

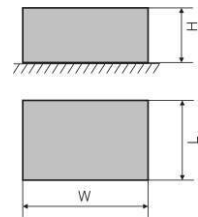
# PSBOC series power supply unit

Enclosed buffer switch mode power supply unit 54V DC with technical outputs



EN\*\*

CODE **PSBOC3004850** v.1.0/II  
TYPE: **PSBOC 54V/5A/OC** Enclosed buffer switch mode power supply unit with technical outputs.



## Features:

- 54V DC/5A uninterrupted supply\*
- wide range of supply voltage 176÷264VAC
- built-in power factor correction system (PFC)
- high efficiency 85%
- battery charge and maintenance control
- deep discharge battery protection (UVP)
- battery charging current 0,5A/1A/2A jumper selectable
- forced cooling - built-in fan
- 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 voltage
  - OC and relay type
- protections:
  - SCP short-circuit protection
  - OVP over voltage protection
  - surge protection
  - OLP overload protection
  - overheat protection OHP
- warranty – 2 year from the production date

## DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to devices requiring stabilized voltage of **48V DC (+/-15%)**. The PSU provides voltage of **U=54V DC** current efficiency:

1. Output current **4,5A + 0,5A battery charging\***
2. Output current **4A + 1A battery charging\***
3. Output current **3A + 2A battery charging\***

**Total device current + battery: 5A max\*.**

In the case of power failure from prime supply, the unit is instantly switched to battery assisted operation. The power supply unit features: short circuit, overload protection, overvoltage and thermal overload protection.

\* See chart 1

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SPECIFICATIONS	
Mains supply	176 ÷ 264V AC
Current consumption	1,5A@230VAC max.
PSU power	270W max.
Efficiency	85%
Power factor PF	>0,95 @230V AC
Output voltage	44V÷ 54V DC – buffer operation 38V÷ 54V DC – battery-assisted operation
<b>Output current <math>t_{AMB}&lt;30^{\circ}\text{C}</math></b>	<b>4,5A + 0,5A battery charge – see chart 1</b> <b>4A + 1A battery charge – see chart 1</b> <b>3A + 2A battery charge – see chart 1</b>
<b>Output current <math>t_{AMB}=40^{\circ}\text{C}</math></b>	<b>3A + 0,5A battery charge - see chart 1</b> <b>2,5A + 1A battery charge - see chart 1</b> <b>1,5A + 2A battery charge – see chart 1</b>
Voltage adjustment range	48÷56V DC
Ripple voltage	150 mV p-p max.
Current consumption by PSU systems	150 mA
Battery charging current	0,5A/1A/2A jumper selectable
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	glass fuse
Surge protection	varistors
Surge over voltage protection OVP	>62V (activation requires disconnecting the load or supply for about 20 s.)
Deep discharge protection UVP	U<38V ( $\pm 5\%$ ) – 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: ( $U_{BAT} >46\text{V}$ ): L (0V) level, failure: ( $U_{BAT} <46\text{V}$ ): hi-Z level The power supply unit does not feature a battery detection function.
LED indication	Yes – LEDs
Operating conditions	2nd environmental class, temperature: $-10^{\circ}\text{C}+40^{\circ}\text{C}$
Dimensions	275 x115 x 50 +23 [mm] (LxWxH) (+/- 2)
Net/gross weight	1,40kg / 1,50kg
Declarations, warranty	CE, 2 year from the production date

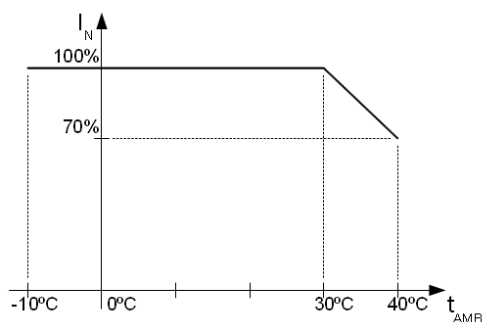


Chart 1.  
Acceptable output current from the PSU depending on ambient temperature.