



RECTIFIER

PSR308

In: 110 up to 250V_{AC}
Out: 110V_{DC} (800W)

KEY FEATURES

- **Single-phase module 1/6 x 19", 3U with sinusoidal input current (PFC)**
- **Input overvoltage protection**
- **Wide input voltage range**
- **Wide output voltage range**
- **Suitable for Pb & NiCd batteries**
- **"Hot plug-in" design with backplane connection**
- **High power density**
- **CAN-Bus interface**
- **Integrated decoupling from the DC bus**

PRODUCT DESCRIPTION

Power supply modules of series PSR308 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 demand. 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 nominal output power of the unit amounts to 800W (600W at input voltage <173V_{AC}). Up to 6 modules can be integrated in a 19" sub rack with 4U (forced cooling mode with fan rack).

APPLICATIONS




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



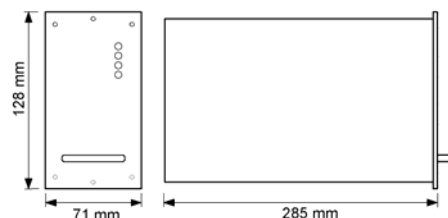
TECHNICAL DATA

Type	PSR308/110-7.5 WIR (V2)
Article code	101-008-977.02
AC input	110 up to 250VAC
AC input voltage tolerance	-20/+10%
AC input current	5.5Aac @120VAC; 3.9Aac @230VAC
Input frequency range	47-63Hz
Power factor	>0.99 at Pnom >50%
Total harmonic distortion	<5%
Efficiency	≥ 90%
Internal input fusing	10A (5x20 mm)
Nominal output voltage	108Vdc
Max. output current	7.5A _{dc}
Nominal output power	800W (600W @ input voltage <173VAC), power derating at higher temperatures
Charge characteristic	IV characteristic according to DIN41772/DIN41773; power limited
Adjustable output voltage range	87.0 - 160.0Vdc
Default value charging voltage (factory set)	123Vdc (2.27 V/cell; lead acid battery); by CAN dongle settable for NiCd batteries
Output over voltage Vo> (factory set)	135Vdc (2.5V/cell; lead acid battery); by CAN dongle settable for NiCd batteries
Voltage ripple	≤ 100mVpp
Dynamic accuracy of the charging voltage	<3% Vnom at load changes between 10%-90%-10% Inom; transient time ≤1 ms
Short circuit protection	Continuously short circuit proof; 1x 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	10A
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: 60Vdc/500mA
Communications interface	CAN-Bus (not for external use), proprietary protocol
Ambient temperature	Operation: -20°C up to +45°C; storage: -40°C up to +85°C
Cooling	Forced cooling with fan rack 1U or convection cooling (only for max. output power up to 600W)
Climatic conditions	According to IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2
Max. installation altitude	≤ 1500m
Audible noise	<30dBA
Type of construction	1/6 x 19"; 3U
Dimensions (W/H/D)	71/128/285mm
Weight	Approx. 2.2kg
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 class "B", ITE Devices; EN61000-4 T2-5
Electrical connector	AC input, DC output and signalization: DIN41612-M-connector

OPTIONS

Article code	View	Designation
102-308-607.HV02		Assembly set 19" sub rack 4U incl. backplane for 6pcs. rectifiers PSR308/110 V incl. fan rack
102-308-517.HV02		Assembly set 19" sub rack 4U incl. backplane for 5pcs. rectifiers PSR308/108 V and 1pc. DC controller UPC3S- 110 V incl. fan rack
102-308-FR1.HV02		Fan rack 19" 1U incl. 6 fans; speed controlled by rectifier temperature and monitored (Spare part)
301-003-797.02		Monitoring, controlling and signalling unit (DC controller) UPC3S-110 V
881-MEC-BPL.03.14.B		Cover plate (with handle) to cover not used PSR slots, 1/6 x 19", 3U; RAL 7035
880-CAN-DNG.00		CAN dongle, supplied by CAN-Bus, 12V, incl. software

DIMENSIONS



DS_PSR308_110V-V2_E_R00 - Subject to change without notice - Eltek Valere Deutschland GmbH

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