

Rittal – Modular Power Concept PMC



Uninterruptible power supply 1 – 12 kVA.
We have the power.

UPS, single-phase, output range 1 – 12 kVA N + 1 redundant



DK 7857.430, DK 7857.431, DK 7857.432

Supply includes:

Single-phase UPS systems in double-conversion technology (VFI-SS 111) with internal “hot swap” compatible batteries, USB and serial interface.

DK 7857.433, DK 7857.434

Supply includes:

Single-phase UPS systems in double-conversion technology (VFI-SS 111), USB and serial interface.

Available on request:

Replacement battery packs and AS 400 interface adaptor.

The UPS is distinguished by the use of double-conversion technology.

Double-conversion technology provides the basis for an optimum supply voltage to all connected loads. This means that the Rittal PMC 12 UPS is ideally suited to all applications in the IT environment, as well as for all other requirements such as medical technology, automation technology, plant control etc. A scalable autonomy of up to 2 h at 100 % load ensures a broad spectrum of applications.

Rittal Power Modular Concept PMC 12

- Double conversion technology VFI-SS 111
- For use as a rack or floor-standing enclosure with 90° rotating LCD display
- 2 U high
- Serial/USB interface and Emergency Power Off (EPO) contact
- Batteries “hot swap” compatible, may be exchanged from the front
- Integral batteries with 1 – 3 kVA
- External batteries with 4.5 kVA and 6 kVA
- Parallel switching 4.5 kVA and 6 kVA UPS up to 12 kVA N+1 redundant
- Optional SNMP card



Also required:

Country-specific connection cables and slide rails are required to operate the UPS systems.

For DK 7857.433, DK 7857.434

Parallel hot swap chassis (DK 7857.443 or DK 7857.444). External 3 U battery pack (DK 7857.442).

| UPS for 482.6 mm (19") racks or as floor-standing enclosures | | UPS with integral battery | | | UPS control unit | |
|--|---------------------------------|---|-----------------|--|-------------------|-------------------|
| Model No. DK | | 7857.430 | 7857.431 | 7857.432 | 7857.433 | 7857.434 |
| Power | VA | 1000 | 2000 | 3000 | 4500 | 6000 |
| | Watts | 700 | 1400 | 2100 | 3150 | 4200 |
| | Max. heat loss (W) | 105 | 210 | 252 | 315 | 420 |
| Input | Rated voltage | 230 V (160 – 288 V) | | | | |
| | Frequency | 50/60 Hz ±5 % | | | | |
| | Power factor | > 0.99 with linear load | | | | |
| Output | Voltage | 230 V ≤ ±1 % (200/208/220/230/240 V adjustable) | | | | |
| | Frequency, synchronised | ± 1 Hz | | | | |
| | Frequency, asynchronous | ±0.1 % | ±0.1 % | ±0.1 % | ±0.2 % | ±0.2 % |
| | Crest factor | 3 : 1 | | | | |
| | Non-linear distortion | ≤ 7 % | ≤ 7 % | ≤ 7 % | ≤ 6 % | ≤ 6 % |
| | Wave shape | ≤ 3 % | | | | |
| | Operating ratio, AC mode | 85 % | 85 % | 88 % | 90 % | 90 % |
| | Operating ratio, battery mode | 83 % | 83 % | 85 % | 87 % | 87 % |
| Power factor | 0,7 | | | | | |
| Battery | | 5 years EUROBAT | 5 years EUROBAT | 5 years EUROBAT | 5 years EUROBAT | 5 years EUROBAT |
| | Autonomy at 100 % load | ≥ 7 min | ≥ 7 min | ≥ 5 min | ≥ 12 min | ≥ 8 min |
| Overload | 105 % | continuous | | | | |
| | 120 % | 30 sec | 30 sec | 30 sec | 160 sec | 160 sec |
| | 150 % | 10 sec | 10 sec | 10 sec | 160 sec | 160 sec |
| Communication | Interface | 1 x USB, 1 x RS232 | | | | |
| | SNMP | Optional SNMP card DK 7857.420 | | | | |
| | Operating systems supported | Windows, Unix, Linux, OS/2, Novell, Apple; RCCMD shutdown licence DK 7857.421 | | | | |
| | Emergency Power Off (EPO) | ■ | | | | |
| Mechanics | Width mm | 440 | | | | |
| | Height mm | 88 | | | | |
| | Depth mm | 405 | 650 | 650 | 660 | 660 |
| | Weight kg | 15.7 | 29.4 | 29.7 | 24 | 24 |
| | Input connection 230 V | 10 A C14 | | | 10 A C20 | Compact connector |
| Output connection 230 V | 6 x 10 A, C13, 2 units switched | | | 4 x 10 A, C13, 2 units switched 1 x 16 A, C19 | Compact connector | Compact connector |
| Operating environment | Humidity | 0 – 90 %, non-condensing | | | | |
| | Noise level | 50 db (A) | | | | |
| | Safety | IEC/EN 62 040-1, EN 60 950-1 | | | | |
| Standards and certifications | Power | IEC/EN 62 040-3 | | | | |
| | EMC | EN 50 091-2/EN 62 040-2 class A, EN 61 000-4-2/-3/-4/-6-8/-11, EN 61 000-3-2/-3 | | | | |
| | Labelling | CE, FCC, cUL | | | | |

