

# BATTERY BACKED POWER SUPPLY

## RIP-12 mod.14 (RIP-12-2/7P2-R)

ИСО 9001



### OPERATIONS MANUAL

## 1 DESCRIPTION AND OPERATION

### 1.1 Product Purpose

1.1.1 The RIP-12 mod.14 (RIP-12-2/7P2-R) (hereinafter referred to as the RIP) is meant to provide continuous operating power to a group of fire protection equipment, detectors and control and indicating equipment in fire alarm and security systems, access control systems as well as to other appliances that require backed power of 12 V dc.

1.1.2 The RIP is intended for round-the-clock operation with specified output parameters and automatic monitoring and recharging of the sealed backup battery (hereinafter referred to as the BAT). The RIP provides shutting off the battery from a load to avoid its unacceptable discharge. The RIP protects the battery circuit against open and short failures.

1.1.3 The RIP provides visual and audible indication of current conditions, including presence or absence of mains power voltage, battery charge, missed battery, shutting the battery off in case of its discharge, short circuit failures or overloads at the output.

1.1.4 The RIP protects its output against short circuit failures with recovering output voltage automatically after repairing the failures while powered by the mains or by the battery as well as protection against output overvoltage.

1.1.5 The RIP shall be operated at locations where it is protected against atmospheric precipitations and mechanical damage. The design of the RIP doesn't provide its operating in explosion-hazardous premises.

1.1.6 The RIP is classed as a repairable and periodically maintained item.

### 1.2 Specifications

Table 1.2.1

No.	Parameter	Value
1.2.1	Power inputs	2
1.2.2	Primary power supply: The mains utility AC power 50/60 Hz	150...253 V
1.2.3	Backup power supply: A Bolid series battery AB 1207 (the type C or M)* or similar	12V, 7A·h
1.2.4	Output voltage: while powered by	the mains: (13.6±0.6) V, by battery: (10...13.5) V
1.2.5	Rated / maximum load current	2 A / 2.5 A**
1.2.6	Maximum power / current consumed from the mains	90 V·A / 0.5 A
1.2.7	Current consumed from the battery by the RIP itself	30 mA max
1.2.8	Ripples of the output voltage (peak-to-peak) at rated load current	100 mV max (VR1 class as per GOST R 51179-98)
1.2.9	Low battery shutdown voltage	(10.4 ± 0.6) V
1.2.10	Time to charge a fully discharged battery	30 hours max
1.2.11	Maximum charging rate	0.5 A
1.2.12	Trouble outputs (solid state relays (80 V, 50 mA) max)	3
1.2.13	Electric shock protection class as per GOST 12.2.007.0-75	1
1.2.14	Enclosure protection degree as per GOST 14254-2015	IP30
1.2.15	Resistance to mechanical exposure as per OST 25 1099-83	Arrangement Category III

No.	Parameter	Value
1.2.16	Vibration exposure: - Frequency range - Max acceleration	1-35 Hz; 0.5 g
1.2.17	Environmental category as per OST 25 1099-83	O3
1.2.18	Operating temperature	Minus 10 through +40 °C
1.2.19	Relative humidity	93 %
1.2.20	RIP weight without BAT / with BAT	1 kg / 3.5 kg
1.2.21	Overall dimensions	165 × 211 × 90 mm
1.2.22	MTBF	40000 h
1.2.23	Survival probability	0.975 (within 1000 h)
1.2.24	Expected service life of the RIP	10 years

\* The letters C and M define the battery service life as 12 and 15 years respectively.

\*\* The maximum load current is 2.5 A (for short-duration periods of up to 10 minutes at intervals of at least one hour provided that the mains power is available and the battery is connected).

1.2.25 The RIP provides monitoring for mains power voltage, output DC voltage, and battery voltage as well as automatic sending of messages about voltage presence / absence, battery discharge or disabling the battery using the galvanically isolated solid state relays K1, K2 and K3. The maximum switched voltage and current are 80 V and 50 mA respectively. The resistance of output circuits in 'closed' condition does not exceed 50 Ohm.

1.2.26 The RIP becomes ready for operation within 6 s max after applying power to it.

1.2.27 In terms of immunity to electromagnetic interference, the RIP meets the requirements of Test Severity Level II as per the relevant standards listed in Appendix 'B' to GOST R 53325-2012.

1.2.28 The RIP passes the industrial interference standards prescribed for Class 'B' equipment as per GOST R 30805.22.

1.2.29 The RIP provides monitoring for opening its enclosure with the tamper switch. When the RIP enclosure is open all the contacts of the solid state relays K1, K2, K3 are open. The relays are reinstated after at least 15 seconds upon the enclosure is closed.

1.2.30 The design of the RIP provides its fire safety in case of emergency operation and upon the breach of operational regulations in accordance with GOST 12.1.004-91.

1.2.31 The insulating strength of the live parts of the RIP is at least 2000 V (50 Hz) between circuits connected to mains 220 V and any circuits not connected with the mains.

