

PSBS series power supply unit

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

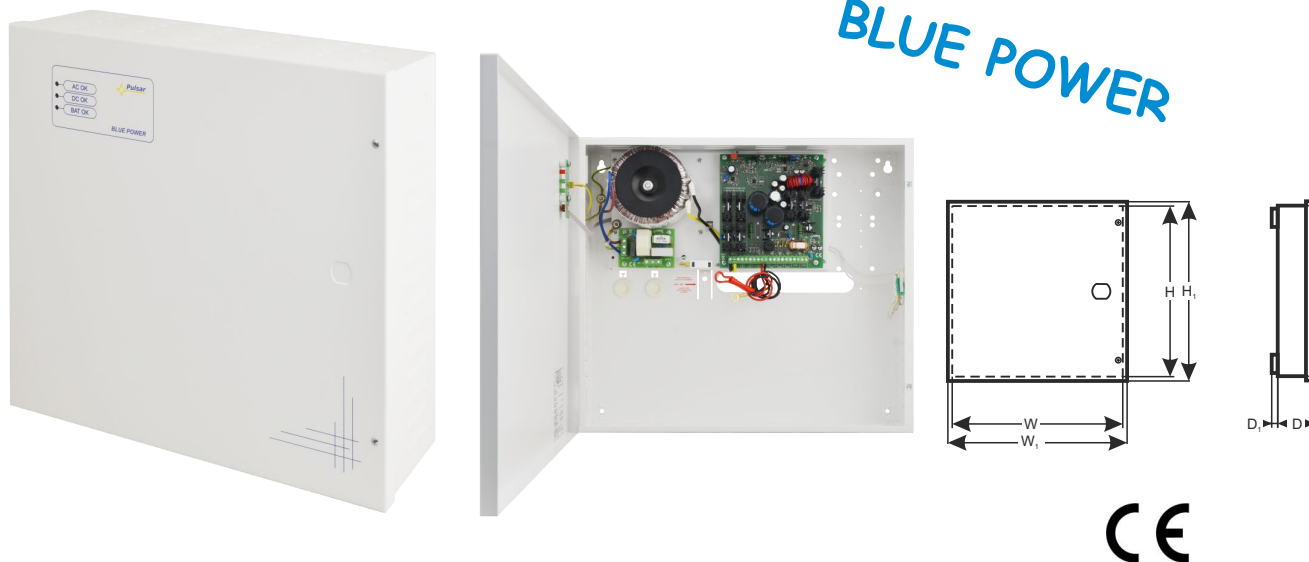


CODE: **PSBS 5024C**

v.1.1/VII

EN**

TYPE: **PSBS 27,6V/5A/2x17Ah/OC** Buffer switch mode power supply unit with technical outputs.



PSU features:

- uninterruptible power supply DC 27,6V/5A
- alternative outputs AUX1, AUX2, AUX3, 3x1,25A current limit
- battery housing: 2x17Ah/12V
- supply voltage AC 230V
- high efficiency 81%
- low voltage ripple
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery charging current 0,5A/1A/2A/3A, 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
 - overvoltage protection OVP
 - 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 **5A + 0,5A battery charging**
2. Output current **4,5A + 1A battery charging**
3. Output current **3,5A + 2A battery charging**
4. Output current **2,5A + 3A battery charging**

Total current + battery is max. 5,5A

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	1,1A@230VAC
PSU's power	152W
Efficiency	81%
Output voltage	22V± 27,6V DC – buffer operation 20V± 27,6V DC – battery operation
Output current	5A + 0,5A battery charging 4,5A + 1A battery charging 3,5A + 2A battery charging 2,5A + 3A battery charging
Voltage adjustment range	24±29VDC
Ripple voltage	100mV p-p max.
Battery charging current	0,5A / 1A / 2A / 3A – 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	T6,3A- current limitation, the F _{BAT} melting fuse
Surge protection	varistors
Overvoltage protection OVP	>31V (automatic return)
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 _{Ac} - OC type: 50mA max. Normal operation: L state (0V), failure: hi-Z state, - OC type, 50mA max. Normal operation (U _{BAT} >23V): L state (0V), failure (U _{BAT} <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 ₁ =192 + 8 [+/- 2mm] W ₁ =405 H ₁ =355 [+/- 2mm]
Net/gross weight	7,3kg / 7,8kg
Battery housing	2x17Ah/12V (SLA) max. 370x175x85mm (WxHxD) max
Closing	Cylindrical screw (at the front), (lock assembly possible)
Deklarations, warranty	CE, RoHS, 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 5024C + MPSBS + 2x17Ah
2. **Buffer power supply PSBS 27,6V/8x0,5A/2x17Ah**
 - PSBS 5024C + LB8 8x0,5A (AWZ578, AWZ580) + 2x17Ah
3. **Buffer power supply PSBS 27,6V/4x1A/2x17Ah**
 - PSBS 5024C + LB4 4x1A (AWZ575, AWZ576) + 2x17Ah
4. **Buffer power supply PSBS 27,6V/2x24V/2x2,5A/2x17Ah**
 - PSBS 5024C + 2xRN25024 (27,6V/24V) + 2x17Ah
5. **Buffer power supply PSBS 27,6V/24V/4x1A/2x17Ah**
 - PSBS 5024C + RN25024 (27,6V/24V) + LB4 4x1A (AWZ575, AWZ576) + 2x17Ah
6. **Buffer power supply PSBS 27,6V/5V÷18V/2A÷1,3A/2x17Ah**
 - PSBS 5024C + DCDC20 (5V÷18V/2A÷1,3A) + 2x17Ah