



PHILIPS

Outdoor SPD

Xtreme Surge
Protector

Protect your luminaires
against extreme spikes and
transients

Maximum protection for Outdoor LED investments

Outdoor SPD
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Xtreme Surge Protector
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Protect outdoor luminaires
.....



Philips Xtreme Surge Protector

Philips Surge Protection Device is **increasing the reliability and lifetime** of your luminaires significantly





Features

- Resistant to peaks and surges of up to 10 kA / 10 kV
- Suitable for insulation Class I luminaires
- Xtreme standard: Long lifetime, robust protection against moisture, vibration and temperature extremes
- Can be used with all lighting technologies

Rapidly increasing acceptance of LED-based light sources for outdoor applications brings with it new challenges on system durability. In order to ensure the lifetime of the solution, it is vital to protect it against surges on the mains line. Applications on high poles or open field such as road and area lighting. The new generation Surge Protection Device from Philips are offering a reliable solution for protecting all outdoor systems from excessive surge voltages.

Maximum reliability management

The Philips Surge Protection Device (SPD) is the ideal solution to the maximize protect LED systems in Outdoor lighting. The SPD clamps the voltage at the terminals of the luminaire, protecting the complete system against multiple nominal surges of up to 10 kV / 5 kA. For maximum-level of protection, the SPD can withstand a single hit of 10 kV / 10 kA. The device even eliminates the need for all luminaire internal components – wires, connectors, wire nuts, etc. – to be designed to withstand 10 kV. The product can be used in any new or existing lighting solution, regardless of technology.

The Xtreme standard

The Surge Protection Device is specifically designed for use in outdoor luminaires. The product delivers a long-lasting solution with robust protection against a wide range of temperatures, moisture and vibrations. When used in combination with Xitanium LED drivers, the system benefits from Xtreme protection against lightning strikes.

Benefits

- Maximize the lifetime value of outdoor lighting systems
- No down-time due to calamities (storms, lightning strikes, etc.)
- Lower maintenance costs
- Easy to apply in new or existing installations
- Peace of mind on product performance

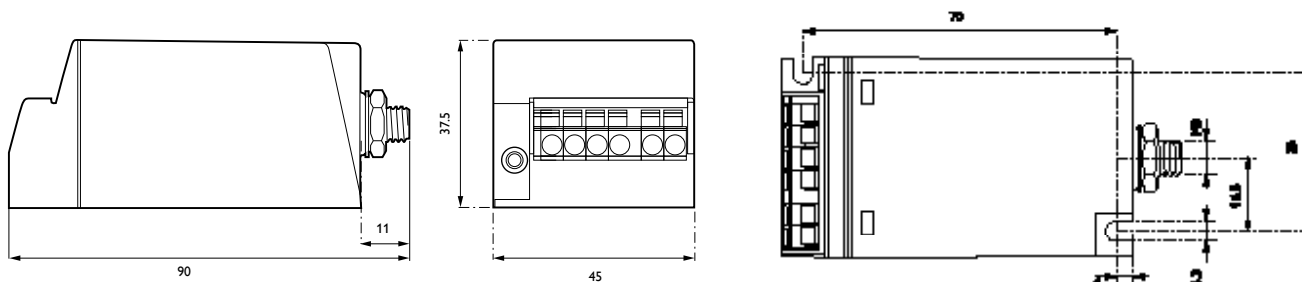
Applications

- Highways
- Rural roads
- Parking lots
- Area lighting

Product specifications

Type	Nominal input voltage (VAC)	Protection level Up (L-N) (kV)	Protection level Up (LN-GND) (kV)	Open circuit voltage U_{oc} (kV)	Nominal surge current I_n (kA)	Min. number of surges, nominal current
Xtreme Surge Protector I	230	≤ 1.5 - 1.5	≤ 2 - 4	10	5	100 strikes at 3 kA 50 strikes at 5 kA 1 strike at 10 kA

Type	Maximum surge current I_{MAX} (kA)	Number of surges, maximum current	Insulation classification	Lifetime @ Tc life, 90% survivals (hours)	Suitable for Outdoor use?
Xtreme Surge Protector I	10	1 strike	Class I - Class I and Class II	100,000	Yes, built-in use only



All dimensions are mentioned in mm

General product characteristics

T ambient (°C): -40 to +70 °C

Tcase life (°C): +80 °C

Compliances and approvals

Designation Type 3 acc. EN61643-11

Classification Class III acc. IEC61643-11

Approvals: Kema Keur, CE

Product dimensions

Specification item	Value	Unit
Mounting length	70	mm
Overall length	90	mm
Case Width	45	mm
Case Height	37.5	mm
Fixing hole diameter	M4	
Fixing screw type	M8	
Max. screw torque	0.8	Nm
Weight	66/70	gr

Product specifications

Type	12NC	EOC	Minimum order quantity
Xtreme Surge Protector I	9290 008 86906	8718291 750314 00	20



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www.philips.com/surgeprotection

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Data subject to change.