



**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

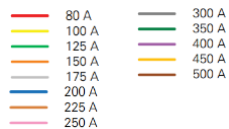
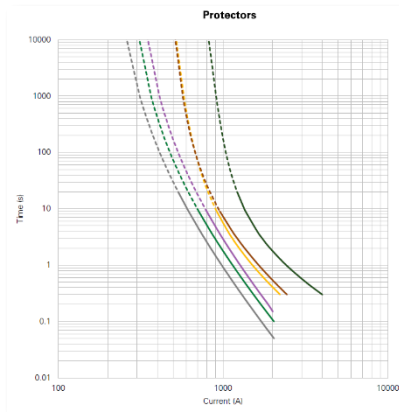
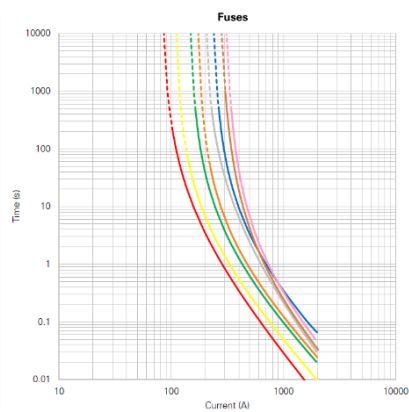
MEGA+ RIVET Series

Bolt-down fuse – Rated 32 V



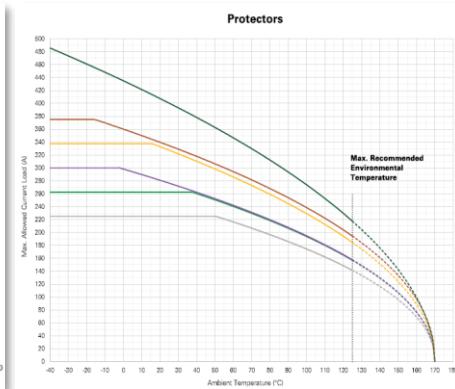
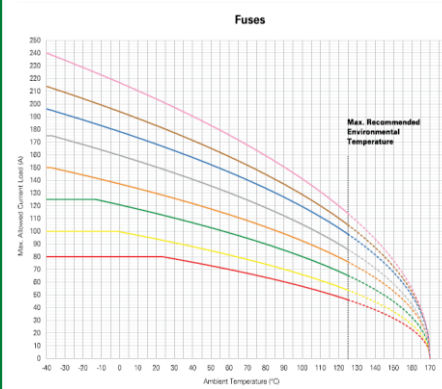
PERFORMANCES – OPERATING TIMES

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

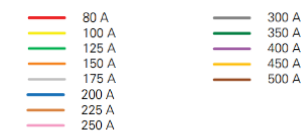


% of Rating	Opening Time Min. / Max. (s)		
	80 A - 250 A	300 A	350 A - 500 A
75	- / -	14400 / -	14400 / -
100	14400 / -	- / -	- / -
135	120 / 1800	- / -	- / -
150	20 / 450	- / -	- / -
200	1 / 15	1 / 15	1 / 15
350	0.3 / 5	0.5 / 5	0.5 / 5
500	- / -	0.1 / 2	0.1 / 2
600	0.1 / 1	0.1 / 1	- / -

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



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



PROTECT

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
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
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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500A	375	360	340	288	261	222	194

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

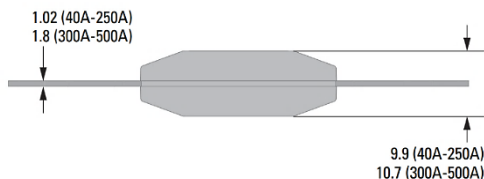
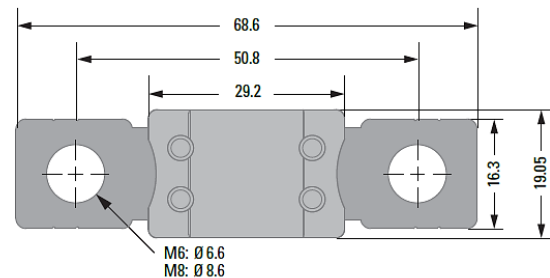


PROTECT

COMPARISON WITH EXISTING PRODUCTS - DIMENSIONS

MEGA® (.ZXEH & .ZXH)

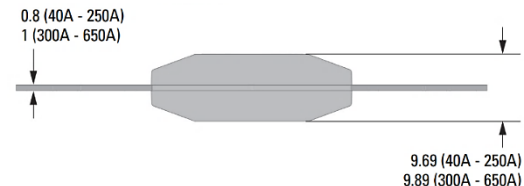
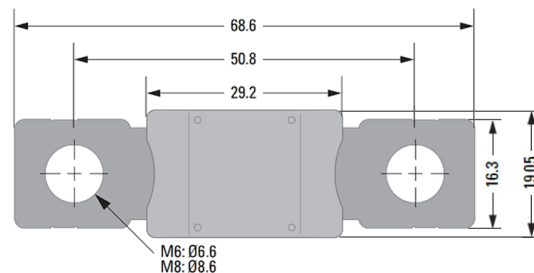
[MEGA® 32V - Littelfuse](#)



