

HPSB series power supply unit



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

EN**

CODE: **HPSB 2512B** v.1.0/VI
TYPE: **HPSB 13,8V/2A/7Ah Buffer, switch mode power supply unit**



Features:

- DC 13,8V/2A uninterruptible power supply*
- fitting battery: 7Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 74%
- 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 (output 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=2A + 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 7Ah/12V battery. A micro switch indicates door opening (front cover).

During normal operation, the total current drawn by the equipment may not exceed **I = 2 A***.

Maximum battery charging current: **0.5A***.

Total device current + battery: **2.5A 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	0,45A@230VAC
Supply power	35W max.
Efficiency	74%
Output voltage	13,8V DC – buffer operation 9,5V÷13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}C$	2A + 0,5A battery charge- refer to chart 1
Output current $t_{AMB}=40^{\circ}C$	1,4A + 0,5A battery charge - refer to chart 1
Voltage adjustment range	12÷14VDC
Ripple	120mV p-p max.
Battery charge current	0,5A max. @ 7Ah ($\pm 5\%$)
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	250 x 250 x 80+8 [mm] (WxHxD)
Net/gross weight	1,7 / 1,9 kg
Fitting battery	7Ah/12V (SLA) max. 160x90x75mm (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. Convectional cooling. Connectors:Power-supply: $\Phi 0,63\div 2,5$ Battery output BAT: 6,3F-2,5.

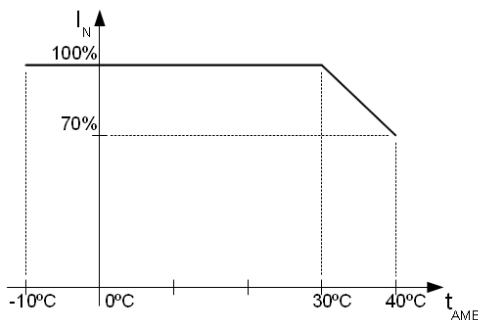


CHART 1. Acceptable output current from the PSU depending on ambient temperature.

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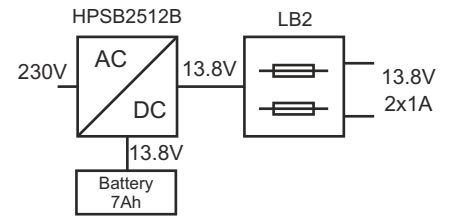


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Optional configurations:

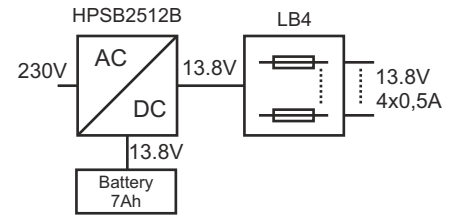
Buffer power supply unit HPSB 13,8V/2x1A/7Ah.

- HPSB2512B + LB2 2x1A (AWZ585, AWZ586) + 7Ah



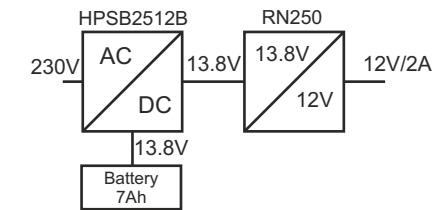
Buffer power supply unit HPSB 13,8V/4x0,5A/7Ah.

- HPSB2512B + LB4 4x0,5A (AWZ574, AWZ576) + 7Ah



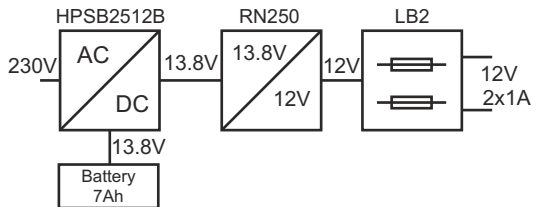
Buffer power supply unit HPSB 13,8V/12V/2A/7Ah.

- HPSB2512B + RN250 (13,8V/12V) + 7Ah



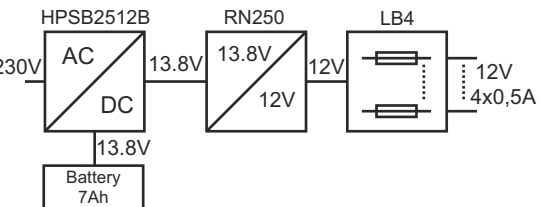
Buffer power supply unit HPSB 13,8V/12V/2x1A/7Ah.

- HPSB2512B + RN250 (13,8V/12V) + LB2 2x1A (AWZ585, AWZ586) + 7Ah



Buffer power supply unit HPSB 13,8V/12V/4x0,5A/7Ah.

- HPSB2512B + RN250 (13,8V/12V) + LB4 4x0,5A (AWZ574, AWZ576) + 7Ah



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

- HPSB2512B + DCDC20 x 2 pcs (2x5V±7,4V/2x2A) + 7Ah

