

MTL LS10N range

Surge and transient protection for LED lighting systems

- Protects LED lighting systems and drivers
- Space-saving footprint for mounting in confined locations
- Protects 120V-347V and 480V systems
- High performance to size ratio
- Fully automatic operation
- Models for both series and parallel connection
- UL1449 4th edition type 4CA recognized component
- IP66 protection allows for installation in extreme environments
- Unique hybrid technology
- 10 year product warranty



The LS range of surge protection devices are versatile high performance surge protection devices which can be used within a wide variety of equipment in industrial and commercial applications. The circuitry will protect equipment from damaging electrical transients and disturbances.

The space-saving footprint allows the LS range to be mounted in confined locations whilst providing protection the Line/Neutral, Line/Ground, and Neutral/Ground modes.

We provide a high performance-to-size ratio by utilizing a hybrid of Metal Oxide Varistor (MOV) alongside high energy gas discharge tube (GDT) technologies, together with a state-of-the-art failure disconnect network giving added peace of mind.

Fully automatic in operation, the LS range reacts immediately, clamping voltage surges without causing undue leakage losses under normal operation. No operator intervention is required, the LS range resets automatically and are maintenance-free.

High maximum operating voltage ranges allows the LS range to endure large over-voltage swings that damage most other SPDs. Low limiting voltage even at high surge current levels, provides optimal protection and ensures longevity of the LED drivers.

Parallel and Series versions are available. The LS10N-xxxx-S models are series-connected devices which automatically disconnect power to the load under fault conditions. The LS12N-xxxx-P are parallel connected devices which disconnect themselves from the load under fault conditions leaving power to the load.

Meeting and exceeding the requirements of ANSI/IEEE C62.45 and ANSI/IEEE C62.41 the LS range is also a UL1449 4th edition type 4 recognized component. With ingress protection to IP66 (NEMA 4X), the LS range can be installed in most locations and carries an unrivalled "no fuss" 10 year manufacturer's warranty.

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SPECIFICATION

SPD Type UL1449 4th edition: 4CA

Nominal discharge current

3kA (8/20 μ s)

Maximum surge current

Series connected units: 10kA (8/20 μ s)

Parallel connected units: 12kA (8/20 μ s)

Leakage current

<0.3mA

Maximum continuous operating current

5A series connected units

Unlimited Amps parallel connected units

Working voltage

LS10N-347V-S 120-347VAC, 47-63Hz

LS10N-480V-S 480VAC, 47-63Hz

LS10N-480V-S-PG 480VAC, 47-63Hz

LS12N-347V-P 120-347VAC, 47-63Hz

LS12N-480V-P 480VAC, 47-63Hz

LS10N-240V-PP 240 split phase, 47-63Hz

Ambient temperature limits

-40°C to +75°C (operating)

-40°F to +167°F (operating)

-40°C to +110°C (storage)

-40°F to +230°F (storage)

Casing

High Temperature ABS/PC UL94-5V

Weight

284 grams (10 oz.)

Dimensions

See Figures 1 & 2

Ingress protection

IP66 (NEMA 4X)

Approvals

UL1449 SPD Recognized Component (except PG and PP variant)

Type 4 Component Assembly

Standards

- ANSI/IEEE C62.41: 2002 Location C, High Exposure
- Meets Surge Protection Requirements of : US Air Force ETL 10-2 LED Fixture Design & Installation Criteria
- Commercial Building Energy Alliances (CBEA) LED Lighting Performance Specifications

Over Current Protection

A Suitable over current protector/ Class CC fuse needs to be used at the input of the SPD rated to 7A

ORDERING INFORMATION

Model	Circuit Type	Service	Modes	I _{max} (8/20 μ s)	MCOV(AC)	MLV @in	U _p @ 3kA
LS10N-347V-S	Series-Hybrid	120-347V,5A	L-N	10kA	420	1160	920
			L-G		420	2190	
			N-G		420	1160	
LS10N-480V-S	Series-Hybrid	277/480V,5A	L-L	10kA	510	2220	920
			L-G		320	1160	
LS12N-347V-P	Parallel-Hybrid	120-347V	L-N	12kA	420	1160	920
			L-G		420	2190	
			N-G		420	1160	
LS12N-480V-P	Parallel-Hybrid	277/480V	L-L	12kA	510	2220	920
			L-G		320	1160	
*LS10N-240V-PP	Series-Hybrid	240V split phase,5A	L-L	10kA	340	830	830
*LS10N-480V-S-PG	Series-Hybrid	480V,5A	L-G	10kA	560	1080	1080

*Not UL approved

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DIMENSIONS

Measured in inches [mm]

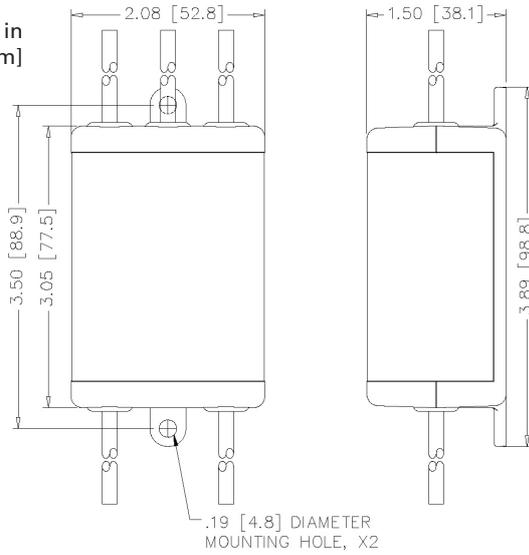


Figure 1: - LS10N models

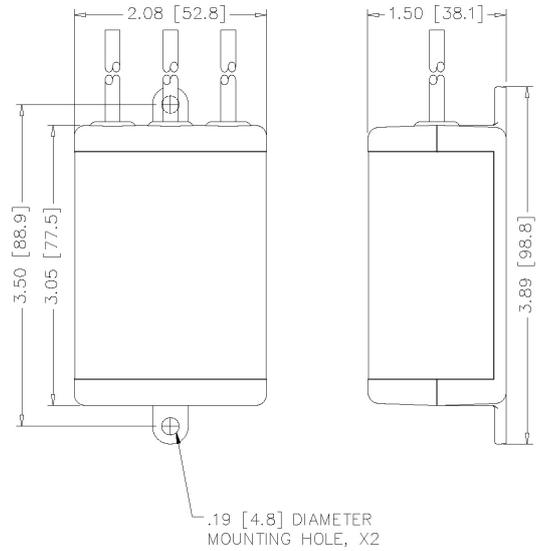


Figure 2: - LS12N models



Eaton Electric Limited,
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com

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EUROPE (EMEA):
+44 (0)1582 723633
mtlenquiry@eaton.com

THE AMERICAS:
+1 800 835 7075
mtl-us-info@eaton.com

ASIA-PACIFIC:
+65 6 645 9888
sales.mtlsing@eaton.com

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.