

**REM 2**  
Design



## APPLICATION

- To low-voltage distribution cable networks;
- electricity distribution and protection of electrical equipment from the effects of short circuits and overloads on the LV side.



## EQUIPMENT

### Enclosure

#### 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.

#### Aluminum OU-2

Housing made of aluminum sheet (joining by welding or riveting). Powder coated in any color. Dimensions adapted to the type, amount of equipment and individual customer needs. The housing has high resistance to degradation, environmental impact and UV radiation. The housing is made in protection class I or II.

Enclosure in protection class II 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 penetration of dirt and the accumulation of water and moisture.

Doors having internal hinges with anti-breakout catch and multi-point locking, basquill lock lockable with padlock or system cylinder.

### 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.

### Equipment

#### Supply and drainage part

- power supply made by separate terminals of type V or VLM for two cables up to 4×240 mm<sup>2</sup>;
- supplying strip and box fuse disconnectors or power circuit breakers: 400/630/910/1250 A;
- drain disconnectors or fuse bases of strip and box fuses 160/250/400/630/910 A;
- space for current transformers for the measuring and balancing part.

#### Measuring and balancing part

Measuring and balancing part tailored to individual requirements.

- Metering board suitable for mounting active and reactive energy meters mounted on an insulating plastic plate, made in a tilting or fixed version;
- control and measurement strip designed to connect voltage and current circuits of electricity meter with secondary circuits of measuring transformers, available apparatus: Ska, LPW, others;
- remote reading of meter data via GPRS wireless network or fiber optic cable;
- the place intended for the installation of a concentrator – a system for the acquisition and transmission of measurement data in the selected Smart Grid & Smart Metering technology;
- sealable components.

#### Gear part

- Current transformers matched to the transformer load, in class 0.2s – 1, mounted on the bus or cable, behind the main protection of the set. It is possible to mount transformers on each outlet circuit.
- The equipment of the ZPP-P sets is selected according to the requirements of the distribution companies and at the request of the customer.

#### Current tracks

- Current paths with a cross-section adapted to the load (LgY), PEN terminal with the possibility of splitting into PE and N.

### Accessories

- **Thermoset foundation** - fitted to the dimensions of the thermoset housing;
- **FM aluminum foundation** - fitted to the dimensions of the housing, equipped with removable front and rear covers;
- **FB concrete foundation** - built of reinforced concrete slabs, bolted together with aluminum or thermobuilt of reinforced concrete slabs, bolted together with aluminum or thermo.

## RATED PARAMETERS

Rated switching voltage:	230/400 V
Rated insulation voltage:	500 V
Rated frequency:	50 Hz
Surge voltage withstanding:	4 kV
Rated continuous current of the main rails:	up to 1250 A
Rated short-term withstand current:	20 kA (1 s.)
Rated peak withstand current:	40 kA
Short-circuit current of internal arc discharge:	16 kA
IP rating:	44 - 54
IK degree of mechanical resistance:	10
Protection class:	I or II
Dimensions of the supply/receiving terminals:	2 x 4 x 240 mm <sup>2</sup> / 4 x 240 mm <sup>2</sup>
Network layouts:	TN-S, TN-C, TN-C-S
Height/Width/Depth:	Unlimited for aluminum enclosures in protection class II



## COMPLIANCE WITH STANDARDS

- **PN-EN 61439-1**  
„Low-voltage switchgear and controlgear – Part 1: General provisions“;
- **PN-EN 61439-5**  
„Low-voltage switchgear and controlgear – Part 5: Sets for power distribution in public networks“;
- **PN-E-05163**  
„Shielded low-voltage switchgear and controlgear. Guidelines for testing under arc discharge conditions resulting from an internal short circuit“;
- **PN-EN 50274**  
„Low-voltage switchgear and controlgear – Protection against electric shock – Protection against unintentional direct contact of hazardous live parts“;
- **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“.

