



ZCASE Single Mega/Starter Fuse

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The Single ZCASE is a Minimal Footprint Bolt Down Fuse with a wide rating range up to 600A in the same packaging size. The Time Current characteristic is similar to the well known MEGA Design and can be used as full wire protection until 250A. Higher ratings mostly used for typically Starter Fuse application as a protector fuse. The fuse design is optimized for a one bolt connection M6 (40A - 250A) or M8 (300A - 600A) and can be used directly on a battery post or busbar connection. Littelfuse is offering a complete solution for the necessary stud and different busbar connections including some battery clamps.

### Specifications

|                        |                   |
|------------------------|-------------------|
| Operating temperature: | -40 to 125°C      |
| Housing Material:      | PPA-GF33HS        |
| Insulating Tube:       | Out of ceramic    |
| Terminal:              | Tin plated Copper |
| Voltage Rating:        | 32V DC            |
| Interrupting Rating:   | 2000A @ 32V VDC   |
| Mounting Torque M6:    | 9.8Nm±1.4Nm       |
| Mounting Torque M8:    | 14Nm±2Nm          |

### Ordering Information

| Part Number   | Package Size |
|---------------|--------------|
| 3298XXX.ZXSTA | 480          |
| 3298XXX.Z     | 480          |
| 3298XXX.H     | 100          |

### Time-Current Characteristics

| % of Rating | Opening Time Min / Max (s) |                           |
|-------------|----------------------------|---------------------------|
|             | 40A - 250A                 | 300A - 600A               |
| 50          | - / -                      | 14,400 / -                |
| 100         | 14,400 / -                 | - / -                     |
| 135         | 120 / 1800                 | - / -                     |
| 200         | 1 / 15                     | 1 / 40                    |
| 350         | 0.300 / 5                  | 0.300 / 5                 |
| 500         | - / -                      | 0.100 / 1 (only for 500A) |
| 600         | 0.100 / 1                  | 0.100 / 1 (except 600A)   |

### Ratings

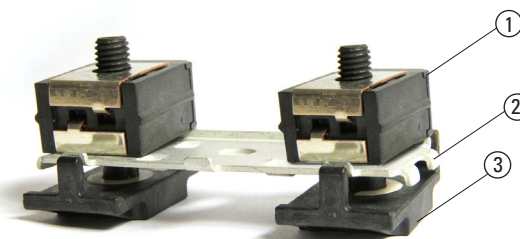
| Part number   | Current Rating (A) | Wire size (mm²) | Max. Voltage Drop (mV) | Average Cold Resistance (mΩ) | I²t (A²s) |
|---------------|--------------------|-----------------|------------------------|------------------------------|-----------|
| 3298040._     | 40                 | 4               | 110                    | 1.53                         | 5000      |
| 3298060._     | 60                 | 6               | 110                    | 0.98                         | 18000     |
| 3298080._     | 80                 | 10              | 110                    | 0.715                        | 15500     |
| 3298100._     | 100                | 16              | 110                    | 0.57                         | 31000     |
| 3298125._     | 125                | 16              | 110                    | 0.39                         | 45000     |
| 3298150._     | 150                | 25              | 110                    | 0.32                         | 75000     |
| 3298175._     | 175                | 25              | 110                    | 0.26                         | 140000    |
| 3298200._     | 200                | 35              | 110                    | 0.231                        | 235000    |
| 3298225._     | 225                | 35              | 110                    | 0.175                        | 95000     |
| 3298250._     | 250                | 50              | 110                    | 0.167                        | 160000    |
| 3298300.ZXSTA | 300                | 35              | 70                     | 0.128                        | 310000    |
| 3298350.ZXSTA | 350                | 35              | 70                     | 0.103                        | 570000    |
| 3298400.ZXSTA | 400                | 50              | 70                     | 0.084                        | 870000    |
| 3298500.ZXSTA | 500                | 50              | 70                     | 0.065                        | 1550000   |
| 3298600.ZXSTA | 600                | 50              | 70                     | 0.049                        | 3000000   |
| 3298900._     | SHUNT              | 50              | -                      | -                            | -         |



