

# HPSBOC series power supply unit



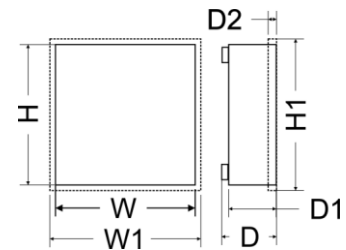
Buffer, switch mode power supply unit 13,8V DC with technical outputs.

EN

CODE: HPSBOC 11A12C v.1.1/VII  
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 stabilised 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

# HPSBOC series power supply unit



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

| SPECIFICATIONS  |   |
|---|---|
| PSU type  | A (EPS - External Power Source)   |
| Mains supply  | 176÷264V AC 50÷60Hz   |
| Current up to   | 1,4A@230VAC   |
| Supply power  | 155W max.   |
| Efficiency  | 83%   |
| Output voltage  | 11V± 13,8V DC – buffer operation<br>9,5V±13,8V DC – battery-assisted operation  |
| Output current $t_{AMB}<30^{\circ}C$  | <b>10A + 1A battery charge - see chart 1</b><br><b>7A + 4A battery charge - see chart 1</b>   |
| Output current $t_{AMB}=40^{\circ}C$  | <b>6,7A + 1A battery charge - see chart 1</b><br><b>3,7A + 4A battery charge - see chart 1</b>  |
| Voltage adjustment range  | 12÷14VDC  |
| 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<9,5V ( $\pm 5\%$ ) – disconnection of battery terminal  |
| Tampering protection system:<br>- TAMPER – indicating unwanted opening of the PSU's enclosure   | - a microswitch, NC contacts (enclosure closed) 0,5A@50V DC (max.)  |
| Technical outputs:<br>- EPS; output indicating AC power failure<br><br>- PSU; output indicating DC absence/PSU failure<br><br>- LoB output indicating battery low voltage | - relay type: 1A@ 30VDC/50VAC, time lag: approx. 10s.<br>- OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level, time lag: 10s.<br><br>- relay type: 1A@ 30VDC/50VAC,<br>- OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level<br><br>- relay type: 1A@ 30VDC/50VAC,<br>- OC type, 50mA max., normal status: ( $U_{BAT} >11,5V$ ): L (0V) level, failure: ( $U_{BAT} <11,5V$ ): hi-Z level |
| LED indication  | Yes   |
| Operating conditions  | 2nd environmental class, $-10^{\circ}C \div 40^{\circ}C$  |
| Enclosure   | Steel plate, DC01 0,7mm colour: RAL 9003  |
| Enclosure dimensions  | 285 x 297 x 80+8 [mm] (WxHxD)   |
| Net/gross weight  | 2,50kg / 2,70kg   |
| Fitting battery   | 17Ah/12V (SLA) max.<br>180x120x75mm (WxHxD) max   |
| 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.<br>PSU cooling: convection.<br>Power supply: $\Phi 0,63-2,50$ (AWG 22-10)<br>Outputs: $\Phi 0,63-2,50$ (AWG 22-10)<br>Battery output BAT: 6,3F-2,5  |



# HPSBOC series power supply unit



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

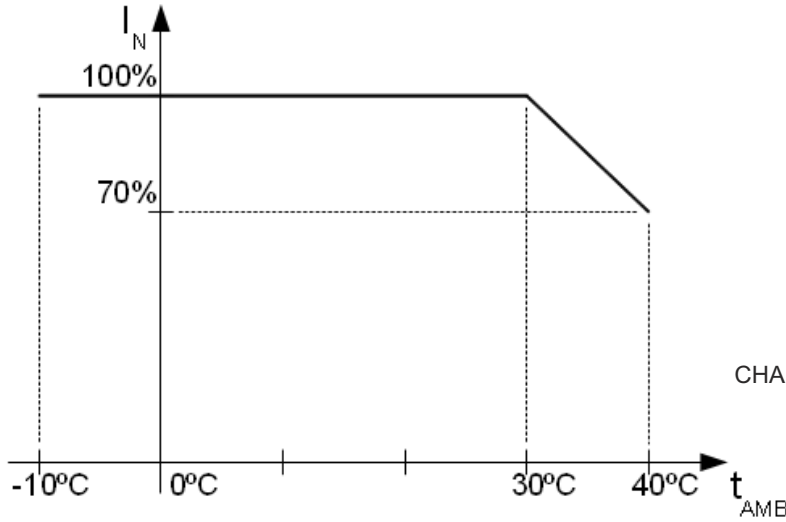


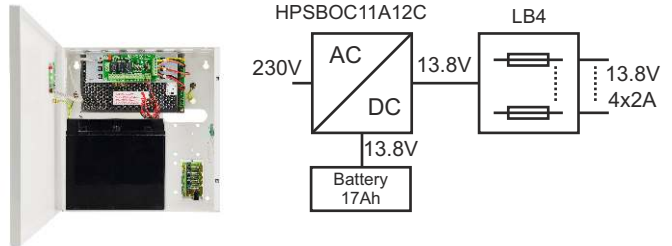
CHART 1. Acceptable output current from the PSU depending on ambient temperature.

