

**REM 2**  
 Design


## APPLICATION

- Sustaining power supply in facilities and networks requiring continuity of power supply, due to the sensitive location and functions performed;
- switching power sides, according to the set configuration,
- meeting power supply reliability requirements;
- electricity distribution and circuit protection on the LV side;
- protection of electrical equipment against the effects of short circuits and overloads.



## EQUIPMENT

### Enclosure

#### Thermosetting plastic

The housing is made of SMC plastic with IP 44 or 54. in II protection class, with flammability class from HB to V0, in RAL 7035 color, with the possibility of additional painting to ensure 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 a high resistance to degradation, environmental impact and UV radiation.

The housing is made in protection class I or II. Class II protection is achieved by applying an additional insulation layer, permanently lined on the inner and outer surfaces. The thickness of the layer ensures the proper 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, basquil 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

- **primary and backup power source** - depending on the power present; contactors or circuit breakers/ disconnectors, additionally equipped with protection in the form of fuse disconnects:
  - 20 to 450A – contactors;
  - 40A to 6300A- circuit breakers and disconnects.
- **clutch** - provides safe power switching depending on the power present: contactor or circuit breakers/ motor switches;
- **automatic control system SZR** - prepared to operate contactors or circuit breakers, provides automatic switching between primary and standby power, setting any delay and time setting, switching interlocks to avoid parallel operation.
- **automation systems used:** PRE (own module), MA-0A, MSR, MAX, others. All switches are set according to scheduled diagrams. The delay time setting can be adjusted in the range of 0,2-30s and 20-180s. It is possible to control automatically or manually.

### Current paths

- Current tracks with a cross-section adapted to the load (LgY, Cu bus), PEN terminal with the possibility of splitting into PE and N;

### Accessories

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



## RATED PARAMETERS

Rated switching voltage:	230/400 V
Rated insulation voltage:	690 V
Rated frequency:	50 Hz
Surge voltage withstanding:	8 kV
Rated continuous current of the main rails:	up to 4000 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 -45
IK degree of mechanical resistance:	10
Protection class:	I or II
Network layouts:	TN-S, TN-C, TN-C-S, TT, IT
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“.

