

SR1 SR1 red

Overvoltage protection for professionals

Voltage relay ZUBR SR1 (hereinafter referred to as the device) is designed to protect electrical equipment from unacceptable voltage surges in the mains. The equipment which is sensitive to mains voltage deviations is TVs, refrigerators, video and audio equipment, computers, etc.

Thermal protection
The relay will detect overheating inside the enclosure and turn off the load. For example, if the permissible power is exceeded.

Recording the emergency voltage value
You can see if the voltage went beyond the set limits while you were away.

Locking the buttons
This is convenient if the relay is located within the access area of small children.

Switch-on delay. For household appliances that are sensitive to the time of power outage (e.g. refrigerator), set the delay time to 2-3 minutes. This will increase the compressor's service life.

Adjust the screen brightness

The durability and reliability of the power relay contacts is ensured by switching on the load as soon as possible to the moment when the voltage sine wave passes through zero. Small deviations from the zero crossing are possible due to the different tripping times of different models of power relays.

Read this document till the end using the device. This will help to avoid possible hazards, errors, and misunderstandings.

IN THE BOX

| | |
|--|---------|
| Voltage monitoring relay | 1 piece |
| Technical data sheet, installation and operation manual, warranty card | 1 piece |
| The packing box | 1 piece |

TECHNICAL DATA

| | |
|---|---|
| Voltage limit | upper 220–280 V lower 120–210 V |
| Break-time at increasing | not more than 0,03 sec |
| Break-time at lower: | > 120 V not more than 1 sec < 120 V not more than 0,03 sec |
| Power Volt | not less than 100 V not more than 420 V |
| Switch-on delay | 3–600 sec |
| Maximum load current (for category AC-1) | 16 A |
| Maximum power load (for category AC-1) | 3000 VA |
| The number of operating cycles under load | not less 50 000 cycles |
| The number of operating cycles without load | not less 20 000 000 cycles |
| Device weight | 0,185 kg ±10 % |
| Overall dimensions (w x h x d) | 60 x 106 x 76 mm |
| IP to GOST 14254 | IP20 |

INSTALLATION

The appliance is intended for installation inside residences. The risk of moisture or humidity in the installation site should be minimal. The ambient temperature during operation and installation should be within the range of –5...+45 °C.

To protect against short circuits and overcurrents, a circuit breaker (CB) with a rating of no more than 16 A must be installed in the switchboard.

To protect against overvoltage caused by lightning strikes, surge arresters must be used together with the device. They are installed at the entrance to the building in accordance with their instructions.

To protect people from electric leakage current, an RCD (residual current device) is installed in the electrical switchboard.

The cross-section of the wires to which the device is connected must match the value of the electric current consumed by the load.

EXPLOITATION

Before starting operation, set the tripping limits and the delay time for switching on the load. When setting the trip limits, refer to the data in the technical documentation for the protected equipment.

The plug of the device is plugged into a standard 230 V ~ 50 Hz socket. The socket must be rated for a current of at least 16 A. The design of the socket should provide a reliable contact.

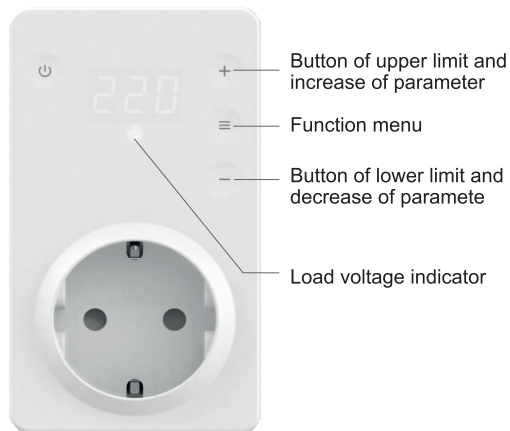
The maximum power connected to the device should not exceed the passport values of 3000 VA. For long-term operation, it is desirable that the device switches the current or power no more than 2/3 of the one specified in the passport.

To connect the device:

- insert the plug of the device into the socket;
- insert the load plug into the socket of the original voltage.

When the device is switched on, the mains voltage is displayed. If it is within the acceptable limits, the load is switched on and the green LED lights up.

To turn the device on/off, hold down «⏻» for 4 sec. The screen will show three dashes one by one, then «on» or «oFF». After turning off, the device goes to sleep mode. To completely turn off the device, unplug it from the power outlet.



The touch control of the device is sensitive to strong electromagnetic fields and interference (e.g. fluorescent lamps, induction ovens, inverter refrigerators, etc.), and close proximity to such sources may cause false operation of the touch buttons or blockage. Take this into account when installing the device and move it away from the source of interference.

Setting trip limits

(factory setting 242V / 198 V)

To view the upper limit press «+», to view the lower limit press «-». Then use the «+» and «-» buttons to change the limit as necessary.

Locking the buttons

(protection from children and in public places)

To activate / deactivate hold down the «+» and «-» buttons for more than 6 seconds until the message «Loc» / «oFF» appears.

Reset to factory settings

Press the three buttons simultaneously for more than 12 seconds until «dEF» appears on the screen. When you release the buttons, the device resets and reboots.

Firmware version

To see, hold down the button for «≡» 15 seconds. The manufacturer reserves the right to make firmware changes to improve the performance of the device.

WARRANTY TERMS

The warranty for ZUBR devices is valid for 60 months from the date of sale, provided that the instructions are followed. The warranty period for products without a warranty certificate is counted from the date of production.

If your device is not working properly, we recommend you to read the section «Possible problems» firstly. If you can not find an answer, contact Service Center. In most cases, these actions resolve all issues.

