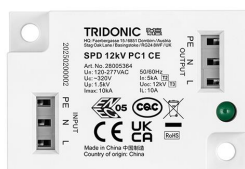


SPD 12kV PC1 CE

Surge protection

**Product description**

- _ Universal use for street, tunnel or object lighting
- _ Flexible installation
- _ Fixed via integrated elongated holes
- _ Compact dimensions
- _ Optical status indicator
- _ Separate terminals for input and output
- _ Double or reinforced insulation
- _ For luminaires of protection class I and protection class II
- _ Due to parallel wiring, the driver remains connected to the mains supply even after a surge exceeds 12kV, causing SPD failure
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Housing properties

- _ Casing: plastic, grey
- _ Type of protection IP20

Typical applications

- _ Perfect for in-built applications for protection class I luminaires

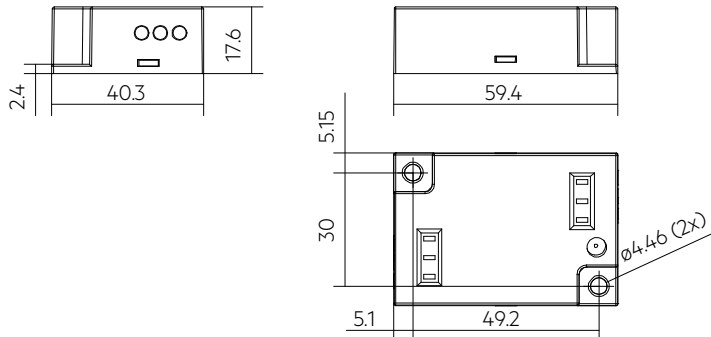
Website

<http://www.tridonic.com/28005364>



SPD 12kV PC1 CE

Surge protection

**Ordering data**

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pc.
SPD 12kV PC1 CE	28005364	100 pc(s).	9,600 pc(s).	0.035 kg

Technical data

Rated supply voltage	120 – 277 V
AC voltage range	120 – 277 V
Mains frequency	50 / 60 Hz
Mode of protection ^①	L-N, L-PE, N-PE
AC system	TT-TN
Type 2 surge protection (T2)	Yes
Type 3 surge protection (T3)	Yes
Rated load current	10 A
Nominal discharge current (8/20 µs), L-N, L-PE, N-PE ^①	5 kA, 5 kA, 10 kA
Max. discharge current (8/20 µs), L-N, L-PE, N-PE ^①	10 kA, 10 kA, 20 kA
Combination wave (1.2/50 µs), L-N, L-PE, N-PE ^①	12 kV (5 kA), 10 kA, 20 kA
Short-circuit current rating	1.5 kA
Voltage protection level (at nominal discharge current (8/20 µs) and at 6 kV (1.2/50 µs))	≤ 1.5 kV
Residual voltage (at nominal discharge current (8/20 µs) and at combination wave (1.2/50 µs))	≤ 1.5 kV
TOV behavior (5 s / withstand mode)	377 V AC
TOV behavior (120 min. / safe failure mode)	442 V AC
Response time L-N, N-PE ^①	≤ 25 ns, ≤ 100 ns
Max. backup fuse ^②	10 A
Ambient temperature t _a	-40 ... +85 °C
Storage temperature t _s	-40 ... +85 °C
Type of protection	IP20
Dimensions L x W x H	59 x 40 x 17 mm

Approval marks**Standards**

EN 61643-11

^① PE equals Gin and Gout on label.

^② MCB type C.

1. Standards

EN 61643-11

1.1 Glow-wire test

according to EN 61643-11 with increased temperature of 750 °C passed.

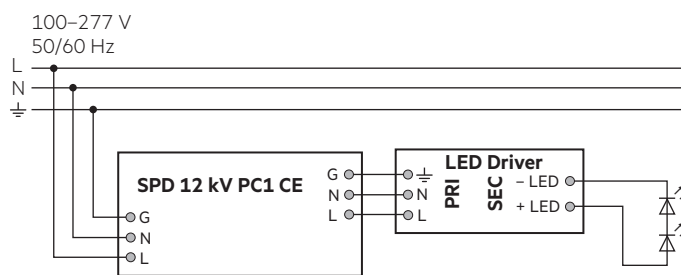
2. Guarantee conditions

5-year guarantee of the product.

