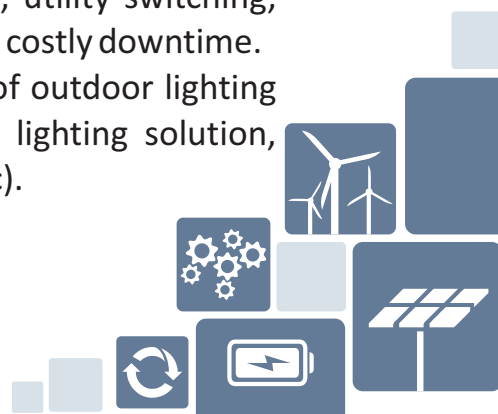


T2+T3

DEVTECH SURGE GUARD | 1506V/1510V/1520V

DEVTECH Surge Guard 1506V/1510V/1520V is a robust 6kV/10kV/20kV combined Type 2+3/ Class II+III SPD, designed to protect the sensitive electrical and electronic equipment from damage by vulnerable high surges or over voltage transients caused by indirect lightning, utility switching, PF capacitor bank, load switching etc and helps to reduce costly downtime. Surge Guard is ideal solution for maximum protection of outdoor lighting investments and can be used in any new or existing lighting solution, regardless of technology (HID/LED/Induction/Plasma etc).



Devtech Surge Guard 1506V/1510V/1520V

Rating : 6kV/3kA, 10kV/5kA, 20kV/10kA

Key Features and Benefits

- Maximize the protection level, lifetime value and safety of all electrical and electronic equipments used in Industrial & Commercial lighting applications.
- Designed with MOV technology to offer increased protection level to the end devices.
- Provides very fine protection level against high surges in accordance with EN/IEC 61643-11.
- Provides resistance to peak transients and multiple nominal surges of ratings up to 6kV/3kA (DSG 1506V), 10kV/5kA (DSG 1510V), 20kV/10kA (DSG 1520V).
- Provides maximum level of protection with single hit surge of rating up to 12kV/6kA (DSG 1506V), 20kV/10kA (DSG 1510V), 40kV/20kA (DSG 1520V).
- Series connection type SPD device.
- Protection for Class I and Class II luminaires, Universal solutions.
- Can be used with all lighting technologies (HID/LED/ Induction/Plasma etc).
- Light weight and easy to install.
- Maximum reliability.
- Long lifetime, robust and protection against dust, moisture, vibration and extreme temperatures
- Lowers costly downtime and Maintenance, Repair & Operation (MRO) costs.
- Compact form factor (LXWXH = 64mm X 48mm X 30mm) with mounting flanges.
- Comprehensive warranty.
- Wide spread market solution for all OEM/ODM manufacturers

Maximizes the protection, lifetime value and safety of outdoor lighting installations in high risk areas

Devtech Surge Guard offers a most reliable and robust solution for protecting all outdoor power supplies from excessive surge voltages. Rapidly increasing demands for LED lighting system for outdoor applications in high risk areas brings new challenges on the system durability. In order to maximize the durability and reliability of LED lighting investment, it is vital to protect the light engine against high surges on the mains line. Most of the LED drivers offer a limited level of surge protection (up to 2kV- 4kV) which is not enough to defend against high surges, e.g. (indirect) lightning strikes. Outdoor lighting applications such as street lighting, commercial / industrial lighting and ware houses, parking lots etc are especially susceptible for the excessive surge.

Maximum surge protection is achieved by installing Surge Guard 1506V/1510V/1520V with the luminaire using Series connection type. During the Surge conditions, SG clamps or limits high surge voltage (1.2/50 μ s waveform) present at the terminals of the luminaire, and divert excessive surge currents (8/20 μ s waveform) into short circuit conditions thus protecting the complete system from damage by multiple nominal surges.

Technical Data

Model No.	DSG 1506V	DSG 1510V	DSG 1520V
Class	Type 2+3/Class II+III	Type 2+3/Class II+III	Type 2+3/Class II+III
Nominal Operating Voltage (Un)	230 VAC	230 VAC	230 VAC
Maximum continuous operating voltage (Uc)	320 VAC	320 / 440 VAC	320 / 440 VAC
Line Frequency	50 ~ 60 Hz	50 ~ 60 Hz	50 ~ 60 Hz
Open Circuit/Combined discharge Voltage 1.2/50μs waveform (Uoc)	6 kV	10 kV	20 kV
Nominal Discharge Current 8/20μs waveform (I) 1 n	3 kA	5 kA	10 kA
Maximum Discharge Current 8/20μs waveform (I) 2 max	6 kA	10 kA	20 kA
Measured Limiting Voltage (MLV) 3/ Voltage protection level (U) 4 p	L-N 1.5 kV L-E 1.5 kV N-E 1.5 kV	L-N 1.5 kV L-E 1.5 kV N-E 1.5 kV	L-N 1.5 kV L-E 1.5 kV N-E 1.5 kV
Response Time	< 25 ns	< 25 ns	< 25 ns
SPD Connection Type with Load	Series	Series	Series
Luminaires classification	Suitable for Class I & Class II	Suitable for Class I & Class II	Suitable for Class I & Class II
Box Color/Finish	Cream White/ Glossy finish	Cream White/ Glossy finish	Royal Blue/ Glossy finish

