

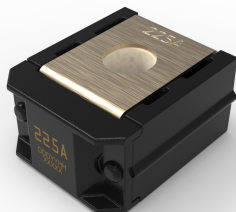
ZCASE® Single MEGA/Starter Fuses

Rated 32V

RoHS

Specifications

| | |
|---|--|
| Voltage Rating: | 32 V DC |
| Interrupting Rating: | 2000 A @ 32 V DC |
| Recommended Environmental Temperature: | -40 °C to +125 °C |
| Terminals Material: | Tin-plated copper |
| Housing Material: | PPA-GF33HS (UL 94 Flammability rating of HB) |
| Mounting Torque M6 | 9.8 Nm ± 1.4 Nm |
| Mounting Torque M8 | 14 Nm ± 2 Nm |
| Insulating Tube: | Ceramic |



Description

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 are mostly used for typically Starter Fuse applications as protector fuses. 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.

Features & Benefits

- One-bolt connection
- Compact design
- Can mount on a battery post, starter, or busbar
- SHUNT version available
- High-contrast ampere rating stamp aids identification
- Space saving

Applications

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

Ordering Information

| Part Number | Current Rating (A) | Package Size |
|---------------|--------------------|--------------|
| 3298XXX.ZXSTA | 300-600 | 480 |
| 3298XXX.Z | 40-250 SHUNT | 480 |
| 3298XXX.H | 40-600 | 100 |

ZCASE® Single MEGA/Starter Fuses

Rated 32V

Ratings

| Part number | Current Rating (A) | Test Cable Size (mm ²) | Typ. Voltage Drop (mV) | Typ. Cold Resistance (mΩ) | I ² t (A ² s) |
|---------------------------|--------------------|------------------------------------|------------------------|---------------------------|-------------------------------------|
| 3298040.Z / 3298040.H | 40 | 4 | 86 | 1.53 | 5,000 |
| 3298060.Z / 3298060.H | 60 | 6 | 83 | 0.98 | 18,000 |
| 3298080.Z / 3298080.H | 80 | 10 | 80 | 0.72 | 15,500 |
| 3298100.Z / 3298100.H | 100 | 16 | 88 | 0.57 | 31,000 |
| 3298125.Z / 3298125.H | 125 | 16 | 71 | 0.39 | 45,000 |
| 3298150.Z / 3298150.H | 150 | 25 | 83 | 0.32 | 75,000 |
| 3298175.Z / 3298175.H | 175 | 25 | 82 | 0.26 | 140,000 |
| 3298200.Z / 3298200.H | 200 | 35 | 92 | 0.23 | 235,000 |
| 3298225.Z / 3298225.H | 225 | 35 | 86 | 0.18 | 95,000 |
| 3298250.Z / 3298250.H | 250 | 50 | 88 | 0.17 | 160,000 |
| 3298300.ZXSTA / 3298300.H | 300 ¹ | 35 | 29 ² | 0.13 | 310,000 |
| 3298350.ZXSTA / 3298350.H | 350 ¹ | 35 | 30 ² | 0.10 | 570,000 |
| 3298400.ZXSTA / 3298400.H | 400 ¹ | 50 | 30 ² | 0.08 | 870,000 |
| 3298500.ZXSTA / 3298500.H | 500 ¹ | 50 | 34 ² | 0.07 | 1,550,000 |
| 3298600.ZXSTA / 3298600.H | 600 ¹ | 50 | 36 ² | 0.05 | 3,000,000 |
| 3298900.Z / | SHUNT | 50 | - | - | - |

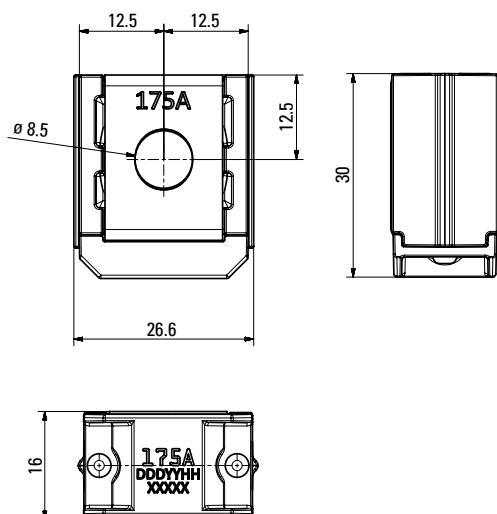
Note 1 STARTER fuses

Note 2 Voltage Drop taken at 50% of Rated Current

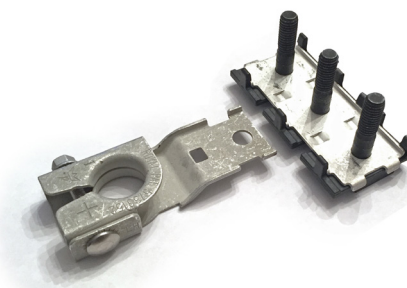
The typical I²t is an average value calculated from the breaking capacity tests by using the melting time before arcing occurs.

Dimensions

Dimensions in mm for reference only.
See outline drawing for dimensions and tolerances.



