

ELGA

YOUR EXPERT IN ELECTRICAL DISTRIBUTION EQUIPMENT

POLE MOUNTED OUTDOOR DISCONNECTORS LSP

GENERAL DESCRIPTION

Outdoor disconnectors type LSP, produced in accordance with the ELGAAB documentation, used for several years on medium voltage long-distance lines, have proven their high reliability and safety of operation. The disconnectors are designed for commutating one or three - phase power lines and other electrical equipment in an open air transmission networks. In order to improve the operating reliability of medium voltage networks it is important to be able to isolate possible faults quickly. High performance, remotely controllable pole mounted disconnectors are an absolute necessity for isolating faults, and also when changing the normal use of the networks. The reliable performance of pole mounted disconnectors is now even more emphasized due to the high demand of network automation.

Simple disconnectors of a sturdy structure proved themselves in an excellent way under very different climatic conditions. The foundation welded frame is made of steel profiles which guarantee perfect surface protection from corrosion caused by heat zinc coating that can be controlled on all places. The shafts of the load disconnectors mounted in bronze bearings as well as all other steel components are protected by heat zinc coating, too.



TECHNICAL DATA

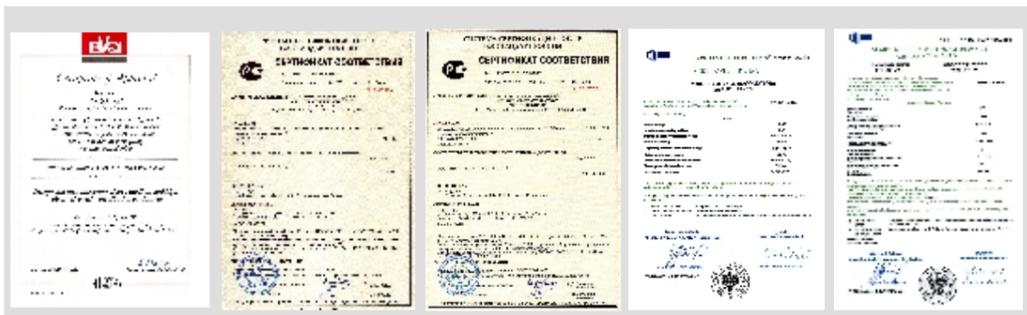
		LSP-10	LSP-20
Rated operating voltage	U, kV	12	24
Test voltage (50-60) Hz, 1 min	U _(1 min) , kV	42 (48)	50 (60)
Impulse withstand voltage (1,2-50) μs	U, kV	75 (85)	125 (145)
Rated continuous current	I _n , A	200-400-630	200-400-630
Breaking capacity (number of operations)	I _n , A	25 (20 CO)	15 (20 CO)
Rated short time withstand current	I _{DW(3s)} , kA	12,5; 16; 20	8; 12,5; 16
Peak current	I _{DM} , kA	31,5; 40; 50	20; 31,5; 40
Mechanical endurance	CO cycles	2000	2000

DELIVERY

Disconnectors will normally be delivered as fully assembled elements, which include pole elements, support structures, control tubes and manual operating devices. If required, the disconnectors can also be delivered without support framework, enabling the customer to mount the pole elements on his own support structure. For remote control applications the disconnectors can be fitted with a motor operating device.

