

HPSB series power supply unit

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



EN**

CODE: **HPSB 11A12E** v.1.0/VIII
TYPE: **HPSB 13,8V/10A/65Ah Buffer, switch mode power supply unit**

GREEN POWER



Features:

- DC 13,8V/10A uninterruptible power supply*
- fitting battery: 65Ah/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 65Ah/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 $t_{AMB}<30^{\circ}\text{C}$	10A + 1A battery charge - refer to chart 1 7A + 4A battery charge - refer to chart 1
Output current $t_{AMB}=40^{\circ}\text{C}$	6,7A + 1A battery charge - refer to chart 1 3,7A + 4A battery charge - refer to chart 1
Voltage adjustment range	12÷14VDC
Ripple	120mV p-p max.
Battery charge current	1A / 4A max. @ 65Ah ($\pm 5\%$) – 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°C ÷ $+40^{\circ}\text{C}$
Enclosure	Steel plate DC01, thickness: 1,0mm, colour: RAL 9003
Dimensions	W=400 H=350 D+D ₁ =173 + 8 [\pm 2mm] W ₁ =405 H ₁ =355 [\pm 2mm]
Net/gross weight	6,2 / 6,5 kg
Fitting battery	65Ah/12V (SLA) max. 360x175x165mm (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. Convencional cooling. Connectors: Power-supply: $\Phi 0,63\pm 2,5$ Battery output BAT: 6,3F-2,5.

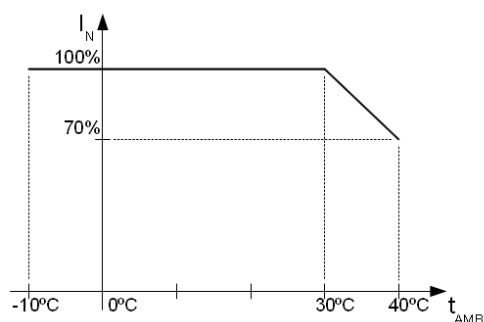


CHART 1. Acceptable output current from the PSU depending on ambient temperature.

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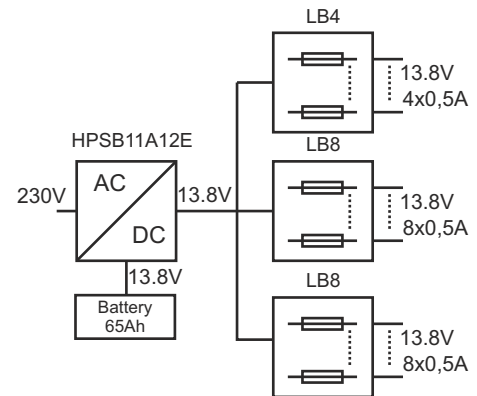
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Optional configurations:

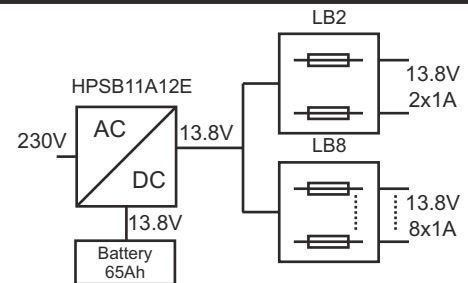
Buffer power supply unit HPSB 13,8V/20x0,5A/65Ah.

- HPSB11A12E + 2xLB8 16x0,5A (AWZ578 or AWZ580)
+ LB4 4x0,5A (AWZ574 or AWZ576) +65Ah



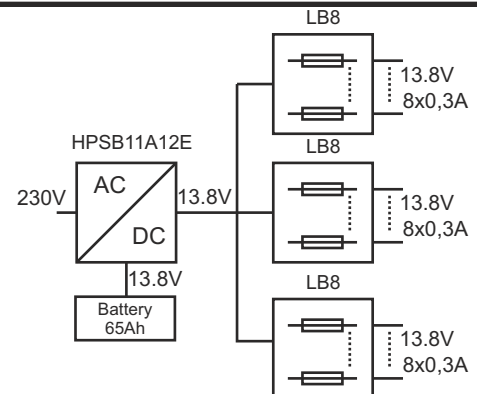
Buffer power supply unit HPSB 13,8V/10x1A/65Ah.

- HPSB11A12E + LB8 8x1A (AWZ579 or AWZ580)
+ LB2 2x1A (AWZ585 or AWZ586) + 65Ah



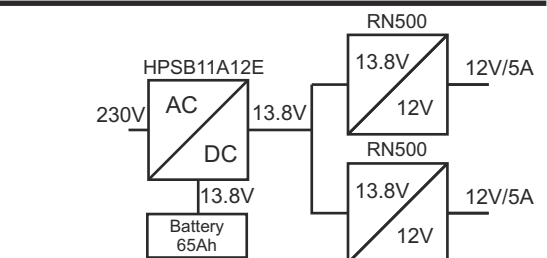
Buffer power supply unit HPSB 13,8V/24x0,3A/65Ah.