Assembly Components (sold separately)



| Part No. | Description |
|--------------|--|
| 882-853 | 3-Way Bus Bar with M8 Insulating Bolts Assembly* |
| 882-854 | 2-Way Bus Bar with M8 Insulating Bolts Assembly* |
| 876-199 | Battery Terminal Mount |
| 32980001ZXM8 | M8 Insulating Bolt |

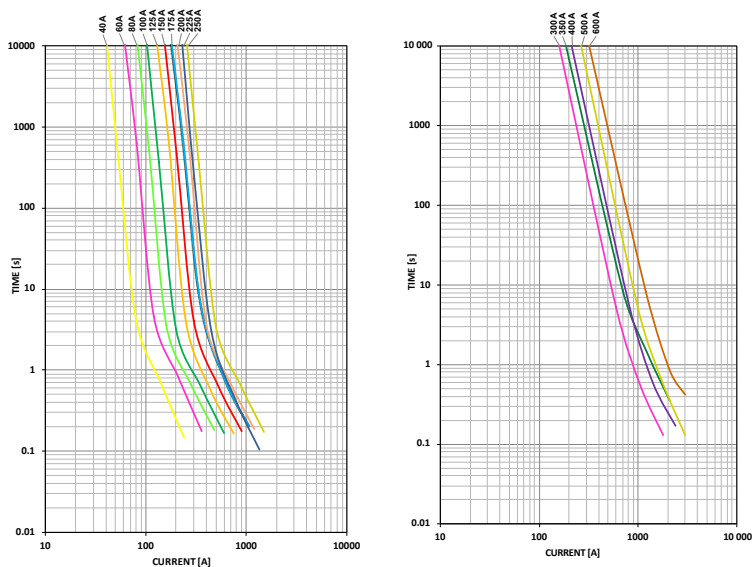
*M8 Nuts not included

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

ZCASE® Single MEGA/Starter Fuses

Rated 32V

Time-Current Characteristic Curves

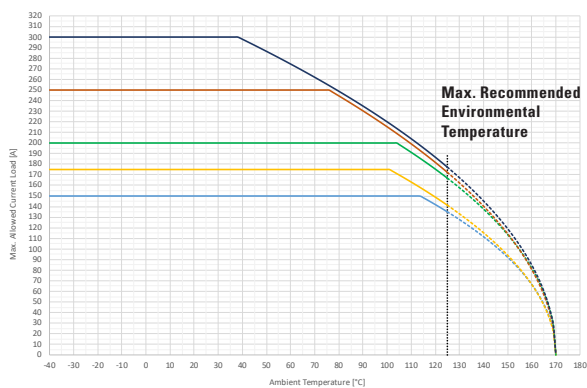
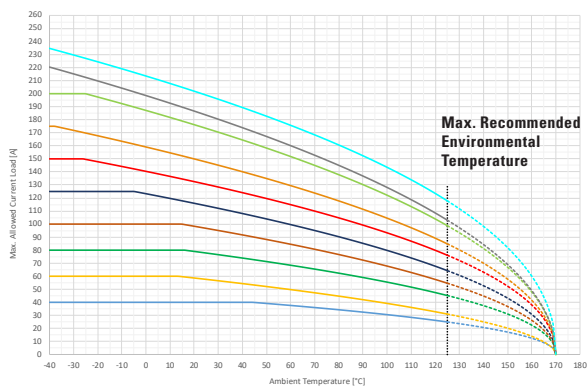


Time-Current Characteristics

| % of Rating | Opening Time Min / Max (s) | | |
|-------------|----------------------------|------------|------------|
| | 40-250 A | 300-500 A | 600 A |
| 50 | - / - | 14 400 / ∞ | 14 400 / ∞ |
| 100 | 14 400 / ∞ | - / - | - / - |
| 135 | 120 / 1800 | - / - | - / - |
| 200 | 1 / 15 | 1 / 40 | 1 / 40 |
| 350 | 0.3 / 5 | 0.3 / 5 | 0.3 / 5 |
| 500 | - / - | - / - | 0.1 / 1 |
| 600 | 0.1 / 1 | 0.1 / 1 | - / - |

Typical Derating of Fuse Melting Element

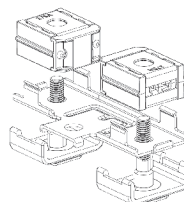
Temperature security margin is 20 %.
Please contact Littelfuse for details regarding derating test setup.



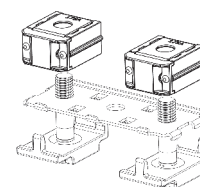
Temperature Table

| | Max. allowed current load (A) at ambient temperature (typical derating) | | | | | | |
|--------------|---|------|-------|-------|-------|--------|--------|
| | -40 °C | 0 °C | 20 °C | 65 °C | 85 °C | 110 °C | 125 °C |
| 40 A | 40 | 40 | 40 | 37 | 33 | 28 | 25 |
| 60 A | 60 | 60 | 59 | 49 | 43 | 36 | 31 |
| 80 A | 80 | 80 | 79 | 67 | 61 | 52 | 45 |
| 100 A | 100 | 100 | 98 | 83 | 75 | 63 | 55 |
| 125 A | 125 | 123 | 116 | 97 | 88 | 74 | 64 |
| 150 A | 150 | 140 | 133 | 112 | 102 | 87 | 76 |
| 175 A | 175 | 159 | 150 | 127 | 115 | 97 | 85 |
| 200 A | 200 | 187 | 176 | 148 | 134 | 113 | 99 |
| 225 A | 220 | 199 | 187 | 157 | 141 | 119 | 103 |
| 250 A | 235 | 214 | 202 | 172 | 157 | 134 | 118 |
| 300 A | 150 | 150 | 150 | 150 | 150 | 150 | 135 |
| 350 A | 175 | 175 | 175 | 175 | 175 | 163 | 141 |
| 400 A | 200 | 200 | 200 | 200 | 200 | 191 | 167 |
| 500 A | 250 | 250 | 250 | 250 | 238 | 199 | 172 |
| 600 A | 300 | 300 | 300 | 268 | 242 | 204 | 177 |

All tests were performed on the left or right side of the metal bar as shown in the pictures. A 50mm² Cu wire was mounted at the mid hole (M8) as current feed.



Zcase Mega Fixture



Zcase Starter Fixture

Derating curves may change depending on the final condition of the application (terminals characteristics, wire size etc.). Please ask Littelfuse for more information.