

Three-pole disconnecter ONE III 72,5 kV / 123 kV

APPLICATION

Outdoor disconnecters ONE III are designed for use in high-voltage outdoor switchgears. They open and close electrical circuits in the absence of current flow or when a small amount of current flows, and there is no voltage change between the poles.

The disconnecter in open provides visible isolating clearance and in close conducts work and short circuit currents. The devices equipped with the earthing switch grounds the parts of the circuit in which there is no voltage. Disconnecters can be used as a single-pole connectors (with individual drive of each pole) or three pole connectors with a single common drive.



ADVANTAGES

- » simple design
- » high switching durability
- » easy to use
- » good technical and operational parameters
- » the opportunity to mount the drive at any pole
- » very good protection against corrosion (galvanized steel or stainless steel parts)
- » compensation the deflection of insulator
- » blocking the position of disconnecter and earthing switch when closed and open by the
- » transition of the dead point of the crank gear

TECHNICAL DATA

PARAMETER	VALUE	VALUE
Rated operating voltage [kV]	72,5	123
Rated continuous current [A]	1600 2500	
Peak current [kA]	125	
Peak current 1 s. [kA]	50	
Test voltage of insulation (50 Hz) [kV]:		
» to earth and interpolar	» 140	» 230
» between the contacts of the pole	» 160	» 265
Impulse test voltage of insulation [kV]:		
» to earth and interpolar	» 325	» 550
» between the contacts of the pole	» 375	» 630
Radio interference voltage [μ V]	< 1000	
Mechanical durability	2000	
Drive:		
» motor	» yes	
» manual	» yes	
Weight [kg]:		
» disconnector	» 195	» 233
» disconnector with earthing switch	» 215	» 261
» disconnector with 2 earthing switches	» 255	» 289

OPERATING CONDITIONS

PARAMETER	VALUE
Ambient temperature:	
» max	» +48°C
» average 24 h	» +35°C
» min	» -45°C
Altitude	< 1000 m
Wind pressure	< 700 Pa
Ice thickness	< 10 mm
Max. relative humidity	100 %

