

# HPSB series power supply unit

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

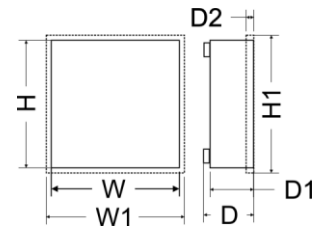


EN\*\*

CODE: **HPSB 2512C** v.1.0/I  
TYPE: **HPSB 13,8V/2A/17Ah Buffer, switch mode power supply unit**



GREEN POWER



## Features:

- DC 13,8V/2A uninterruptible power supply\*
- fitting battery: 17Ah/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 17Ah/12V battery. A micro switch indicates door opening (front cover).

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

**Maximum battery charging current:  $0,5A^*$ .**

**Total device current + battery:  $2,5A \text{ max}^*$ .**

The power supply housing has space for additional modules (fuse blocks, voltage regulators and DC-DC converters).

\* 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
<b>Output current <math>t_{AMB}&lt;30^{\circ}\text{C}</math></b>	<b>2A + 0,5A battery charge - refer to chart 1</b>
<b>Output current <math>t_{AMB}=40^{\circ}\text{C}</math></b>	<b>1,4A + 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	$U < 9,5\text{V}$ ( $\pm 5\%$ ) – 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, $-10^{\circ}\text{C} \div +40^{\circ}\text{C}$
Enclosure	Steel plate DC01, thickness: 0,7mm, colour: RAL 9003
Enclosure dimensions	280 x 292 x 80+8 [mm] (WxHxD)
Net/gross weight	2kg / 2,2 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, 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.

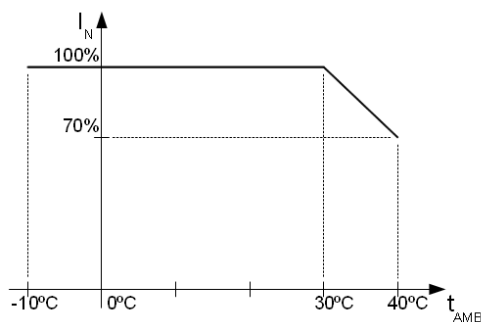


Chart 1. Acceptable output current from the PSU depending on ambient temperature.