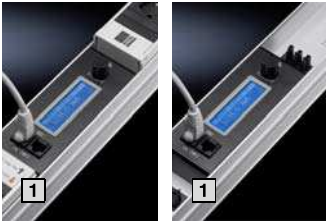


Power distribution

Power System Module PSM



PSM rail with measurement for CMC-TC

Busbar with integral output measurement

Catalogue 33, page 384
 Display and monitoring of the complete three-phase connection current and the power per rail. The display is local. In conjunction with CMC, the rail may be remotely administered and configured using standard protocols (SNMP, HTTP).

Note:

To connect the PSM measurement bar for CMC-TC (Model No. 7856.016) to the CMC III, the CAN bus unit for two unit channels (Model No. 7030.030) is required. Two PSM measurement bars may be connected per CAN bus unit.



The following active functions are provided:

- Local display, legibility is independent from the installation position.
- Measurement and monitoring of the current per phase. Min./max. limits may be set. Measurement range 0 – 16 A.
- Measuring and monitoring of the voltage per phase. Min./max. limits may be set. Measurement range 0 – 250 V.
- Alarm notification via a flashing display.
- Remote administration of the PSM rail, editing and monitoring of remote limits, SNMP trap message in case of alarm.

1 Simple connection via RJ connector

Note:

When using the CMC III, we recommend using the PSM measurement bars for CMC III, Model Nos. 7859.050 (2 x 3 x 16 A) or 7859.053 (1 x 32 A)!



Power System Module PSM

Busbar, current carrying capacity up to 96 A per rack

Catalogue 33, page 384
 The ever-expanding power requirements of modern IT infrastructures demand refined solutions for power distribution inside the racks. This leads to an associated requirement for additional sockets. The new "intelligent power distribution system" from Rittal significantly reduces cabling and assembly work.

The modular system facilitates basic configuration of the racks, thanks to a vertical support rail with 3-phase infeed. The various insert modules to supply the active components may be snap-fitted into the support rail. This can even be done whilst the system is operational, because the support section is shock-hazard protected.

The various modules, earthing pins, IEC 320 etc. may be inserted into the support rail in any combination. This is easily achieved, even by non-electricians, thanks to the shock hazard protected plug & play system.

Technical specifications/benefits:

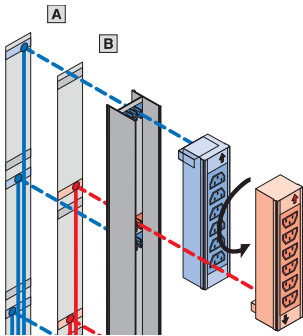
- 3-phase construction with a maximum current of 3 x 16 A.
- A redundant three-phase infeed with 3 x 16 A may also be added.
- The redundant circuit is completely separate from the 3 phases of the support rail.
- Each plug-in module picks off a phase on the support rail, either from infeed **A** or from the redundant infeed **B**, depending on the direction of connection.

- Modules may be retrofitted whilst the system is operational.
- Plug-in modules may be equipped with integral overcurrent protection, so that only the affected module is deactivated in the event of an excessively high current. The other modules remain operational.
- Overvoltage protection may be integrated into the supply line.

The vertical support rail allows the slots to be used flexibly across the entire enclosure height, and configured in a redundant manner via separate power infeed to the individual modules.

Supply includes:

- Busbar with connection socket
 - Assembly parts
 - Instructions
- Without cable.





PSM busbar

Single- and 3-phase design with 32 A phase current Catalogue 33, page 384

Technical specifications:

- Single- and three-phase design with a max. current of 32 A per phase, 1 x 32 A or 3 x 32 A, 400/230 V, 50/60 Hz
- Accommodates up to 6 passive PSM modules
- Integral circuit-breaker 16 A, Class C
- Modules may be retrofitted whilst the system is operational

Supply includes:

- Busbar with CEE-conforming connector
- Assembly parts
- Instructions



PSM busbar

With fixed infeed/RCD
Catalogue 33, page 384

Busbar with Residual Current protective Device (RCD). The busbar is protected against inadmissibly high touch voltages by two RCDs with a rated differential current of 30 mA. One RCD protects 3 slots on the bar. Additionally, there are two 16 A miniature circuit-breakers integrated into the bar. Infeed is via a 32 A CE connector.

Supply includes:

- Busbar with fixed connection cable (3 m)
- Instructions
- Assembly parts



Socket modules with switchable slots

Catalogue 33, page 385

The module has 8 current outlets with IEC320 C13 (depending on version C19/earthing-pin) slots. Each of the 8 slots is individually switchable (via the CMC system). Furthermore, a current indicator, circuit display and thermal overload protection are integrated into the module. The module is twice the length of a standard PSM module, so that a maximum of 2 modules may be inserted into a 1200 mm long PSM rail, and a maximum of 3 modules into a 2000 mm long PSM rail.

