

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 to provide 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 elements

- 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

#### Measurement part

- Metering board 1 or 3 phase, suitable for mounting energy meters, mounted on an insulating plastic plate, made in a fixed version;
- protection before/after the meter – according to the guidelines (overcurrent protection, fuse isolation switch, isolation switch, power limiter);
- current tracks with a cross-section adapted to the load (LgY),
- PEN terminal with the possibility of splitting into PE and N;
- remote reading of meter data via GPRS wireless network, or fiber optic cable;
- the place intended for installation of a system for the acquisition and transmission of measurement data in the selected Smart Metering technology;
- the equipment of ZZP sets is selected according to the requirements of the distribution companies and at the request of the customer;

#### Connector part

- strip, box fuse disconnects or power circuit breakers up to 1200 A;
- made permanent;
- fuse bases up to 630A;
- current transformers of the measuring and balancing module selected in accordance with the guidelines of the distributor and energy seller;
- supply and output made as cable, equipped with type V or VLM terminals;
- space for current transformers for the measurement system;
- shielded reserve circuits;
- cable holders.

#### Current tracks

- Current paths of the supply and drain module made of bolted copper flat bars with a cross-section matched to the current load, equipped with pressed-in rivet nuts to allow installation work on live strip apparatus;
- PEN bus with the possibility of division into PE and N made of Cu or Al.

## Accessories

- **thermosetting 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;
- **cable pocket**.

## 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 short-time withstand current:	40 kA
Short-circuit current of internal arc discharge:	16 kA
IP rating:	44 - 54
Degree of mechanical resistance IK:	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“.

