

# HPSBOC series power supply unit

Buffer, switch mode power supply unit 13,8V DC with technical outputs.

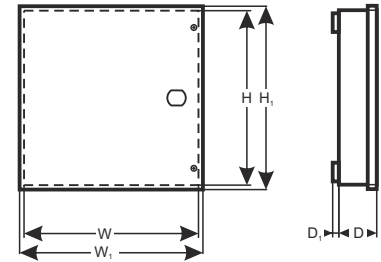


EN

CODE: **HPSBOC 7012C** v.1.1/IX  
TYPE: **HPSBOC 13,8V/6A/17Ah/OC** Buffer, switch mode power supply unit with technical outputs.



**GREEN POWER plus**



## Features:

- DC 13,8V/6A uninterruptible power supply\*
- fitting battery: 17Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 80%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- jumper selectable battery charge current 1A/2A
- battery output full 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 overvoltage protection
  - overvoltage protection
  - against sabotage
  - overload protection (OLP)
- 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 **U=13,8V DC**. Current efficiency:

1. Output current **6A + 1A battery charge\***
2. Output current **5A + 2A battery charge\***

**Total device current + battery: 7A max\*.**

In case of power decay, a battery back-up is activated immediately. The PSU is constructed based on the switch mode PSU, with high energy efficiency. The PSU is housed in a metal enclosure (colour RAL 9003) which can accommodate a 17Ah/12V battery. A micro switch indicates door opening (front cover).

\* See chart 1

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC
Current up to	0,95A@230V AC
Supply power	100W max.
Efficiency	80%
Output voltage	11V± 13,8V DC – buffer operation 9,5V±13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}C$	<b>6A + 1A battery charge - see chart 1</b> <b>5A + 2A battery charge - see chart 1</b>
Output current $t_{AMB}=40^{\circ}C$	<b>4,9A + 1A battery charge - see chart 1</b> <b>3,9A + 2A battery charge - see chart 1</b>
Voltage adjustment range	12÷14V DC
Ripple	120mV p-p max.
Battery charge current	1A or 2A max. @ 17Ah ( $\pm 5\%$ ) – 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	polymer fuse
Surge protection	varistors
Overvoltage protection OVP	>16V (automatic recovery)
Excessive discharge protection UVP:	$U<9,5V (\pm 5\%)$ – disconnection of battery terminal
Tampering protection system: - TAMPER – indicating unwanted opening of the PSU's enclosure	- a microswitch, NC contacts (enclosure closed) 0,5A@50V DC (max.)
Technical outputs: - EPS; output indicating AC power failure  - PSU; output indicating DC absence/PSU failure  - LoB output indicating battery low voltage	- relay type: 1A@ 30V DC/50V AC, time lag: approx. 10s. - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level, time lag: 10s.  - relay type: 1A@ 30V DC/50V AC - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level  - relay type: 1A@ 30V DC/50V AC - OC type, 50mA max., normal status: ( $U_{BAT} >11,5V$ ): L (0V) level, failure: ( $U_{BAT} <11,5V$ ): hi-Z level The power supply unit does not feature a battery detection function.
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}C \div +40^{\circ}C$
Enclosure	Steel plate, DC01 0,7mm colour: RAL 9003
Dimensions	W=280, H=292, D+D <sub>1</sub> =82+8 [+/- 2mm] W <sub>1</sub> =285, H <sub>1</sub> =296 [+/- 2mm]
The dimensions of the battery compartment	190x170x75mm (WxHxD) max
Net/gross weight	2,3kg / 2,5kg
Closing	Cheese head screw x 2 (at the front), (lock assembly possible)
Deklarations, warranty	CE, RoHS, 2 year from the production date
Notes	The enclosure does not adjoin the assembly surface so that cables can be led. PSU cooling: convection. Power supply: $\Phi 0,63-2,50$ (AWG 22-10) Outputs: $\Phi 0,63-2,50$ (AWG 22-10) Battery output BAT: 6,3F-2,5

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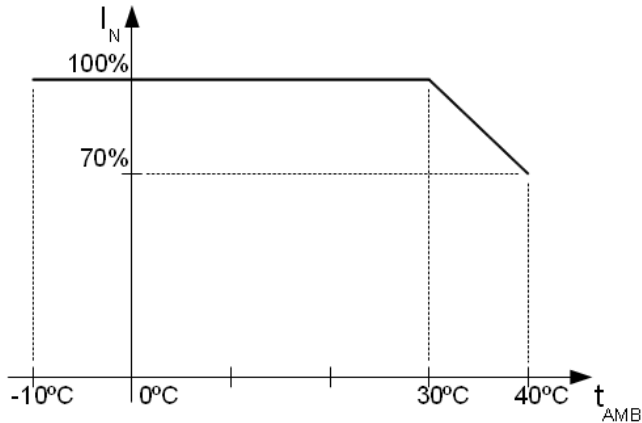


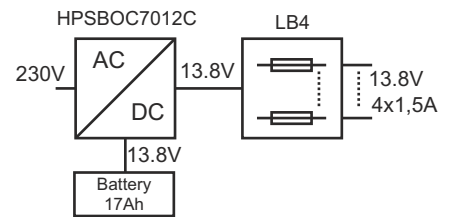
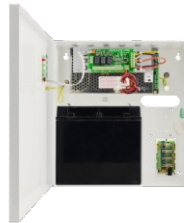
CHART 1. Acceptable output current from the PSU depending on ambient temperature.

## Optional configurations:

### Battery 17Ah:

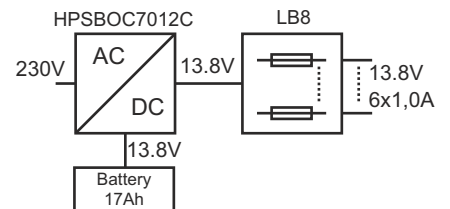
#### Buffer power supply unit HPSBOC 13,8V/4x1,5A/17Ah.

