MTL LS 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 3rd edition type 4CA recognized component**
- **IP66 protection allows for installation in extreme environments**
- **Unique hybrid technology**
- **No external fusing required**
- **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.

The LS range has in-built overcurrent protection and therefore no additional external fusing is required. The two voltage models can handle operating voltages up to 480v, which reduces your inventory and cost.

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.

Only an ohmmeter is needed to test operational condition of our LS range. No additional test equipment is required.

Parallel and Series versions are available. The LS10N-xxxx-S2 models are series-connected devices which automatically disconnect power to the load under fault conditions. The LS12N-xxxx-P2 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 3rd 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.

Powering Business Worldwide

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SPECIFICATION

Maximum surge current
Series connected units: 10kA (8/20µs)
Parallel connected units: 12kA (8/20µs)

Leakage current
<0.3mA

Maximum continuous operating current
5A series connected units
Unlimited Amps parallel connected units

Working voltage
LS10N-347V-S2 120-347VAC, 47-63Hz
LS10N-480V-S2 480VAC, 47-63Hz
LS10N-480V-S-PG 480VAC, 47-63Hz
LS12N-347V-P2 120-347VAC, 47-63Hz
LS12N-480V-P2 480VAC, 47-63Hz

Ambient temperature limits
-40°C to +85°C (operating)
-40°F to +185°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 variant)
Type 4 Component Assembly

Standards
- ANSI/IEEE C62.41: 2002 Location C, High Exposure
- ANSI C136.2 10kV BIL
- 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

ORDERING INFORMATION

Model	Circuit Type	Service	Modes	Maximum Surge Current	Maximum Continuous Operating Voltage	U_p @ 3kA (8/20µs)	U_p @ 10kA (8/20µs)
LS10N-347V-S2	Series Hybrid	120-347V, 5A	L-N,L-G,N-G	10kA	420Vac	920V	1140V
LS10N-480V-S2	Series Hybrid	480V, 5A	L-L, L-G	10kA	510Vac	920V	1140V
LS10N-480V-S-PG	Series Hybrid	480V, 5A	L-L, L-G	10kA	560Vac	920V	1140V
LS12N-347V-P2	Parallel Hybrid	120-347V	L-N,L-G,N-G	12kA	420Vac	920V	1140V
LS12N-480V-P2	Parallel Hybrid	480V	L-L, L-G	12kA	510Vac	920V	1140V

DIMENSIONS

Measured in inches [mm]

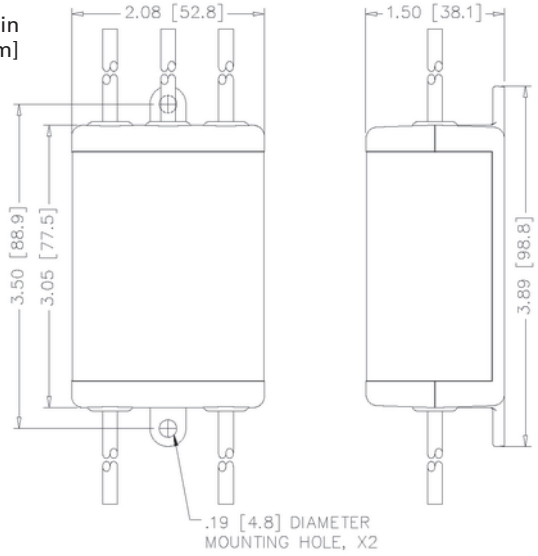

Figure 1: - LS10N models

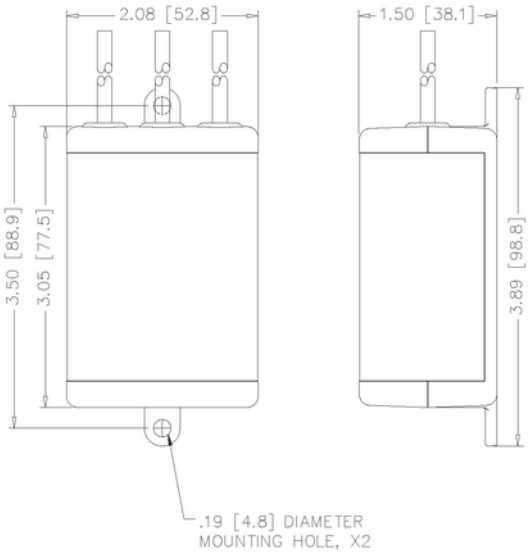

Figure 2: - LS12N models

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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.