

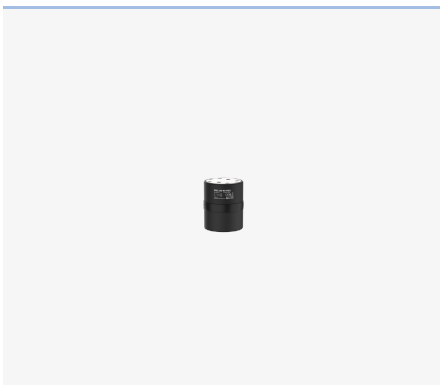
BVL-50-45-R02

VLD - for DC traction / VLD class 2.2 (BVL)

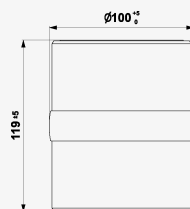
Voltage limiting device

voltage limiting device, VLD of class 2.2, type VLD-O+F, limiting of occurrence non-permissible touch voltages, equalizing of the earth potential and limiting of overvoltage of a railway system AC and DC, surge protective device SPD of type 1+2

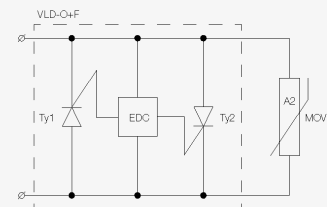
- limits non-permissible high touch voltages on non-live metal parts of a railway equipment in AC and DC railway system
- establishes temporary connection between the return circuit and the earth of the railway electric traction system, during the permissible value of voltage is exceeded
- equalizes the earth potential between the return circuit and the earth surrounding an electric and an electronics equipment and prevents their damage
- limits touch voltage and protects persons that might enter into contact with the parts affected
- eliminates high impulse overvoltages induced into the railway electric traction system or the railway equipment by a lightning strike



Product dimensions



Basic circuit diagram



| Parameter name | | Parameter value |
|--|-------|-----------------|
| Class VLD according to EN 50526-2 | | 2.2 |
| Type VLD according to EN 50122-1 | | VLD-O+F |
| Rated AC (rms) current (@ 60 min) | I_r | 50 A |
| Rated DC current (@ 60min) | I_r | 50 A |
| Leakage current at U_w | I_L | < 50 μ A |
| Non-triggering voltage | U_w | 36.00 V |
| Maximal short time DC withstand current (@ 30 ms) | I_w | 16.0 kA |
| Maximal short time DC withstand current (@ 100 ms) | I_w | 9.0 kA |
| Short time AC (rms) withstand current (@ 36 ms) | I_w | 15.0 kA |

| | | |
|---|----------------|------------------------|
| High charge impulse (10/350) | I_{imp-hc} | 35.00 kA |
| Lightning current impulse (8/20) | I_{imp-n} | 50.00 kA |
| High current impulse (8/20) | $I_{imp-high}$ | 75.00 kA |
| Nominal triggering voltage | U_{Tn} | 45.00 V |
| Maximal residual voltage at I_{imp-n} | U_{RES} | 700.00 V |
| Maximal residual voltage at I_r | U_{RES} | 1.20 V |
| Maximal residual voltage at I_w | U_{RES} | 5.00 V |
| Instantaneous triggering voltage | U_{Ti} | 45.00 V |
| Response time @ lightning current | | 25 ns |
| Response time of thyristors | T_R | < 1,5 ms |
| Degree of protection | | IP 67 |
| Range of ambient temperatures (min/max) | | -40 / 70 °C |
| According to standard | | EN 50122-1, EN 50526-2 |
| Weight | | 2.10 kg |
| ETIM Class | | EC003621 |
| Customs tariff number | | 85301000 |
| EAN | | 8595090567103 |
| Order number | | A06710 |