

# HPSB series power supply unit

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

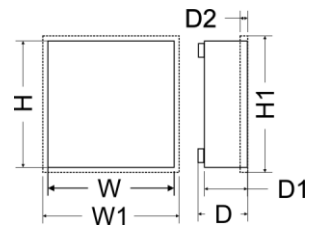


EN\*\*

CODE: **HPSB 20A12C** v.1.0/1  
TYPE: **HPSB 13,8V/20A/17Ah Buffer, switch power supply unit**



GREEN POWER



## Features:

- DC 13,8V/20A uninterruptible power supply\*
- fitting battery: 17Ah/12V
- wide range of mains supply: 176÷264V
- built-in power factor correction system (PFC)
- high efficiency 85%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- jumper selectable battery charge current 2A/4A/8A
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- protections:
  - SCP short-circuit protection
  - OVP overvoltage protection
  - overvoltage protection (AC input)
  - against sabotage
  - overload protection (OLP)
  - overheat protection OHP
- forced cooling - built-in fan
- warranty – 2 year from the production date

## DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to devices requiring stabilised voltage of **12V DC (+/-15%)**. The PSU provides voltage of **U=13,8V DC**. Current efficiency:

1. Output current **18A + 2A battery charge\***
  2. Output current **16A + 4A battery charge\***
  3. Output current **12A + 8A battery charge\***
- Total device current + battery: 20A 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 17Ah/12V battery. A micro switch indicates door opening (front cover).

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 50Hz
Current up to	1,5A@230VAC max.
Supply power	276W max.
Efficiency	85%
Power factor PF	>0,95 @230V AC
Output voltage	11V±13,8V DC – buffer operation 9,5V±13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}C$	<b>18A + 2A battery charge - refer to chart 1</b> <b>16A + 4A battery charge - refer to chart 1</b> <b>12A + 8A battery charge - refer to chart 1</b>
Output current $t_{AMB}=40^{\circ}C$	<b>12A + 2A battery charge - refer to chart 1</b> <b>10A + 4A battery charge - refer to chart 1</b> <b>6A + 8A battery charge - refer to chart 1</b>
Voltage adjustment range	12÷14VDC
Ripple	120mV p-p max.
Current consumption by PSU systems	170mA
Battery charge current	2A / 4A / 8A – 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	melting fuse 30A
Surge protection	varistors
Overvoltage protection OVP	>16V (activation requires disconnecting the load or supply for about 20 s.)
Excessive discharge protection UVP	U<9,5V (± 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 °C÷+40 °C
Enclosure	Steel plate DC01, thickness: 1,0mm, colour: RAL 9003
Enclosure dimensions	400 x 350 x 90+8 [mm] (WxHxD)
Net/gross weight	4,0 / 4,3 kg
Fitting battery	17Ah/12V (SLA) max. 185x170x80mm (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. Forced cooling - built-in fan.

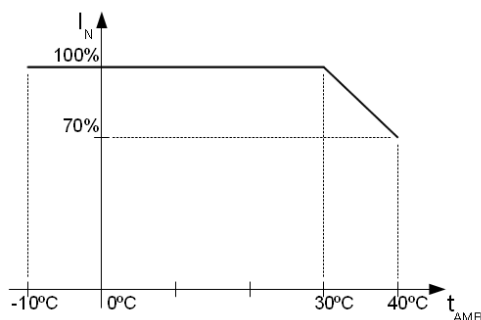


CHART 1. Acceptable output current from the PSU depending on ambient temperature.