

# HPSB series power supply unit

Buffer, switch mode power supply unit 27,6V DC

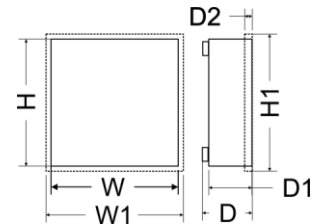


CODE: **HPSB 10A24D** v.1.0/1  
TYPE: **HPSB 27,6V/10A/2x40Ah Buffer, switch power supply unit**

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GREEN POWER



## Features:

- DC 27,6V/10A uninterruptible power supply\*
- fitting battery: 2x40Ah/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 1A/2A/4A
- 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 **24V DC (+/-15%)**. The PSU provides voltage of **U=27,6V DC**. Current efficiency:

1. Output current **9A + 1A battery charge\***
  2. Output current **8A + 2A battery charge\***
  3. Output current **6A + 4A battery charge\***
- Total device current + battery: 10A 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 2x40Ah/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	22V÷27,6V DC – buffer operation 19V÷27,6V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}C$	<b>9A + 1A battery charge - refer to chart 1</b> <b>8A + 2A battery charge - refer to chart 1</b> <b>6A + 4A battery charge - refer to chart 1</b>
Output current $t_{AMB}=40^{\circ}C$	<b>6A + 1A battery charge - refer to chart 1</b> <b>5A + 2A battery charge - refer to chart 1</b> <b>3A + 4A battery charge - refer to chart 1</b>
Voltage adjustment range	24÷28VDC
Ripple	150mV p-p max.
Current consumption by PSU systems	150mA
Battery charge current	1A / 2A or 4A – 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
Surge protection	varistors
Overvoltage protection OVP	>32V (activation requires disconnecting the load or supply for about 20 s.)
Excessive discharge protection UVP	$U < 19V (\pm 5\%)$ – 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, $-10^{\circ}C$ ÷ $40^{\circ}C$
Enclosure	Steel plate DC01, thickness: 1,0mm, colour: RAL 9003
Enclosure dimensions	420 x 373 x 181+14 [mm] (WxHxD)
Net/gross weight	7,40/ 7,90kg
Fitting battery	2x40Ah/12V (SLA) max. 415x170x170mm (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.

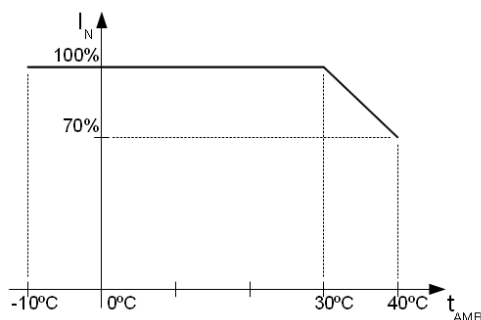


Chart 1. Acceptable output current from the PSU depending on ambient temperature.