

# PSBS series power supply unit

Buffer, switch mode power supply unit 27,6V DC with technical outputs



CODE: **PSBS 3024C** v.1.0/IV  
TYPE: **PSBS 27,6V/3A/2x17Ah/OC**

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Buffer switch mode power supply unit with technical outputs.



## PSU features:

- uninterruptible power supply DC 27,6V/3A
- battery housing: 2x17Ah/12V
- supply voltage AC 230V
- high efficiency 84%
- low voltage ripple
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery charging current 0,5A/1A jumper selectable
- START button to start the battery
- battery output protection against short-circuit and reverse connection
- LED indication
- EPS technical output of 230V power failure – OC type
- PSU technical output indicating PSU failure – OC type
- LoB technical output indicating low battery voltage – OC type
- Optional installation of the MPSBS relay module changing technical outputs of the OC type to relay type
- adjustable times of 230V AC failure indication
- Protection type:
  - SCP short-circuit protection
  - Overheat protection OHP
  - surge protection
  - overload protection OLP
  - Tamper protection: enclosure opening and detachment from the wall
- warranty - 5 years from the production date

## DESCRIPTION

A buffer PSU is designed for uninterrupted supply of devices requiring stabilized voltage of **24V DC (+/- 15%)**. The PSU supplies voltage of **U=27,6V DC** and total current capacity of:

1. Output current **3A + 0,5A** battery charging
2. Output current **2,5A + 1A** battery charging

**Total current + battery is max. 3,5A**

In case of mains power loss, the unit will instantly switch to battery operation. The PSU is enclosed in a metal casing (color RAL 9003) with battery housing for two 17Ah/12V batteries. The enclosure is fitted with a micro switch indicating door opening (front cover) and the detachment from the wall.

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	230V AC (-15% /10%) 50Hz
Current consumption	0,67A@230VAC
PSU's power	97W
Efficiency	84%
Output voltage	22V± 27,6V DC – buffer operation 20V± 27,6V DC – battery operation
<b>Output current</b>	<b>3A + 0,5A battery charging</b> <b>2,5A + 1A battery charging</b>
Voltage adjustment range	24±29VDC
Ripple voltage	130mV p-p max.
Battery charging current	0,5A or 1A– jumper selectable
Short-circuit protection SCP	Electronic - automatic return
Overload protection OLP	110-150% of the PSU power, manual restart
Battery circuit protection SCP and reverse polarity connection	F5A- current limitation, the F <sub>BAT</sub> melting fuse
Surge protection	varistors
Deep discharge battery protection UVP	U<20V (± 0,5V) – disconnection of battery terminal
Tamper protection: - TAMPER output indicating enclosure opening or detachment from the wall	- micro switch x 2 NC contacts (enclosure closed and mounted to the mounting base), 0,5A@50V DC (max.)
Technical outputs: - EPS; output indicating AC power failure  - PSU; output indicating no DC power/PSU failure  - LoB output indicating low battery voltage	- OC type: 50mA max. Normal operation: L state (0V), failure: hi-Z state, - delay time 10s/60s (+/-20%) – jumper selectable T <sub>Ac</sub>  - OC type: 50mA max. Normal operation: L state (0V), failure: hi-Z state,  - OC type, 50mA max. Normal operation (U <sub>BAT</sub> >23V): L state (0V), failure (U <sub>BAT</sub> <23V): hi-Z state The power supply unit does not feature a battery detection function.
LED indication	Yes – LEDs
Operating conditions	2nd environmental class, -10 °C±40 °C
Enclosure	Steel plate, DC01 0,7mm color RAL 9003
Dimensions	W=400 H=350 D+D <sub>1</sub> =92 + 8 [+/- 2mm] W <sub>1</sub> =405 H <sub>1</sub> =355 [+/- 2mm]
Net/gross weight	6,4kg / 6,9kg
Battery housing	2x17Ah/12V (SLA) max. 370x175x85mm (WxHxD) max
Closing	Cylindrical screw (at the front), (lock assembly possible)
Deklarations, warranty	CE, 5 years from the production date
Notes	The enclosure does not adjoin the mounting surface so that cables can be led. Convection cooling.



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## OPTIONAL CONFIGURATIONS:

- 1. Buffer power supply PSBS 27,6V/relay module MPSBS/2x17Ah**
  - PSBS 3024C + MPSBS + 2x17Ah
- 2. Buffer power supply PSBS 27,6V/3x1A/2x17Ah**
  - PSBS 3024C + LB4 3x1A (AWZ575, AWZ576) + 2x17Ah
- 3. Buffer power supply PSBS 27,6V/6x0,5A/2x17Ah**
  - PSBS 3024C + LB8 6x0,5A (AWZ578, AWZ580) + 2x17Ah
- 4. Buffer power supply PSBS 27,6V/24V/2x17Ah**
  - PSBS 3024C + RN25024 (27,6V/24V) + 2x17Ah
- 5. Buffer power supply PSBS 27,6V/24V/3x1A/2x17Ah**
  - PSBS 3024C + RN25024 (27,6V/24V) + LB4 3x1A (AWZ575, AWZ576) + 2x17Ah
- 6. Buffer power supply PSBS 27,6V/5V÷18V/2A÷1,3A/2x17Ah**
  - PSBS 3024C + DCDC20 (5V÷18V/2A÷1,3A) + 2x17Ah