

Relay Controlled Series

DIGITAL DISPLAY
HIGH-PRECISION
AUTOMATIC AC VOLTAGE STABILIZER

Instruction Manual

Please do read the instruction
manual carefully before using

General guidelines

Necessary checks at the purchasing of product:

- functioning;
- if there are any mechanical damages;
- if there are warranty card and operation manual detachable coupons indicating date sold and manufacture date and stamped with the shopstamp;
- if product serial numbers are the same as those indicated in warranty card and detachable coupons;
- the presence of seals on the product
- check product completeness.

Necessary points prior to the use of product:

- carefully read the operating instructions;
- in case when product was stored or transported at temperature below +5°C, please put the product in the place with room temperature for 2hours;
- please read carefully safety instructions.

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ATTENTION!!!

Please read carefully this operating instruction before using our product!

Manufacturer guarantees the stable product operation subject to observance of all the requirements set forth in the present operation manual.

Product specifications, configuration and appearance may differ from those provided in operation manual. Manufacturer reserves a right to modify the product parameters not resulting in product performance deterioration without the advance notice.

1. Delivery package

1. Operating instruction 1 pcs.
 2. Voltage stabilizer 1 pcs.
 3. Warranty card 1 pcs.
 4. Attachment bracket* 1 pcs.
- *-for the wall mounted series models only.

2. Purpose and application

RELAY VOLTAGE STABILIZER WITH HIGH ACCURACY

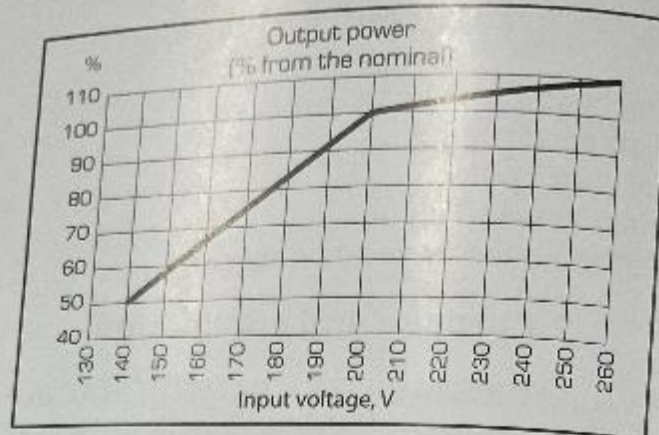
Relay type high accuracy voltage stabilizers are intended for maintenance of stable voltage in the single-phase network with 220V 50 Hz and mains powering the household electrical appliances.

Application:

- household equipment (TV sets, refrigerators)
- lighting systems
- air conditioning and ventilation systems
- laboratories and test facilities
- electric welding equipment
- heating and water-supply systems
- broadcasting and sound detection systems
- navigation systems
- charge equipment
- medical equipment
- office equipment

3. Specifications

1. Regulation range, Input voltage, V	
Option range:	80-270/100-260/140-260/110-275
2. Output voltage, V	220 ± 8%
3. Maximum auto transformer operating winding heating temperature, °C	100
4. Harmonic distortion	no
5. Maximum output voltage, V	242
6. Minimum output voltage, V	190
7. Airhumidity	< 80%
8. Ambienttemperature, °C	+5 ... 45



