

# MEGA® High Performance Series

## Bolt-down Fuses – Rated 70V-SF56



### Description

MEGA® 70V High Performance SF56 automotive fuses employ diffusion pill technology to provide predictable time-delayed circuit protection. These MEGA fuses are ideal for protecting batteries, alternators, and heavy gauge wire harnesses that experience large inrushes of current. Use fuses with ampere ratings between 350 A and 500 A only for short circuit protection.

### Features & Benefits

- 1 Mohm open state resistance at 100 V
- High tightening torque resistance
- High-contrast color coding on housing aids identification
- Available with two, one, or no mounting holes
- 56 mm pitch prevents mistaken replacement with other types of highcurrent fuses
- Comply with ISO 20934 – Type SF56

### Applications

- Cars / SUVs
- Buses
- Trucks
- Watercraft as approved by Littelfuse®
- Offroad vehicles

[See Disclaimer Notice](#)

### Specifications

|                                               |                                                  |
|-----------------------------------------------|--------------------------------------------------|
| <b>Voltage Rating:</b>                        | 70 V DC                                          |
| <b>Interrupting Rating:</b>                   | 2500 A @ 70 V DC                                 |
| <b>Recommended Environmental Temperature:</b> | –40 °C to +125 °C                                |
| <b>Terminals Material:</b>                    | Tin-plated copper alloy                          |
| <b>Housing Material:</b>                      | PPA-GF33HS<br>(U.L. 94 Flammability rating - HB) |
| <b>Open State Resistance (OSR):</b>           | > 1 Mohm (after fuse opening) at 100 V           |
| <b>Typical Weight per Fuse:</b>               | 12.0 g                                           |
| <b>Mounting Torque M6:</b>                    | 9 Nm ± 1 Nm                                      |
| <b>Mounting Torque M8:</b>                    | 20 Nm ± 1 Nm                                     |
| <b>Comply with:</b>                           | ISO 20934 - Type SF56                            |

### Additional Information



Resources



Samples

### Ordering Information

| Part Number   | Current Rating (A) | Bolt Size | Bolt Hole Qty. | Package Size |
|---------------|--------------------|-----------|----------------|--------------|
| 0898xxx.U-2M8 | 60 - 500           | M8        | 2              | 500          |
| 0898xxx.U-1M8 | 60 - 500           | M8        | 1              | 500          |
| 0898xxx.U-2M6 | 60 - 500           | M6        | 2              | 500          |
| 0898xxx.U-1M6 | 60 - 500           | M6        | 1              | 500          |
| 0898xxx.U-NH  | 60 - 500           | -         | -              | 500          |

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### Ratings

| Part Number | Current Rating (A) | Font Color                                                                        | Test Cable Size (mm <sup>2</sup> ) | Typ. Voltage Drop (mV) | Typ. Cold Resistance (mΩ) | Typ. I <sup>2</sup> t (A <sup>2</sup> s) |
|-------------|--------------------|-----------------------------------------------------------------------------------|------------------------------------|------------------------|---------------------------|------------------------------------------|
| 0898060._   | 60                 |  | 6                                  | 75.5                   | 0.90                      | 22 800                                   |
| 0898080._   | 80                 |  | 10                                 | 88.0                   | 0.75                      | 34 900                                   |
| 0898100._   | 100                |  | 10                                 | 66.7                   | 0.46                      | 24 000                                   |
| 0898125._   | 125                |  | 16                                 | 70.4                   | 0.37                      | 38 000                                   |
| 0898150._   | 150                |  | 25                                 | 70.6                   | 0.32                      | 58 100                                   |
| 0898175._   | 175                |  | 25                                 | 79.2                   | 0.28                      | 79 300                                   |
| 0898200._   | 200                |  | 35                                 | 76.9                   | 0.24                      | 123 600                                  |
| 0898225._   | 225                |  | 35                                 | 76.6                   | 0.21                      | 142 500                                  |
| 0898250._   | 250                |  | 50                                 | 66.0                   | 0.17                      | 220 000                                  |
| 0898300._   | 300                |  | 50                                 | 46.9 <sup>2</sup>      | 0.15                      | 340 000                                  |
| 0898350._   | 350 <sup>1</sup>   |  | 50                                 | 50.7 <sup>2</sup>      | 0.14                      | 495 000                                  |
| 0898400._   | 400 <sup>1</sup>   |  | 70                                 | 50.1 <sup>2</sup>      | 0.12                      | 872 000                                  |
| 0898450._   | 450 <sup>1</sup>   |  | 70                                 | 52.9 <sup>2</sup>      | 0.10                      | 1 224 000                                |
| 0898500._   | 500 <sup>1</sup>   |  | 70                                 | 56.3 <sup>2</sup>      | 0.09                      | 1 800 000                                |