## Optional configurations:

### Battery 17Ah:

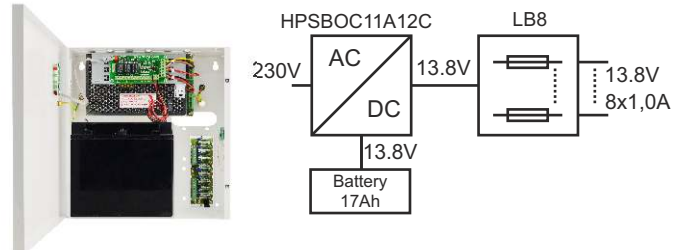
#### Buffer power supply unit HPSBOC 13,8V/4x2A/17Ah.

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



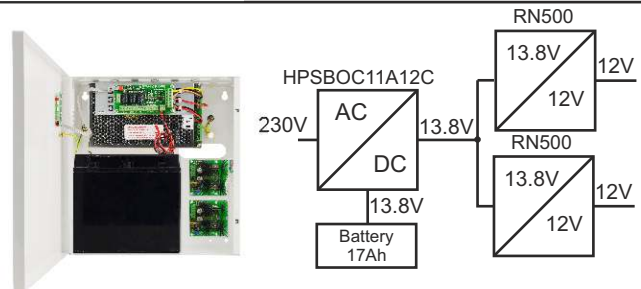
#### Buffer power supply unit HPSBOC 13,8V/8x1A/17Ah.

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



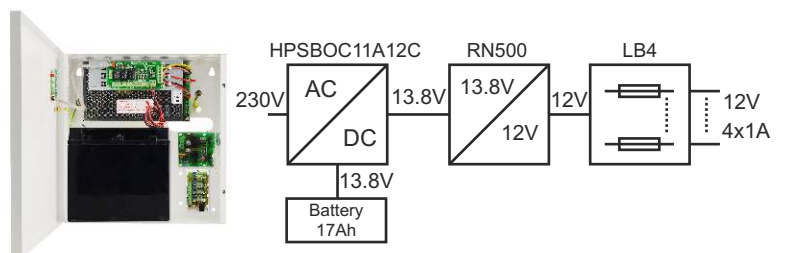
#### Buffer power supply unit HPSBOC 13,8V/2x12V/10A/17Ah.

- 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



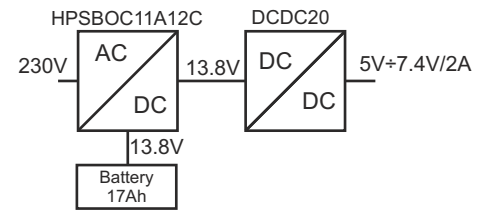
# HPSBOC series power supply unit



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

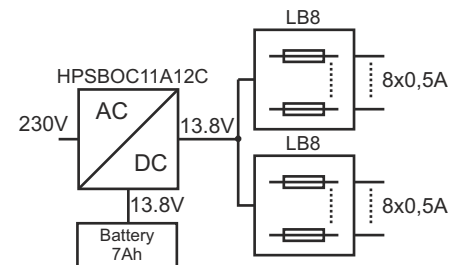


## Optional configurations:

### Battery 7Ah:

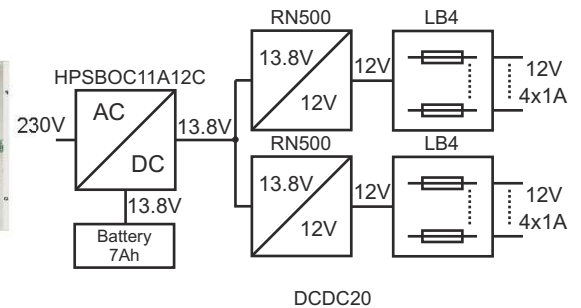
## Buffer power supply unit HPSBOC 13,8V/16x0,5A/7Ah.

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



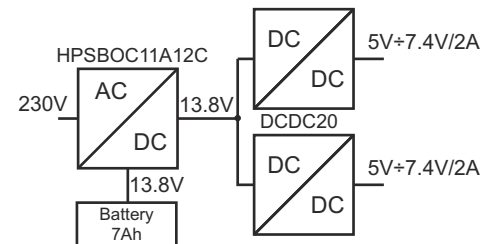
## Buffer power supply unit HPSBOC 13,8V/2x12V/8x1A/7Ah.

- 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

