

HPSBOC series power supply unit

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

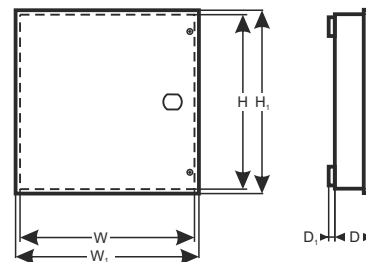


EN

CODE: **HPSBOC 11A12C** v.1.1/IX
TYPE: **HPSBOC 13,8V/10A/17Ah/OC** Buffer, switch mode power supply unit with technical outputs.



GREEN POWER plus



Features:

- DC 13,8V/10A uninterruptible power supply*
- fitting battery: 17Ah/12V
- wide range of mains supply: 176+264V
- high efficiency 83%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- jumper selectable battery charge current 1A/4A
- 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 **10A + 1A battery charge***
2. Output current **7A + 4A battery charge***

Total device current + battery: 11A 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 50÷60Hz
Current up to	1,4A@230V AC
Supply power	155W max.
Efficiency	83%
Output voltage	11V± 13,8V DC – buffer operation 9,5V±13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}\text{C}$	10A + 1A battery charge - see chart 1 7A + 4A battery charge - see chart 1
Output current $t_{AMB}=40^{\circ}\text{C}$	6,7A + 1A battery charge - see chart 1 3,7A + 4A battery charge - see chart 1
Voltage adjustment range	12÷14V DC
Ripple	120mV p-p max.
Battery charge current	1A or 4A 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:	$U<9,5\text{V} (\pm 5\%)$ – 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: ($U_{BAT} >11,5\text{V}$): 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
Operating conditions	2nd environmental class, $-10^{\circ}\text{C}\div 40^{\circ}\text{C}$
Enclosure	Steel plate, DC01 0,7mm colour: RAL 9003
Dimensions	W=280, H=292, D+D ₁ =82+8 [± 2 mm] W ₁ =285, H ₁ =296 [± 2 mm]
The dimensions of the battery compartment	190x170x75mm (WxHxD) max
Net/gross weight	2,5kg / 2,7kg
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: $\Phi 0,63\text{-}2,50$ (AWG 22-10) Outputs: $\Phi 0,63\text{-}2,50$ (AWG 22-10) Battery output BAT: 6,3F-2,5

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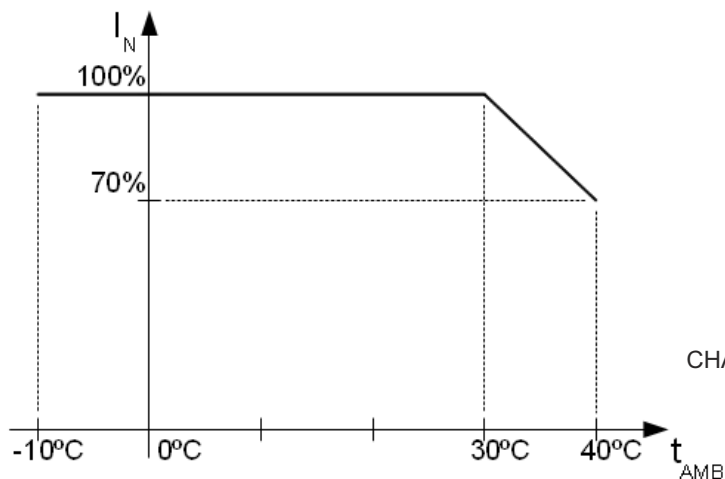


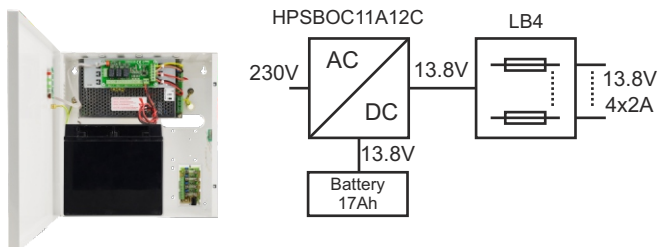
CHART 1. Acceptable output current from the PSU depending on ambient temperature.

Optional configurations:

Battery 17Ah:

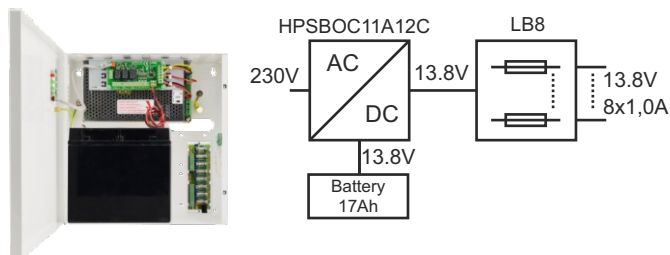
Buffer power supply unit HPSBOC 13,8V/4x2A/17Ah.

