Technical data
MTL surge protection

January 2020
EPS 901-252 Rev F

CROUSE-HINDS SERIES

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 4th 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.

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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 4th 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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Powering Business Worldwide

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MTL LS05K range

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SPECIFICATION

SPD Type according to UL1449,4th edition: 4CA

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

Nominal Discharge Current
In-5kA(8/20µs)

Maximum surge current
Imax-10kA(8/20µs)

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, 4th edition
-40°C/-40°F to +75°C/+167°F (operating)
-40°C/-40°F to +100°C/+212°F (storage)

TOV withstand
U_T-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

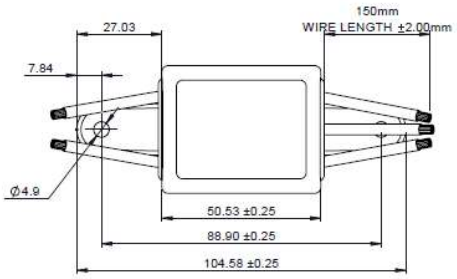
Over current protection
A Suitable 10A UL recognized over current protector/ fuse needs to be used at the input of the SPD

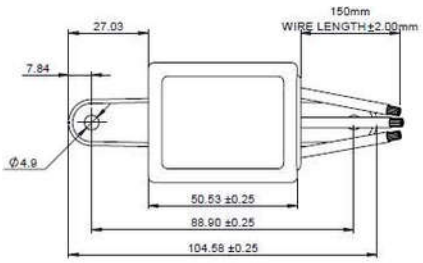
ORDERING INFORMATION

*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_D @ I_n 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

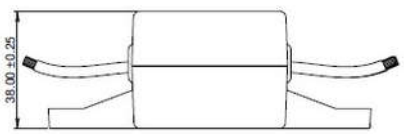
DIMENSIONS (in mm)





Surge withstand rating

No of strike	Surge current(8/20µs)
1	10000 A
15	5000 A
100	3000 A
1000	1000 A
10000	500 A

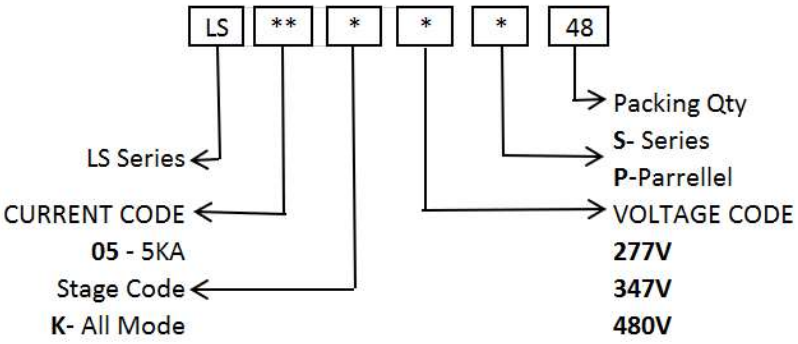


Series (S) models



Parallel (P) models

PART NUMBERING



PACKING QUANTITY

Voltage	Quantity(Nos)
277	48
347	48
480	48

To order specify :Please add prefix ML

MLLS05K-277V-S48	277V, Series,48 units of LS05K-277V-S	**MLLS05K-277V-P48**	277V, Parallel,48 units of LS05K-277V-P
MLLS05K-347V-S48	347V, Series,48 units of LS05K-347V-S	**MLLS05K-347V-P48**	347V, Parallel,48 units of LS05K-347V-P
MLLS05K-480V-S48	480V,Series, 48 units of LS05K-480V-S	**MLLS05K-480V-P48**	480V, Parallel,48 units of LS05K-480V-P

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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.