



**PROTECT
CONTROL
SENSE**



New product introduction

MEGA+ RIVET

PVB Protection, TM
11th April 2024 – Rev. L

 **Littelfuse®**
Expertise Applied | Answers Delivered

MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



OVERVIEW



[MEGA Plus Rivet Series - High Current Fuses](#)

The **MEGA+® RIVET** fuse is designed for high current circuit protection and provides time delay characteristics.

Available in different mounting configurations, the **MEGA+® RIVET** fuse covers a wide range of rating (80 A up to 500 A) with the same terminal thickness of 0.8 mm.

The four metal rivets improve the mechanical resistance to stress, tightening torques and forces generated by eventual short-circuits, making this new bolt-down fuse extremely robust.

High contrast OCR white marking is ideal for camera reading in the assembly lines.

The **MEGA+® RIVET** Fuse is ideal for battery and alternator protection application and other heavy gauge cables requiring ultra-high current protection.

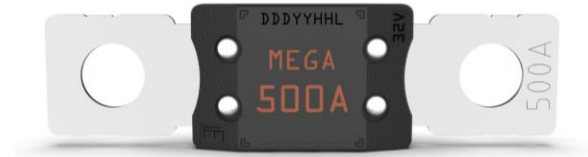
MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



GENERAL SPECIFICATIONS

| | |
|-------------------------------------|---|
| Interrupting Rating: | 2000A @32VDC |
| Voltage Rating: | 32VDC |
| Operating Temperature Range: | -40 °C up to +125 °C |
| Housing Material: | PET-GF30FR |
| Flammability acc. UL94: | V0 |
| Terminal Material: | Copper alloy |
| Terminal Plating: | Tin |
| Typical Weight per fuse: | 12 g |
| M6 Mounting Torque: | 8-14 Nm - recommended range value |
| M8 Mounting Torque: | 12-18 Nm - recommended range value (25 Nm max. allowed) |
| Refer to: | ISO 8820-5 |
| Fuse rating: | 80 A – 500 A |



MEGA+ RIVET Series

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FEATURES & BENEFITS

- ISO-compliant OCR-A Font (high contrast)
- Tin plated Terminals
- High torque withstand ability (up to 25 Nm)
- Housing Material acc. UL94 V0
- Terminal thickness of 0.8 mm over all ratings (80A up to 500A)
- Laser marked date code
- Variant range:
 - 2-Holes (M6/ M8)
 - 1-Hole (M6/M8)
 - No-holes (clinch version)



2-Holes M6/M8



1-Hole M6/M8



No-Holes

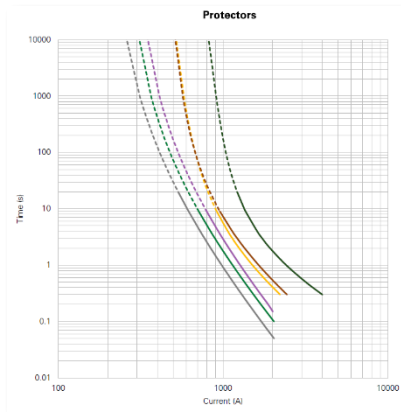
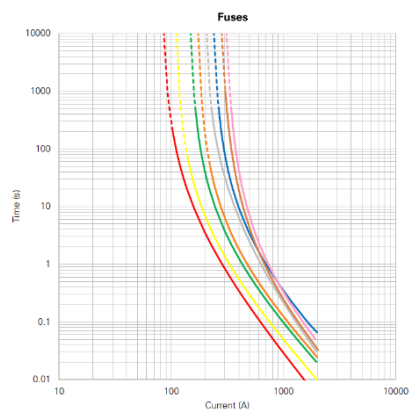
MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