1.2.32 The electrical insulation resistance between circuits mentioned above in the para 1.2.31 is at least 20 mega ohms (in normal conditions as defined in Clause 5.14.6 of GOST 52931-2008).

### 1.3 Scope of Delivery

1.3.1 Table 1.3.1 presents the delivery scope for the RIP.

Table 1.3.1

Item	Q-ty, pcs.
RIP-12 mod.14 (RIP-12-2/7P2-R)*	1
Operations Manual	1
Fuse 218 002 (similar to BIIT6-10 2,0A)	1
Fasteners: (screw and wall plug)	4
Cable grommet GM3	2
Packaging	1
<b>* No battery is included in the standard delivery</b>	

## 2 INTENDED USE

2.1 The product design meets the requirements of fire and electric safety including emergency operation in accordance with Russian standards GOST 12.2.007.0-75 and GOST 12.1.004-91.

2.2 The RIP shall be wired as shown in the connection diagram located on the inside of the RIP's cover.

2.3 Do shut off the mains power from the device before mounting, installing, and maintaining this one.

2.4 Operating restrictions, design, mounting, connecting, settings, testing and operation procedures for the RIP are defined in its User's Manual (the full version), which is available online at [bolid.ru](http://bolid.ru) in the section PRODUCTS on the page 'BATTERY BACKED POWER SUPPLY RIP-12 MOD.14 (RIP-12-2/7P2-R)'. Also you can get this information using the mobile app 'Mobile Product Catalogue'



<https://bolid.ru/support/mobile-catalogue/>.

2.5 If a technical failure of the product has been found, the equipment shall be taken out of operation and sent for repair in accordance with Section 4.

## 3 MAINTENANCE

3.1 The RIP should be maintained by persons qualified for Occupational Health and Safety of Level III or higher.

3.2 The RIP is to be serviced according to a scheduled-preventive system which provides annual maintenance.

3.3 Maintenance works for the RIP are described in its User's Manual (the full version, see Section 2.4 of this manual).

## 4 ROUTINE REPAIR

4.1 Routine repair of the defective product is to be performed by the manufacturer or in authorized repair centers. The RIP shall be sent for repair in compliance with Company Standard QMS 8.5.3-2015, which can be found online at our website <https://bolid.ru/support/remont/>.

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### Attention!



The equipment shall be submitted for repair being assembled and clean and along with all the parts listed in the documentation.

Claims are accepted only if a reclamation report describing the failure is applied to the submitted equipment.

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4.2 A product's failure resulted from consumer's not observing rules of mounting and operation is not a reason for claims and warranty repair.

4.3 Claims should be submitted to the following address:

NVP BOLID, #4 Pionerskaya Str., Korolyov, Moscow Region, 141070, Russia

Phone/fax: +7 (495) 775-71-55 (PBX). E-mail: [info@bolid.ru](mailto:info@bolid.ru).

4.4 In case of any issue related to use of the product, please contact the technical support: +7 (495) 775-71-55 or e-mail: [support@bolid.ru](mailto:support@bolid.ru).

## 5 STORAGE

5.1 In a transport container the equipment can be stored at ambient temperatures ranged from minus 30°C to +50°C and relative humidity of 95% at +35°C.

5.2 In consumer packages the equipment can be stored only in heated premises at ambient temperatures +5°C through +40°C and relative humidity up to 80% at +20°C.

5.3 Batteries shall be stored in accordance with rules and storage conditions established by the battery manufacturer.

## 6 TRANSPORTING

6.1 The RIP can be transported in a transport container at ambient temperatures ranged from minus 30°C to +50°C and relative humidity of 95% at +35°C.

**7 DISPOSAL**

- 7.1 The RIP should be disposed of considering that there are no toxic components in it.
- 7.2 Batteries are classed as hazardous waste of Class II, so used up batteries shall be disposed of by a specialized company that is licensed for this activity.
- 7.3 The content of precious materials: does not require accountability for storage, retirement and disposal (Clause 1.2 of GOST 2.608-78).
- 7.4 The content of non-ferrous metals: does not require accountability for retirement and further disposal.

**8 MANUFACTURER WARRANTY**

- 8.1 The manufacturer guaranties the RIP meets with technical requirements stated in the manuals if the user follows the instructions for transportation, storage, installation, and usage.
- 8.2 The warranty period is 18 months since putting the product into operation but no more than 24 months from the manufacturer’s date of production.

**9 CERTIFICATION INFORMATION**

- 9.1 For certification information, please refer to RIP-12 mod.14 User’s Manual (the full version, see Section 2.4 of this manual).

**10 ACCEPTANCE AND PACKAGING CERTIFICATE**

10.1 RIP-12 mod.14 (RIP-12-2/7P2-R), Serial No. \_\_\_\_\_ is manufactured, accepted in line with mandatory requirements of national standards and applicable technical documentation, approved as ready for use, and packaged by the Bolid Company.

Responsible for acceptance and packaging

QCD \_\_\_\_\_  
Name Date/Month/Year

