

Use case Lighting



Eaton's MDH fuses provide circuit protection for LED street lights



Transient voltage surges can be a major problem in areas of the country with extreme weather such as lightning storms. Surge Protection Devices (SPDs) are designed to divert such surges to ground and allow continued operation of loads such as street lights. However, these devices can be damaged creating a dangerous short circuit. Protecting street lights from short circuiting due to transient voltage surges is critical for the safety of homes, businesses and people.

Eaton's [MDH fuses](#) properly protect LED street lights from short circuits caused by damaged SPD components that may result from lightning strikes while allowing transient current spikes to pass thru functioning surge suppression components during normal operation. Utilizing a fuse designed to withstand such surges minimizes

downtime and maximizes the life of the street light.

Eaton designed the MDH to allow the right level of inrush current without opening, coupled with the right opening time and amount of protection under short circuit conditions. The MDH is the first 600 Vac rated quarter inch by one and one quarter inch fuse product (compliant to UL 248-14), allowing OEMs to design higher voltage compact SPDs for the first time. As a result, one OEM launched a 480 Vac SPD that provides the power density its end customers desire. By providing multiple voltage ratings, SPD OEMs can provide their customers with higher voltage and higher power density options for additional applications.

MDH Fuse

- Higher I^2t and higher breaking capacity than most ¼" ferrule fuses
- 600 Vac rated ferrule fuse that provides both primary and secondary circuit protection
- High voltage surge withstand capability
- 20 cycles of 1.2/50 μ s -8/20 μ s, 20 kV/10 kA surge
- UL248-14 compliant
- Ferrule and axial lead options
- Halogen free, lead free, RoHS compliant

Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com/electronics

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Printed in USA
Publication No. 10873 BU-MC19009
January 2019

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