

# HPSB series power supply unit

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

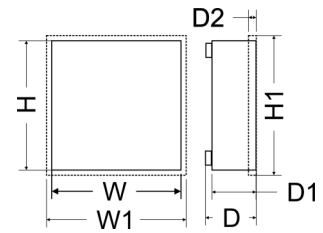


EN\*\*

CODE: **HPSB 11A12D** v.1.0/VII  
TYPE: **HPSB 13,8V/10A/40Ah Buffer, switch mode power supply unit**



GREEN POWER



## Features:

- DC 13,8V/10A uninterruptible power supply\*
- fitting battery: 40Ah/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
- 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 is used for an uninterrupted supply to devices requiring stabilised voltage of **12V DC (+/-15%)**. The PSU provides voltage of **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 40Ah/12V battery. A micro switch indicates door opening (front cover).

\* 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	1,4A@230VAC
Supply power	155W max.
Efficiency	83%
Output voltage	13,8V DC – buffer operation 9,5V÷13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}\text{C}$	<b>10A + 1A battery charge - refer to chart 1</b> <b>7A + 4A battery charge - refer to chart 1</b>
Output current $t_{AMB}=40^{\circ}\text{C}$	<b>6,7A + 1A battery charge - refer to chart 1</b> <b>3,7A + 4A battery charge - refer to chart 1</b>
Voltage adjustment range	12÷14VDC
Ripple	120mV p-p max.
Battery charge current	1A / 4A max. @ 40Ah ( $\pm 5\%$ ) – jumper selectable
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 (activation requires disconnecting the load or supply for about 20 s.)
Excessive discharge protection UVP	$U < 9,5\text{ V } (\pm 5\%)$ – disconnect of connection battery
Protection against sabotage: - TAMPER indicates enclosure opening	- microswitch, NC contacts (enclosure closed), 0,5A@50V DC (max.)
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}\text{C} \div 40^{\circ}\text{C}$
Enclosure	Steel plate DC01, thickness: 1,0mm, colour: RAL 9003
Enclosure dimensions	320 x 330 x 170+8 [mm] (WxHxD)
Net/gross weight	5,5 / 5,7 kg
Fitting battery	40Ah/12V (SLA) max. 197x175x165mm (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.

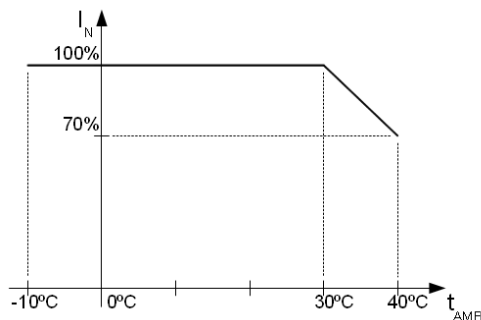


CHART 1. Acceptable output current from the PSU depending on ambient temperature.

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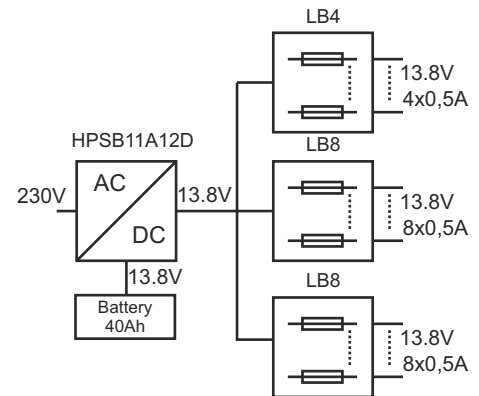
Buffer, switch mode power supply unit 13,8V DC



## Optional configurations:

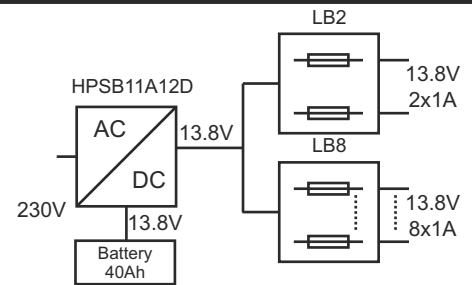
### Buffer power supply unit HPSB 13,8V/20x0,5A/40Ah.

- HPSB11A12D + 2xLB8 16x0,5A (AWZ578 or AWZ580)
- + LB4 4x0,5A (AWZ574 or AWZ576) + 40Ah



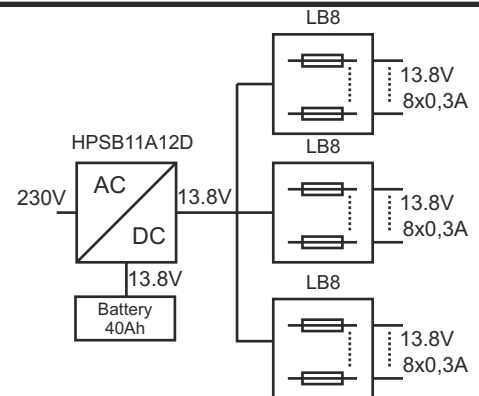
### Buffer power supply unit HPSB 13,8V/10x1A/40Ah.

