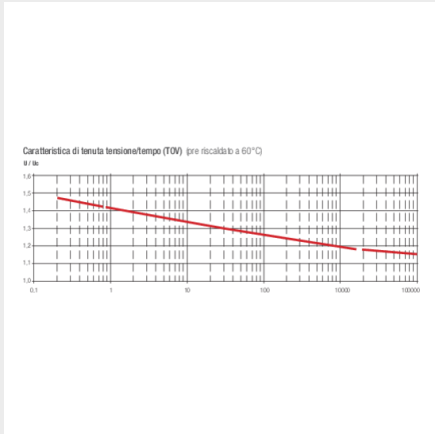
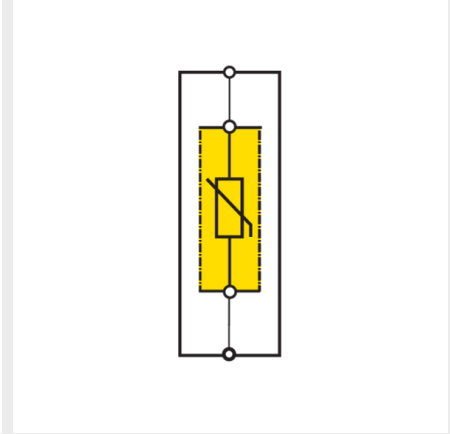
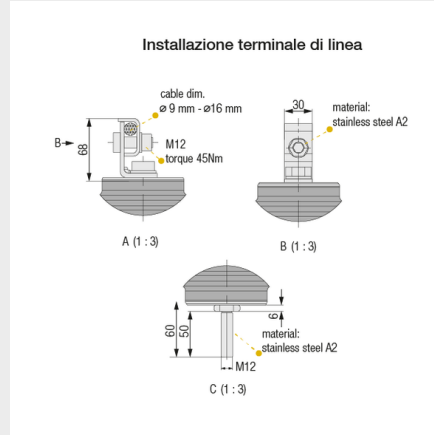
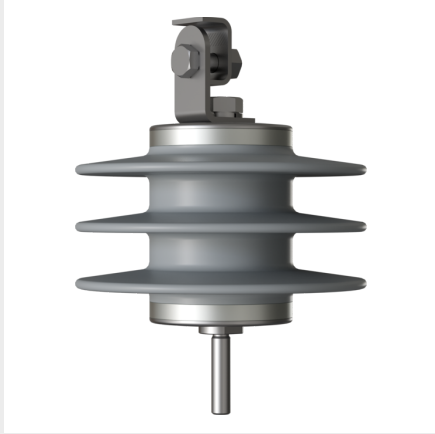


## SURGE ARRESTERS FOR HIGH VOLTAGE SYSTEM (HV) ZOTUPHV | HV DC 1,5/10



### Technical Data

HV DC is a surge arrester with typical usage in direct current systems and particularly where electric traction (railway, underground) is used.

### Features and benefits

- Surge arrester type L with: limiting operation, varistor for protection against overvoltages in direct current applications, and atmospheric lightning strikes;
- This SPD is installed in a vertical position, when hooked on overhead lines and when mounted on electric motors;
- Its high mechanical resistance to bumps and vibrations complies with the regulations of IEC/EN 60068 part 2-29;
- Its silicone rubber housing with high creepage distance allows internal or external mounting;
- Its high discharge capacity  $I_n$  is 10 kA (8/20);
- Its continuous voltage rating is from 1 to 4kV d.c.;
- Size and volume of the surge arresters based on the practical minimum for each nominal voltage;
- The insulator of the surge arrester is characterized by the absence of junction lines;
- The construction and manufacturing process prevent partial discharges;
- Sealed with aluminium fittings and terminated with stainless steel clamps, screws and washers.

## ZOTUPHV | HV DC 1,5/10

Code		111 005
Nominal voltage	Un	1,5 kV
Continuous service voltage		1,5 kV
Arrestor class in accordance with IEC 62848 (2016-06)		DC-B
Thermal energy rating kJ/kV (IEC 60099-4 Ed. 3.0; 2014)		12 kJ/kV a Ur
Charge	Q	2,5 As
High current impulse		100 kA 4/10 $\mu$ s
Nominal discharge current (8/20 $\mu$ s)	In	10 kA
Rated short circuit current		40 kA / 0,2 s
Max. residual voltage / Protection level: 10 kA (1/2 $\mu$ s) kV		3,7 kV
Max. residual voltage / Protection level: 5 kA (8/20 $\mu$ s) kV	Upl	3,5 kV
Max. residual voltage / Protection level: 10 kA (8/20 $\mu$ s) kV	Upl	3,7 kV
Max. residual voltage / Protection level: 20 kA (8/20 $\mu$ s) kV	Upl	3,9 kV
Max. residual voltage / Protection level: 250 A (30/70 $\mu$ s) kV	Ups	2,8 kV
Max. residual voltage / Protection level: 500 A (30/70 $\mu$ s) kV	Ups	2,9 kV
Max. Residual voltage / Protection level: 1000 A (30/70 $\mu$ s) kV	Ups	3,0 kV
Surge arrester insulation - Withstand volatge (wet)		$\geq$ 35
Surge arrester insulation - Lightning impulse withstand		$\geq$ 123
Mechanical impact resistance IEC/EN 60068 part 2-29		15 g
Vibration resistance IEC/EN 60068 part 2-6		3 g (10 - 500 hZ)
Ambient temperature range		-60 ... +60 °C
Creepage distance total		320 mm
Short-term load (SSL)		1100 Nm
Long Term Load (SSL)		450 Nm
Isolator		Rubber - HTV silicone
Insulator color		Gray RAL 7040
Approximate weight		3,2 kg
Dimension: height		115 mm