



**PSCLB13820**  
**PSCLB 13,8V/2A buffer switch mode power supply unit**



RoHS



Edition: 2 from 14.01.2020  
Supersedes edition: 1 from 29.03.2018

EN

**Features of the power supply unit:**

- DC 13,8 V/2 A uninterrupted supply + 0,3 A battery charging current
- universal AC input voltage range 90÷264 V
- high efficiency 82%
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery output protection against short circuit and reverse polarity connection
- IP 67 case
- protections:
  - SCP short-circuit protection
  - overvoltage protection (AC input)
  - overload (OLP)
- warranty – 2 year from the production date

**1. Technical description.**

**1.1. General description.**

The buffer power supply is designed for uninterrupted supply of devices requiring stabilized voltage of **12 V DC (+/-15%)**. The PSU supplies voltage of **13,8 V DC** with current efficiency of **I = 2 A + 0,3 A battery charging**. In the case of mains power failure, the unit will instantly switch to battery power. The power supply unit is protected against short-circuit, overload and overvoltage.

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

**1.2. Specifications.**

Supply voltage	AC 90÷264 V/50Hz
Current consumption	0,35 A@230 V max.
Supply power	32 W max.
Efficiency	82%
Output voltage	11 V÷ 13,8 V DC – buffer operation 9 V÷ 13,8 V DC – battery operation
Output current	<b>2 A + 0,3 A battery charging</b>
Ripple voltage	100mV p-p max.
Battery charging current	0,3 A max.
Current consumption by PSU systems	50mA/13,8 V DC
Short-circuit protection SCP	failure melting fuse in the battery circuit (requires fuse replacement)
Overload protection OLP	150-200% of power supply, automatic recovery
Surge protection (AC input)	varistor
Deep discharge battery protection UVP	U<9 V (+/- 0,5 V) – disconnection of the battery terminal
Fuse	F2 A/250 V, mounted using a positive battery cable (BAT+)
IP protection class	IP67
Operation conditions	temperature -10 °C÷40 °C relative humidity 20%...90% without condensation
Dimensions (LxWxH)	150 x 56 x 34 [mm]
Net/gross weight	0,4kg / 0,5kg
Protection class PN-EN 60950-1:2007	II (second)
Length of DC cable	0,5 m + DC plug 5,5 / 2,1 female
Length of AC cable	0,4 m
Storage temperature	-20°C...+60°C

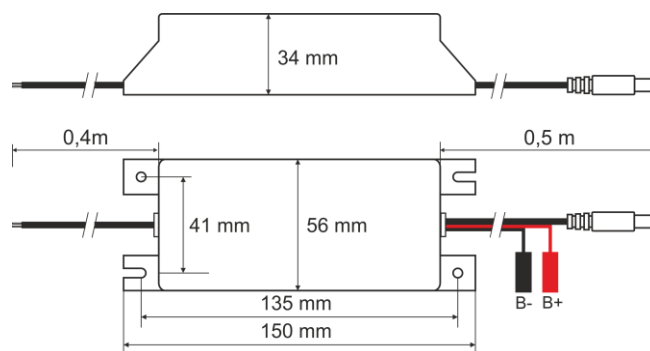


Fig.1. Dimensions of power supply.

### 1.3. Accessories.

For the power supplies are available accessories - fuse blocks and cable adapter. For details –visit [www.pulsar.pl](http://www.pulsar.pl)

## 2. Installation.

### 2.1. Requirements.

The power supply shall be mounted by the qualified installer having appropriate (required and necessary for a given country) permissions and qualifications for connecting (operating) low-voltage installations. The power supply shall be mounted in closed rooms, according to the environment class II, of the normal air humidity (RH=90% max.) and the temperature within the range from -10°C to +40°C.

**The power supply load balance should be done before installation. During normal operation, the total current of the receivers should not exceed I=2 A. The maximum battery charging current is 0,3 A. The total current of the receivers + battery is max. 2,3 A.**

The power supply is designed for a continuous operation and is not equipped with a power-switch. Therefore, an appropriate overload protection in the power supply circuit should be provided. Moreover, the user should be informed how to disconnect the power supply unit from the mains supply (usually by assigning an appropriate fuse in the fuse box). The electrical system shall be made in accordance with applicable standards. In order to meet the LVD and EMC requirements, the rules concerning power supply, building-in and shielding should be followed accordingly.

### 2.2. Installation procedure.

1. Before installation, make sure that the voltage in the 230 V power-supply circuit is cut off.
2. Install the power supply.
3. Connect the power supply to the 230 V line. The power supply has to be installed in such way to keep the air flow around the supply unit.
4. Connect the DC output to the load/loads.
5. Switch on the 230 V supply.
6. Connect the battery in accordance with the markings: +BAT red to 'plus', -BAT black to 'minus'.
7. Close the enclosure, cabinet, etc. after installing and checking the operation of the power supply.

## 3. Maintenance.

Any and all maintenance operations may be performed following the disconnection of the power supply from the power network. The power supply does not require any specific maintenance procedures, however, in the case of significant level of dust, it should be cleaned with the compressed air.



### WEEE designation

**The waste electric and electronic equipment worn out may not be disposed of together with standard household waste. According to the WEEE directive, applicable in the EU, the separate neutralization methods should be used for electric and electronic equipment.**

---

### Pulsar sp. j.

Siedlec 150, 32-744 Łapczyca, Poland  
Tel. (+48) 14-610-19-40, Fax. (+48) 14-610-19-50  
e-mail: [biuro@pulsar.pl](mailto:biuro@pulsar.pl), [sales@pulsar.pl](mailto:sales@pulsar.pl)  
http:// [www.pulsar.pl](http://www.pulsar.pl), [www.zasilacze.pl](http://www.zasilacze.pl)