

REM 2
Design



APPLICATION

- Power supply to construction sites, renovation facilities, outdoor events and other customers using electricity temporarily;
- electricity distribution and protection of electrical equipment from the effects of short circuits and overloads on the LV side;
- measuring energy consumption;
- for LV networks of the following types: TN-S, TN-C, TN-C-S.



EQUIPMENT

Enclosure

Aluminum OU-1S or Steel OU-1/OU-2

Housing made of steel or aluminum sheet (joining by welding or riveting). Powder coated in any color. Dimensions adapted to the type, amount of equipment and individual needs of the customer. The enclosure has high resistance to degradation, environmental impact and UV radiation. The housing is made in protection class I or II. Protection class II of the enclosure is achieved by applying an additional insulating layer, permanently lined on the inner and outer surfaces of the enclosure. The thickness of the layer ensures the right degree of insulation.

Ventilation allows constant air flow through the use of a ventilation labyrinth, while eliminating the ingress of dirt and the accumulation of water and moisture. Doors having internal hinges with anti-burglary catch and multi-point locking, basquill lock lockable with padlock or system cylinder.

Thermosetting plastic

The housing is made of SMC plastic with IP 44 or 54. In the II protection class, with a flammability class from HB to V0, in RAL 7035 color, with the possibility of additional varnishing for temporary resistance to environmental effects and UV radiation.

Mounting components

- Mounting profiles – steel, hole-punched, mounted to the housing structure;
- mounting plate – made of plastic or galvanized steel, mounted on vertical mounting profiles made of galvanized sheet metal under the current track insulators;
- cable holders with mounting bar;
- masking plates – made of plastic plates or metal sheets, mounted to the housing structure.

Apparatus

We use apparatus of many leading and proven manufacturers. Switchgears are equipped with the following apparatus: protection, distribution, measurement, signaling, control, communication and other additional elements selected according to individual customer needs.

Power supply module

- Isolating (fuse) disconnect or power switch (up to 910 A), which has the ability to lock open under load and a maneuvering handle on the enclosure door, available apparatuses: RA, FWA, RBK, others;
- cable supply, V-type or screw terminals for cables up to 240mm²;
- the possibility of supplying more switchgear in the loop;
- cable holders, cable entry from the bottom of the switchgear.

Slot module

- 3 phase fuse isolation switch disconnectors: 160 A;
- 3 phase insulating plug sockets; 16 A, 32 A, 63 A, 125 A;
- 1 phase insulated plug sockets; 16 A;
- sockets separated.

Security module

- Residual current circuit breakers up to 63 A;
- overcurrent protection for plug sockets.

Direct and semi-direct measurement module

- Metering board suitable for mounting active and reactive energy meters mounted on an insulating plastic plate, made in a tilting or fixed version;
- current transformers matched to the load, in class 0.2s 1;
- control and measurement strip designed to connect voltage and current circuits of electricity meter with secondary circuits of measuring transformers, possibility of mounting the strip directly on the board or on TH-35 rail, available apparatus: Ska, LPW, others;
- protection of the metering system – an overcurrent circuit breaker
- with signaling;
- control signaling – presence of phases – indicator lights;
- sealable components.

Wiring

- Cabinet wiring is made by insulated flexible cables (LgY) with cross sections selected for current carrying capacity and type of apparatus;
- PEN bus with division into PE and N;
- V-type cable clamps suitable for attaching cable of cross-section: 4x240mm².

Indications

External marking of switchboards is made by laser engraving on metal or plastic plates of any color.

Accessories

- RBP stand – allows the switchgear to be moved and set up anywhere on the construction site;
- thermoset foundation – matched to the dimensions of the thermoset housing;
- FM aluminum foundation – matching the dimensions of the housing, equipped with removable front and rear covers;
- FB concrete foundation – constructed of reinforced concrete slabs, bolted together with aluminum or thermo casing;
- cable pocket;
- plinth – made in solid or ventilated version of any height to be placed on the cable duct;
- wall bracket – made of profiled sheet metal, allows you to mount the housing on the wall;



RATED PARAMETERS

Rated switching voltage:	230 V / 400 V
Rated insulation voltage:	500 V
Rated frequency:	50 Hz
Surge voltage withstanding:	4 kV
Rated continuous current of main rails:	25/40/63/100/200/400/630 A
Rated continuous current of drain rails:	16/32/63/125/160 A
Rated short-term withstand current:	6 kA
IP rating:	44 - 54
IK degree of mechanical resistance:	10
Protection class:	I/II
Dimensions of the supply/receiving terminals:	2 x 4 x 240 mm ² / 4 x 240 mm ²
Network layouts:	TN-S, TN-C, TN-C-S
Height/Width/Depth:	Unlimited for metal enclosures in protection class II



COMPLIANCE WITH STANDARDS

- **PN-EN 61439-1**
„Low-voltage switchgear and controlgear – Part 1: General provisions“;
- **PN-EN 61439-4**
„Low-voltage switchgears and controlgears - Part 4: Requirements for sets intended to power the construction site“;
- **PN-EN 60529**
„Degrees of protection provided by enclosures (IP Code)“;
- **PN-EN 62208**
„Empty enclosures for low-voltage switchgear and controlgear. General requirements“;
- **PN-EN 62262**
„Degrees of protection against external mechanical impact provided by enclosures of electrical equipment (IK code) (IDT PN-EN 50102:2001)“;
- **PN-EN ISO 4628**
„Paints and varnishes – Evaluation of deterioration of coatings – Determination of the amount and extent of damage and the intensity of uniform changes in appearance – Part 6: Evaluation of the degree of chalking by the tape method“;
- **PN-EN ISO 2409**
„Paints and varnishes – Testing by the notch grid method“.