Notes:

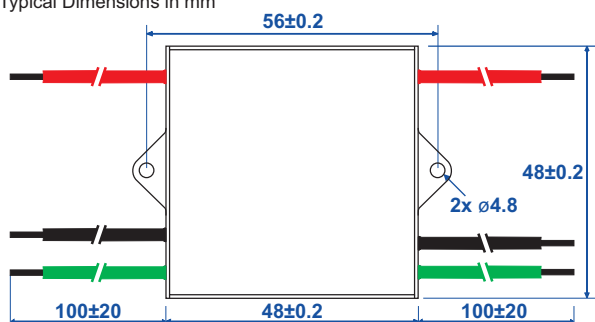
1. Nominal Discharge Current (In)(A): The nominal discharge current is a measure of the SPDs endurance capability; crest value of the current having 8/20μs current waveform.
2. Maximum Discharge Current (Imax)(A): The maximum discharge current is a measure of the SPDs maximum capability; single impulse of discharge current uses the 8/20μs current waveform.
3. MLV – UL1449 Measured limiting voltage; the highest value of residual voltage measurements during the application of impulses of 8/20μs nominal discharge current (In).
4. Up – IEC 61643-11 Voltage protection level; the highest value of residual voltage measurements during the application of impulses of 8/20μs nominal discharge current (In); a rounding voltage value of maximum measurement.

Environmental

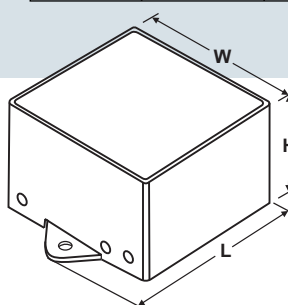
Operating Ambient Temperature (TA)	-45°C to +85°C
Storage Temperature (TSTG)	-45°C to +110°C
Moisture & Humidity	5% to 95% RH (non-condensing)
Body insulation Material & flammability class	PA66+Fiberglass DUPONT FR50(+)(f1)

Dimensional Data

Typical Dimensions in mm



Length (L)	Width (W)	Height (H)	Nett Weight
64mm	48mm	30mm	0.15 Kg



Installation Guidelines

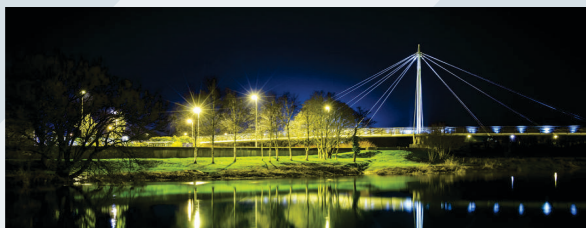
Surge Guard can be installed to the equipment to be protected using series connection type as shown in the figure. To obtain the maximum system performance, the SG must be located as close as possible to the equipment, minimizing the interconnecting wire length.

Installation of Surge Guard 1506V/1510V/1520V module is simple:

1. Determine the ideal location for the module to be installed.
2. Drill the appropriate holes as per product dimensions. Mount the SG to the wall or other mounting surface using the flanges.
3. Determine the wire length required to make the SG wiring connections and cut the wires to the appropriate length. (To maximize SG performance, wire length should be as short as possible).
4. Connect AC mains to the Surge Guard Input. Important: Disconnect line voltage before installing or replacing the module.
5. Connect Surge Guard Output to the load / luminaire.

Applications

- HID/LED Outdoor & Commercial lighting
- Bridges / Tunnels lighting
- High Mast/High Bay lighting
- Digital signage / Traffic lighting
- AC Line Power supplies
- AC Power Meters
- AC Electric panel /Distribution system
- UPS / Inverters
- White Goods
- AC Electrical applications (panel boards, switchboards, motor control centers, switchgear, automatic transfer switches and bus plugs)



All specification are subject to change without prior notice, visit website for updated documents.