- HPSB11A12E + 3xLB8 24x0,3A (AWZ577 or AWZ580) + 65Ah



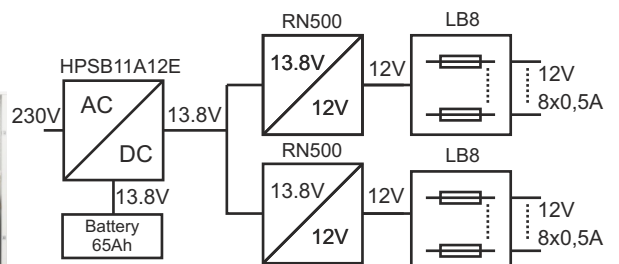
Buffer power supply unit HPSB 13,8V/2x12V/2x5A/65Ah.

- HPSB11A12E + 2xRN500(13,8V/12V) + 65Ah



Buffer power supply unit HPSB 13,8V/2x12V/16x0,5A/65Ah.

- HPSB11A12E + 2xRN500(13,8V/12V) +
2xLB8 16x0,5A (AWZ578 or AWZ580)+ 65Ah



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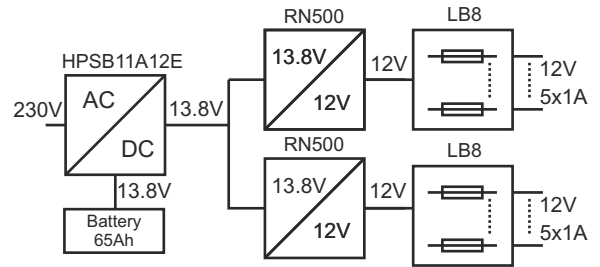


Optional configurations:

Buffer power supply unit

HPSB 13,8V/2x12V/10x1A/65Ah.

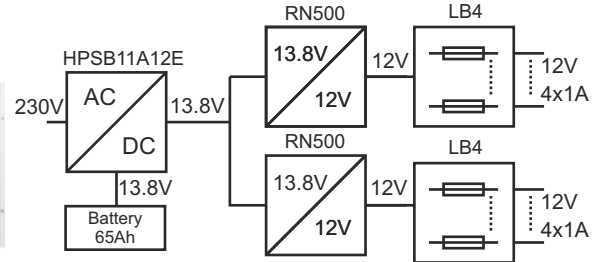
- HPSB11A12E + 2xRN500 (13,8V/12V) + 2xLB8 10x1A (AWZ579 or AWZ580)+ 65Ah



Buffer power supply unit

HPSB 13,8V/2x12V/8x1A/65Ah.

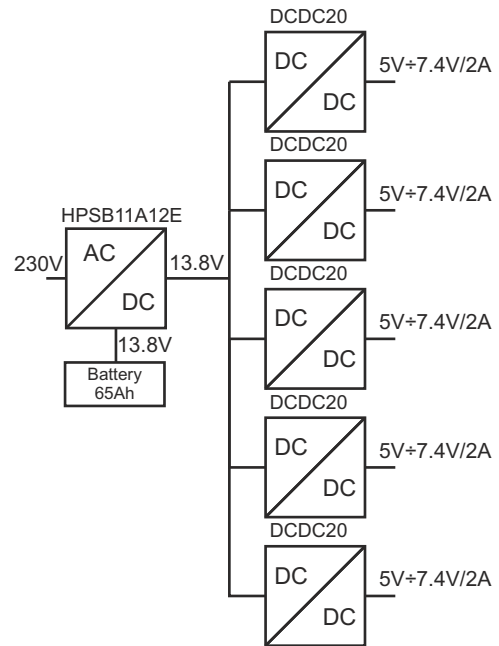
- HPSB11A12E + 2xRN500 (13,8V/12V) + 2xLB4 8x1A (AWZ575 or AWZ576)+ 65Ah



Buffer power supply unit

HPSB 13,8V/5x5V÷7,4V/5x2A/65Ah.

- HPSB11A12E + 5xDCDC20 (5V÷7,4V/5x2A) + 65Ah



Buffer power supply unit

HPSB 13,8V/3x5V÷7,4V/3x2A/65Ah.

- HPSB11A12E + 3xDCDC20 (5V÷7,4V/3x2A) + 3xLB2 6x1A (AWZ585 or AWZ586) + 65Ah

