

## LS05K range

### Surge and transient protection for LED lighting systems

- 10kA surge protection per mode
- Protects LED lighting systems and drivers
- Space-saving footprint for mounting in confined locations
- Protects 120V-277V, 347V & 440-480V systems
- High performance to size ratio
- Fully automatic operation
- Models for both series and parallel connection
- UL1449 4<sup>th</sup> edition type 4CA recognized component
- IP66 protection allows for installation in Extreme environments
- Thermally Protected MOV technology
- 5 year product warranty



The LS05K 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 LS05K range to be mounted in confined locations whilst providing protection the Line/ Neutral, Line/Ground, and Neutral/Ground modes.

A high performance-to-size ratio is provided utilizing a Thermally Protected Metal Oxide Varistor (TP-MOV) together with a state-of-the-art failure disconnect network giving added peace of mind.

Fully automatic in operation, the LS05K range reacts immediately, clamping voltage surges without causing undue leakage losses under normal operation. No operator intervention is required, the LS05K range resets automatically and are maintenance-free.

High maximum operating voltage ranges allows the LS05K 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 -S models are series-connected devices which automatically disconnect power to the load under fault conditions. The -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, ANSI C136.2 Enhanced– 10kV/5kA .LS05K range will also be UL1449 4<sup>th</sup> edition Type 4 recognized component. With ingress protection to IP66, the LS05K range can be installed in most locations and carries an unrivalled 5 year manufacturer's warranty.



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# MTL LS05K range

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## SPECIFICATION

**SPD Type according to UL1449, 4<sup>th</sup> edition: 4CA**

**SPD Type according to EN/IEC61643-11: T2+T3**

**Nominal Discharge Current**

$I_n$ -5kA(8/20 $\mu$ s)

**Maximum surge current**

$I_{max}$ -10kA(8/20 $\mu$ s)

**Leakage current**

<0.3mA

**Maximum continuous operating current**

5A series connected units  
Unlimited Amps parallel connected units

**Working voltage**

120-277V, 347V, 440-480V AC

**Ambient temperature limits**

**IEC 61643-11:2011**

-40°C/-40°F to +85°C/+185°F (Operating)  
-40°C/-40°F to +110°C/+230°F (storage)

**UL1449, 4<sup>th</sup> edition**

-40°C/-40°F to +75°C/+167°F (operating)  
-40°C/-40°F to +100°C/+212°F (storage)

**TOV withstand**

U<sub>T</sub>-402V (5sec)

**Response Time**

<25nS

**Casing**

High Temperature, PC UL94-V0

**Weight**

≈120 grams (4.2 oz.)

**Ingress protection**

IP66

**Approvals**

\*UL1449 SPD Recognized Component (Type 4 Component Assembly)

**Standards**

ANSI/IEEE C62.41: 2002 Location C, High Exposure  
ANSI C136.2-2015 Enhanced Level (10kV/5kA)  
ANSI C82.77-5:2015 – Location category C, Medium 10kV/5kA  
EN/IEC 61643-11:2011, T2+T3 device

**Over current protection**

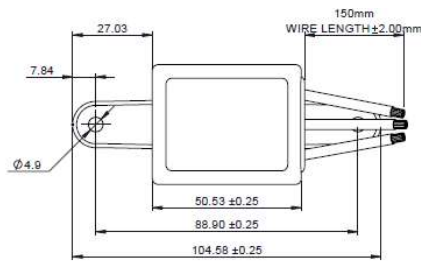
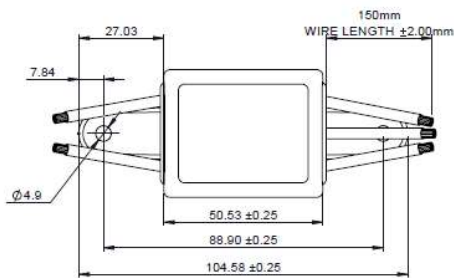
A Suitable 10A UL recognized over current protector/ fuse needs to be used at the input of the SPD

## ORDERING INFORMATION

\*Awaiting UL Approval for 347, 480V models

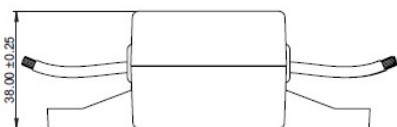
Model	Circuit Type	Service	Modes	MCOV	ANSI C136.2 Enhanced test	MLV@5kA/10kV as per ANSIC136.2	U <sub>D</sub> @ I <sub>n</sub> as per IEC61643-11	MLV as per UL1449
LS05K-277V-S	Series-All Mode	277V, 5A	L-N,L-G,N-G	320Vac	10kV/5kA	L-N: 1200V L-G: 1150V N-G: 1200V	L-N:1.2kV L-G:1.5kV N-G:1.5kV	L-N: 1150 L-G: 1350 N-G:1430
LS05K-277V-P	Parallel- All Mode	277V	L-N,L-G,N-G	320V ac	10kV/5kA	L-N: 1250V L-G: 1200V N-G: 1200V	L-N:1.5kV L-G:1.2kV N-G:1.2kV	L-N: 1870 L-G: 1860 N-G:1420
*LS05K-347V-S *LS05K-347V-P	Series/Parallel All Mode	347V, 5A	L-N,L-G,N-G	420Vac	10kV/5kA	TBA	TBA	TBA
*LS05K-480V-S *LS05K-480V-P	Series/Parallel 1-Stage	480V,5A	L-L, L-G	550Vac	10kV/5kA	TBA	TBA	TBA

## DIMENSIONS (in mm)



## Surge withstand rating

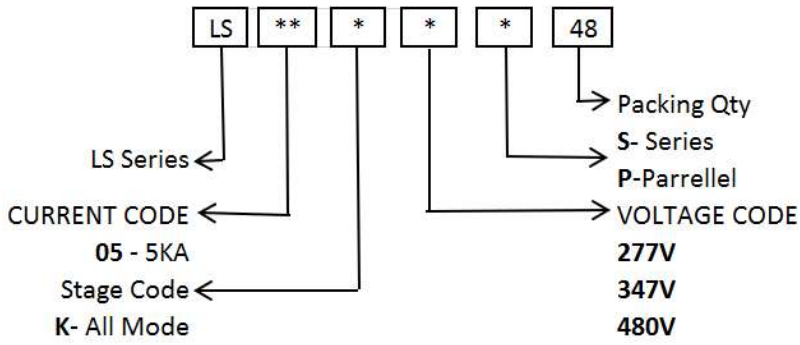
No of strike	Surge current(8/20 $\mu$ s)
1	10000 A
15	5000 A
100	3000 A
1000	1000 A
10000	500 A



Series (S) models

Parallel (P) models

## PART NUMBERING



## PACKING QUANTITY

Voltage	Quantity(Nos)
<b>277</b>	48
<b>347</b>	48
<b>480</b>	48

### To order specify :Please add prefix ML

<b>MLLS05K-277V-S48</b>	277V, Series,48 units of LS05K-277V-S	<b>MLLS05K-277V-P48</b>	277V, Parallel,48 units of LS05K-277V-P
<b>MLLS05K-347V-S48</b>	347V, Series,48 units of LS05K-347V-S	<b>MLLS05K-347V-P48</b>	347V, Parallel,48 units of LS05K-347V-P
<b>MLLS05K-480V-S48</b>	480V, Series, 48 units of LS05K-480V-S	<b>MLLS05K-480V-P48</b>	480V, Parallel,48 units of LS05K-480V-P



Powering Business Worldwide

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