

**Redundant Power Supply
12 V 5 A for 1.2 Ah battery
BPM1205N**

Data sheet

Device identification number

1. General Information

The 12 V 5 A redundant power supply for the 1.2 Ah battery (BPM1205N) (hereinafter referred to as the power supply) is designed for supplying power to devices with 12 V DC voltage, 5 A maximum current load, as well as for charging batteries.

2. Manufacturer

195248,
Energetikov avenue, building 30, block 8,
St Petersburg, Russia
Tel.: +7 911 795 02 02
www.ritm.ru/en world@ritm.ru

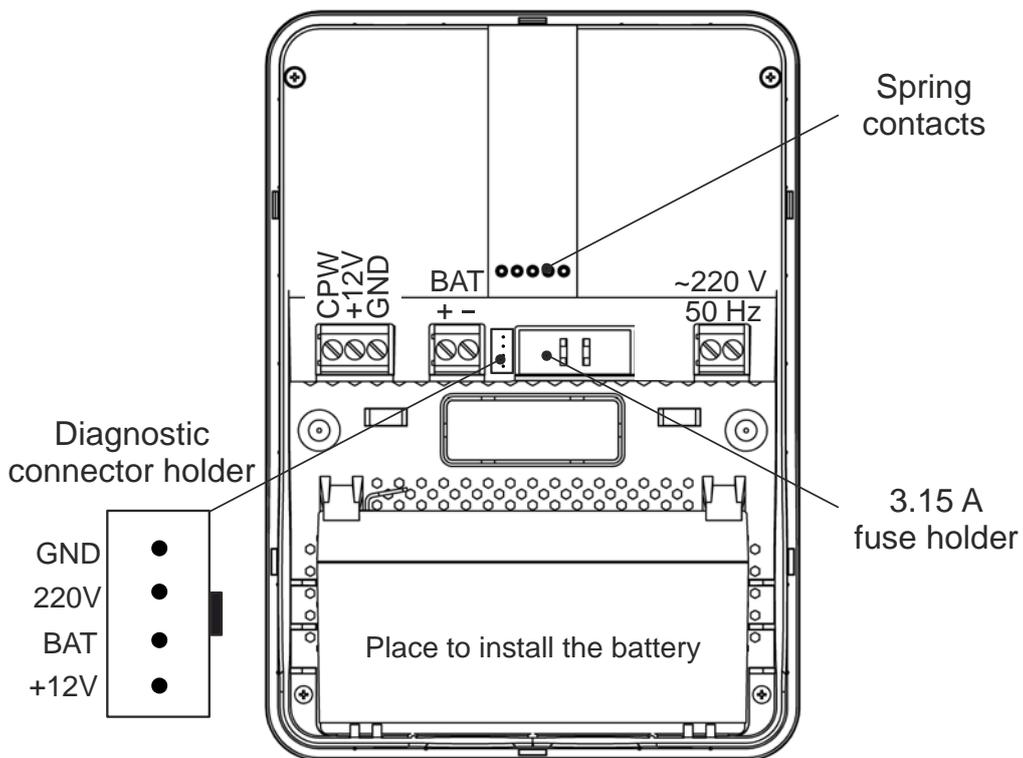
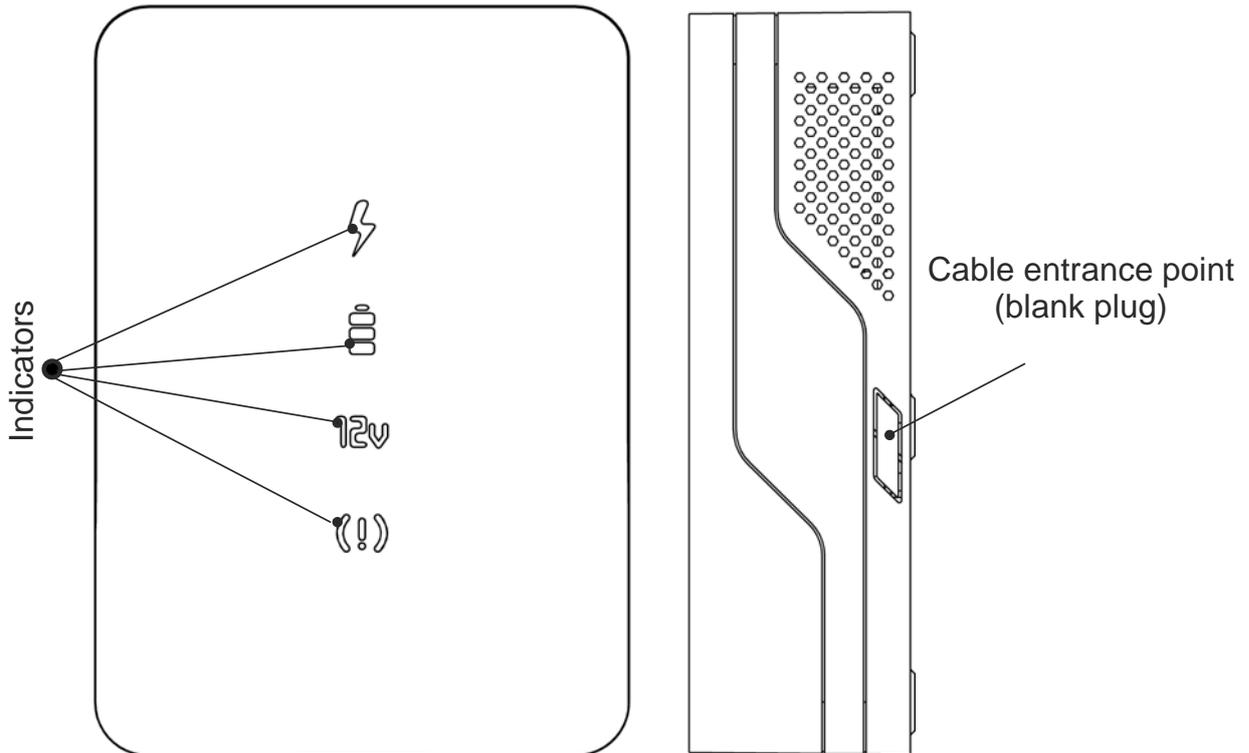
3. Package Contents

