

HPSBOC series power supply unit



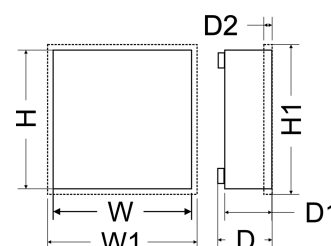
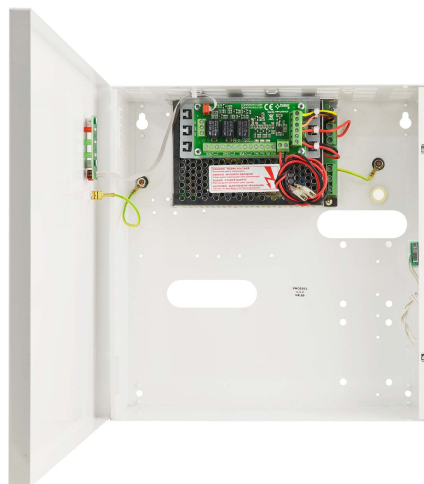
Buffer, switch mode power supply unit 13,8V DC, with automatic operation control

CODE: HPSBOC 3512C v.1.1/VI

TYPE: HPSBOC 13,8V/3A/17Ah/OC Buffer, switch mode power supply unit
with automatic operation control.

EN

GREEN POWER plus



Features:

- DC 13,8V/3A uninterruptible power supply*
- fitting battery: 17Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 76%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery charge current 0,5A
- 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 intended for uninterrupted supply to devices that require stabilised voltage of **12V DC (+/-15%)**. The PSU provides voltage of **U=13,8V DC** with output current of **I=3A + 0,5A for battery charging***. 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).

During normal operation, the total current drawn by the equipment may not exceed $I = 3A^*$.

Maximum battery charging current: 0.5 A*.

Total device current + battery: 3.5 A max*.

* See chart 1

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC
Current up to	0.6A@230VAC
Supply 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÷14VDC
Ripple	120mV p-p max.
Battery charge current	0,5A max. @ 17Ah ($\pm 5\%$)
Short-circuit protection SCP	105-150% of power supply, automatic recovery
Overload protection OLP	PTC polymer fuse
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@ 30VDC/50VAC, time lag: approx. 10s. - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level, time lag: 10s. - 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
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
Enclosure dimensions	285 x 297 x 80+8 [mm] (WxHxD)
Net/gross weight	2,21kg / 2,41kg
Fitting battery	17Ah/12V (SLA) max. 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 touch 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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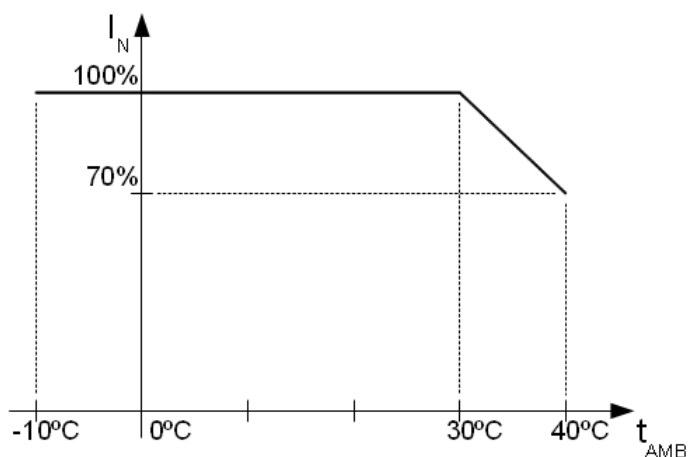


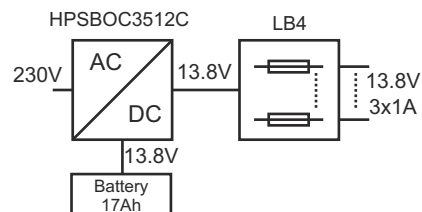
CHART 1. Acceptable output current from the PSU depending on ambient temperature.

Optional configurations:

Battery 17Ah:

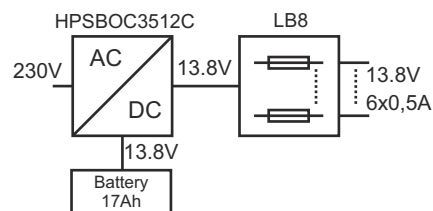
Buffer power supply unit HPSBOC 13,8V/3x1A/17Ah.

