Rittal can accept no liability for damage and operating disturbances resulting from non-compliance with these instructions.

## 2.1 Other applicable documents

In addition to these instructions, the instructions of Rittal PMC12 and their safety instructions apply.
These instructions are also available as a file on the supplied CD-ROM and can also be downloaded from www.rimatrix5.com

To view the file, you will need the program Acrobat Reader, which can be downloaded from www.adobe.com.

## 2.2 Retention of documents

These instructions and all other applicable documents constitute an integral part of the product. They must be given to the unit operator. The unit operator is responsible for the storage of the documents so that they are readily available when needed.

## 2.3 Symbols used

Please note the following safety instructions and other notes in these instructions:

**Safety instructions and other notes:**

**Danger!**
**Immediate danger to life and limb!**

**Caution!**
**Potential threat to the product and the environment.**

**Note!**
Useful information and special features.

# 3 Safety instructions

Observe the following general safety instructions when installing and operating the device:

- Observe the applicable regulations governing electrical installations of the country in which the device is installed and operated as well as national regulations for accident prevention. Also observe company regulations (labour, operating and safety regulations).
- Use only original or recommended products and accessories. The use of other parts may invalidate the liability for any resulting damage.
- Do not make any changes to the PMC 12 sub-distributor other than those described in these instructions or associated instructions.
- Operational reliability of the device is only guaranteed when used as intended. Under no circumstances should the tolerances specified in the technical specifications (see Chapter 10) be exceeded. This applies in particular to the permissible ambient temperature range and permitted IP protection category.
- Operating the system when it is in direct contact with water, corrosive substances or flammable gases and vapours is prohibited.

In addition to these safety instructions it is imperative that the special safety instructions mentioned for the individual activities in the individual chapters are observed.

EN

# 4 Device description

The PMC12 sub-distributor with bypass supplements the 4.5 and 6 kVA UPS version of the PMC12 UPS system by one sub-distributor with fused outputs and an external maintenance bypass which allows for bypassing of the UPS should the device need to be serviced or maintained. With this sub-distributor, the 4.5 and 6 kVA versions can be upgraded to a fully packaged system.
It provides a mains input with IEC 60309-3 connector 32A 1-phase (CEE) and a pre-fabricated cable for the UPS.
At the output end there are 4 x IEC 320 C13 connectors and 2 x IEC 320 C19 connectors. All 6 outputs are individually fused with circuit breakers.

