

EXPLOSION-PROOF HIGH-VOLTAGE DISTRIBUTION FIELD TYPE ROK-6EM/A



Explosion-proof high-voltage distribution field is determined for gassy mines with explosion hazard of methane and coal-dust. The field is intended for work in three-phase network with rated voltage of 6 kV. The distribution field type ROK-6EM/A belongs with its design to the Group I, Category M2 and it is certified by a recognized testing laboratory, under the Certification Protocol No. OBAC 06 ATEX 189X.



The distribution field ROK-6EM/A/ is adjusted both for installation of more such fields in switchboards, and for an individually situated switch.

Technical Parameters:

Testing certificate type WE	OBAC 06 ATEX 189X
Characteristics (ATEX-marking)	I M2 EEx d (ia) I
Maximum working voltage and insulation, U_m	7,2 kV
Rated voltage, U_n	6 kV
Rated frequency, f_n	50 Hz
Rated current, I_n	max. 400 A, optional, depending on the current converter
Covering	IP 54
Short circuit power	125 MVA (for 7,2 kV) 100 MVA (for 6 kV)
Rated breaking symmetric short circuit current	10 kA
Asymmetric breaking short circuit current	14 kA
Maximum connecting short circuit current	25 kA
Mechanical working-life	3×10^4 cycles
Auxiliary circuits nominal voltage	100 V AC, 24 V AC, 130 V DC
Category of sparking-safe circuits, remote control, outer blockades and visualization system	ia
Ambient temperature	$+5 \text{ }^\circ\text{C} \leq T_a \leq +40 \text{ }^\circ\text{C}$
Dimensions	1460 x 930 x 1270 mm
Weight	about 960 kg

Power circuit ROK-6EM/A consists of:

- two circuit breakers Q1, Q2 with a lever-operated mechanism equipped with a lock and the earthing switch Q3 with manual control. The driving mechanism of the breakers and the earthing switch are interconnected whereas their disconnection is possible,
- main power cutoff Q with electro-magnetic drive and insulation SF6 (switch type ROLLARC) or vacuum contactor,
- two current transformers T1F, T2F,
- three three-coil voltage transformers T3F..T5F secured with safe-fuses SN F1..F3.

Electrical jumpers between chambers with breakers, the main power cutoff (contactor) and connection clamps of the main conduit circuit are made through the use of insulators SN that are at the same time a part of the breakers construction. The run control as well as the inner and outer electric circuits protection, signaling and display of the equipment status are performed by a microprocessor system MUPASZ, eventually MULTIMUZ-SR

The distribution field ROK-6EM/A can be controlled manually or by remote control, eventually from the control-standpoint via a data line – version with visualization.