PERFORMANCES – OPERATING TIMES

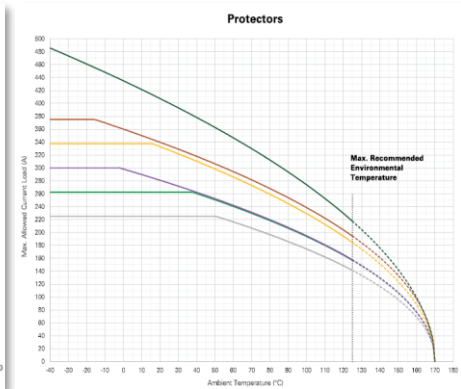
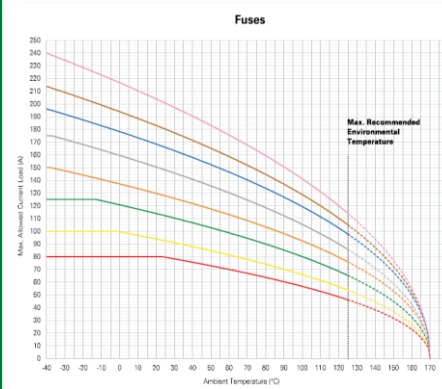
MEGA+ RIVET cover all the operating times according ISO 8820-5



- 80 A
- 100 A
- 125 A
- 150 A
- 175 A
- 200 A
- 225 A
- 250 A
- 300 A
- 350 A
- 400 A
- 450 A
- 500 A

| % of Rating | Opening Time Min. / Max. (s) | | |
|-------------|------------------------------|-----------|---------------|
| | 80 A - 250 A | 300 A | 350 A - 500 A |
| 75 | - / - | 14400 / - | 14400 / - |
| 100 | 14400 / - | - / - | - / - |
| 135 | 120 / 1800 | - / - | - / - |
| 150 | 20 / 450 | - / - | - / - |
| 200 | 1 / 15 | 1 / 15 | 1 / 15 |
| 350 | 0.3 / 5 | 0.5 / 5 | 0.5 / 5 |
| 500 | - / - | 0.1 / 2 | 0.1 / 2 |
| 600 | 0.1 / 1 | 0.1 / 1 | - / - |

PERFORMANCES – DERATING



| | Max. allowed current load (A) at ambient temperature based on typical derating | | | | | | |
|-------|--|------|-------|-------|-------|--------|--------|
| | -40 °C | 0 °C | 25 °C | 65 °C | 85 °C | 110 °C | 125 °C |
| 80 A | 80 | 80 | 80 | 68 | 62 | 53 | 46 |
| 100 A | 100 | 100 | 94 | 80 | 72 | 61 | 54 |
| 125 A | 125 | 121 | 114 | 97 | 88 | 75 | 65 |
| 150 A | 150 | 137 | 130 | 111 | 101 | 86 | 76 |
| 175 A | 175 | 160 | 151 | 127 | 115 | 98 | 86 |
| 200 A | 196 | 178 | 168 | 143 | 130 | 111 | 98 |
| 225 A | 214 | 194 | 183 | 155 | 141 | 120 | 105 |
| 250 A | 240 | 217 | 204 | 172 | 155 | 131 | 114 |
| 300 A | 225 | 225 | 225 | 212 | 191 | 162 | 141 |
| 350 A | 263 | 263 | 263 | 235 | 213 | 180 | 157 |
| 400 A | 300 | 300 | 300 | 237 | 214 | 181 | 158 |
| 450 A | 338 | 338 | 333 | 280 | 252 | 213 | 185 |
| 500 A | 375 | 360 | 340 | 288 | 261 | 222 | 194 |

- 80 A
- 100 A
- 125 A
- 150 A
- 175 A
- 200 A
- 225 A
- 250 A
- 300 A
- 350 A
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- 450 A
- 500 A

Product in development
Final values for voltage drop, resistance, melting I²t, T/C curves and derating curves, will be generated from PV tests data.

MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



COMPARISON WITH EXISTING PRODUCTS

MEGA® (.ZXEH & .ZXH)

[MEGA® 32V - Littelfuse](#)

- Fuse rating NOT in OCR-A font (ISO color coding)
- Series name (MEGA) hot stamped
- Voltage rating (engraved)
- Littelfuse brand name (hot stamped)
- Date code
- Metal rivets assembly technology
- Different terminal thicknesses between ratings (1.02 mm and 1.8 mm)
- High tightening torque withstand ability (up to 25 Nm)
- Series ID (engraved)
- Patent number (engraved)
- No plating



MEGA+ (.UXP)

[MEGA+® Fuse Rated 32V - Littelfuse](#)

- Fuse rating in OCR-A font (ISO color coding)
- Series name (MEGA+) laser marked
- Voltage rating (laser marked)
- Littelfuse logo (laser marked)
- Date code (laser marked)
- Ultrasonic welding assembly technology
- Different terminal thicknesses between ratings (0.8 mm and 1 mm)
- High tightening torque withstand ability (up to 25 Nm)
- Tin plated



NEW MARKET PRODUCT: MEGA+ RIVET (.UXR)

[MEGA Plus Rivet Series - High Current Fuses](#)

- Fuse rating and series name (MEGA) in OCR-A font (ISO color coding), on both sides
- Voltage rating (engraved)
- Littelfuse logo (engraved)
- Date code (laser marked)
- Metal rivets assembly technology
- Same terminal thickness across all fuse ratings (thk 0.8 mm)
- High tightening torque withstand ability (up to 25 Nm)
- Tin plated



MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



COMPARISON WITH EXISTING PRODUCTS - DERATING

MEGA® (.ZXEH & .ZXH)

[MEGA® 32V - Littelfuse](#)

| Max. allowed current load (A) at ambient temperature (typical derating) | | | | | | | |
|--|--------|------|-------|-------|-------|--------|--------|
| | -40 °C | 0 °C | 20 °C | 65 °C | 85 °C | 110 °C | 125 °C |
| 40A | 36 | 33 | 31 | 26 | 23 | 20 | 17 |
| 60A | 50 | 45 | 43 | 36 | 32 | 27 | 24 |
| 80A | 80 | 77 | 73 | 61 | 56 | 47 | 41 |
| 100A | 100 | 97 | 91 | 76 | 69 | 58 | 51 |
| 125A | 125 | 123 | 116 | 98 | 89 | 76 | 66 |
| 150A | 150 | 143 | 135 | 114 | 103 | 87 | 76 |
| 175A | 175 | 158 | 149 | 125 | 113 | 95 | 83 |
| 200A | 195 | 176 | 166 | 140 | 127 | 107 | 94 |
| 225A | 205 | 186 | 175 | 148 | 135 | 115 | 100 |
| 250A | 243 | 220 | 207 | 175 | 158 | 134 | 117 |
| 300A | 225 | 225 | 225 | 205 | 185 | 156 | 136 |
| 350A | 263 | 263 | 263 | 232 | 210 | 177 | 154 |
| 400A | 300 | 300 | 284 | 240 | 217 | 184 | 160 |
| 450A | 338 | 320 | 302 | 257 | 234 | 200 | 176 |
| 500A | 375 | 359 | 338 | 285 | 258 | 218 | 190 |

MEGA+ (.UXP)

[MEGA+® Fuse Rated 32V - Littelfuse](#)

MEGA+ has equal or slightly better Derating values compared to MEGA "REGULAR"

| 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 |

| | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|
| 80A | 80 | 80 | 80 | 68 | 62 | 53 | 46 |
| 100A | 100 | 100 | 94 | 80 | 72 | 61 | 54 |
| 125A | 125 | 121 | 114 | 97 | 88 | 75 | 65 |
| 150A | 150 | 137 | 130 | 111 | 101 | 86 | 76 |
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| 350A | 263 | 263 | 263 | 235 | 213 | 180 | 157 |
| 400A | 300 | 298 | 281 | 237 | 214 | 181 | 158 |
| 450A | 338 | 338 | 333 | 280 | 252 | 213 | 185 |
| 500A | 375 | 360 | 340 | 288 | 261 | 222 | 194 |

NEW MARKET PRODUCT: MEGA+ RIVET (.UXR)

[MEGA Plus Rivet Series - High Current Fuses](#)

Same Derating values of MEGA+ including protectors with element thickness of 0.8 mm!

