

HPSB series power supply unit

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

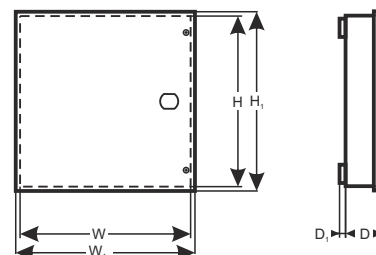


CODE: **HPSB 10A24D** v.1.0/II
TYPE: **HPSB 27,6V/10A/2x40Ah Buffer, switch power supply unit**

EN**



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 $t_{AMB}<30^{\circ}\text{C}$	9A + 1A battery charge - refer to chart 1 8A + 2A battery charge - refer to chart 1 6A + 4A battery charge - refer to chart 1
Output current $t_{AMB}=40^{\circ}\text{C}$	6A + 1A battery charge - refer to chart 1 5A + 2A battery charge - refer to chart 1 3A + 4A battery charge - refer to chart 1
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	$U<19\text{V} (\pm 5\%)$ – 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: 1,0mm, colour: RAL 9003
Dimensions	$W=420$ $H=373$ $D+D_1=183 + 14$ [$\pm 2\text{mm}$] $W_1=425$ $H_1=378$ [$\pm 2\text{mm}$]
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.

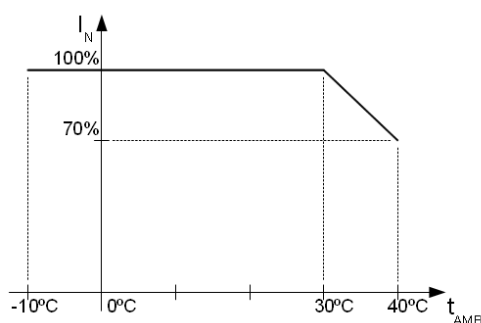


Chart 1. Acceptable output current from the PSU depending on ambient temperature.