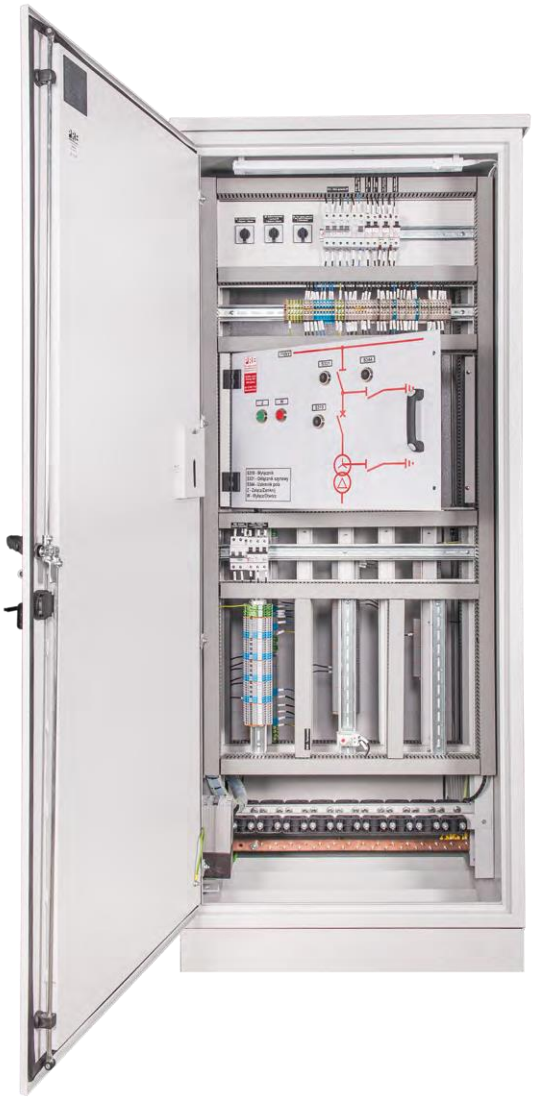
SKS – Cable cabinets for HV stations

REM 2 Design



APPLICATION

- Power supply and control of external switching systems in high-voltage substations (110 kV, 220 kV and 400 kV), secondary circuits, automation systems;
- protection of substation circuits;
- measurement of station parameters and data transmission.

EQUIPMENT

Enclosure

Aluminum OU-1SKS/OU-2SKS

- single-walled - outer jacket;
- single-wall with thermal insulation - outer jacket with thermal insulation mat Al.;
- double-walled with an air gap - outer and inner jacket with air space;
- double-walled with insulation - the space between the jackets is filled with non-flammable rock wool;
- exterior, free-standing on a concrete or metal foundation;
- made of aluminum sheet joined by welding and riveting;
- sheet thickness adapted to the dimensions;
- powder coating in any colour (RAL) and surface structure with high resistance to deterioration and external factors;
- connected to the foundation by means of bolts;
- made in protection class I or II;
- degree of protection up to IP 44 - 55;
- mechanical resistance: up to IK10.

The equipment is always selected according to the customer's needs.

Mounting elements

- vertical mounting profiles - permanently attached to the walls of both circuits, adapted for the installation of mounting plates or insulators supporting current circuits;
- mounting plate - galvanized, mounted on vertical mounting profiles made of galvanized sheet metal for the insulation of current circuits;
- comb trays - with a cross-section adapted to the type and amount of cabling;
- masking plates - made of plastic or metal sheets, mounted to the enclosure structure or internal frame, by means of masking plate holders;
- control panel with a synoptic board - made in a unique way, by applying offset printed sheets glued to the entire surface of the plate, with the possibility of printing any graphics. Mounted in the inner frame;
- lighting and heating - heating circuits - thermostat with radiator located in the lower part of the cabinet. Lighting - two fluorescent lamps, mounted in the upper part, thanks to which we obtain an even intensity of illumination over the entire width. The cabinet is equipped with limit switches and a switch (it is possible to install the apparatus in any place, according to the customer's requirements);
- cable clips with mounting beam;
- galvanized steel ground rail;
- ventilation - enabling constant air flow through the use of a fan and proper opening of the housing;
- pocket for documents.

In addition, the enclosure can accommodate the circuits of the basic electrical installation, each time prepared by the designer, depending on the specific investment.