CONSTRUCTION

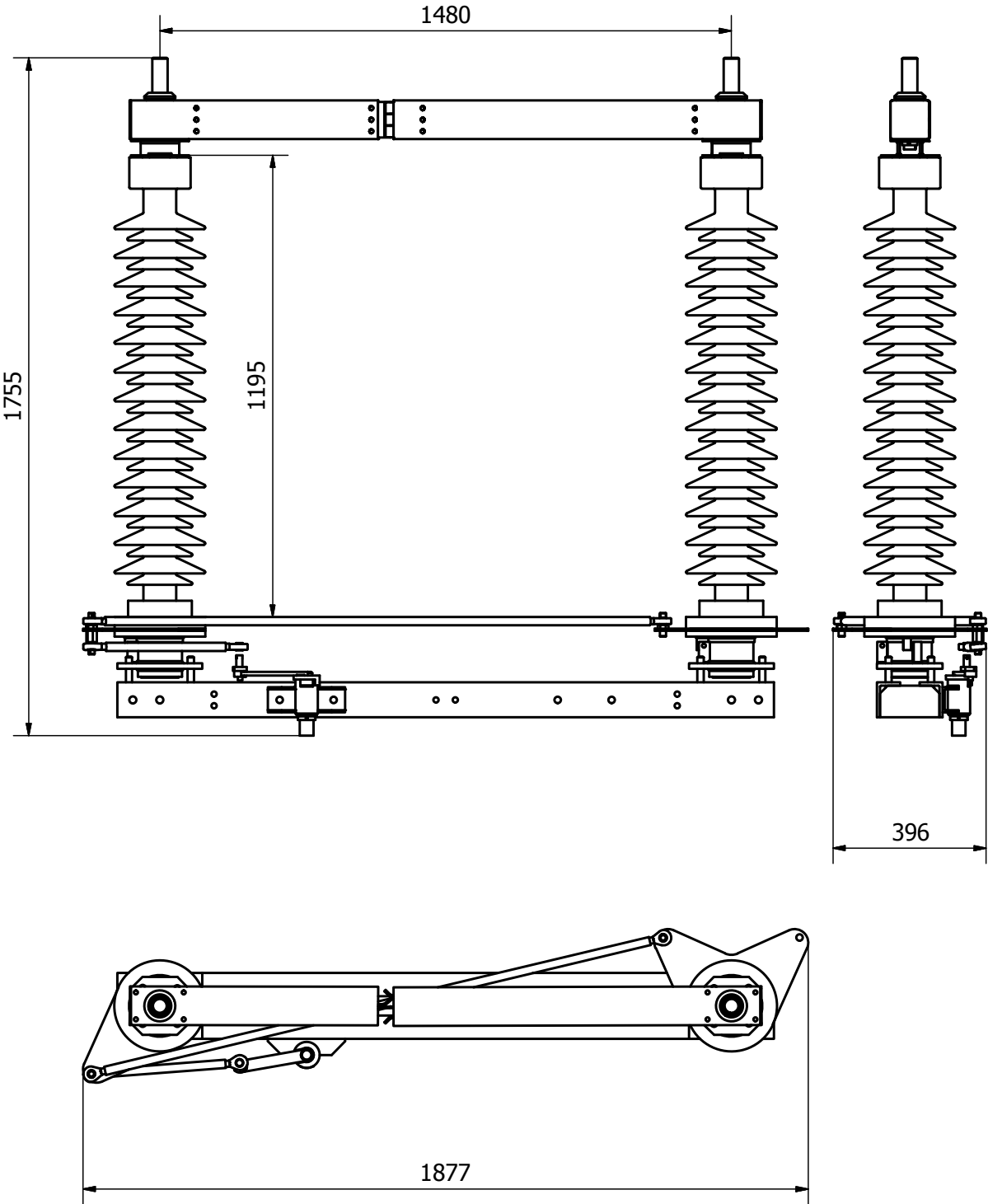
The disconnector has monopolar, two-column horizontally rotating structure. The busbar (placed on the post insulators) consists of two sets of connectors- left and right, cooperating with each other. The terminals and central contacts are made of electrolytic copper covered with silver.

Contact this design uses the additional influence of electrodynamic forces generated during the flow of short-circuit, causing additional pressure. Supply conduits are mounted to rotary terminals. The