12 V 5 A redundant power supply for 1.2 Ah battery (BPM1205N) in enclosure	1 pc
Redundant power supply cable	1 pc
Fastening	1 kit
Data sheet	1 pc
Package	1 pc

4. Technical Specifications

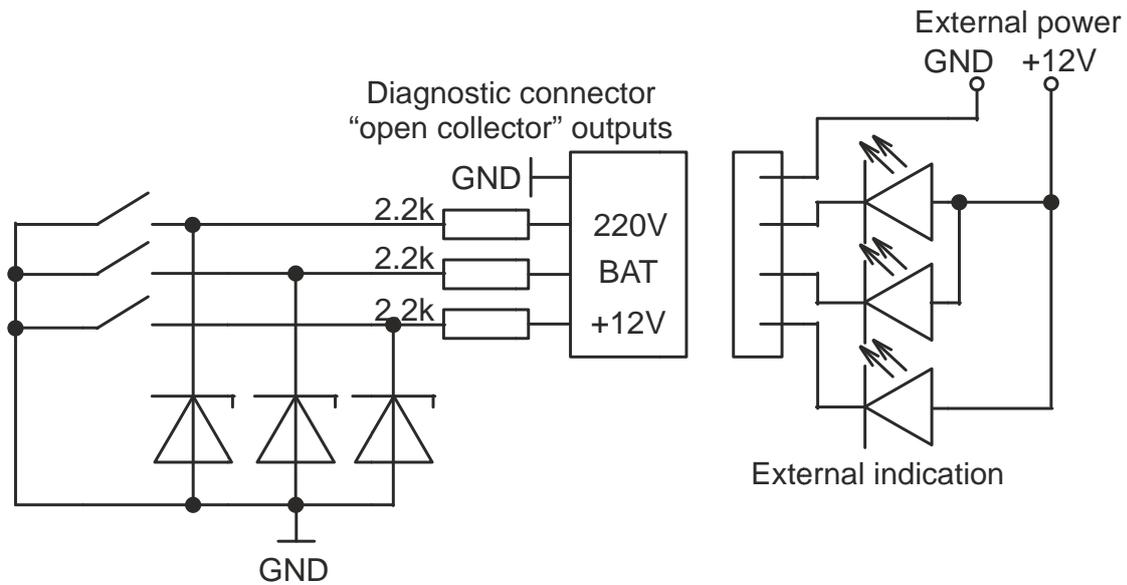
Specification	Value
AC input voltage (50 Hz), V	210–240
DC input voltage of the backup battery, V	12
Max. power consumption from 220V, V·A	70
DC output voltage, V	12±0.5
Maximum load current (at ambient temperature 20 °C), A	5
Peak load current, A	8
Average charging current	0.25
CPW terminal for main power supply availability monitoring	+
Battery protection from excess load current	+
Battery protection from overdischarging (switch off when battery voltage drops below 10.5 V)	+
Short circuit protection	+
Enclosure break-in tamper	–
Dimensions, mm	170×120×50
Weight (w/o battery), g	360
Operating temperature range, °C	–30...+35

