

# PSBOC series power supply unit

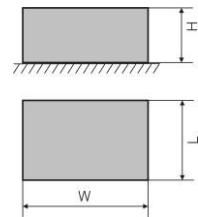
Enclosed buffer switch mode power supply unit 13,8V DC with technical outputs



CODE **PSBOC501235** v.1.1/VIII

EN\*\*

TYPE: **PSBOC 13,8V/3,5A/OC Enclosed buffer switch mode power supply unit with technical outputs.**



## Features:

- 13,8VDC/3,5A uninterrupted supply\*
- wide range of supply voltage 176÷264VAC
- high efficiency 76%
- battery charge and maintenance control
- deep discharge battery protection (UVP)
- battery charging current 0,5A
- battery output protection against short circuit and reverse polarity connection
- LED indication
- EPS technical output indicating AC power loss – OC and relay type
- PSU technical output indicating PSU failure – OC and relay type
- LoB technical output indicating battery low – OC and relay type voltage
- protections:
  - SCP short-circuit protection
  - OVP over voltage protection
  - surge protection
  - OLP overload protection
- warranty – 2 year from the production date

## DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to devices requiring stabilized voltage of **12V DC (+/-15%)**. The PSU provides voltage of **13,8V DC** with current capacity **I=3A + 0,5A battery charge\***. In case of power decay, a battery back-up is activated immediately.

**During normal operation, the total current drawn by the receivers may not exceed I=3A. Maximum battery charging current: 0.5 A. Total device current + battery: 3,5A max\*.**

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SPECIFICATIONS	
Power supply	176 ÷ 264V AC
Current consumption	0,6A@230VAC max.
PSU power	50W max.
Efficiency	76%
Output voltage	11V± 13,8V DC – buffer operation 9,5V±13,8V DC – battery-assisted operation
<b>Output current <math>t_{AMB}&lt;30^{\circ}\text{C}</math></b>	<b>3A + 0,5A battery charge – see chart 1</b>
<b>Output current <math>t_{AMB}=40^{\circ}\text{C}</math></b>	<b>2,1A + 0,5A battery charge – see chart 1</b>
Voltage adjustment range	12÷14V DC
Ripple voltage	120 mV p-p max.
Current consumption by PSU systems	60 mA
Battery charging current	0,5A
Short-circuit protection SCP	electronic, automatic recovery
Overload protection OLP	105±150% of power supply, automatic recovery
Battery circuit protection SCP and reverse polarity connection	polymer fuse
Surge protection	varistors
Surge over voltage protection OVP	>16V (automatic recovery)
Deep discharge protection UVP	$U < 9,5\text{V} (\pm 5\%)$ – disconnection of the battery terminal
Technical outputs: - EPS; output indicating AC power failure  - PSU; output indicating DC absence/PSU failure  - LoB output indicating battery low voltage	- relay type: 1A@ 30VDC/50VAC - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level  - relay type: 1A@ 30VDC/50VAC, - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level  - relay type: 1A@ 30VDC/50VAC, - OC type, 50mA max., normal status: ( $U_{BAT} > 11,5\text{V}$ ): L (0V) level, failure: ( $U_{BAT} < 11,5\text{V}$ ): hi-Z level The power supply unit does not feature a battery detection function.
LED indication	Yes – LEDs
Operating conditions	2nd environmental class, temperature: $-10^{\circ}\text{C} \div 40^{\circ}\text{C}$
Dimensions	159 x 97 x 42 +23 [mm] (LxWxH) (+/- 2)
Net/gross weight	0,62kg / 0,65kg
Declarations, warranty	CE, RoHS, 2 year from the production date

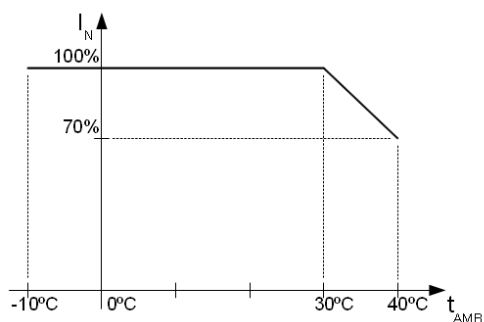


Chart 1.  
Acceptable output current from the PSU depending on ambient temperature.