## 4.1 Front and rear view of the PMC12 sub-distributor

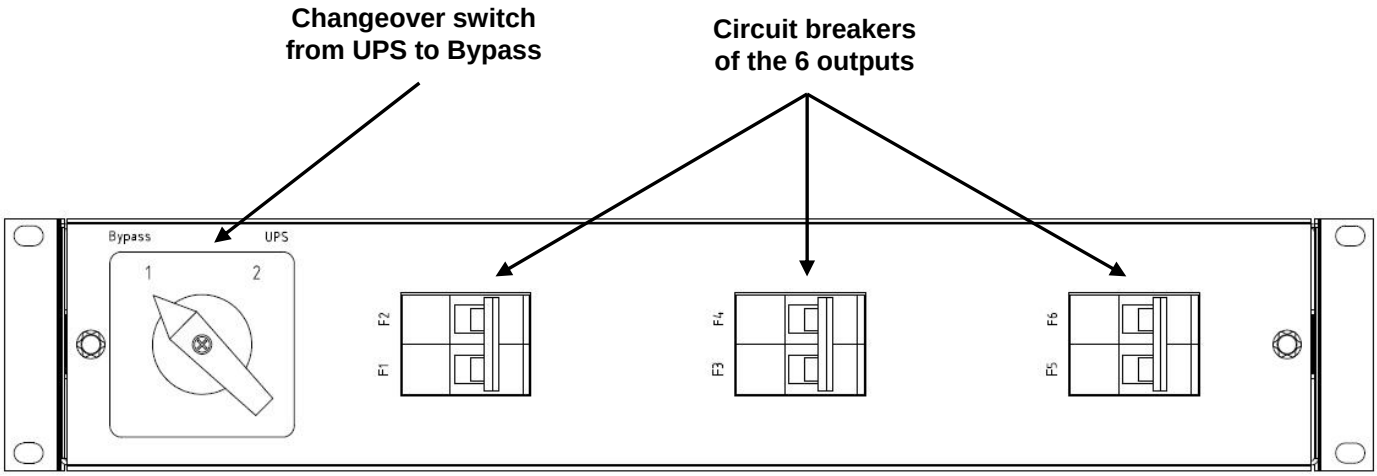


*Fig. 1 Front view of PMC12 sub-distributor*

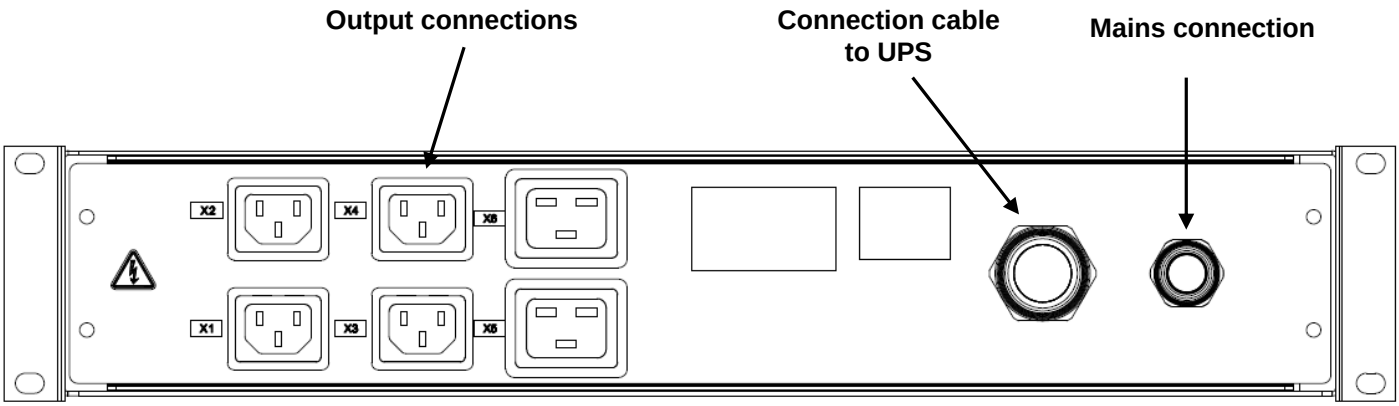


*Fig. 2 Rear view of PMC12 sub-distributor*

# 5 Assembly and connection

## 5.1 Assembly

The PMC12 sub-distributor is designed for assembly in a 19" enclosure. It should be positioned as close as possible to the connected UPS. Included with the supply are 50 captive nuts and screws for assembling the 19" enclosure. All connection cables and outputs of the sub-distributor should be installed on the rear side of the device. When deciding where to assemble the device it should therefore be ensured that adequate working space is provided for connecting the consumers.
The front of the device should be easily accessible to enable quick access to the device should a circuit-breaker trip.

## 5.2 Mains-end connection

Connect the sub-distributor to the mains using the existing 1-phase 32A CEE connector (IEC60309-3).
Please note that mains-end of the PMC12 sub-distributor is not fused. The mains-end must be fused on-site.

**Note!**
Observe maximum loads of mains fuse.

## 5.3 Connection to UPS

The UPS is connected to the 4.5 and 6 kVA UPS using the existing connector. Both the input and output of the UPS run through the connection cable to the UPS. The connector is equipped with a safety feature that protects against incorrect connection. Once plugged in, the locking mechanism to the UPS must be engaged so as to protect against accidental unplugging.

## 5.4 Output connections

Once assembled and the UPS has been connected to the sub-distributor, the output connections can be connected using Plug & Play. All output connections in the sub-distributor are fused with circuit breakers.

**Note!**
Please note the max. current per slot. For C13 connectors, the max. current is 10A, for C19 plugs 16A. These values must not be exceeded.

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# 6 Commissioning the sub-distributor

To commission the PMC12 sub-distributor together with the 4.5 or 6 kVA UPS, switch on the UPS by pressing the "ON" button for several seconds. Repeat the process after the UPS has entered standby mode.

More detailed information on the installation and commissioning of the UPS is available in the operating instructions of the 4.5 and 6 kVA PMC12 UPS systems. These can be found e.g. on the Internet at www.rimatrix5.com in the *Downloads* section under the *Power category.*

After the initialization phase of the UPS, the output is connected and voltage is applied.
Commissioning of the sub-distributor is thus completed.

**Note!**
Make sure the switch at the front of the sub-distributor is on "UPS". Otherwise, no protection is provided by the UPS and the system will operate in Bypass mode.

Also check the correct switching state of the circuit breakers of the output.

## 6.1 Bypass mode

If the UPS is defective or has to be de-energised to allow maintenance work to be carried out, the PMC12 sub-distributor offers an integrated external maintenance bypass.

With the help of this bypass, the connected consumers can continue to be supplied with energy. To do this, the switch at the front (see Figure 1) must be switched from "UPS" to "Bypass".
The consumers are then supplied by the normal mains supply.
During this time, the UPS does not protect the connected load against voltage faults or failures.
Once the maintenance work has been carried out and the UPS has been successfully re-commissioned, the switch must be switched back to "UPS".