Operate the module without CMC:

For operation of the module, power pack DK 7201.210 and a connection cable are needed. Up to 2/3 modules may be operated in one PSM rail (1200/2000 mm) with one power pack.

Available functions: Current display, circuit display and automatic selective activation

Operate the module with CMC:

A module is connected to the CMC III via a CAN bus unit for two channels 7030.030. The module is supplied with power via this unit; a separate power pack is not required. Up to 4 x 2 x 4 modules may be connected to one CMC III processing unit.

Available functions: Current display, circuit display, automatic selective activation, via CMC in the network: Individual switching of the 8 current outlets, current limit monitoring, delayed switching of the individual current outlets, status display of the module.

Recommended accessory list CMC:

- DK 7030.000/7030.010 CMC III Processing Unit or CMC III Processing Unit Compact
- 7030.030 CAN bus unit for two channels
- 7030.060 CMC III power pack, 100 – 230 V AC
- 7030.070 CMC III mounting unit, 1 U
- 7030.091 CAN-Bus connection cable RJ 45, 2 m
- 7200.210 connection cable/extension (depending on country variant)
- 7030.080 CMC III programming cable USB

Design	Model No. DK
8-way C13	7856.201
8-way C13, 482.6 mm (19") mounting	7200.001
2 x C13 and 4 x earthing-pin	7856.203
2 x C13 and 4 x C19	7856.204

Description of functions:

- 2-digit local LED 7-segment current display on the module. Legibility is independent from the installation position.
- Measuring and monitoring of the current per module. Min./max. limits may be set. Measurement range 0 – 16 A.
- Alarm messages are indicated via a flashing 7-segment display.
- Monitoring of the thermo-fuse.
- Modules may be combined via the bus system, to enable selective activation.
- In conjunction with the CMC, the 8 individual current outlets of the modules may be activated and deactivated individually via HTTP and SNMP.
- Remote administration of the power supply, editing and monitoring of remote limits, SNMP trap messages in case of alarm.
- 8 IEC320 C13 sockets per module.
- User administration.

Material:

Aluminium section with plastic cover

Supply includes:

- 1 module (max. 16 A per module)
- 1 infeed cable 24 V DC or 1 bus cable
- 1 adaptor for power pack 24 V DC



Also required:

A separate power pack (100 – 240 V AC/24 V DC) is required for stand-alone operation without CMC (DK 7201.210) and the relevant connection cables.

PSM/PCU modules

Individual current measurement per slot
Catalogue 33, page 385

Features of the active PSM/PCU modules in conjunction with the CMC

- 2-digit local LED 7-segment current display for total current values.
- Individual current measurement per slot with limit configuration via CMC web interface.
- LED colour code for load assessment per module/slot.
- SNMP switching option via the network.
- Up to 16 modules via a joint web interface under one IP address.
- Monitoring of the current per module and outgoing slot.
- Limits may be freely configured.
- The 8 individual slots of the module may be switched separately in conjunction with the CMC. May also be linked to other CMC alarm messages.
- Alarm messages are additionally indicated by flashing LEDs.

PSM plug-in module/19" PCU

Modules for the Rittal PSM busbar system or for mounting on either the 482.6 mm (19") level or enclosure frame. In conjunction with Rittal CMC, the managed modules offer further convenient functions. These include event-controlled switching of the outputs and current measurements for individual sockets.

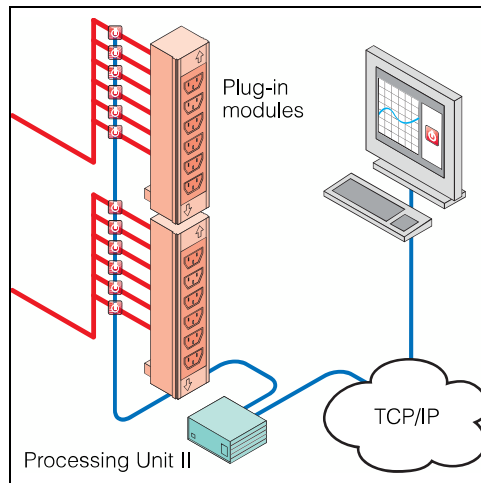
The switchable modules also feature sequential reconnection after a power failure. Versions are available for all the important connector types used in the data centre.

Note:

- A PSM busbar (e.g. 7856.020) is required to be able to use the PSM modules. Corresponding information can be found in Catalogue 33, from page 384.
- A CMC system is required for control and remote monitoring of the managed modules via TCP/IP. The CMC Processing Unit permits the administration of up to 16 modules. Corresponding information can be found in Catalogue 33, from page 768.

All relevant information is also to be found on the Internet at: www.rittal.com

Photo shows a configuration example with equipment not included in the scope of supply.



Ingeniously simple: Optical load indicators

An immediate overview of phase loads at all times. No more worries about unnoticed overloading or unbalanced power distribution in the rack.