4. Operation environment

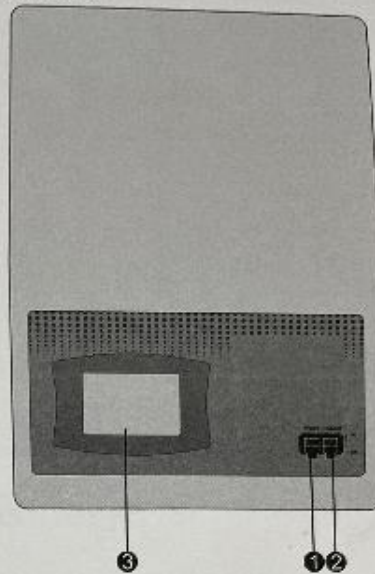
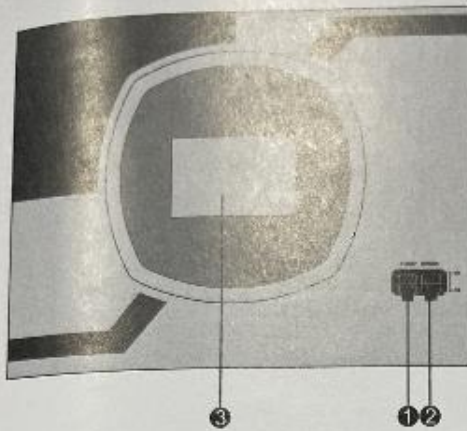
- Operation environment shall be non-explosive one free of current conducting dust, corrosive gases, etc.
- Minimum distance from the device body to the walls shall be 10 cm.
- Keep away from direct sunlight.
- Stabilizer should be grounded.
- Stabilizer is designed for operation on the vertical solid surface and the horizontal solid surface.

Attachment stabilizer delivery package includes special bracket for stabilizer can be placed onto the wall. The stabilizer package bracket shall only be used for wall montage. Stabilizer can be mounted at any height, which is chosen so that to provide convenient stabilizer control, but at least 30 cm below the ceiling.

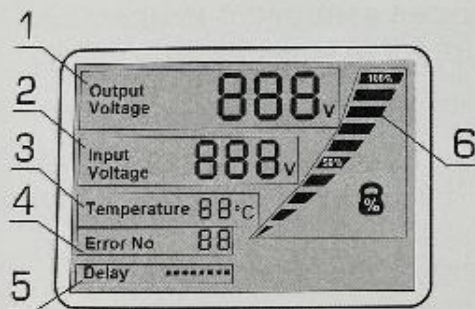
ATTENTION!

During stabilizer operation it is necessary to check periodically the total connected consumers' power compliance with maximum stabilizer power, taking into account dependence on the input voltage. You need to remember that some types of consumers (for example, electric motors) are featured by increase in starting power consumption being 3-5 times more than the normal power consumption! These points should be taken into account at calculation of the total connected load power.

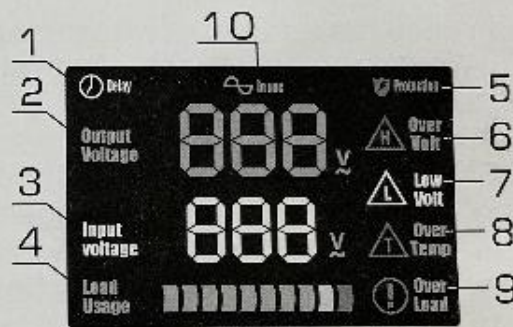
5. Stabilizer controls



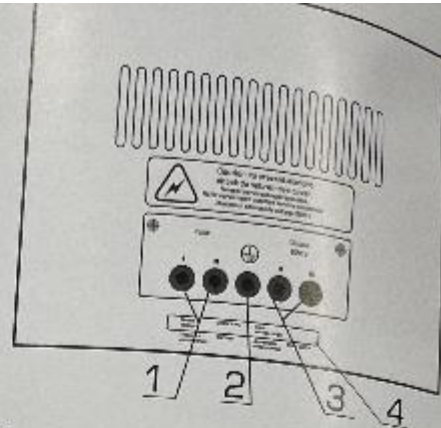
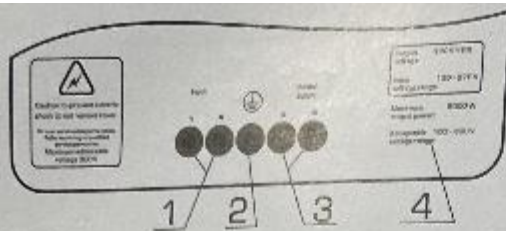
1. "Power" circuit breaker.
2. "Bypass" mode.
3. Stabilizer screen display.



