SCG-250-075-R01

VLD - for DC traction / VLD class 1 (SCG)

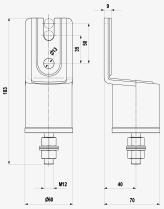
Voltage limiting device

VLD class 1, type VLD-F

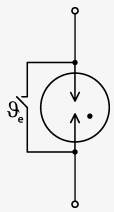
- the VLD is used to restrict excessive high contact voltages arising on exposed conductive parts of a railway equipment in case of a disturbance (short-circuit) in AC and DC railway electric traction systems, thus ensuring protection to persons that may come into contact with the parts mentioned
- in the event of a failure connection between a live power supply part of the traction system and an exposed conductive part (e.g. due to the overhead power line fall) the VLD protects the parts affected by causing conductive itself, which results in turning off of the power supply
- the SCG is connected between the protected part and the return circuit
- in case of an overload caused by caused by short-circuit or long-term withstand current the internal patented (PV CZ2017248) short-circuiting device intervenes by establishing a permanent short circuit across the protective element
- the integrated protective element effectively eliminates high impulse overvoltage induced into the traction mains or railway equipment by a lightning strike
- easy mounting, installation right away on the protected equipment



Product dimensions



Basic circuit diagram



Parameter name		Parameter value
Class VLD according to EN 50526-2		1
Type VLD according to EN 50122-1		F
Short-circuit current (@ 300 ms)	I_{SCC}	5.0 kA
Leakage current at Uw	I_L	< 1 µA
Non-triggering voltage	U_W	45.00 V
High charge impulse (10/350)	I_{imp-hc}	50.00 kA
Lightning current impulse (8/20)	I_{imp-n}	100.00 kA

High current impulse (8/20)	$I_{imp-high}$	100.00 kA
Nominal triggering DC voltage*	U_{Tn}	75 V
Maximal residual voltage at Ir	U_{RES}	15.00 V
Maximal residual voltage at Iw	U_{RES}	30.00 V
Instantaneous triggering voltage*	U_{Ti}	75.00 V
Short time withstand current (@ 60 ms)	I_w	1.0 kA
Response time	t_a	10 000 ns
Degree of protection		IP 67
Weight		0.84 kg
Range of ambient temperatures (min/max)		-40 / 70 °C
According to standard		EN 50122-1, EN 50526-2
ETIM Class		EC002496
Customs tariff number		85363030
EAN		8595090561538
		*in ionized mode
Order number		A06153