

# PSB series power supply

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



CODE: **PSB-15512110** v1.0/V  
TYPE: **PSB 13,8V/11A enclosed switch mode buffer power supply**

EN

## Features of the power supply:

- DC 13,8V/11A uninterruptible power supply\*
- wide AC input voltage range 176÷264V
- high efficiency 83%
- controlling of battery charging and maintaining
- protecting of battery against excessive discharging (UVP)
- battery charging current 1A/4A, changed by jumper
- 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:

1. **Output current of 10A + 1A battery charging\***
  2. **Output current of 7A + 4A battery charging\***
- Total device current + battery: 11A max.\***

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	1,4A@230VAC max.
Supply power	155W max.
Efficiency	83%
Output voltage	11V÷ 13,8V DC – buffer operation 9,5V÷ 13,8V DC – battery operation
Output current $t_{AMB}<30^{\circ}\text{C}$	<b>10A + 1A battery charging - see chart 1</b> <b>7A + 4A battery charging - see chart 1</b>
Output current $t_{AMB}=40^{\circ}\text{C}$	<b>6,7A + 1A battery charging - see chart 1</b> <b>3,7A + 4A battery charging - see chart 1</b>
Voltage adjustment range	12÷14V DC
Ripple voltage	120mV p-p max.
Battery charging current	1A or 4A max.
Short-circuit protection SCP	electronic
Overload protection (battery) OLP	glass fuse
Surge protection	varistors
Overvoltage protection OVP	>16V (automatic recovery)
Excessive discharge protection UVP	$U<9,5\text{V} (\pm 5\%)$ – 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: $-10^{\circ}\text{C}\div 40^{\circ}\text{C}$ relative humidity 20%...90%, without condensation
Dimensions (LxWxH)	199 x 110 x 50 [mm]
Net/gross weight	0,7kg / 0,8kg
Protection class EN 60950-1:2007	I (first) - requires a protective conductor (PE)
Declarations, warranty	CE, 2 year from the production date
Connectors	power-supply: $\Phi 0,63\div 2,5$ I/O PCB: $\Phi 0,41\div 1,63$ 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

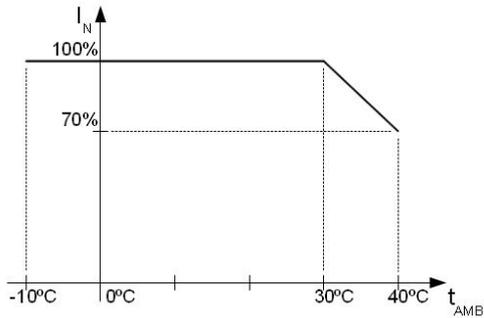


Chart 1.  
Allowable output current from the power supply depending on ambient temperature.

## Dimensions and fitting of the PSB-15512110 power supply