| 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 |

| | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|
| 80A | 80 | 80 | 80 | 68 | 62 | 53 | 46 |
| 100A | 100 | 100 | 94 | 80 | 72 | 61 | 54 |
| 125A | 125 | 121 | 114 | 97 | 88 | 75 | 65 |
| 150A | 150 | 137 | 130 | 111 | 101 | 86 | 76 |
| 175A | 175 | 160 | 151 | 127 | 115 | 98 | 86 |
| 200A | 196 | 178 | 168 | 143 | 130 | 111 | 98 |
| 225A | 214 | 194 | 183 | 155 | 141 | 120 | 105 |
| 250A | 240 | 217 | 204 | 172 | 155 | 131 | 114 |
| 300A | 225 | 225 | 225 | 212 | 191 | 162 | 141 |
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Product in development

Final values for voltage drop, resistance, melting I_t , T/C curves and derating curves, will be generated from PV tests data.

MEGA+ RIVET Series

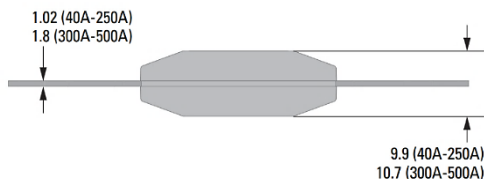
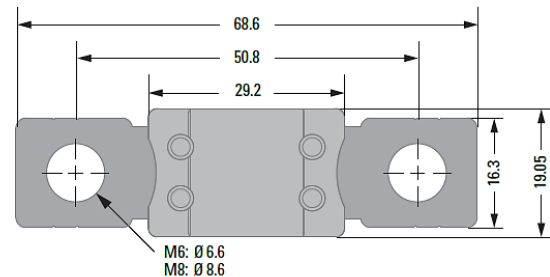
Bolt-down fuse – Rated 32 V



COMPARISON WITH EXISTING PRODUCTS - DIMENSIONS

MEGA® (.ZXEH & .ZXH)

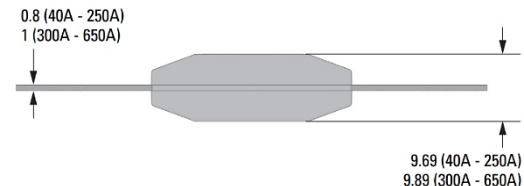
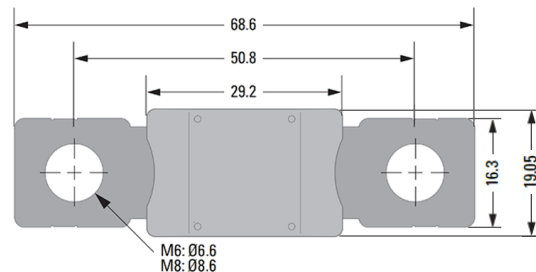
[MEGA® 32V - Littelfuse](#)



MEGA+ (.UXP)

[MEGA+® Fuse Rated 32V - Littelfuse](#)

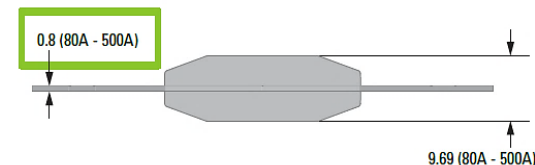
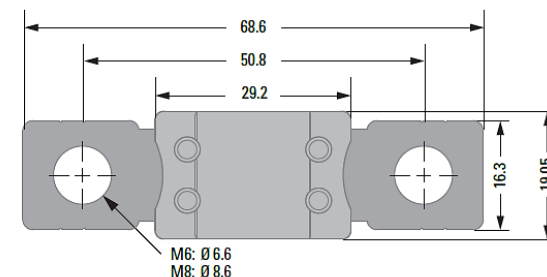
Thinner metal terminals compared to MEGA "REGULAR"



NEW MARKET PRODUCT: MEGA+ RIVET (.UXR)

[MEGA Plus Rivet Series - High Current Fuses](#)

Same overall dimensions than MEGA "REGULAR" and MEGA+, but **same terminals thickness across all ratings**



MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



PROTECT

MARKINGS

FUSE RATING & MEGA SERIES NAME

OCR-A font,
high contrast stamped marking
on both sides of the fuse
(color coding according ISO)

