SEVES

SEDIVER

Sediver composite line surge arresters with external series gap

Sediver surge arresters offer unique features for enhanced performance of your High Voltage system.

Features:

- Lightning performance improvement of shielded and unshielded lines
- Reduction of double and multi-circuit outages
- Compact line design
- Line voltage uprating
- Prevention of risk to people and animals

Specific advantages of the external gap:

- **No ageing of the ZnO blocks** which are not stressed by power frequency voltage, temporary overvoltages and switching surges but only when line surge arrester is performing it's protection function
- **Elimination of arrester pollution problems**
- **Reduced energy** since less ZnO blocks are necessary for the follow current interruption (compared with gapless arrester) thanks to the combined effect of ZnO blocks and external gap
- **Increased reliability** since there is no need for arrester disconnector, which is usually a week point of gapless line surge arresters

Advantages of the polymer housed surge arresters:

Sediver has more than 30 years experience in composite insulator technology in direct injection molding of the polymer housing under high pressure and high temperature. This technology is applied to our surge arresters out of which we obtain:

63 kV RTE, France

- **Increased life time** of the ZnO blocks which are protected from moisture ingress thanks to our impenetrable design
- **Excellent mechanical characteristics** due to the fiber glass reinforced polymer tube
- **Excellent pollution performance** of the silicone housing
- **Excellent protection performance** due to very stringent selection of extra high quality, high energy duty metal oxide blocks
- **Increased safety of surrounding crew and equipment** thanks to the explosion proof design (air-free)
- **Easy to install and transport** due to the low weight
- **Reduced space requirements** thanks to its compact design

Selection:

Through expertise conducted using simulation software tools, our experts are able to determine optimal arresters types & location to protect the key points of the system, thus providing effective protection at the lowest cost.

- Contact Sediver representative

Product range (*)

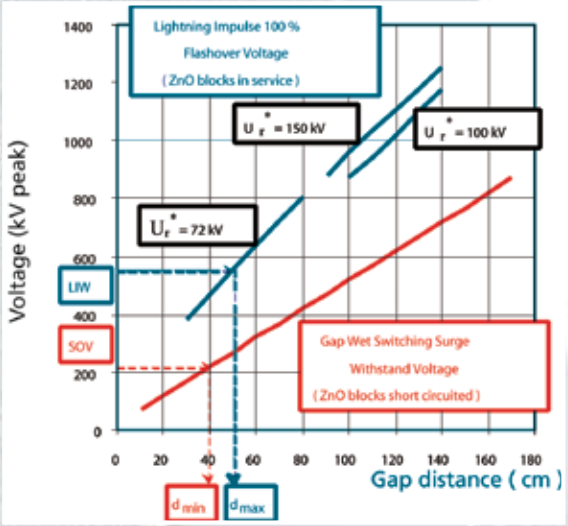
System voltage	(kV)	SLA.1 44-170	SLA.2 44-245
Arrester class [IEC 60099.4]		1	2
Nominal discharge current	(kA)	10	10
High amplitude current withstand [4/10 ms]	(kA)	100	100
Maximum long duration current impulse	(A)	250	500
Maximum short circuit rating	(kA)	40	63
Maximum permissible bending moment	(Nm)	700	1350

Example of the gap distance determination:

System nominal voltage : 110 kV
Rated voltage of ZnO blocks (Ur*) 72 kV
Switching surge overvoltage (SOV) 205 kV
Line insulation lightning impulse withstand voltage (LIW) 554 kV

According to the given diagram :

Gap minimum distance (dmin) 40 cm
Gap maximum distance (dmax) 50 cm
Gap nominal distance : 45 ± 5 cm



Installation:

- Directly on the insulator string
- On transmission towers
- Customized installation configuration according to your specific requirements is also possible

Seves Canada Inc.

172 Merizzi,
Ville St-Laurent, Quebec, Canada H4T 1S4
T +1 514 739 3385 - F +1.514.739.3669
info@seves.ca - www.sevespower.com

Seves USA Inc.

6605 Cypresswood Drive, suite #450,
Houston, Texas 77379
T +1 281 257 8222 - F +1 281 257 8225
info@sevesusa.com - www.sevespower.com