



DINB 27630

v.1.0

DINB 27,6V/3A

DIN rail buffer power supply.

EN**

Edition: 3 from 06.08.2018

Supersedes the edition: 2 from 26.01.2015



PSU features:

- DC 27,6V/3A* uninterrupted supply + 0,2A battery charging current
- universal supply voltage range AC 176÷264V
- high efficiency 88%
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery output protection against short circuit and reverse polarity connection
- DIN rail mounting
- LED optical indication
- protection type:
 - short-circuit protection SCP
 - surge protection
 - overload protection OLP
- warranty – 2 years

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1. Technical description.

1.1 General description.

The buffer power supply is designed for uninterrupted supply of devices requiring stabilized voltage of **24 V DC (+/-15%)**. The PSU supplies voltage of **27,6 V DC** with current efficiency of **I = 3A + 0,2A battery charging***. In the case of mains power failure, the unit will instantly switch to battery power. The PSU is fitted with short circuit protection and overload protection. The power supply unit is in plastic enclosure designed for DIN TH35 rail mounting (35mm width).

During normal operation, the total current drawn by the device cannot exceed I=3A. The maximum battery charging current is 0,2A. The total current of the receivers + battery is max. 3,2A.

1.2 Block diagram.

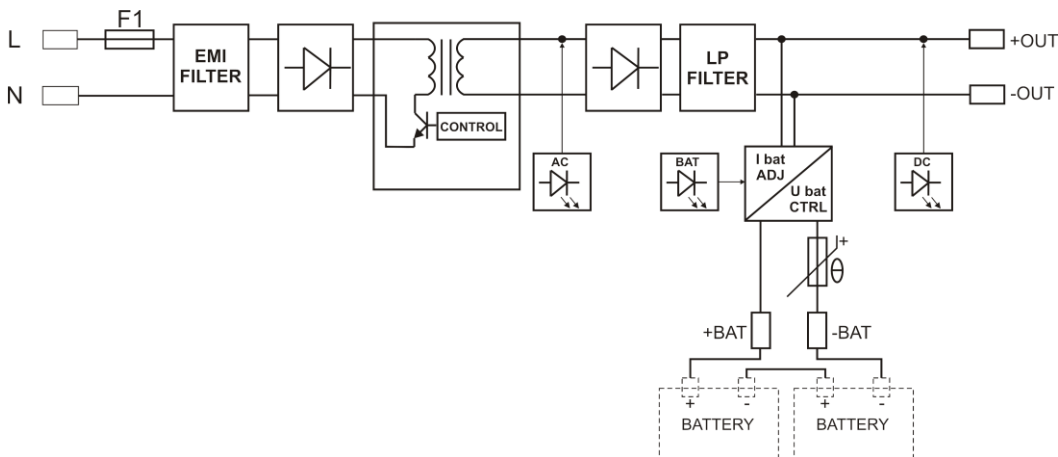


Fig.1. Block diagram of the PSU.

* Refer to chart 1

1.3 Description of components and power supply connectors (Table 1, Fig.2).

Table 1. The components of power supply.

Component No.	Description
[1]	L-N power connector 230 V AC
[2]	+OUT- DC power output
[3]	+BAT- battery connector
[4]	LED optical indication: AC – AC voltage indication DC – DC voltage indication BAT – battery charging indication

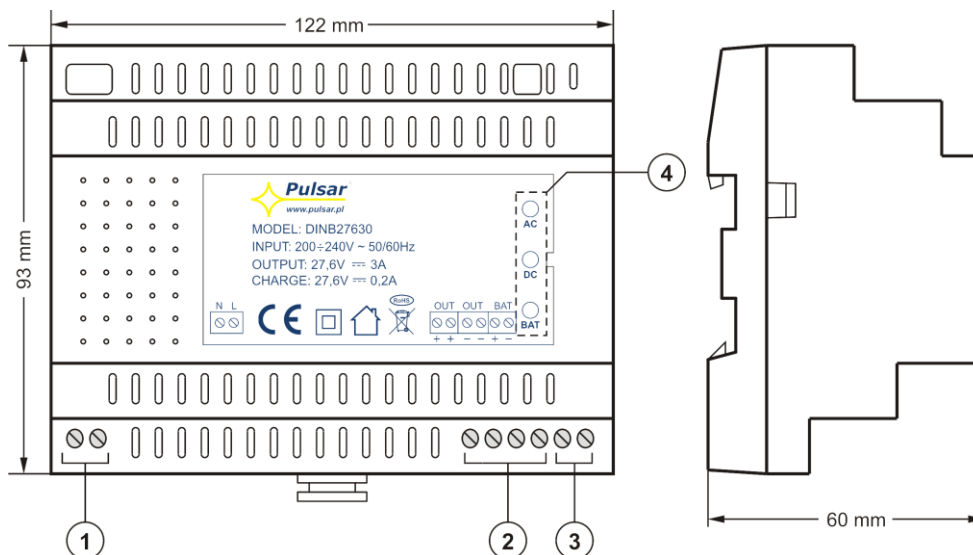
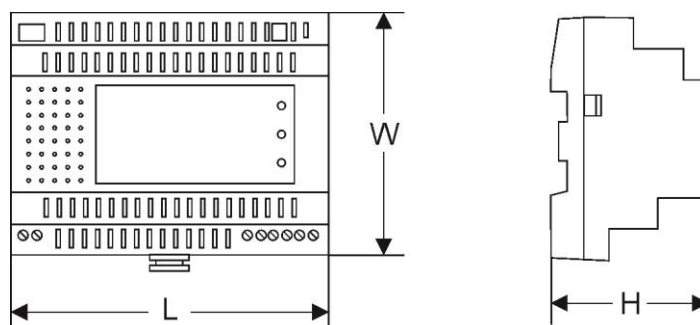


Fig. 2. The view of the PSU module.



1.4 Technical parameters:

- Electrical parameters (Table 2)
- Mechanical parameters (Table 3)
- Safety of use (Table 4)
- Operation parameters (Table 5)

Electrical parameters (Table 2)

Mains supply	176÷264 V AC
Current consumption	0,9A@230VAC max.
PSU power	90W max.
Efficiency	88%
Output voltage	23V± 27,6 V DC – buffer operation 20V± 27,6 V DC – battery operation
Output current $t_{AMB}<30^{\circ}C$	3A + 0,2A battery charging
Output current $t_{AMB}=40^{\circ}C$	2,1A + 0,2A battery charging
Ripple voltage	100mV p-p max.
Battery charging current	0,2A max.
Short-circuit protection SCP	electronic, automatic return
Overload protection OLP	150-200% of the PSU power, automatic return
Surge protection	varistor
Deep discharge battery protection UVP	U<19V (+/- 0,5V) – disconnection of the battery terminal
Optical indication of operation	YES – LEDs



WEEE MARK

According to the EU WEE Directive – It is required not to dispose of electric or electronic waste as unsorted municipal waste and to collect such WEEE separately.

The power supply unit is adapted for a sealed lead-acid battery (SLA). After the operation period it must not be disposed of but recycled according to the applicable law.

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