<sup>1</sup> Short Circuit Protector only

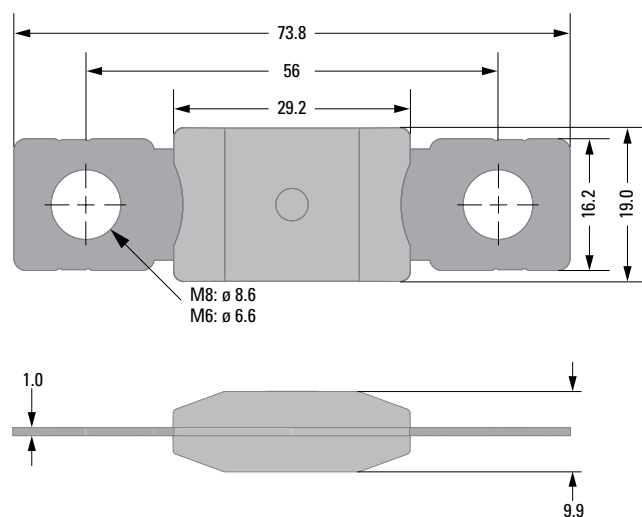
<sup>2</sup> Voltage Drop measurements for short circuit protectors taken at 75% of rated current.

**Note:** The typical I<sup>2</sup>t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

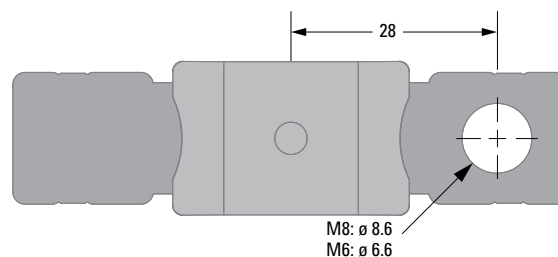
### Dimensions

Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.

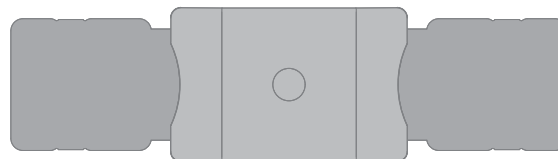
MEGA HP SF56 2 Holes M8/M6 versions



MEGA HP SF56 1 Hole M8/M6 versions



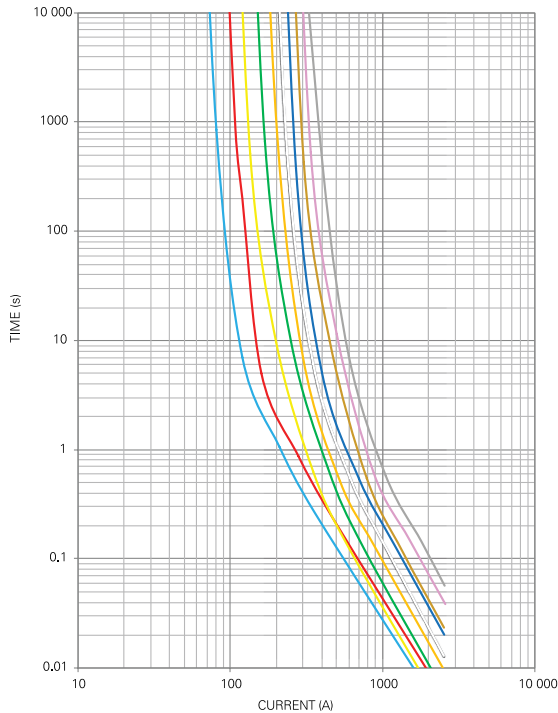
MEGA HP SF56 No-Holes version



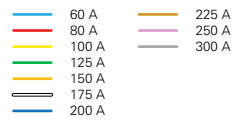
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## Bolt-down Fuses – Rated 70V-SF56

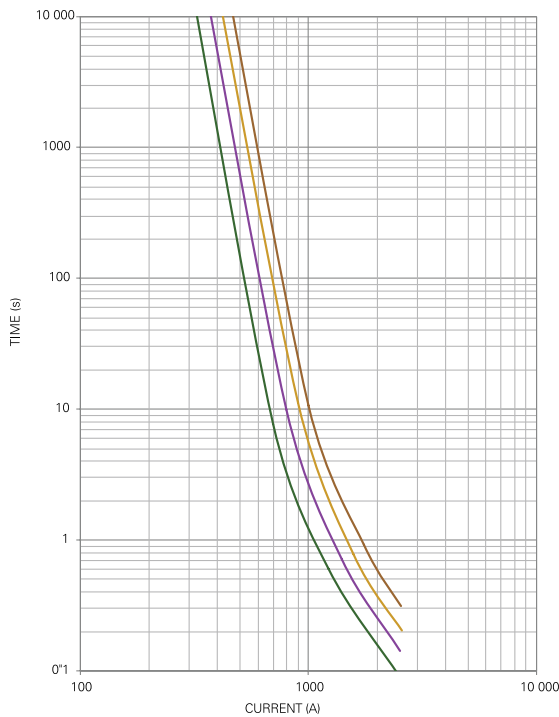
### Time-Current Characteristic



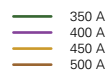
| % of Rating | Opening Time Min. / Max. (s) |            |
|-------------|------------------------------|------------|
|             | 60 - 250 A                   | 300 A      |
| 75          | - / -                        | 14 400 / - |
| 100         | 14 400 / -                   | - / -      |
| 135         | 120 / 1800                   | 120 / 1800 |
| 150         | 20 / 450                     | 20 / 450   |
| 200         | 1 / 15                       | 1 / 15     |
| 350         | 0.3 / 5                      | 0.3 / 5    |
| 600         | 0.1 / 1                      | 0.1 / 1    |