- HPSBOC7012C + LB4 4x1,5A (AWZ576) + 17Ah



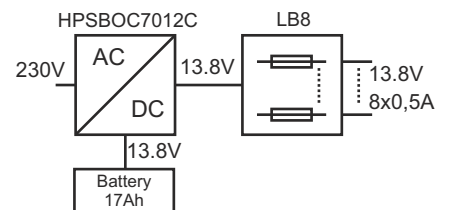
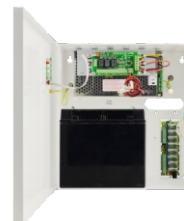
#### Buffer power supply unit HPSBOC 13,8V/6x1,0A/17Ah.

- HPSBOC7012C + LB8 6x1,0A (AWZ579 or AWZ580) + 17Ah



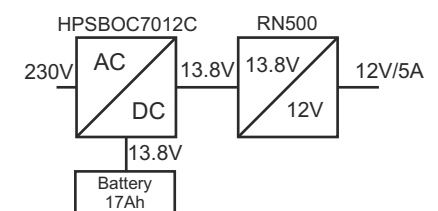
#### Buffer power supply unit HPSBOC 13,8V/8x0,5A/17Ah.

- HPSBOC7012C + LB8 8x0,5A (AWZ578 or AWZ580) + 17Ah



#### Buffer power supply unit HPSBOC 13,8V/12V/5A/17Ah.

- HPSBOC7012C + RN500 (13,8V/12V) + 17Ah



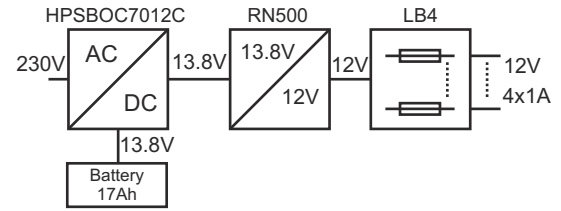
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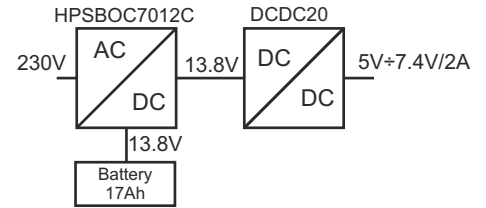
## Buffer power supply unit HPSBOC 13,8V/12V/4x1A/17Ah.

- HPSBOC7012C + RN500 (13,8V/12V) + LB4 4x1A (AWZ575 or AWZ576) + 17Ah



## Buffer power supply unit HPSBOC 13,8V/5V÷7,4V/ 2A/17Ah.

- HPSBOC7012C + DCDC20 (5V÷7,4V/2A) + 17Ah

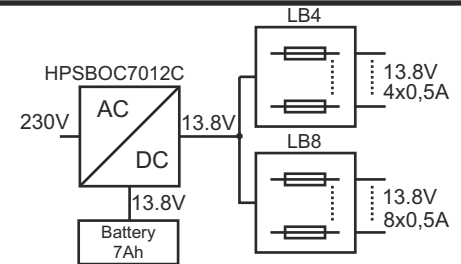
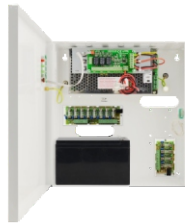


## Optional configurations:

### Battery 7Ah:

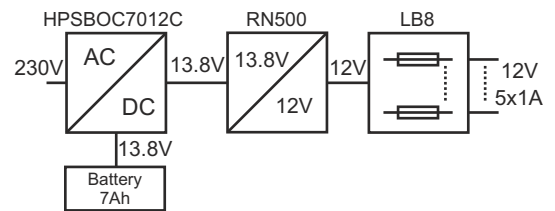
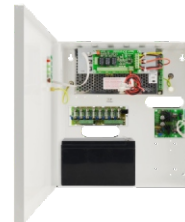
## Buffer power supply unit HPSBOC 13,8V/12x0,5A/7Ah.

- HPSBOC7012C + LB4 4x0,5A (AWZ574 or AWZ576)
- + LB8 8x0,5A (AWZ578 or AWZ580) + 7Ah



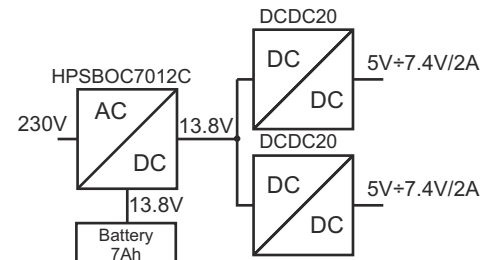
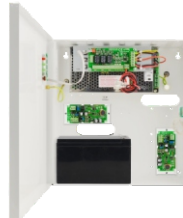
## Buffer power supply unit HPSBOC 13,8V/12V/5x1A/7Ah.

- HPSBOC7012C + RN500 (13,8V/12V) + LB8 5x1A (AWZ579 or AWZ580) + 7Ah



## Buffer power supply unit HPSBOC 13,8V/2x5V÷7,4V/2x2A/7Ah.

- HPSBOC7012C + 2x DCDC20 (2x5V÷7,4V/2x2A) + 7Ah



## Buffer power supply unit HPSBOC 13,8V/5V÷7,4V/4x0,5A/7Ah.

- HPSBOC7012C + DCDC20 (5V÷7,4V/2A) + LB4 4x0,5A (AWZ574 or AWZ576) + 7Ah

