

# PSB series power supply

Enclosed, switch mode buffer power supply 54V DC, without automatic operation control



CODE: **PSB-1554828** v1.0/I

EN

TYPE: **PSB 54V/2,8A enclosed switch mode buffer power supply**

## Features of the power supply:

- DC 54V/2,8A uninterruptible power supply
- wide AC input voltage range 176÷264V
- high efficiency 86%
- controlling of battery charging and maintaining
- protecting of battery against excessive discharging (UVP)
- battery charging current 0,5A/1A, changed by jumper
- 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 (AC input)
  - 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 **48V DC (+/-15%)**. The power supply provides a voltage of **U=54V DC** with an output current of:

**1. Output current of 2,3A + 0,5A battery charging\***

**2. Output current of 1,8A + 1A battery charging\***

**Total device current + battery: 2,8A 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	86%
Output voltage	44V÷ 54V DC – buffer operation 38V÷ 54V DC – battery operation
Output current $t_{AMB}<30^{\circ}\text{C}$	<b>2,3A + 0,5A battery charging - see chart 1</b> <b>1,8A + 1A battery charging - see chart 1</b>
Output current $t_{AMB}=40^{\circ}\text{C}$	<b>1,5A + 0,5A battery charging - see chart 1</b> <b>1A + 1A battery charging - see chart 1</b>
Voltage adjustment range	48÷56V DC
Ripple voltage	150mV p-p max.
Battery charging current	0,5A or 1A max
Short-circuit protection SCP	electronic
Overload protection (battery) OLP	glass fuse
Surge protection	varistors
Overvoltage protection OVP	$U>115\% \div 150\%$ output voltage - disconnecting supply output automatic return
Excessive discharge protection UVP	$U<38\text{V} (\pm 5\%)$ – 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
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 97 x 50 [mm]
Net/gross weight	0,75kg / 0,80kg
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

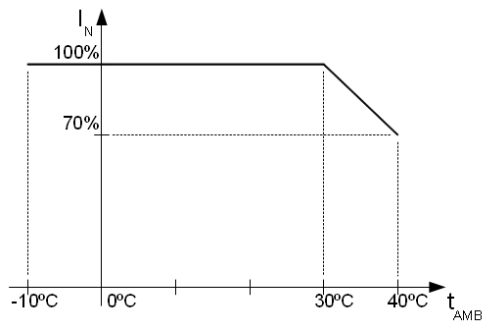


Chart 1.  
Allowable output current from the power supply depending on ambient temperature.

## Dimensions and fitting of the PSB-1554828 power supply

