

PSBOC series power supply unit

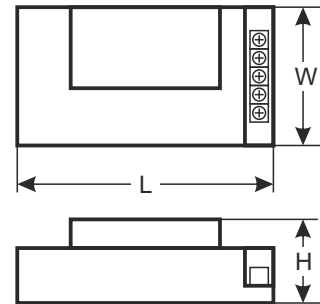
Enclosed buffer switch mode power supply unit 13,8V DC with technical outputs



CODE **PSBOC501235** v.1.1/IX

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
Output current $t_{AMB}<30^{\circ}\text{C}$	3A + 0,5A battery charge – see chart 1
Output current $t_{AMB}=40^{\circ}\text{C}$	2,1A + 0,5A battery charge – see chart 1
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	L=159, W=97, H=68 [+/- 2mm]
Net/gross weight	0,62kg / 0,65kg
Declarations, warranty	CE, RoHS, 2 year from the production date

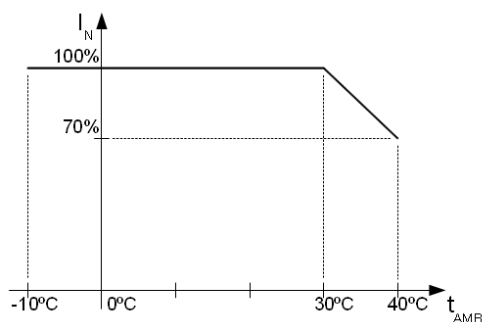


Chart 1.
Acceptable output current from the PSU
depending on ambient temperature.