If you continue to have issues with the device, please send it to a Service Center or to the store where you purchased the device. If your device is defective due to our fault, we will repair or replace it under warranty terms within 14 business days.

Please look through the full text of the warranty and the data you need to send to your Service Center on the website <https://www.ds-electronics.com>. If you have a warranty case, please, contact the General distributor in your area.

WARRANTY CARD

| | |
|--|-----------------|
| serial №: | date of sale: |
| a seller, a seal: | place of a seal |
| an owner contact for a service center: | |

Menu

- Press «≡» to select a menu item.
- Use «+» or «-». to change the parameters. The first press on «+» or «-» causes the parameter to blink, the next press — to change. In 5 seconds after the last press, the display returns to the mains voltage indication.

| Menu | Press «≡» | Screen | Notes |
|---|-----------|--------|--|
| Last emergency voltage | 1 time | | For checking. The device stores in non-volatile memory the high or low voltage values at which the load was switched off or the overheating trip «oht». |
| Delay in switching on the load | 2 times | | If a voltage surge occurs, the device displays the maximum voltage for 1.5 seconds, then the current voltage for 1.5 seconds with a flashing dot in the rightmost digit. Then the countdown in seconds («t99», «t98.»...) will begin until the load is turned on. If you set a delay time longer than 100 seconds, the screen will display 223. The current mains voltage is displayed with a flashing dot. When the time is less than 99 seconds, the countdown to switching on the load is displayed. |
| Professional model time of disconnection when the voltage goes beyond | 3 times | | Activate the Professional Shutdown Time Model to keep the equipment running during safe voltage deviations in terms of magnitude and duration. The time to turn off the load when the voltage goes beyond the limits is described in the table below. |
| (factory setting «oFF» a range of change «on», «oFF») | | | |
| The professional model of tripping time is useful for a low quality AC mains or a mains overloaded with high-powered equipment. This function is disabled from the factory. | | | |
| Correction of voltage | 4 times | | You can use the correction if the voltage readings on the device screen and your reference device do not match. |
| (factory setting 0 V, a range of change ±20 V) | | | |
| Standby brightness | 5 times | | At brightness of 0, the screen will display availability with dots: <ul style="list-style-type: none"> • left - supply voltage; • middle - the voltage at the device output. During an emergency and the load startup delay countdown, the screen brightness will be maximized. |

POSSIBLE PROBLEMS, CAUSES AND WAYS TO OVERCOME THEM

At turning on neither the indicator nor the screen don't light up

Possible cause: there is no power supply voltage.

It is necessary to: ensure supply voltage presence.

After turning on on the screen normal voltage level, but load is not turning on

Possible cause: the current voltage in the network is close to the established limits and not stable.

It is necessary to: check the values of the limits; increase their values so that the protected equipment is tolerated to them.

In other cases, please, address to a service centre.

The load is disabled, «oht» flashes on the screen

The temperature inside the housing exceeded 80 °C and triggered protection against internal overheating. The screen shows «oht» once for 1 second.

Possible cause: inner overheating of the device which can be caused by: the socket supplying the device or the load plug is not designed for the required power, high ambient temperature or the power of the switched load is exceeded.

It is necessary to: check that socket, power supply unit or the load plug is rated to the required power, make sure that the switching load does not exceed the permissible.

Operation features of the internal overheating protection: when the temperature inside the enclosure drops below 60 °C, the device will turn on the load and resume operation. If the protection is activated more than 5 times, the device is blocked until the temperature inside the housing drops below 60 °C (the «oht» stops flashing) and one of the buttons to unblock the device is not pressed. During overheating, pressing the button «≡» will display the temperature of the thermal protection sensor.

Every 5 sec the screen displays «Ert»

Possible cause: open or short circuit of the internal overheating sensor. Control over inner overheating will not be done.

It is necessary to: Send the device to the Service Center. Otherwise, control over inner overheating will not be done.

The «Loc» is displayed on the screen when you press the buttons

Possible cause: exposure to strong electromagnetic fields and interference (e.g. fluorescent lamps, induction ovens, inverter refrigerators, etc.), close proximity which may cause the buttons to lock up by mistake.

It is necessary to: to restore the buttons, unlock them by holding down «+» and «-» for more than 6 seconds.

SAFETY INSTRUCTIONS

Carefully read and become aware of these instructions.

Connection of the device must be done by a qualified electrician.

Before the installation (dismantling) and connection (disconnection) of the device, turn off voltage supply and also act according to the «Rules of an arrangement of electric installations».

Turning on and off, configuring the device should be done dry hands.

Do not connect the device to the disassembled network.

Avoid hitting of water or moisture to the device.

Do not expose the device to extreme temperatures (higher than 40 °C or below -5 °C) and high humidity.

Never clean the device with the use of chemicals such as benzene, solvents.

Do not store the device and do not use it in areas with the dust.

Do not attempt to disassemble and repair the device.

Do not exceed the landmarks value adaptor and power.

To protect against overvoltage caused by lightning discharges, use a lightning protector.

Protect the children from games with the working device, it is dangerous.

ADDITIONAL INFORMATION

Do not fire and do not throw away the device with the household waste.

After the end of its service life, the product must be disposed of in accordance with applicable law.

Transportation of goods carried in the package ensures the safety of the product.

The device can be transported by any kind of transport (rail, sea, motor, air transportation).

Date of manufacture is on the back side of device. Application time is unlimited.

The device does not contain harmful substances.

If you have any questions or something is not clear, call the Service centre, the telephone number is listed below.

SR1GV2.1_2406



EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU

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