DATE CODE

(Laser marked)

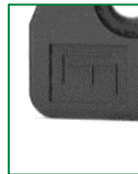
VOLTAGE RATING

(Engraved)



LF Logo

(Engraved)



MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



DATASHEET

MEGA Plus Rivet Series - High Current Fuses

Fuse Datasheet

MEGA+ RIVET Series
 Bolt-down Fuses – Rated 32 V DC

REHS



Description

The MEGA+ RIVET fuse is designed for high current circuit protection and provides time delay characteristics. Available in different mounting configurations, the MEGA+ RIVET fuse covers a wide range of rating (80 A up to 500 A) with the same terminal thickness of 0.8 mm.

The four metal rivets improve the mechanical resistance to stress, tightening torques and forces generated by eventual short-circuits, making this new bolt-down fuse extremely robust. High contrast OCR marking (color coding according ISO) is ideal for camera reading in the assembly lines.

The MEGA+ RIVET Fuse is ideal for battery and alternator protection application and other heavy gauge cables requiring ultra-high current protection.

Features & Benefits

- High tightening torque (up to 25 Nm for M8 version)
- High-contrast colored OCR marking easily readable by camera and naked eye
- Terminals in tin plated copper alloy
- Housing in PEI GF30FR (UL 94 Flammability rating -V0)
- Refers to ISO 8820-5

Applications

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

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 alloy |
| Housing Material: | PEI GF30FR (UL 94 Flammability rating of V0) |
| Typical Weight per Fuse: | 12.0 g |
| Mounting Torque MB: | 8 - 14 Nm (Recommended range value) |
| Mounting Torque MB: | 12 - 18 Nm (Recommended range value) |
| Mounting Torque MB: | 25 Nm max. allowed |
| Refer to: | ISO 8820-5 |

Additional Information

Resources

Samples

Fuse Datasheet

MEGA+ RIVET Series
 Bolt-down Fuses – Rated 32 V DC

Fuse Datasheet

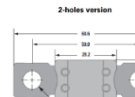
Ordering Information

| Part Number | Current Rating |
|---------------|----------------|
| 0280LX120(24) | 80 A - 300 |
| 0280LX150 | 80 A - 300 |
| 0280LX200(24) | 80 A - 300 |
| 0280LX250 | 80 A - 300 |
| 0280LX300 | 80 A - 300 |

Dimensions


Dimensions in mm. Please refer to the outline drawing.

2-holes version



MB 250
MB 300

0.8 (0.031)



atings

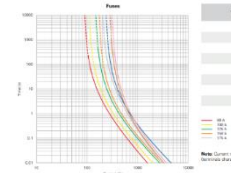
| Part Number | Current Rating (A) |
|-------------|--------------------|
| 0280LX120 | 80 |
| 0280LX150 | 100 |
| 0280LX175 | 125 |
| 0280LX190 | 150 |
| 0280LX210 | 175 |
| 0280LX230 | 200 |
| 0280LX250 | 225 |
| 0280LX275 | 250 |
| 0280LX300 | 300 |
| 0280LX350 | 350 |
| 0280LX400 | 400 |
| 0280LX450 | 450 |
| 0280LX500 | 500 |

■ Steel Case Protector only. Precision development only.
 ■ Refer to the dimensions for their corresponding models.
 Note: The value "I_{sc}" is an average value calculated from the I_{sc}.

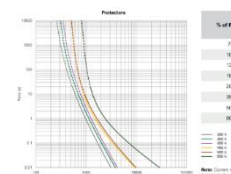
MEGA+ RIVET Series
Bolt-down Fuses – Rated 32 V DC

Time-Current Characteristic

Fuses



Protectors

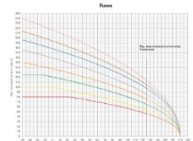


MEGA+ RIVET Series
Bolt-down Fuses – Rated 32 V DC

Typical Derating Curves

Temperature security margin is 20%.
Please consult Littelfuse® for Details Regarding Derating Test Set Up.

Fuses



Protectors

