

# HPSB series power supply unit

## Buffer, switch mode power supply unit 48V DC



EN\*\*

CODE: **HPSB 2548C** v.1.0/II  
TYPE: **HPSB 48V/2,5A/2x17Ah Buffer, switch mode power supply unit**



### Features:

- DC 48V/2,5A uninterruptible power supply\*
- fitting battery: 2x17Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 80%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery charge current 0,5A
- built-in 24/48V converter
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- protections:
  - SCP short-circuit protection
  - overvoltage protection (input 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 **48V DC (+/- 1V)**. The PSU provides voltage of **U=48V DC** with output current of **I=2,5A + 0,5A for battery charging\***. In case of power decay, a battery back-up is activated immediately. The power supply is constructed on the basis of a switch mode PSU with high energy efficiency and 24/48V DC boost converter and is housed in a metal enclosure (RAL 9003) with battery space for a 2x17Ah / 12V battery. A micro switch indicates door opening (front cover).

**During normal operation, the total current drawn by the equipment may not exceed  $I = 2,5A^*$ .  
Maximum battery charging current: 0,5A.**

\* Refer to chart 1

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC
Current up to	1,4A@230VAC
Supply power	135W max.
Efficiency	82%
Output voltage	48VDC (+/- 1V)
<b>Output current <math>t_{AMB} &lt; 30^{\circ}\text{C}</math></b>	<b>2,5A - refer to chart 1</b>
<b>Output current <math>t_{AMB} = 40^{\circ}\text{C}</math></b>	<b>1,7A - refer to chart 1</b>
Ripple	100mV p-p max.
PSU current consumption	90 mA
Battery charge current	0,5A
Short-circuit protection SCP	F3,15A- melting fuse (in case of a failure, fuse-element replacement required)
Overload protection OLP	110-150% PSU power, manual restart (the fault requires disconnection of the DC output circuit)
Battery circuit protection SCP and reverse polarity connection	melting fuse F15A
Surge protection	varistors
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, $-10^{\circ}\text{C} + 40^{\circ}\text{C}$
Enclosure	Steel plate DC01, thickness: 0,7mm, colour: RAL 9003
Dimensions	$W=400$ $H=350$ $D+D_1=92 + 8$ [ $\pm 2\text{mm}$ ] $W_1=405$ $H_1=355$ [ $\pm 2\text{mm}$ ]
Net/gross weight	4/4,3 kg
Fitting battery	2x17Ah/12V (SLA) max. 180x170x85mm (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 – 14mm. Power-supply: $\Phi 0,63-2,50$ (AWG 22-10) Outputs: $\Phi 0,63-2,50$ (AWG 22-10) Battery output BAT: 6,3F-2,5 TAMPER output: wires, 30cm

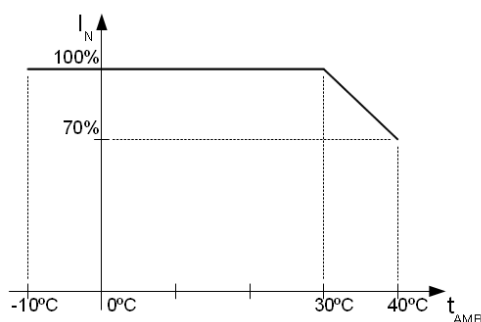


CHART 1. Acceptable output current from the PSU depending on ambient temperature.