Doors

- Full;
- single-sided or double-sided, for better access to the apparatus;

- single-leaf or double-leaf;
- lockable with a cylinder lock (any shape) or a basque lock closed with a system cylinder and an additional padlock;
- three-point locking;
- internal hinges with anti-burglary striker;
- opening angle 120 degrees;
- grounding pins with wiring.

Roof - a gable roof with a ventilation labyrinth and ventilation to prevent the accumulation of water and moisture.

Base

- it has an opening that allows cables to be inserted from the cable duct through an additional fireproof bulkhead;
- prepared for the fire bulkhead, by means of screw connections.

Dimensions

The size is adapted to the type, number of equipment and individual needs of the customer.
Typical executions:

- height: 1100/1900/2100/2200 mm;
- width: 400/600/800/820/850/1000/1050/1250/1400mm;
- depth: 250/300/400/600/620/800 mm.

Apparatus

In the cabinet there are circuits of the basic and additional electrical installation, each time prepared by the designer, depending on the specific investment.
The apparatus and strip fittings are located on mounting plates, TH35 rails between comb trays in any configuration (vertical or horizontal).

- lighting and heating of the cabinet - heating circuits - thermostat with radiator located in the lower part of the cabinet. Lighting - two fluorescent lamps, mounted in the upper part, thanks to which we obtain an even intensity of illumination over the entire width. The cabinet is equipped with limit switches and a panel switch (it is possible to mount the apparatus in any place, according to the customer's requirements).
- technical socket circuit - supplied from a separate circuit from the auxiliary switchboard. The 1 and 3 phase sockets are located outside the cabinet under a cover.
- secondary circuits - the apparatus and configuration of voltage circuits are selected according to the design documentation and customer requirements.
- motor drive circuit - fuses, circuit breakers and slatted connectors are selected according to the design documentation and customer requirements.

Wiring

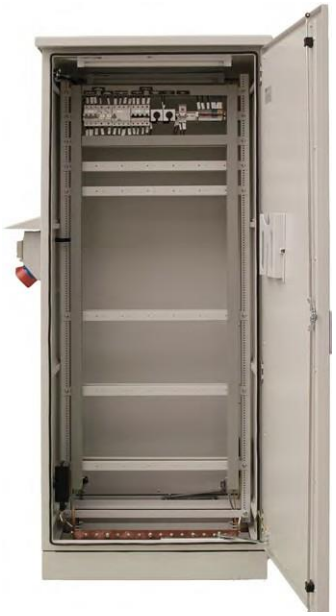
- The wiring of the cabinets is made with insulated wire with cross-sections of 1.5 to 16 mm2, depending on the type of circuit and apparatus.

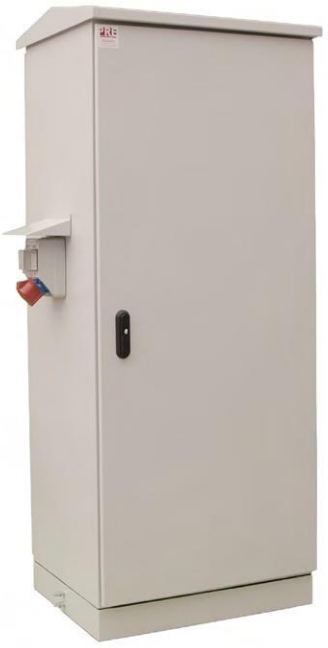
Signs

- The external marking of the cabinets is made in the laser engraving technique, on metal or plastic plates of any color. Equipment and wiring are marked on the basis of the PN-EN 61082-1 standard. Apparatus and strip fittings are marked in accordance with the internal wiring diagram and according to the design guidelines. Synoptic boards made in a unique way, by applying offset printed sheets glued to the entire surface of the mounting plate, with the possibility of printing any graphics.

Accessories

- FB concrete or FM aluminium foundation - matched to the dimensions of the cabinet;
- GO fire protection bulkhead - prevents fire and other factors from getting inside the cabinet.





RATED PARAMETERS

Rated switching voltage:	230/400 V
Rated insulation voltage:	500 V
Rated frequency:	50 Hz AC, DC
IP rating:	44 - 55
IK degree of mechanical resistance:	10
Protection class:	I/II
Height/Width/Depth:	Unlimited