



## RECTIFIER PSR327

In: 230V<sub>AC</sub>  
Out: 110V<sub>DC</sub> (2.7kW)

### KEY FEATURES

- **Single-phase module 1/4 x 19", 3U with sinusoidal input current (PFC)**
- **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**

### PRODUCT DESCRIPTION

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

Due to the modular concept and a 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 4 modules can be integrated in a 19" sub rack with 3U (108V/100A).

### APPLICATIONS





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



## TECHNICAL DATA

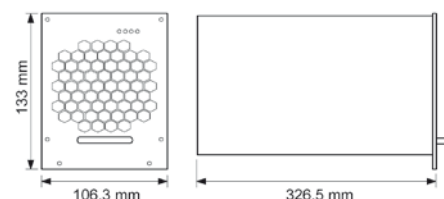
<b>Type</b>	<b>PSR327/110-25</b>
Article code	101-027-178.00
Nominal input voltage	230V <sub>AC</sub> ±20%
Nominal input current	12.9A <sub>AC</sub>
Input frequency range	47-63Hz
Power factor	>0.99 at P <sub>nom</sub> >50%
Total harmonic distortion	<5%
Efficiency	≥91%
Internal input fusing	16A (6.3x32mm)
Nominal output voltage	108V <sub>DC</sub>
Nominal output current @ 108V	25A <sub>DC</sub>
Nominal output power	2700W
Charge characteristic line	IV characteristic line according to DIN41772/DIN41773; power limited
Adjustable output voltage range	91.8 - 135V <sub>DC</sub> (1.7 - 2.5V/cell; lead acid battery)
Default value of the charging voltage	122.6V <sub>DC</sub>
Voltage ripple	≤100mV <sub>pp</sub>
Dynamic accuracy of the charging voltage	<3% V <sub>nom</sub> at load changes between 10%-90%-10% I <sub>nom</sub> ; correction time ≤1.5ms
Short circuit protection	Continuous short circuit proof; 1x I <sub>nom</sub>
Parallel operation	Yes; current distribution ≤10% I <sub>nom</sub>
Internal decoupling at the output	Yes; active, low-loss decoupling circuit in the positive output line
Internal output fuse	30A
LED signalling	Operation (green), Vo OK (green), Vo > (red), Alarm (red)
Main processor	16Bit Fujitsu
Isolated signalling contacts	"General fault"; optocoupler COM/NC
Communications interface	CAN-Bus, proprietary protocol
Ambient temperature	Operation: -20°C to +55°C, storage: -40°C to +85°C
Cooling	Fan cooling (temperature-regulated; monitored)
Climatic conditions	according to IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2
Max. installation altitude	≤1500m
Audible noise	<45dBA
Type of construction	1/4 x 19", 3U
Dimensions (W/H/D)	106.3/133/326.5mm
Weight	approx. 3.9kg
Type of enclosure / Protection class	IP20 (front panel) / 1
Colour (front panel)	RAL 7035, black imprint
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
Connections	AC input, DC output and signalization: DIN41612-M-connector

## OPTIONS

Article code	View	Designation
102-327-318.HV01		Assembly set 19" sub rack 3U incl. backplane for 3 pcs. rectifiers PSR327NC/110V and 1pc. DC controller UPC3-110V; connection board DCC-CB1 included in delivery.
102-327-408.HV01		Assembly set 19" sub rack 3U incl. backplane for 4 pcs. rectifiers PSR327NC/110V
301-003-798.00		Monitoring, controlling and signalling unit (DC controller) UPC3-110V
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

A special version for NiCd batteries is available (PSR327NC/110-25), article code: 101-027-178.01

## DIMENSIONS



DS\_PSR327\_110V\_2007\_E\_R03 - Subject to change without notice - Eltek Valere Industrial GmbH

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