

Problems or faults

1. In the absence of mains voltage, the "ON" indicator lights up and the "DC12V" not lit, the consumer does not work - check if the battery is charged - when the battery is discharged, the device switches itself off and only the ON LED remains on.
2. During the absence of mains voltage, the "ON" indicator does not light - contact the service
3. If there is mains power, but "AC220V" does not light up - check fuse 1A located on the front panel or contact the service.
4. Indicators "DC12V" and "ON" are illuminated (or "AC220V" and "ON"), but the load does not work - check the connections to the load, fuse 1A located on the front panel or contact the service
5. LED "WARNING" flashes - the output is short or overloaded.
6. Short-time operation without mains voltage - check the battery performance - if necessary charge or replace the battery.

Guidelines for separate disposal

- The packaging is recyclable and must be disposed of in the container.
- The product after the expiry date is handed over to collection points for electrical and electronic equipment.
- Do not use batteries that are not working after the expiry date for use separately from the waste collection company authorized to collect waste!

Warranty card



Warranty

The warranty period is 12 months from the sale, which is certified by a vendor's warranty card.. For warranty repairs are not accepted devices with repairs performed by unauthorized services, with deliberate or unintentional mechanical damage as well as those damaged as a result of improper connection, overvoltage, use in inappropriate conditions (flooded with water or aggressive fluids damaged by aggressive environment) as well as damaged due to natural disasters, etc.



No	date	repairs, prophylactics	date	signature
1				
2				
3				
4				

Buyer:

Date of sale:

Seller: „Elexim - Georgy Simeonov” ET, Bulgaria, Sofia

Warranty support phone: +359 896 75 7070

Version 2/14.05.2015

RESERVED POWER SUPPLY FOR CIRCULATION PUMPS

with an additional battery input and an alarm output

UPS-100ESIN



Features:

- Sinusoidal output voltage for operation with the new energy saving pumps.
- Electronic protection of the built-in accumulator and the output from short and overload.
- Optimizes battery consumption and protects
- Sends alarm signals when battery discharge and overload.

Instruction Manual

Purpose

The UPS-100ESIN is designed for temporary power supply failure of power supplies of devices up to 100 VA operating at 220 V 50 Hz without switching time requirement. Typical applications are circulator pumps, automatic heating systems, emergency lighting and more.

The applied voltage is a pure sine wave, so it can work with the new energy-saving pumps.

Safety instructions

Prior to installation and operation of the device, safety requirements must be read.

The device works with a life-threatening strain. It is imperative to comply with all safety requirements.

The installation of the BUPS-100ESIN must be carried out by installers familiar with the safety technique when operating low-voltage electrical installations

Important! The AC220V power supply is provided with the "SHUKO" network cord, which guarantees the box to be reset! Do not cut the cord or use a non-standard contact! This can lead to hazards that are dangerous to human life!

All installation work must be carried out when the mains cable is switched off and in the **OFF** position of the switch.

The consumer should be permanently connected to the output, and switching ON and OFF only with the **ON / OFF** switch (fig.1).

In case of disassembly of the device, remove the battery terminals after removing the cover. Otherwise, the device remains energized, and accidentally switching on or unintentionally "shorting" on any circuit can produce a life-threatening voltage of 220 V 50 Hz !!

The cable to the "plus" terminal of the battery is red, and the minus terminal is blue or black. When replacing the battery, be careful not to swap these cables.!

UPS-100ESIN is not allowed to run in wet and excessively humid rooms. If necessary, ensure protection by fitting the device into an appropriate dashboard with the appropriate degree of protection.

Description

The UPS-100ESIN is a power supply operating in 2 modes:

- **mode of operation from the mains voltage** - in this mode, the mains voltage is supplied to the output without change and the unit continuously charges the battery.

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1. **mode of operation from the mains voltage** - in this mode, the mains voltage is supplied to the output without change and the unit continuously charges the battery.
2. **operating mode in the absence of mains voltage** - in this mode the voltage is 220 V, 50 Hz. is made by the device using the voltage of the built-in battery and fed to the outlet.

The output is realized as a 3-conductor cable with double insulation, the purpose of its terminals is:

Brown and blue - Output 220 V, 50 Hz for the consumer;

Yellow green - protective zeroing (connects to the consumer housing if it is metal or to a corresponding terminal, if any).

