

PSB series power supply



Enclosed, switch mode buffer power supply 13,8V DC, without automatic operation control

CODE: **PSB-251215** v1.0/IV

EN

TYPE: **PSB 13.8V/1,5A enclosed switch mode buffer power supply**

Features of the power supply:

- DC 13,8V/1,5A uninterruptible power supply*
- wide AC input voltage range 176÷264V
- high efficiency 70%
- controlling of battery charging and maintaining
- protecting of battery against excessive discharging (UVP)
- battery charging current 0,5A
- additional accessories: automation module MPSB12 (technical outputs):
 - EPS technical output indicating AC power loss
 - PSU technical output indicating PSU failure
 - LoB technical output indicating battery low voltage
- battery output is full protected against short-circuit and reverse connection
- LED optical signalisation
- protections:
 - short-circuit protection SCP
 - over voltage protection OVP
 - surge protection
 - overload protection OLP
- warranty – 2 year from the production date



DESCRIPTION

Buffer-type power supply units are intended for continuous power supply to devices that require stabilised voltage of **12V DC (+/-15%)***. The power supply provides a voltage of **U=13,8V DC** with an output current of **I=1A+ 0,5A battery charging**. In case of power voltage decay, prompt switching to battery supply occurs. The power supply unit is protected against a short circuit, an overload, a surge or over voltage protection.

TECHNICAL DATA

Supply voltage	176÷264V AC
Current consumption	0,35A@230VAC max.
Supply power	25W max.
Efficiency	70%
Output voltage	11V÷ 13,8VDC – buffer operation 9,5V÷13,8V DC – battery operation
Output current $t_{AMB}<30^{\circ}C$	1A + 0,5A battery charging - see chart 1
Output current $t_{AMB}=40^{\circ}C$	0,7A + 0,5A battery charging - see chart 1
Voltage adjustment range	12÷14V DC
Ripple voltage	120mV p-p max.
Battery charging current	0,5A max
Short-circuit protection SCP	electronic, automatic recovery
Overload protection OLP	105-150% of power supply, automatic recovery
Overload protection (battery) OLP	polymer fuse (PTC)
Surge protection	varistors
Overvoltage protection OVP	>16V (automatic recovery)
Excessive discharge protection UVP	U<9,5 V ($\pm 5\%$) – disconnection of battery
Optical signalisation	green LED- presence of AC voltage
Output of optical signalization	LED AC- presence of AC voltage LED DC- presence of DC voltage on power supply output
Additional accessories	Module MPSB12 (technical outputs)
Operation conditions	2-nd environmental class, temperature: -10 °C+40 °C relative humidity 20%...90%, without condensation
Dimensions (LxWxH)	110 x 78 x 36 [mm]
Net/gross weight	0,28kg / 0,31kg
Protection class EN 60950-1:2007	I (first) - requires a protective conductor (PE)
Declarations, warranty	CE, RoHS, 2 year from the production date
Connectors	power-supply: $\Phi 0,63\pm 2,5$ I/O PCB : $\Phi 0,41\pm 1,63$ battery output BAT: 6,3F-2,5/40cm, output of optical signalization: plug 3-pin 5 mm

* See chart 1

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Output current vs temperature

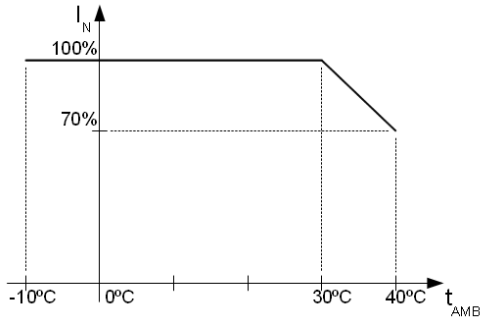


Chart 1.
Allowable output current from the power supply depending on ambient temperature.

Dimensions and fitting of the PSB-251215 power supply