TYPE TESTING

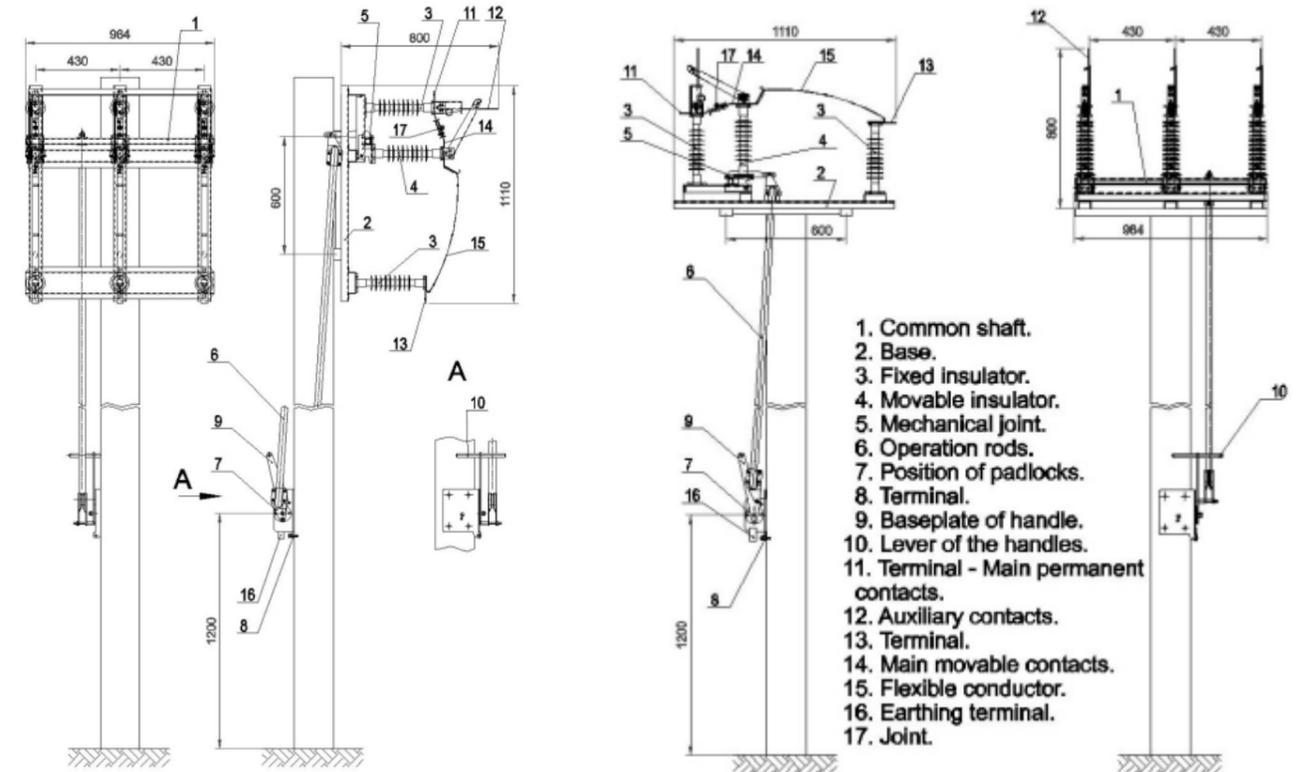
LSP disconnectors satisfy standards IEC 60265, IEC 61128, IEC 61129, GOST 689-90. They have been successfully tested in accredited high voltage test laboratory IEL in Warsaw.



INSULATORS

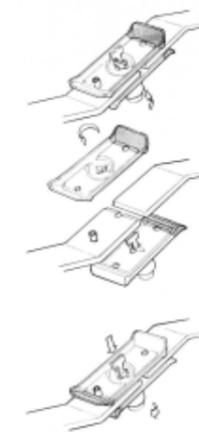
The polymer insulators mounted on LSP disconnectors are light, but very sturdy to withstand electrodynamic shocks. Silicone, used as a protective shell for the insulator, has proved to be a highly reliable polymer material under operating conditions, and ensures electric strength of the insulator's surface and protection of the glass-reinforced plastic rod from environmental factors. The excellent hydrofobicity of insulators silicone allows the use of LSP disconnectors even in highly polluted areas. High resistance of insulators to ultra-violet rays, moisture, heat, frost determines the usage of LSP disconnectors in all climatic regions.

Due to the diffusion of molecules with a low molecular weight onto the soiling layer, even soiled insulators remain water-repellent. Operation experience shows that water-repellence of the silicone insulators' surface remains at a high level during its entire service life. In most cases, it will not be necessary to wash insulators at all or the amount of washings will be significantly reduced, which, in turn, decreases operating costs. The high reliability of the interfaces between materials of the insulator allows the washing of insulators, if necessary, by high pressure water jet without danger of depressurization. As an alternative 24kV LSP-20 disconnectors can be supplied with HA-24 type cycloaliphatic epoxy resin insulators.



Contacts

All parts of the current path are made of copper. Contact pressure is maintained with use of stainless steel compression springs. The contact life is increased by the facility to be able to turn the contact.



Recommended application for insulators use
Acc. to IEC 815

U _n , kV	Pollution level				Used in disconnector
	I	II	III	IV	
12	•	•	•	-	LSP-10
17,5	•	-	-	-	LSP-10

U _n , kV	Pollution level				Used in disconnector
	I	II	III	IV	
12	•	•	•	•	LSP-10
17,5	•	•	•	-	LSP-20
24	•	-	-	-	LSP-20

U _n , kV	Pollution level				Used in disconnector
	I	II	III	IV	
12	•	•	•	•	LSP-20
17,5	•	•	•	•	LSP-20
24	•	•	•	-	LSP-20

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The data and illustrations are not binding. We reserve the right to make changes in the course of technical development of the product.
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