# 7 Fault description

In the following, the most common faults are described which can occur during commissioning or operation of the PMC12 sub-distributor with bypass. Should you be unable to find a solution to your fault in this chapter, please refer to the customer service address in Chapter 11.

| Problem | Possible cause | Solution |
|---|---|---|
| The UPS cannot be switched on after cable installation | No input voltage | Check the input voltage or the mains fuse to the sub-distributor as well as the connection cable to the UPS. |
| One or more outputs of the sub-distributor are de-energised while others outputs are still supplying voltage | One of the output circuit-breakers has tripped | Check the switching state of the circuit breakers and, if necessary, the connected consumers for a possible short-circuit |
| The connected consumers were not supplied with energy during a power failure | The switch at the sub-distributor is set to Bypass | Set the switch on the front of the sub-distributor to "UPS" |
| One of the fuses for the outputs of the sub-distributor constantly trips | Output overload beyond current limit of circuit breaker | Check the current consumption of the connected load and reduce accordingly |

# 8 Maintenance and care

The PMC12 sub-distributor with bypass is a maintenance-free system. The housing does not need opening for installation or operation.

**Note!**
Opening the housing or accessory components shall invalidate any warranty or liability claims.

**Warning!**
**Risk of damage!**

**Do not use aggressive substances such as cleaner's naphtha, acids, etc. for cleaning the device as these may damage it!**

To clean the housing, use a damp cloth.

# 9 Storage and disposal

## 9.1 Storage

If the device is not used over a longer period, we recommend that you disconnect the device from the mains and protect it against moisture and dust.

More information regarding the conditions governing operation and storage can be found in the technical specifications in Chapter 10.

## 9.2 Disposal

When the PMC12 sub-distributor with bypass is no longer needed, it must be disposed of according to the regulations governing the recycling of electrical equipment.

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# 10 Technical specifications

| PMC12 sub-distributor with bypass | |
|---|---|
| **General** | |
| Dimensions mm (WxHxD): | 482 x 88 x 220 |
| Weight | approx. 18 kg |
| Operating temperature range | 0 – 40 °C |
| Storage temperature range | -40 – 85°C |
| Moisture | 50 – 90% rel. humidity, non-condensing |
| Protection category | IP 20 according to EN 60529 |
| Colour | RAL 9005 matt |
| Housing material | Sheet steel |
| **Mains input:** | |
| Connector | IEC 60309-3 (CEE connector) P + N + PE, 6h, 32A |
| Cable length | 3000 mm |
| Cable type | 3 x 4 $mm^2$ |
| **UPS input** | |
| Connector | UPS connector with plastic housing |
| Cable length | 1500mm |
| Cable type | 5 x 4 $mm^2$ |
| **Output** | |
| Output jacks | 4 x IEC320 C13 (10A)<br>2 x IEC320 C19 (16A) |
| Circuit-breakers | 4 x 1-pole 10A C characteristic<br>2 x 1-pole 16A C characteristic |
| **Fulfilled standards** | |
| RoHS Directive | |
| CE (Low Voltage Directive) | |

## 11 Customer service address

Please address any technical issues or questions about our product portfolio to the following address:

Hotline: +49 (0)2772 / 505-9052
Service phone: +49 (0)2772 / 505-1855
Service fax: +49 (0)2772 / 505-2319

Internet: http://www.rimatrix5.com / www.rittal.com
E-mail: info@rittal.com

**Note!**
In order to process your request quickly and without error, please always specify the item number in emails or when calling us.

More information about UPS and power distribution and up-to-date operating instructions is available on the Internet at www.rimatrix5.com in *the Downloads section* under the *Power* category.

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Industrial Enclosures
Coffrets et armoires électriques
Kastsystemen
Apparatskåpssystem
Armadi per quadri di comando
Sistemas de armarios
インダストリアル エンクロージャー

Stromverteilung
Power Distribution
Distribution de courant
Stroomverdeling
Strömfördelning
Distribuzione di corrente
Distribución de corriente
分電・配電システム

Elektronik-Aufbau-Systeme
Electronic Packaging
Electronique
Electronic Packaging Systems
Electronic Packaging
Contenitori per elettronica
Sistemas para la electrónica
エレクトロニクス パッケージシステム

System-Klimatisierung
System Climate Control
Climatisation
Systeemklimatisering
Systemklimatisering
Soluzioni di climatizzazione
Climatización de sistemas
温度管理システム

IT-Solutions
IT Solutions
Solutions IT
IT-Solutions
IT-lösningar
Soluzioni per IT
Soluciones TI
ITソリューション

Communication Systems
Communication Systems
Armoires outdoor
Outdoor-behuizingen
Communication Systems
Soluzioni outdoor
Sistemas de comunicación
コミュニケーションシステム

A42985 01 IT74

Rittal GmbH & Co. KG · Postfach 1662 · D-35726 Herborn
Telefon +49(0)2772 505-0 · Telefax +49(0)2772 505-2319 · eMail: info@rittal.de · www.rittal.de