- HPSBOC11A12C + LB4 4x2A (AWZ576) + 17Ah



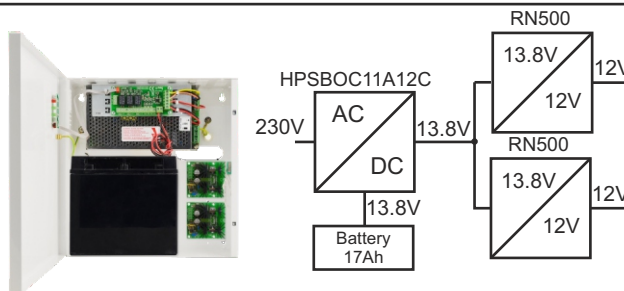
Buffer power supply unit HPSBOC 13,8V/8x1A/17Ah.

- HPSBOC11A12C + LB8 8x1A (AWZ579 or AWZ580) + 17Ah



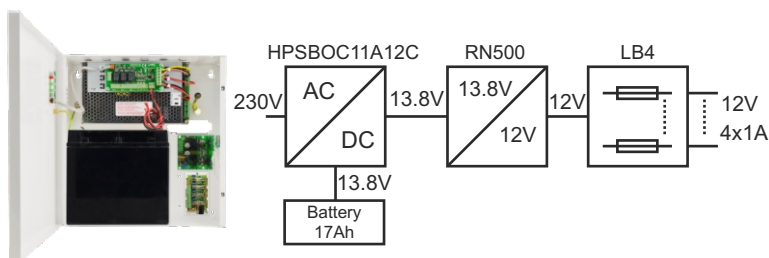
Buffer power supply unit HPSBOC 13,8V/2x12V/10A/17Ah.

- HPSBOC11A12C + 2 x RN500 (13,8V/12V) + 17Ah



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

- HPSBOC11A12C + RN500(13,8V/12V) + LB4 4x1A (AWZ575 or AWZ576) + 17Ah



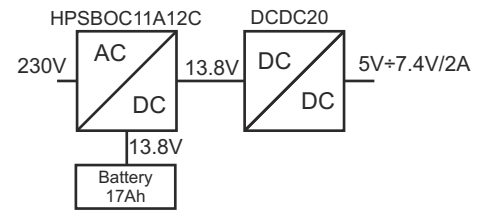
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Buffer, switch mode power supply unit 13,8V DC with technical outputs.



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

- HPSBOC11A12C + DCDC20 (5V÷7,4V/2A) + 17Ah

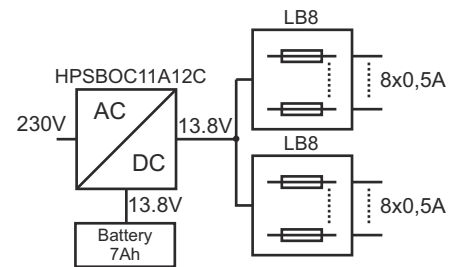


Optional configurations:

Battery 7Ah:

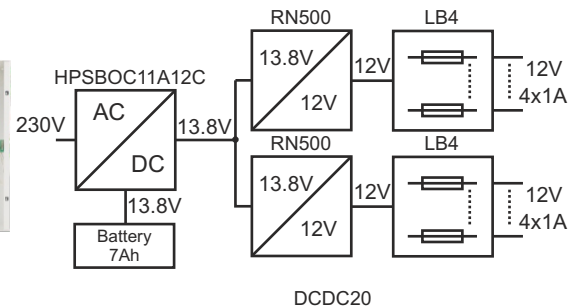
Buffer power supply unit HPSBOC 13,8V/16x0,5A/7Ah.

- HPSBOC11A12C + 2 x LB8 8x0,5A (2 x AWZ578 or AWZ580) + 7Ah



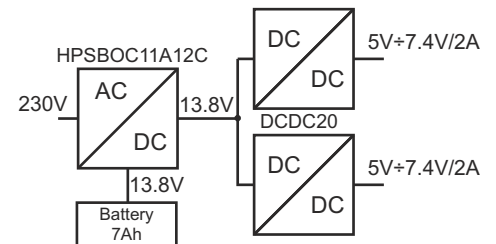
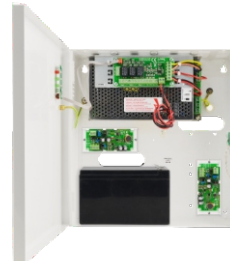
Buffer power supply unit HPSBOC 13,8V/2x12V/8x1A/7Ah.

- HPSBOC11A12C + 2 x RN500 (13,8V/12V) + 2x LB4 4x1A (AWZ575 or AWZ576) + 7Ah



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

- HPSBOC11A12C + 2 x DCDC20 (2x5V÷7,4V/2x2A) + 7Ah



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

- HPSBOC11A12C + DCDC20 (5V÷7,4V/2A) + LB4x0,5A (AWZ574 or AWZ576) + 7Ah