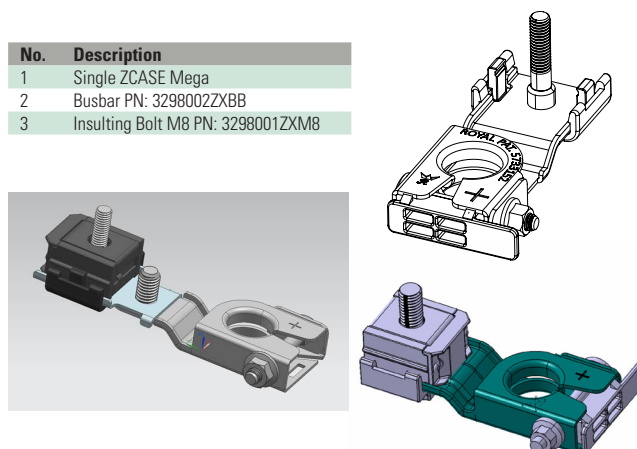
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## Examples of Single ZCASE Applications

Dimensions in mm

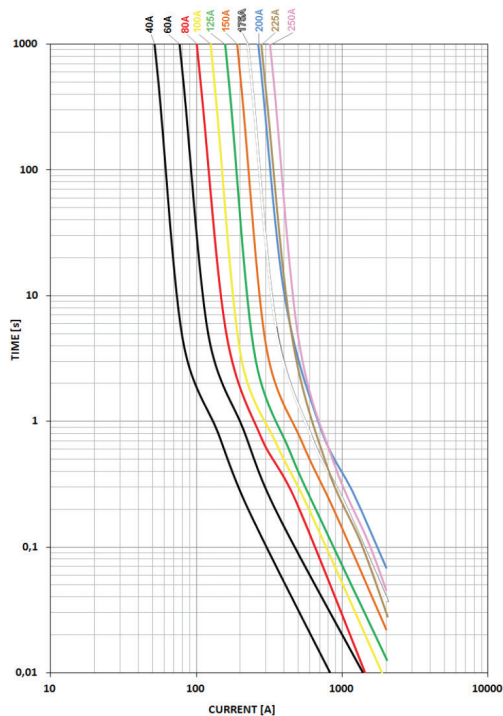


| No. | Description                        |
|-----|------------------------------------|
| 1   | Single ZCASE Mega                  |
| 2   | Busbar PN: 3298002ZXBB             |
| 3   | Insulating Bolt M8 PN: 3298001ZXM8 |

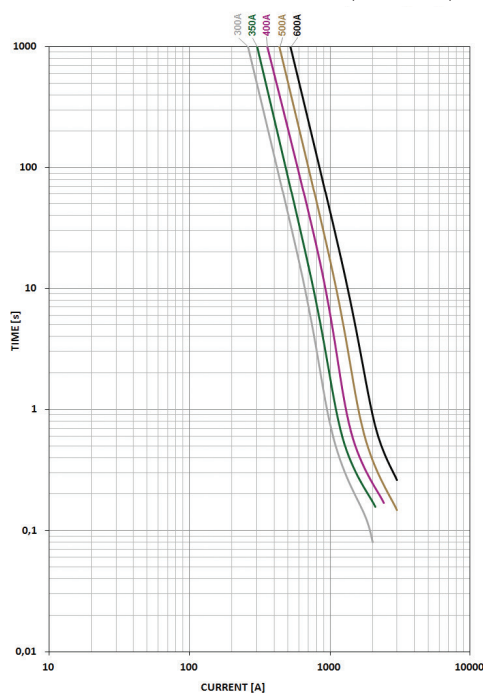


Please contact your Littelfuse representative for application support and information on mating hardware.

## Reference Time-Current Characteristic Curves (Recorded@23°)



Reference Time-Current Characteristic Curves (Recorded@23°)



All ZCASE Starters T/C curves were performed on the left or right side of the metal bar as shown in pictures above. A 50mm<sup>2</sup> Cu wire was mounted at the mid hole (M8) of the metal bar as current feed.