

# HPSB series power supply unit



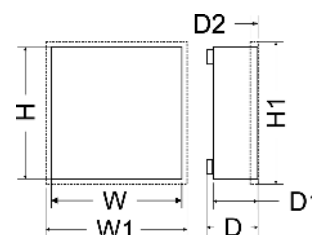
Buffer, switch mode power supply unit 13,8V DC

CODE: HPSB 3512C v.1.0/VII  
TYPE: HPSB 13,8V/3A/17Ah Buffer, switch mode power supply unit

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GREEN POWER



## 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
- protections:
  - SCP short-circuit protection
  - OVP overvoltage protection
  - overvoltage protection (input AC)
  - 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: 0,5A\***

**Total device current + battery: 3,5A max\***

\* Refer to chart 1

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC 50÷60Hz
Current up to	0.6A@230VAC
Supply power	50W max.
Efficiency	76%
Output voltage	13,8V DC – buffer operation 9,5V÷13,8V DC – battery-assisted operation
<b>Output current <math>t_{AMB} &lt; 30^{\circ}C</math></b>	<b>3A + 0,5A battery charge - refer to chart 1</b>
<b>Output current <math>t_{AMB} = 40^{\circ}C</math></b>	<b>2,1A + 0,5A battery charge - refer to chart 1</b>
Voltage adjustment range	12÷14VDC
Ripple	120mV p-p max.
Battery charge current	0,5A max. @ 17Ah ( $\pm 5\%$ )
Short-circuit protection SCP	electronic, automatic return
Overload protection OLP	105-150% of the PSU power, automatic return
Battery circuit protection SCP and reverse polarity connection	PTC polymer fuse
Surge protection	varistors
Overvoltage protection OVP	>16V (automatic recovery)
Excessive discharge protection UVP	U<9,5 V ( $\pm 5\%$ ) – disconnect of connection battery
Sabotage protection: - TAMPER output indicating enclosure opening	- microswitch, NC contacts (enclosure closed), 0,5A@50V DC (max.)
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}C \div 40^{\circ}C$
Enclosure	Steel plate DC01, thickness: 0,7mm, colour: RAL 9003
Enclosure dimensions	280 x 292 x 80+8 [mm] (WxHxD)
Net/gross weight	2,1 / 2,3 kg
Fitting battery	17Ah/12V (SLA) max. 180x120x75mm (WxHxD) max
Closing	Cheese head screw x 2 (at the front), (lock assembly possible)
Declarations, warranty	CE, RoHS, 2 year from the production date
Notes	The enclosure does not adjoin the assembly surface so that cables can be led. Convictional cooling. Connectors: Power-supply: $\Phi 0,63 \div 2,5$ Battery output BAT: 6,3F-2,5.

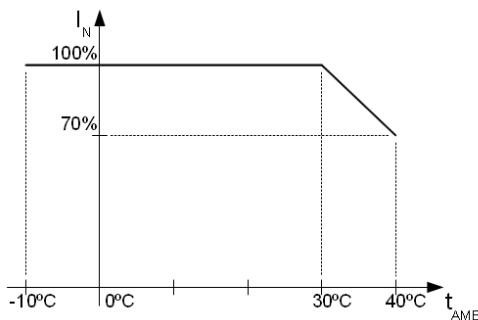


CHART 1. Acceptable output current from the PSU depending on ambient temperature.

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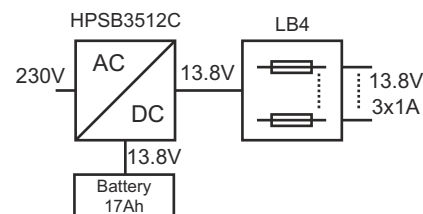


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## Optional configurations:

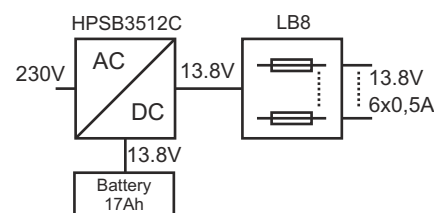
### Buffer power supply unit HPSB 13,8V/3x1A/17Ah.