MEGA+ (.UXP)

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

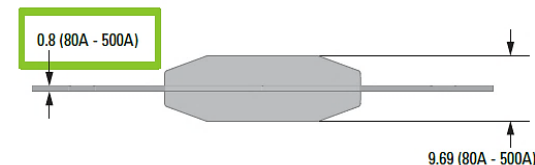
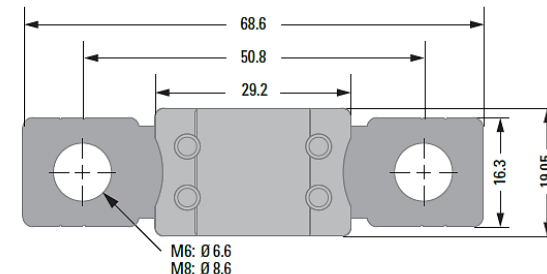
Thinner metal terminals compared to MEGA "REGULAR"



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)



Expertise Applied | Answers Delivered

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 LitzFuse®

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



Fuse Datasheet

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

REHS

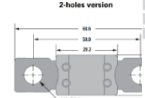
Ordering Information

Part Number	Current Rating
0280LX120(24)	80 A - 300
0280LX150	80 A - 300
0280LX240(24)	80 A - 300
0280LX300	80 A - 300
0280LX360	80 A - 300

Dimensions

Dimension in mm. Please refer to the outline drawing!

2-holes version



Ratings

Part Number	Current Rating (A)
0280LX120	80
0280LX150	100
0280LX180	125
0280LX240	150
0280LX270	175
0280LX300	200
0280LX330	225
0280LX360	250
0280LX390	300
0280LX420	350
0280LX450	400
0280LX480	450
0280LX500	500

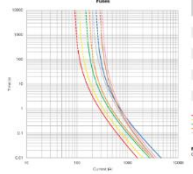
■ Heat-Cold Protection only. Protection development only.
 ■ Refer to the requirements for their special applications.
 Note: The value "I_n" is an average value calculated from the I_n.

Fuse Datasheet

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

REHS

Time-Current Characteristic



Fuses

% of I_n

70
75
80
85
90
95
100
110
120
130
140
150
160
170
180
190
200

Time (s)

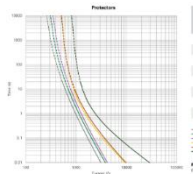
0.01 0.1 1 10 100 1000

Current (A)

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

■ 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

Note: Current interrupting device characteristics



Protector

% of Rating

75
80
85
90
95
100
110
120
130
140
150
160
170
180
190
200

Time (s)

0.01 0.1 1 10 100 1000

Current (A)

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

■ 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

Note: Current interrupting device characteristics

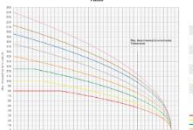
Fuse Datasheet

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

REHS

Typical Derating Curves

Temperature security margin is 20%.
 Please consult LitzFuse® for details regarding Derating Test Set-Up.

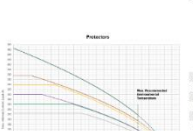


Fuses

Max. allowed current load (I_n) at ambient temperature based on typical derating

I _n (A)	25 °C	40 °C	55 °C	70 °C	85 °C	100 °C	125 °C
80A	80	75	70	65	60	55	50
100A	100	95	90	85	80	75	70
125A	125	120	115	110	105	100	95
150A	150	145	140	135	130	125	120
175A	175	170	165	160	155	150	145
200A	200	195	190	185	180	175	170
225A	225	220	215	210	205	200	195
250A	250	245	240	235	230	225	220

Note: Current interruption may be impacted by the location of the application between 0 and 100% duty cycle. Please consult LitzFuse® for more information.



Protector

Max. allowed current load (I_n) at ambient temperature based on typical derating

I _n (A)	25 °C	40 °C	55 °C	70 °C	85 °C	100 °C	125 °C
200A	200	195	190	185	180	175	170
250A	250	245	240	235	230	225	220
300A	300	295	290	285	280	275	270
350A	350	345	340	335	330	325	320
400A	400	395	390	385	380	375	370
450A	450	445	440	435	430	425	420
500A	500	495	490	485	480	475	470

Note: Current interruption may be impacted by the location of the application between 0 and 100% duty cycle. Please consult LitzFuse® for more information.