



RECTIFIER

PSR327

In: 230 VAC

Out: 60 VDC (2.7 kW)

KEY FEATURES

- **Single-phase module 1/4 x 19", 3U with sinusoidal input current (PFC)**
- **Very wide input frequency range**
- **Input overvoltage protection**
- **"Hot plug-in" design with backplane connection**
- **High power density**
- **CAN-Bus interface**
- **Integrated decoupling from the DC bus**
- **Front-to-rear airflow with temperature-controlled fan cooling**
- **Suitable for Pb and NiCd batteries**

PRODUCT DESCRIPTION

Power supply modules of series PSR327 are compact battery charging rectifiers with an optimized switching principle and therefore with very high power density. The rectifier can be used in all DC applications with or without back-up battery.

Due to the modular concept and high scalability the user is able to equip the power supply with additional modules according to his actual power profile. The chargers are very user friendly and can be swapped and upgraded during operation.

The devices get their operation parameters via the system wide CAN communication bus. After a successful login a central monitoring unit controls and monitors the devices. In case of CAN-Bus interruption the modules operate continuously with internal default values. The current sharing between the rectifier modules operates independent of the CAN communication bus.

Up to four modules can be integrated in a 19" sub rack with 3U (60 V/180 A).

APPLICATIONS





DC power supply facilities with or without back-up battery in all areas of industry, power generation and power distribution.



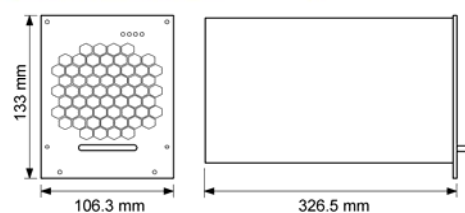
TECHNICAL DATA

| | |
|---|--|
| Type | PSR327/60-45 |
| Article code | 101-027-168.00 |
| Nominal input voltage | 230 VAC ± 20 % |
| Nominal input current | 12.9 AAC |
| Input frequency range | 16% to 60 Hz (+5 %) |
| Power factor | >0.99 at Pnom >50 % |
| Total harmonic distortion | <5 % |
| Efficiency | ≥ 91 % |
| Internal input fusing | 16 A (6.3 x 32 mm) |
| Nominal output voltage | 60 VDC |
| Nominal output current @ 60 V | 45 ADC |
| Nominal output power | 2.7 kW |
| Charge characteristic | IV characteristic according to DIN41772/DIN41773; power limited |
| Adjustable output voltage range | 52.5 - 78 VDC |
| Default value of the charging voltage (factory set) | 68.1 VDC (2.27 V/cell; lead acid battery); by CAN dongle settable for NiCd batteries |
| Output over voltage Vo> (factory set) | 75 VDC (2.5 V/cell; lead acid battery); by CAN dongle settable for NiCd batteries |
| Voltage ripple / psophometric acc. to CCITT-A | ≤ 20 mVpp / ≤ 2.0 mV |
| Dynamic accuracy of the charging voltage | <3% Vnom at load changes between 10 % - 90 % - 10 % Inom; transient time ≤ 1.5 ms |
| Short circuit protection | Continuous short circuit proof; 1 x Inom |
| Parallel operation | Yes; current sharing ≤ 10 % Inom |
| Internal decoupling at the output | Yes; active, low-loss decoupling circuit in the negative output line |
| Internal output fuse | 80 A |
| LED signalling | Operation (green), Vo OK (green), Vo> (red), Alarm (red) |
| Main processor | 16Bit Fujitsu |
| Isolated signalling contacts | "General fault"; relay COM/NO/NC, maximum contact load: 60 VDC/500 mA |
| Communications interface | CAN-Bus, proprietary protocol |
| Ambient temperature | Operation: -20 °C to +55 °C, storage: -40 °C to +85 °C |
| Cooling | Fan cooling (temperature-controlled, r.p.m.-monitored) |
| Climatic conditions | according to IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2 |
| Max. installation altitude | ≤ 1500 m |
| Audible noise | <45 dB (A) |
| Type of construction | 1/4 x 19", 3U |
| Dimensions (W/H/D) | 106.3/133/326.5 mm |
| Weight | approx. 3.9 kg |
| Type of enclosure / Protection class | IP20 (front panel) / 1 |
| Colour | Front panel: RAL 7035, neutral, black print RAL 9005 |
| CE conformity | yes |
| Compliance to safety standards | EN60950-1; VDE0100 T410; VDE0110; EN50178; EN60146 |
| Compliance to EMC standards | EN55022/24 (ITE), class "A"; EN61000-4 T2-5 |
| Electrical connector | AC input, DC output and signalization: DIN41612-M-connector |

OPTIONS

| Article code | View | Designation |
|---------------------|---|--|
| 102-327-318.LV01 |  | Assembly set 19" sub rack 3U incl. backplane for 3 pcs. rectifiers PSR327/60 V and 1pc. DC controller UPC3-48/60 V; connection board DCC-CB1 included in delivery. |
| 102-327-408.LV01 |  | Assembly set 19" sub rack 3U incl. backplane for 4 pcs. rectifiers PSR327/60 V |
| 301-003-598.02 |  | Monitoring, controlling and signalling unit (DC controller) UPC3-48/60 V |
| 302-DCC-CB1.00 |  | Connection board, necessary to connect all measuring, control and signalling wires over the sub rack to the UPC3 (MSTB screw terminals) (Spare part) |
| 881-MEC-BPL.03.21.B | | Cover plate (with handle) to cover not used PSR slots, 1/4 x 19", 3U; RAL 7035 |
| 880-CAN-DNG.00 | | CAN dongle, supplied by CAN-Bus, 12V, incl. software |

DIMENSIONS



DS_PSR327_60V_2009_E_R02 - Subject to change without notice - Eltek Valere Industrial GmbH

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