- HPSB3512C + LB4 3x1A (AWZ576 or AWZ575) + 17Ah



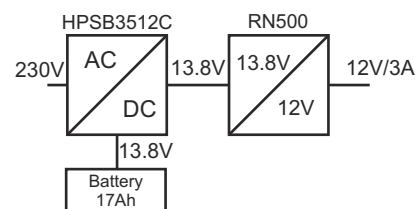
### Buffer power supply unit HPSB 13,8V/6x0,5A/17Ah.

- HPSB3512C + LB8 6x0,5A (AWZ580 or AWZ578) + 17Ah



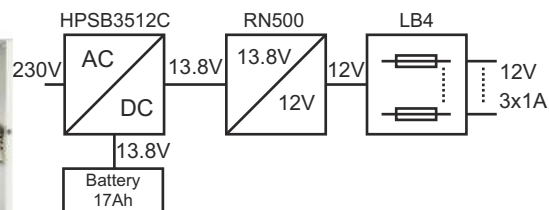
### Buffer power supply unit HPSB 13,8V/12V/3A/17Ah.

- HPSB3512C + RN500 (13,8V/12V) +17Ah



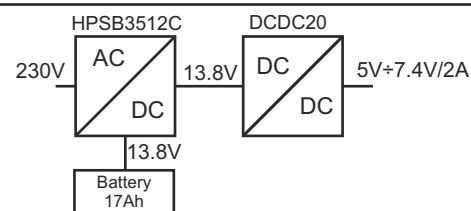
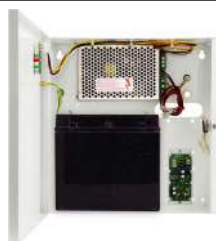
### Buffer power supply unit HPSB 13,8V/12V/3x1A/17Ah.

- HPSB3512C + RN500 (13,8V/12V) + LB4 3x1A (AWZ576 or AWZ575) +17Ah



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

- HPSB3512C + DCDC20 (5V÷7,4V/2A) + 17Ah



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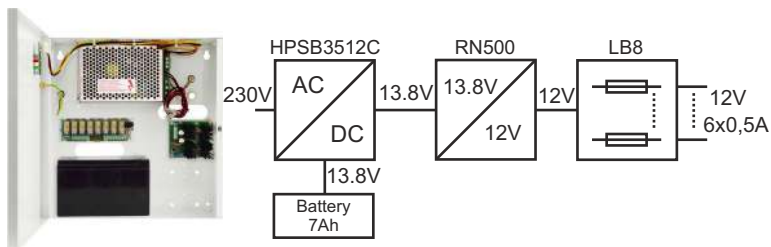
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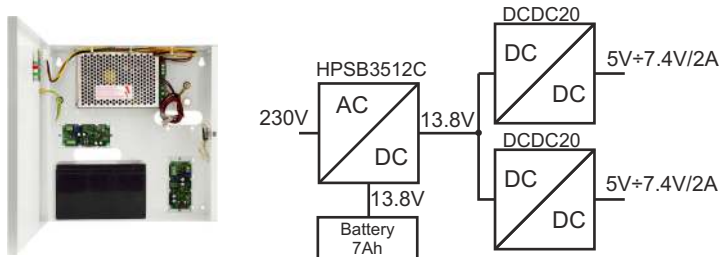
### Buffer power supply unit HPSB 13,8V/12V/6x0,5A/7Ah.

- HPSB3512C + RN500 (13,8V/12V) + LB8 6x0,5A (AWZ580 or AWZ575) + 7Ah



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

- HPSB3512C + 2xDCDC20 (2x5V÷7,4V/2x2A) + 7Ah



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

- HPSB3512C + DCDC20 (5V÷7,4V/2A) + LB4 4x0,5A (AWZ574 or AWZ576) + 7Ah