1. Output voltage indicator.
2. Input voltage indicator.
3. Transformer temperature indication.
4. Error code indication.
5. Delay Indication.
6. Loading graduated scale.



1. Delay Indication.
2. Output voltage indicator.
3. Input voltage indicator.
4. Loading graduated scale.
5. Protection indication.
6. Over voltage indication.
7. Low voltage indication.
8. Over temperature Indication.
9. Over load indication.
10. Normal working indication.



1. Input voltage connection.
2. Grounding cable connection.
3. Load connection.
4. Specifications.

6. Stabilizer connection.

ATTENTION!

Prior to stabilizer connection, make sure that there are no any mechanical damages.
In case that stabilizer was transported at subzero temperature, it shall be kept at room temperature for at least 2 hours in order to prevent condensation.

ATTENTION!

Stabilizer connection shall only be performed by qualified specialist.

- Unpack stabilizer and inspect it visually for possible body or circuit breaker damages.
- Stabilizer installation location shall meet to operation conditions requirements.
- Stabilizer body shall be grounded.
- Prior to stabilizer connection, make sure that "Mains" and "Bypass" switches are set in "OFF" position.
- Connect load to the terminals or electric outlet.
- Connect power supply voltage 220V to the input terminals.
- Set the "Mains" push-button or switch in "ON" position.

7. Safety precautions

ATTENTION!

Stabilizer is electric device designed for alternating current of 50 Hertz.

Total power consumption of electric equipment connected to the stabilizer must not exceed calculated total load power (page 4).

Stabilizer connection to network with frequency other than 50 Hertz is PROHIBITED.

Stabilizer connection to direct current network is PROHIBITED.

Stabilizer connection at the air humidity exceeding 80% and in case of moisture ingress is PROHIBITED.

Hazardous voltage is present inside the product body. Qualified personnel, who have read and understood this manual, are only permitted to work with product.

Product shall be handled with care; bumps and exposure to liquids, dust and dirt shall not be allowed.

The product operation at occurrence of smoke or smell characteristic for the burning insulation, increased noise, breakage or body cracks occurrence and with damaged connectors is PROHIBITED.

Stabilizer covering, placing of instruments and objects on it and closing of vent opening is PROHIBITED.

Product operation in explosive or chemically active environment, under conditions of exposure to drops or sparks, and outdoor is PROHIBITED.

Product operation without GROUNDING is PROHIBITED.

Product shall be grounded via terminal.

Voltage stabilizer connection without dielectric pad or with mechanical damage of any one dielectric pad is PROHIBITED.

Voltage stabilizer operation with damaged wire insulation and stripped wires extending outside the terminal block is PROHIBITED.

Voltage stabilizer building into furniture is PROHIBITED.

ATTENTION!

Failure to meet the above requirements can result in electric shock, stabilizer overheat and even fire outbreak.

8. Maintenance

During stabilizer operation following items shall be inspected once every 12 months:

- grounding, load and input voltage wiring connection security;
- unobstructed air circulation for free-convection cooling system;
- zero body damage;
- proper functionality of measurement instruments.

Always switch stabilizer off when removing found contamination and tightening loose connections.

Should any malfunction be found, please contact the service center.

9. Transportation and storage regulations

Product shall be transported in the manufacturer's packing.

Transportation is allowed by any type of the surface (in closed compartments), river, marine, air (in closed pressurized compartments) transport vehicles without distance and speed limitations as may be permissible for any particular transportation mode.

Stabilizers shall be stored in the manufacturer's packing at the environment temperature from minus 10°C to plus 45°C and relative humidity not exceeding 80%.

Storage location shall be free of dust and corrosive acid and alkali fume