

# POWR-GARD® Fuse Datasheet

## LVSP Surge Suppression Fuse

600 V ac • 5–100 kA 8/20  $\mu$ s



### Description

The Littelfuse Varistor Protection (LVSP) Fuses are intended for the protection of TVSS products. The LVSP series has been designed to survive 8/20  $\mu$ s lightning surges without opening. This allows the TVSS to perform the necessary suppression. The LVSP is not rated for continuous current and the ratings are specific 8/20  $\mu$ s surge capability. The LVSP series can be used to facilitate TVSS module compliance to UL 1449 in permanently connected applications (abnormal overvoltage, unlimited current conditions).

### Features/Benefits

- Very current limiting under AC short-circuit conditions
- Available in multiple mounting configurations (cartridge, bolt-in, PC board mount)
- Provides short circuit protection in TVSS systems and complements the Littelfuse line of overvoltage products (HA, HB34, TMOV® and iTMOV® varistors as well as the AK-10 series TVS diodes)

### Applications

- TVSS products
- Surge Protective Devices

### Specifications

|                               |                                       |
|-------------------------------|---------------------------------------|
| <b>Voltage Rating</b>         | 600 V ac                              |
| <b>Interrupting Rating</b>    | 200 kA                                |
| <b>Surge Withstand Rating</b> | 5–100 kA 8/20 $\mu$ s surge withstand |
| <b>Approvals</b>              | UL Recognized (File: E71611)          |
| <b>Environmental</b>          | RoHS Compliant                        |
| <b>Applicable Standards</b>   | UL 248-1                              |

### Recommended Fuse Blocks

#### LVSP (5-20)-2

L60030M (open block) • LPSM (dead front)

#### LVSP (30-80)-2

LFJ60030 (open block) • LFPSJ30 (dead front)

#### LVSP (100)

LFJ60100 (open block)

### Web Resources

Download other technical information:

[littelfuse.com/LVSP](http://littelfuse.com/LVSP)

### Electrical Specifications

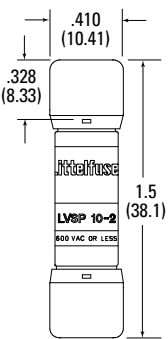
| SURGE RATING<br>(kA 8/20 $\mu$ s) | RATING<br>CODE | VOLTAGE<br>RATING (V) | INTERRUPT<br>RATING (kA) | CARTRIDGE         |                    | LEADED            |                    | BOLT-IN           |                    | NOMINAL<br>MELTING<br>I <sup>2</sup> T (A <sup>2</sup> S) | NOMINAL<br>CLEARING<br>I <sup>2</sup> T (A <sup>2</sup> S) | I <sub>peak</sub> @100 kA<br>60 Hz (A) |
|-----------------------------------|----------------|-----------------------|--------------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-----------------------------------------------------------|------------------------------------------------------------|----------------------------------------|
|                                   |                |                       |                          | CATALOG<br>NUMBER | ORDERING<br>NUMBER | CATALOG<br>NUMBER | ORDERING<br>NUMBER | CATALOG<br>NUMBER | ORDERING<br>NUMBER |                                                           |                                                            |                                        |
| 5                                 | 0005           | 600                   | 200                      | LVSP5-2           | LVSP0005TX2        | LVSP5-R           | LVSP0005TXR        | —                 | —                  | 359                                                       | 981                                                        | 3,700                                  |
| 10                                | 0010           | 600                   | 200                      | LVSP10-2          | LVSP0010TX2        | LVSP10-R          | LVSP0010TXR        | —                 | —                  | 1,300                                                     | 3,210                                                      | 5,823                                  |
| 15                                | 0015           | 600                   | 200                      | LVSP15-2          | LVSP0015TX2        | LVSP15-R          | LVSP0015TXR        | —                 | —                  | 3,267                                                     | 6,235                                                      | 7,765                                  |
| 20                                | 0020           | 600                   | 200                      | LVSP20-2          | LVSP0020TX2        | LVSP20-R          | LVSP0020TXR        | —                 | —                  | 4,940                                                     | 11,710                                                     | 8,135                                  |
| 30                                | 0030           | 600                   | 200                      | LVSP30-2          | LVSP0030TX2        | —                 | —                  | LVSP30            | LVSP0030T          | 11,950                                                    | 35,325                                                     | 12,478                                 |
| 40                                | 0040           | 600                   | 200                      | LVSP40-2          | LVSP0040TX2        | —                 | —                  | LVSP40            | LVSP0040T          | 20,550                                                    | 61,700                                                     | 15,250                                 |
| 60                                | 0060           | 600                   | 200                      | LVSP60-2          | LVSP0060TX2        | —                 | —                  | LVSP60            | LVSP0060T          | 39,240                                                    | 145,555                                                    | 19,604                                 |
| 80                                | 0080           | 600                   | 200                      | LVSP80-2          | LVSP0080TX2        | —                 | —                  | LVSP80            | LVSP0080T          | 75,000                                                    | 254,000                                                    | 24,600                                 |
| 100                               | 0100           | 600                   | 200                      | —                 | —                  | —                 | —                  | LVSP100-L         | LVSP0100VXL        | 160,747                                                   | 413,000                                                    | 36,600                                 |

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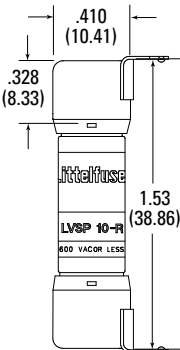
## LVSP Surge Suppression Fuse

### Dimensions Inches (mm)

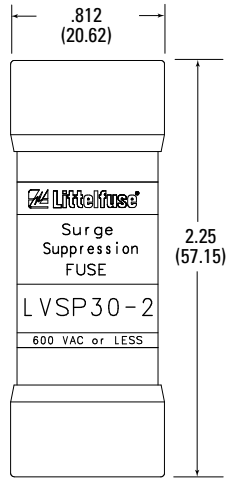
Cartridge 5-20 kA



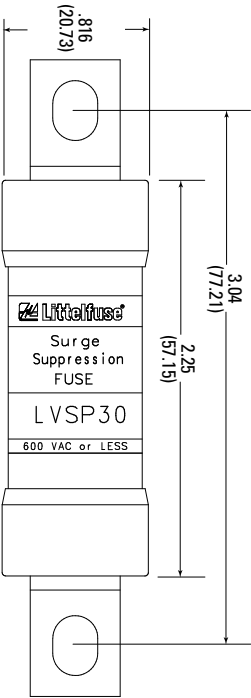
Leaded 5-20 kA



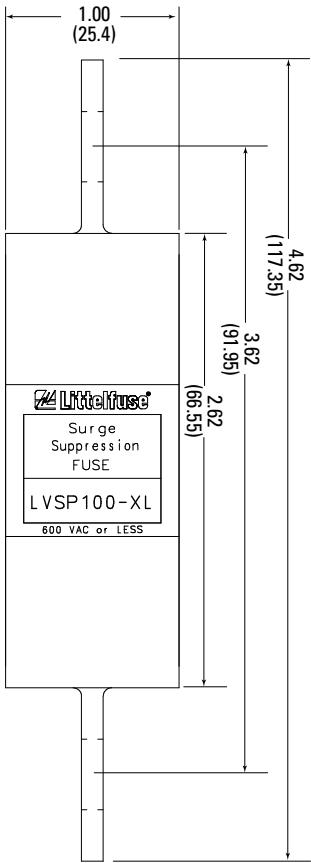
Cartridge 30-80 kA



Bolt-In 30-80 kA



Bolt-In 100 kA



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