



**PHILIPS**

Outdoor SPD

Xtreme Surge  
Protector

**Protect your luminaires**  
against extreme spikes and  
transients

Maximum protection for Outdoor LED investments

Outdoor SPD  
.....  
Xtreme Surge Protector  
.....  
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

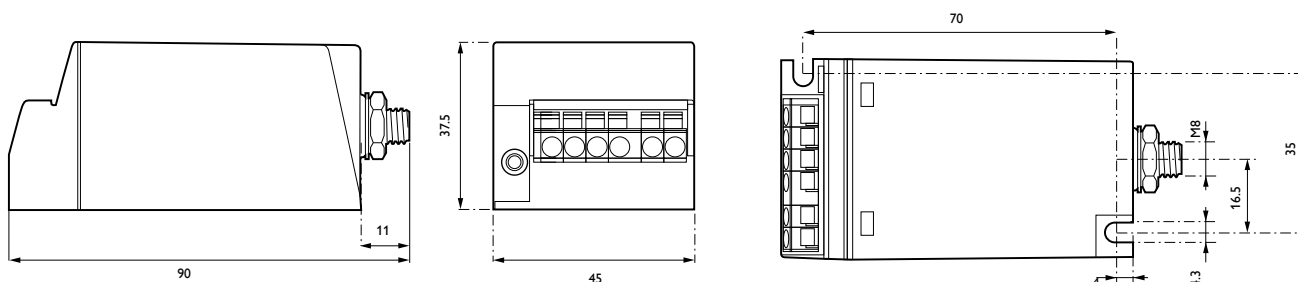
- Maximize the lifetime value of outdoor lighting systems
- No down-time due to calamities (storms, lightning strikes, etc.)
- Lower maintenance costs
- Easy to apply in new or existing installations
- Peace of mind on product performance

### 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<br>50 strikes at 5 kA<br>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 only                      | 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    | gr   |

## Product specifications

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



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Data subject to change.