Switching modes automatically. Switching time about 1 second

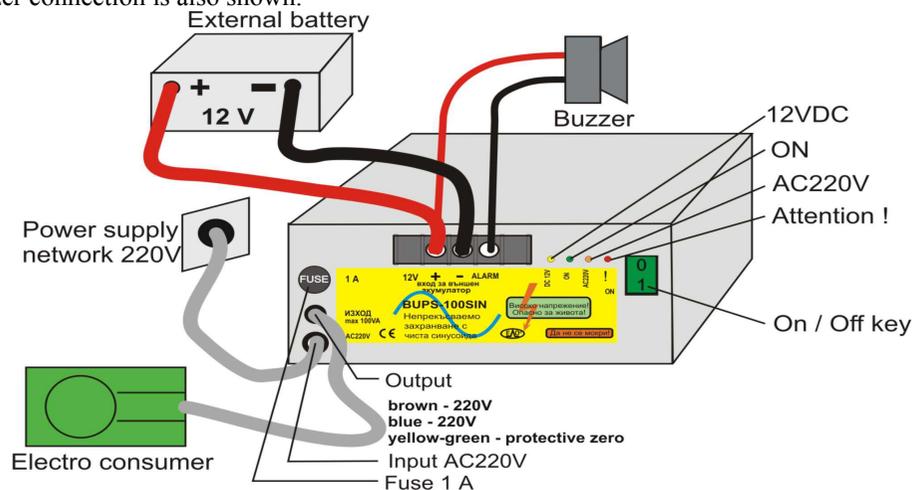
In both modes, the **ON / OFF** switch disconnects the output voltage. However, charging the battery remains in this mode as long as the device's network cable is plugged into the network.

The operating time without mains voltage depends on the load power. At a higher load, time is decreasing.

The UPS-100ESIN has an LED indication with four indicators for:

- network voltage - "AC220V" - orange;
- ON device - "ON" - green;
- battery operation - "DC12V" - yellow;
- overload or energy saving mode - LED attention "!" - red

In Fig. 1 shows the appearance of the device and an exemplary connection diagram of the UPS-100ESIN to a circulating pump for local heating, an additional external battery and an external buzzer for a battery discharge alarm. The voltage on the internal battery is connected on the terminal, parallel to which the additional external battery is connected. The external buzzer connection is also shown.



CUTTING TABLE

110 mm

The UPS-100ESIN analyzes the battery voltage and when discharged, switches to a cyclical energy-saving operation mode (20 s, 20 s pause) - the LED "WARNING" lights up for 20 s. When the battery is fully discharged, the UPS-100ESIN switches itself off and the LED "DC12V" goes out. Electronic protection of the built-in battery and the output from short circuit and overload (when battery operation) is provided. When overloading, the LED "CAUTION" flashes.

The UPS-100ESIN has an "ALARM" output for an external buzzer or phone dialer that signals start-up without mains power, switch to power-saving mode, and auto-off. During the energy saving mode it signaled every 40 s.

WARNING! If the battery is completely discharged to ensure a subsequent charge of at least 10 hours. Such charging is also recommended for a newly purchased device.

Main parameters:

- Construction - metal zwitterion box 175 x 160 x 70 mm, weight 3 kg with battery.

- Power supply - 220 V, 50 Hz

- Own power consumption - less than 20 W (in charging mode)

- Output power from battery operation - up to 100 VA (typically 25-75 VA)

- Output voltage - pure sine wave 220 V +/- 10%, 50Hz

- (Built-in battery - 12 V / 7Ah lead, encapsulated - is not included in the kit)

- Battery charging current - up to 1A

- Estimated working time with charged internal batteries and 40 VA load - about 2 hours.

With an additional battery, the time increases with $\Delta T = 10C / Pt$. where C is the capacity of the additional accumulator (Ah), Pt is the load power (VA).

- Degree of protection - IP20

- Ambient temperature in the range 0 ° C - 45 ° C, normal atmospheric pressure

- Relative humidity - up to 85% RH

Installation and operation

The UPS-100ESIN is connected according to Fig. 1. An option to mount a wall without disassembly is provided. For this purpose, use the attached attachment template. Use screws with a diameter of 4 mm and heads of size 6-8 mm. Screw heads to stand out from the wall at 1.5 -3 mm. It is recommended that the UPS-100ESIN be plugged into the mains and when the load is disconnected for a long time - this ensures longer battery life.

At least 1-2 times per year to check the battery performance.

Connecting an additional battery:

The external battery is connected to suitable terminals (1.5-4 mm²) to the terminal, observing polarity. **WARNING: Reverse coupling or short connections of both the battery and its terminal are not allowed.**

Note: The battery pack should not be thinned or damaged. Charging the external battery from the UPS-100ESIN will be relatively slow.

Connecting an external buzzer:

The output is a N-P-N transistor. The 12 V external buzzer is switched between the "+" and "Alarm" terminals on the terminal. Load capacity of the output - up to 20 mA. The signal can also be used to start an external phone dialer.