UPS, single-phase, output range 1 – 12 kVA N + 1 redundant

| UPS for 482.6 mm (19") racks or as floor-standing enclosures | | UPS with integral battery | | | UPS control unit | |
|--|--------------------|---------------------------|----------|----------|------------------|----------|
| Model No. DK | | 7857.430 | 7857.431 | 7857.432 | 7857.433 | 7857.434 |
| Power | VA | 1000 | 2000 | 3000 | 4500 | 6000 |
| | Watts | 700 | 1400 | 2100 | 3150 | 4200 |
| | Max. heat loss (W) | 105 | 210 | 252 | 315 | 420 |
| Accessories | | | | | | |
| External bypass ¹⁾ | | 7857.439 | 7857.440 | 7857.441 | – | – |
| Battery pack ²⁾ | | 7857.435 | 7857.436 | 7857.437 | 7857.442 | 7857.442 |
| Parallel hot swap chassis for 2 UPS systems ³⁾ | | – | – | – | 7857.443 | 7857.443 |
| Parallel hot swap chassis for 3 UPS systems ³⁾ | | – | – | – | 7857.444 | 7857.444 |
| PDM for PMC 12 ⁴⁾ | | – | – | – | – | 7857.445 |
| SNMP card | | 7857.420 | 7857.420 | 7857.420 | 7857.420 | 7857.420 |
| RCCMD shutdown licence | | 7857.421 | 7857.421 | 7857.421 | 7857.421 | 7857.421 |
| Connection cable, UPS, single-phase | | 7856.027 | 7856.027 | – | – | – |
| Connection cable, UPS, single-phase, C20 | | – | – | 7856.030 | – | – |
| Slide rail, depth-variable | | 7063.883 | 7063.883 | 7063.883 | 7063.883 | 7063.883 |

1) External bypass:

The external bypass allows the UPS to be swapped with the system operational.

2) Autonomy (min.) at 100 % load:

| UPS type | In supplied state | Battery packs | | |
|----------|-------------------|---------------|------------|--------|
| | | 1 | 2 | 3 |
| 1 kVA | 7 min | 1:09 h | 02:13:00 h | – |
| 2 kVA | 7 min | 34 min | 1:09 h | – |
| 3 kVA | 5 min | 30 min | 01:02:00 h | – |
| 4.5 kVA | – | 12 min | 31 min | 54 min |
| 6 kVA | – | 8 min | 20 min | 36 min |