Surge capability: 10 x 12 kV Combination Wave pulses (1.2 / 50 µs).

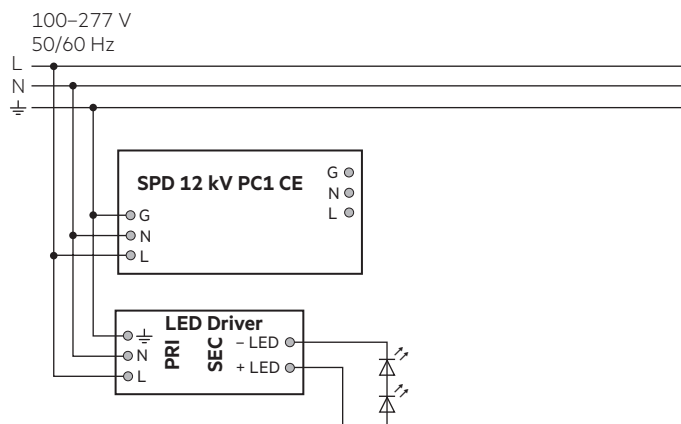
3. Installation / wiring

3.1 Circuit diagrams

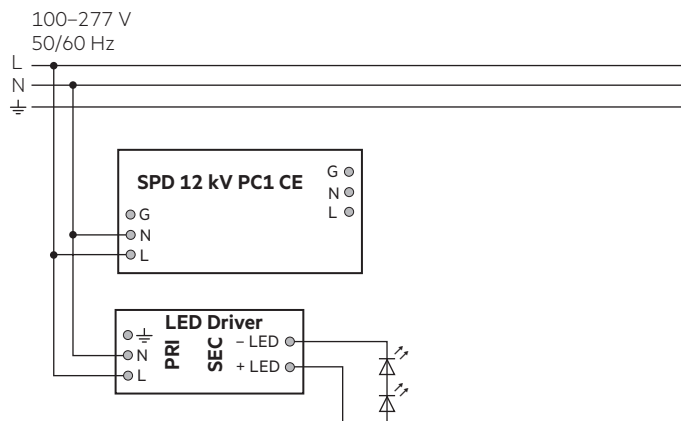


Input and output terminals are through wired.

LED driver is therefore connected parallel to the SPD and can be connected on primary or secondary terminal.



Wiring without earth for luminaires of protection class II:



3.2 Wiring type and cross section

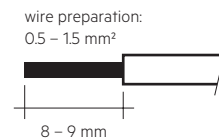
2 conductors with same cross section, stranded	0.25 – 0.75 mm²
Conductor cross section, flexible	0.5 – 1.5 mm²
2 conductors with same cross section, solid	0.25 – 0.75 mm²
Conductor cross section, solid	0.5 – 1.5 mm²

3.3 Wiring type and cross section

For wiring use wire from 0.5 – 1.5 mm².

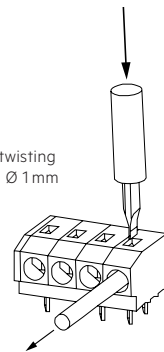
Strip 8 – 9 mm of insulation from the cables to ensure perfect operation of terminals.

LED module/LED driver/supply



3.4 Loose wiring

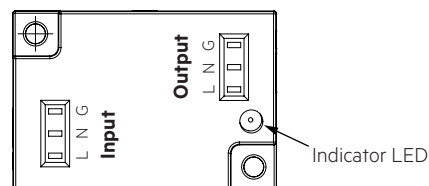
Loosen wire through twisting and pulling or using a Ø 1 mm release tool



4. Functions

4.1 Status indicator

Indicator LED turn on green when AC network is present and SPD is working. If indicator LED is off, the AC network is not present or the device is damaged and must be replaced by appropriately qualified expert personnel.



4.2 Fault indicator

Optical

5. Miscellaneous

5.1 Insulation testing

It is not necessary to disconnect the arrester during insulating strength measurement in electrical systems with 250 V because the measurements remain unaffected by the device.

5.2 Conditions of use and storage

Humidity:	5 % up to max. 95 %, not condensed
Storage temperature:	-40 °C up to max. +85 °C

5.3 Additional information

Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.