5. Designation of Elements



Element	Designation
CPW, +12V, GND	12 V output voltage terminals (CPW terminal designed for connection of main power monitoring bus)
~220 V	Mains connection terminals, 220 V
BAT	Redundant power supply connection terminals (battery)

6. "Bare Collector" Implementation in Diagnostic Connector



Maximum switching outputs voltage – 13.5 V.

7. Visual Indication

Indicator	Designation
 (blue)	Indicator is on when input voltage is 220 V
 (blue)	Indicator is on when power source is connected to working battery
 (blue)	Indicator is on when output voltage is 12 V
 (red)	Indicator is on when: <ul style="list-style-type: none"> • Input voltage is not 220 V; • Power source is not connected to working battery; • Output voltage is not 12 V; • Device is connected to battery with voltage below 10.5 V.

8. Getting Ready for Operation

1. Preparation and installation of the power source should only be done in a de-energized state.
2. To install the power source, choose an appropriate location, which is most protected against atmosphere effects, dirt, process fluids, physical impact, and prevents free access of unauthorized persons.
3. Hang the power source on a wall – the mounting points are located on the enclosure's rear. The fastenings can be found in the device package.
4. Detach the front panel using the slot in the lower part of the panel.
5. To run the cables in, remove the blank plugs at the sides of the power source enclosure. Connect the CPW, 12 V output power supply, and 220 V device power supply buses to their respective terminals.
6. Install a battery into the power source (the mounting location is designed for a standard 12 V 1.2 Ah battery, dimensions 100×50×45 mm, but may also be suitable for batteries up to 1.3 Ah of the same size). Connect the battery (connection wires should be attached to 'battery' terminals).
7. If necessary, connect the bus to the diagnostic connector (see the diagram). The diagnostic connector is designed for transferring device status data to external devices and mirrors operation of indicators (see Section 6). The connector's pins operate as 'bare collectors'; their normal state is grounded.
8. Install the front panel¹ – first install the upper part of the panel on the enclosure, then press the lower part until it clicks.
9. Apply 220 V power and make sure the device performs correctly by referring to LED indicators (see Section 2.3).

9. Maintenance and Safety Measures

Check the integrity of leads and cables, connection locations, and fastening security at least once per year.

All installation and maintenance activities applied to the power source should be performed by duly qualified personnel.



Under no circumstances touch the card or parts of the switched on power source. Turn off the power and wait for 2 minutes before doing anything with the power source, because capacitors may retain high voltage!

¹ The battery doesn't charge when the front panel is taken down.

10. Transportation and Storage

The power source should be transported in packaging in closed vehicles. Storage premises should be free of current-conducting dust, acid and alkaline fumes, corrosive gases and gases harmful to insulation.

11. Manufacturer's Warranties

The manufacturer guarantees that the power source complies to requirements of the technical specifications, provided the client ensures compliances to conditions of transportation, storage, installation and operation.

Although the warranty period is 12 months from the commissioning date, it may not exceed 18 months from the production date.

The warranty storage period is 6 months from the production date.

The manufacturer reserves the right for modification of the power source in any way that does not degrade its functional characteristics without prior notice.

12. Information on Claims

In case of a power source failure or defect during the warranty period, please fill in a malfunction report specifying the dates of issue and commissioning of the device and nature of the defect and submit it to the manufacturer.

For Notes