**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.



| % of Rating | Opening Time Min. / Max. (s) |
|-------------|------------------------------|
|             | 350 - 500 A                  |
| 75          | 14 400 / -                   |
| 100         | - / -                        |
| 135         | - / -                        |
| 150         | - / -                        |
| 200         | 1 / 15                       |
| 350         | 0.5 / 5                      |
| 600         | 0.1 / 1                      |



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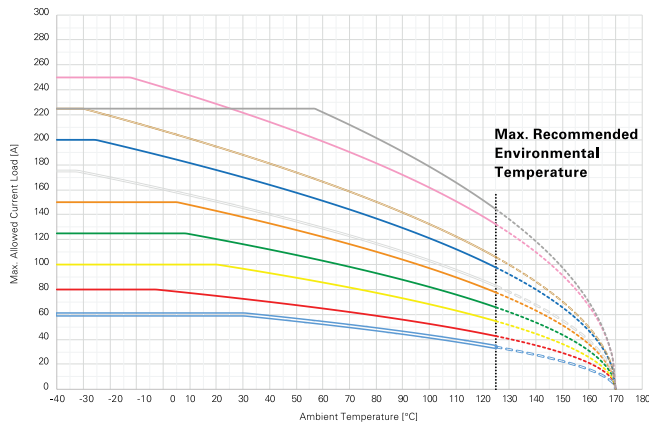
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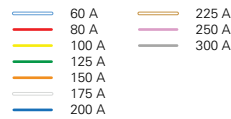
### Typical Derating Curves

Temperature security margin is 20%.

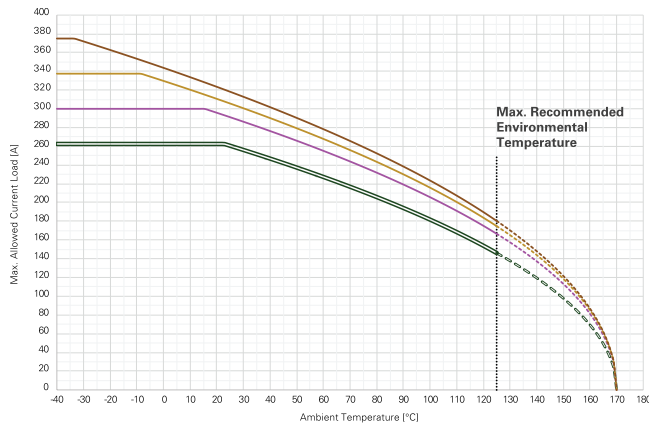
Please contact Littelfuse® for Details Regarding Derating Test Set Up.



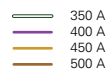
| Max. allowed current load (A) at ambient temperature based on typical derating |        |      |       |       |       |        |        |
|--------------------------------------------------------------------------------|--------|------|-------|-------|-------|--------|--------|
|                                                                                | -40 °C | 0 °C | 20 °C | 65 °C | 85 °C | 110 °C | 125 °C |
| <b>60A</b>                                                                     | 60     | 60   | 60    | 52    | 47    | 39     | 34     |
| <b>80A</b>                                                                     | 80     | 79   | 75    | 63    | 57    | 49     | 43     |
| <b>100A</b>                                                                    | 100    | 100  | 100   | 84    | 75    | 63     | 55     |
| <b>125A</b>                                                                    | 125    | 125  | 120   | 101   | 90    | 76     | 66     |
| <b>150A</b>                                                                    | 150    | 150  | 143   | 119   | 107   | 90     | 78     |
| <b>175A</b>                                                                    | 175    | 160  | 151   | 126   | 114   | 95     | 83     |
| <b>200A</b>                                                                    | 200    | 187  | 176   | 148   | 133   | 112    | 98     |
| <b>225A</b>                                                                    | 225    | 207  | 195   | 163   | 146   | 123    | 106    |
| <b>250A</b>                                                                    | 250    | 242  | 229   | 194   | 177   | 151    | 132    |
| <b>300A</b>                                                                    | 225    | 225  | 225   | 217   | 196   | 166    | 144    |



**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.



| Max. allowed current load (A) at ambient temperature based on typical derating |        |      |       |       |       |        |        |
|--------------------------------------------------------------------------------|--------|------|-------|-------|-------|--------|--------|
|                                                                                | -40 °C | 0 °C | 20 °C | 65 °C | 85 °C | 110 °C | 125 °C |
| <b>350A</b>                                                                    | 263    | 263  | 263   | 222   | 200   | 168    | 146    |
| <b>400A</b>                                                                    | 300    | 300  | 296   | 250   | 226   | 191    | 167    |
| <b>450A</b>                                                                    | 338    | 330  | 311   | 262   | 237   | 201    | 175    |
| <b>500A</b>                                                                    | 375    | 344  | 323   | 272   | 246   | 207    | 180    |



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