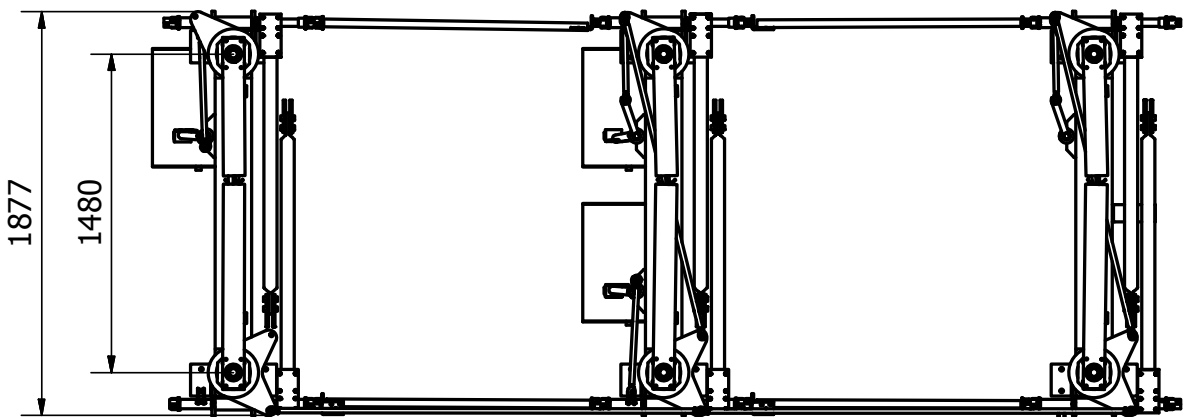
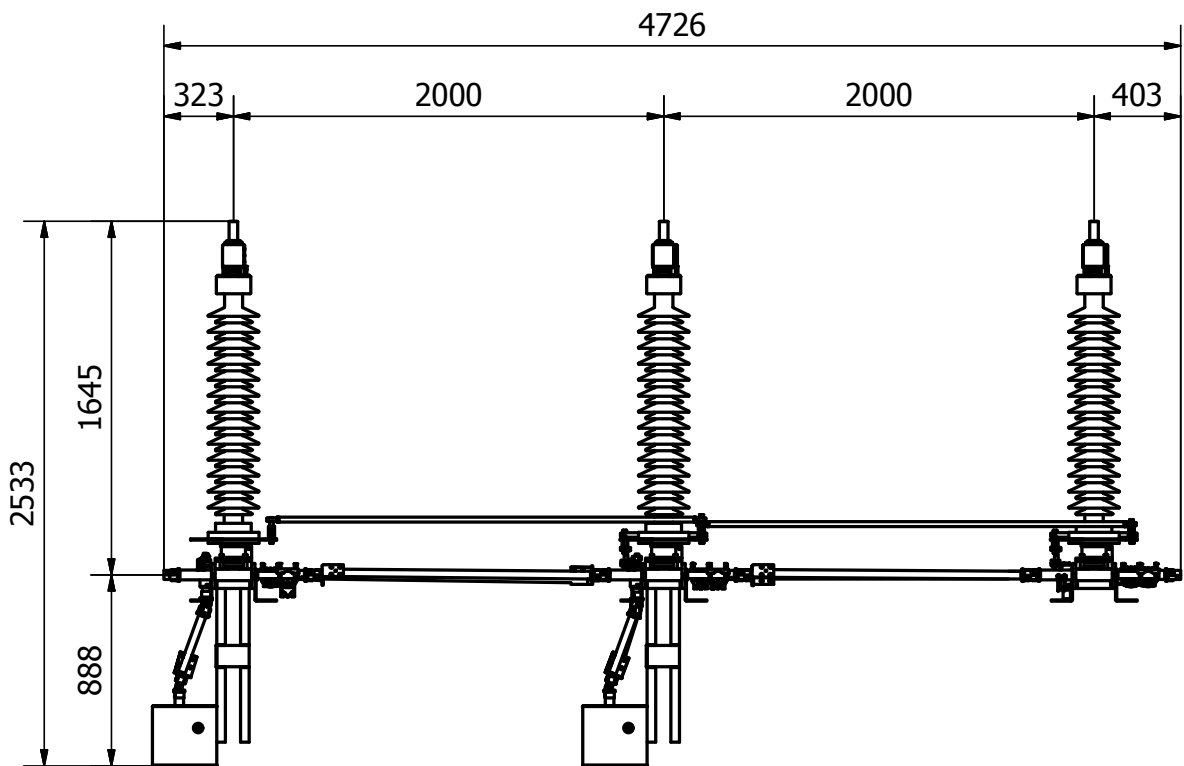
connection the conductors to the disconnecter is provided by M12 bolts.

The basis of the disconnecter is made of rigid frame, welded of steel sections. To the basis two bearing bodies are mounted and post insulators are bolted to that bodies. Regulating pins, mounted at the base of insulators provide smooth angle compensation. In the upper part of the rotary body are placed flat levers, which (with strings and crank shaft) makes transmission, providing simultaneous rotation of insulators of 90°.

Grounding blade is fixed to the lever mechanism providing the possibility of rotary motion. In the first stage, grounding blade is rotated to the vertical, and then is pushed into the permanent contact, which is located in the busbar. Copper connection connects lower end of the grounding blade to the basis of the disconnecter.



Dimensions of ONE III disconnector



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