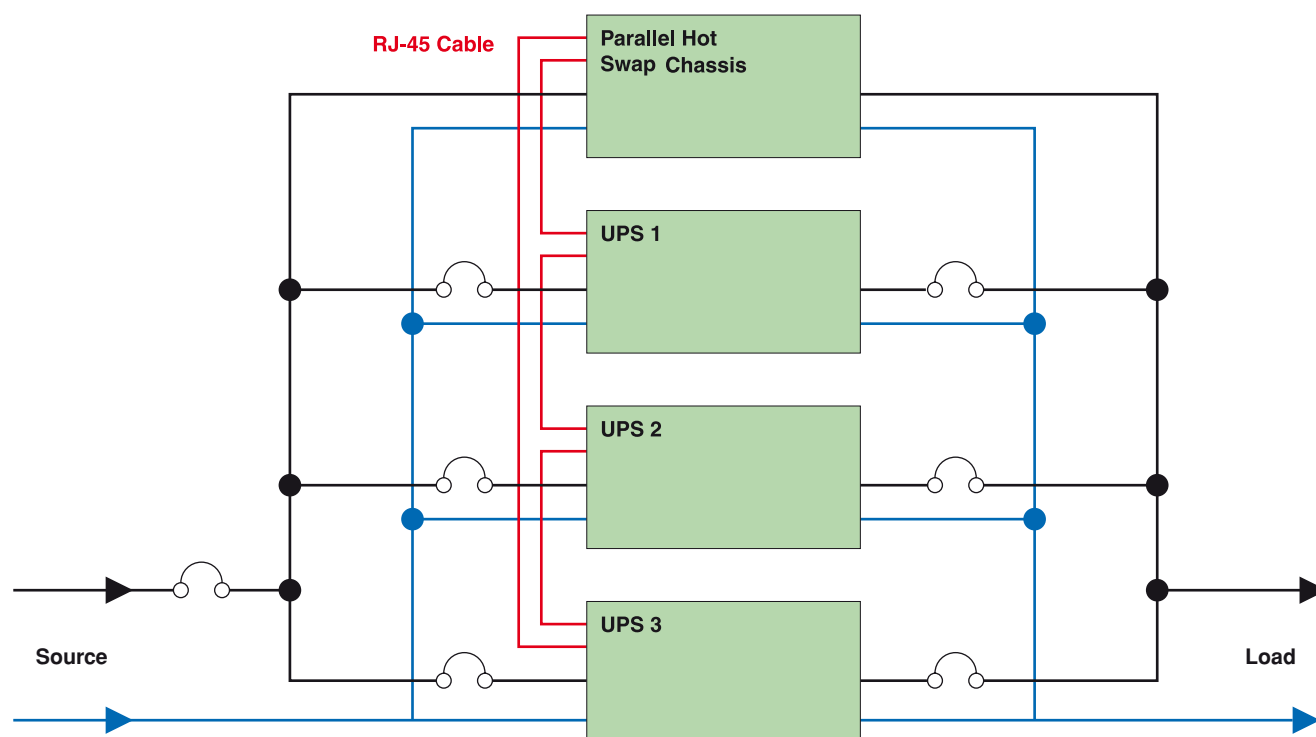
3) Parallel Hot Swap Chassis:

The parallel hot swap chassis for the 4.5 kVA and 6 kVA module allows up to 3 UPS systems to be connected together. This can be used to boost output and to achieve N+1 redundancy. An external bypass is additionally integrated into the Parallel Hot Swap Chassis.

4) PDM for PMC 12:

Single-phase power distribution for use with the Parallel Hot Swap Chassis DK 7857.444. The PDM offers the opportunity of connecting two single-phase 32 A CEE connectors and four EN 60 320 C19 16 A connectors. All outputs have pre-fuses.

Block diagram parallel redundant UPS DK 7857.433/.434



All in all – solutions from Rittal



Industrial enclosures



Power Distribution



Electronic packaging



System Climate Control



IT Solutions

Network enclosures · Server racks · KVM technology
Telco racks · Office solutions · Distributor racks
Wall-mounted enclosures · RimatriX5 · Power management
concepts · IT cooling · Monitoring · Security · Services · Kiosks



Communication Systems

Rittal has one of the largest ranges of enclosures available for immediate delivery. However, Rittal also supplies integrated solutions – up to Level 4. This comprises mechanical installation, power supply, electronic components, climate control and central monitoring. For all of your requirements.

Fully assembled and functional. Wherever in the world you develop and implement solutions for yourself and your customers, we are close at hand. The global alliance between production, distribution and service guarantees closeness to the customer. Worldwide!

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