- HPSB11A12D + LB8 8x1A (AWZ579 or AWZ580)
- + LB2 2x1A (AWZ585 or AWZ586) + 40Ah



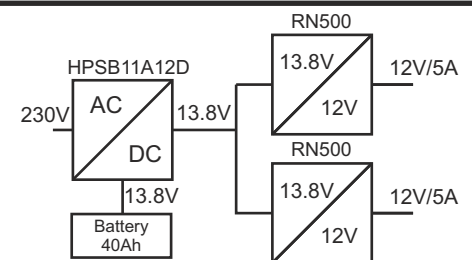
### Buffer power supply unit HPSB 13,8V/24x0,3A/40Ah.

- HPSB11A12D + 3xLB8 24x0,3A (AWZ577 or AWZ580) + 40Ah



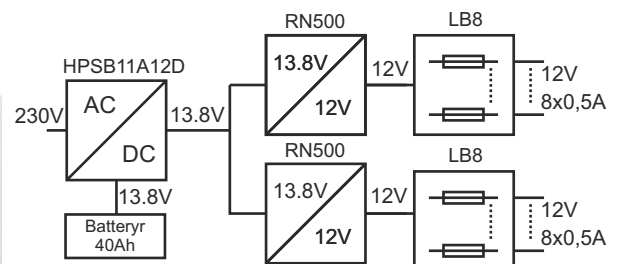
### Buffer power supply unit HPSB 13,8V/2x12V/2x5A/40Ah.

- HPSB11A12D + 2xRN500(13,8V/12V) + 40Ah



### Buffer power supply unit HPSB 13,8V/2x12V/16x0,5A/40Ah.

- HPSB11A12D + 2xRN500(13,8V/12V) + 2xLB8 16x0,5A (AWZ578 or AWZ580) + 40Ah



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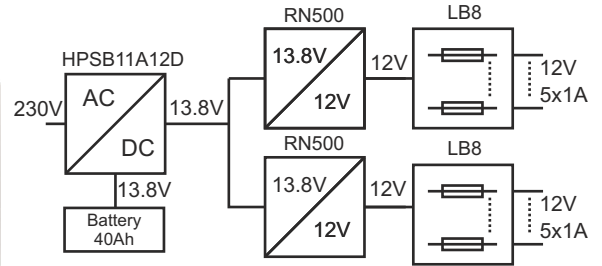
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## Optional configurations:

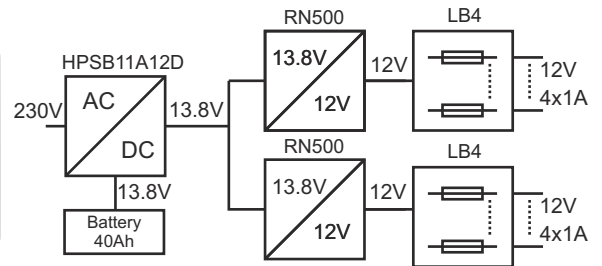
### Buffer power supply unit HPSB 13,8V/2x12V/10x1A/40Ah.

- HPSB11A12D + 2xRN500 (13,8V/12V) + 2xLB8 10x1A  
(AWZ579 or AWZ580) + 40Ah



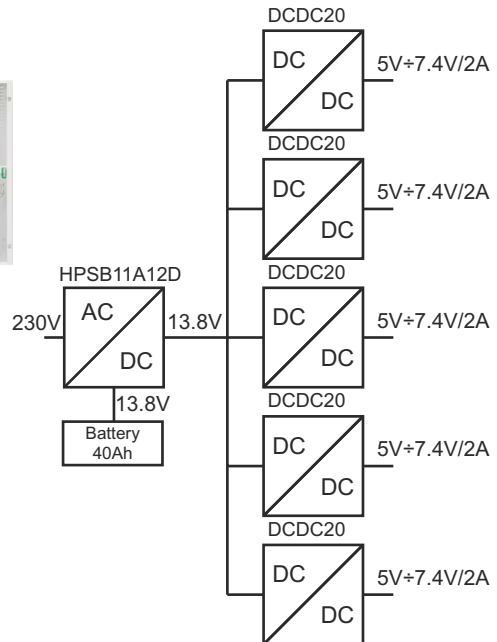
### Buffer power supply unit HPSB 13,8V/2x12V/8x1A/40Ah.

- HPSB11A12D + 2xRN500 (13,8V/12V) + 2xLB4 8x1A  
(AWZ575 or AWZ576) + 40Ah



### Buffer power supply unit HPSB 13,8V/5x5V÷7,4V/5x2A/40Ah.

- HPSB11A12D + 5xDCDC20 (5V÷7,4V/5x2A) + 40Ah



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## Optional configurations:

### Buffer power supply unit

**HPSB 13,8V/5x5V+7,4V/10x1A/40Ah.**

- HPSB11A12D + 5xDCDC20 (5V+7,4V/5x2A) +5xLB2 10x1A (AWZ585 or AWZ586) + 40Ah