- HPSBOC3512C + LB4 3x1A (AWZ576 or AWZ575) + 17Ah



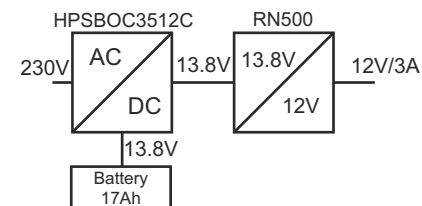
Buffer power supply unit HPSBOC 13,8V/6x0,5A/17Ah.

- HPSBOC3512C + LB8 6x0,5A (AWZ580 or AWZ578) + 17Ah



Buffer power supply unit HPSBOC 13,8V/12V/3A/17Ah.

- HPSBOC3512C + RN500 (13,8V/12V) + 17Ah



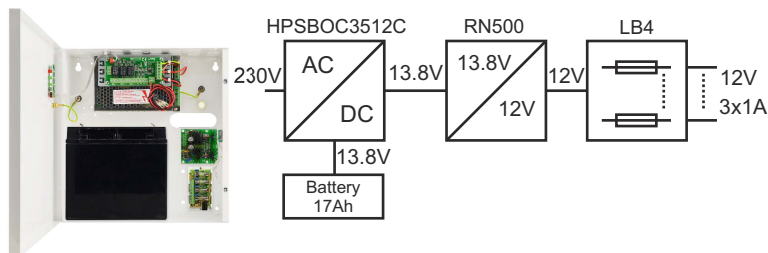
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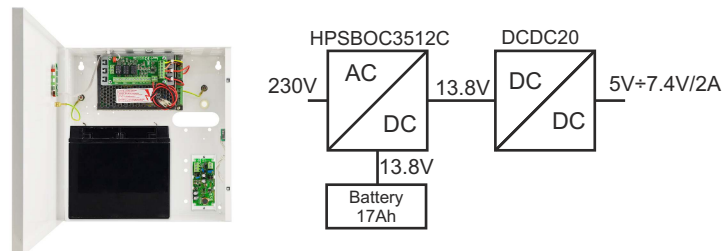
Buffer power supply unit HPSBOC 13,8V/12V/3x1A/17Ah.

- HPSBOC3512C + RN500 (13,8V/12V) + LB4 3x1A (AWZ576 or AWZ575) + 17Ah



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

- HPSBOC3512C + DCDC20 (5V÷7,4V/2A) + 17Ah

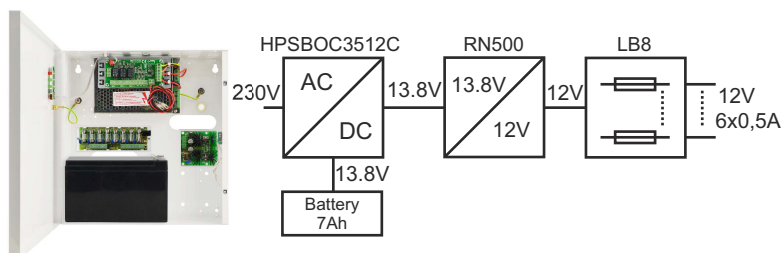


Optional configurations:

Battery 7Ah:

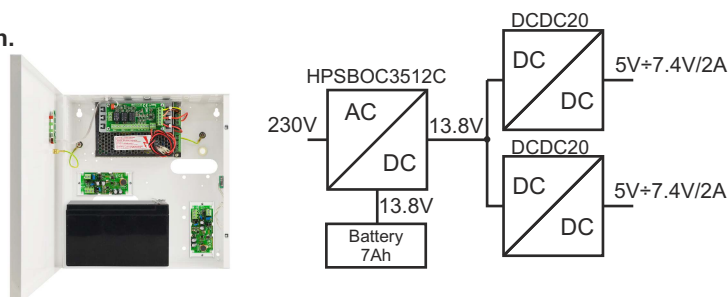
Buffer power supply unit HPSBOC 13,8V/12V/6x0,5A/7Ah.

- HPSBOC3512C + RN500 (13,8V/12V) + LB8 6x0,5A (AWZ580 or AWZ575) + 7Ah



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

- HPSBOC3512C + 2xDCDC20 (2x5V÷7,4V/2x2A) + 7Ah



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

- HPSBOC3512C + DCDC20 (5V÷7,4V/2A) + LB4 4x0,5A (AWZ574 or AWZ576) + 7Ah

