

# AMX/AMXL

## Automotive bolt in fuse



### Product features

- Small size for high current applications
- 63 Vdc/100 Vdc/125 Vdc Voltage rating
- Ceramic body with bolt in terminal design
- UL recognized

### Applications

- Mild hybrid automotive
- Vehicle power distribution
- Material handling systems
- All supercapacitor and battery systems
- High current wire protection

### Agency information

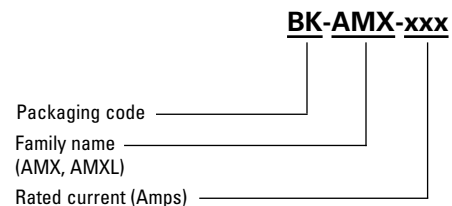
- cURus recognized file:  
E91958, guide JFHR2 and JFHR8



### Environmental compliance



### Ordering part number



### Packaging code

BK - 50 parts per tray

Blank - 1 part per polybag, 10 parts per inner box

## Electrical characteristics

| Amp rating | 1.0 In          | 3.0 In       |
|------------|-----------------|--------------|
| 80 - 350   | 4 hours minimum | < 10 seconds |

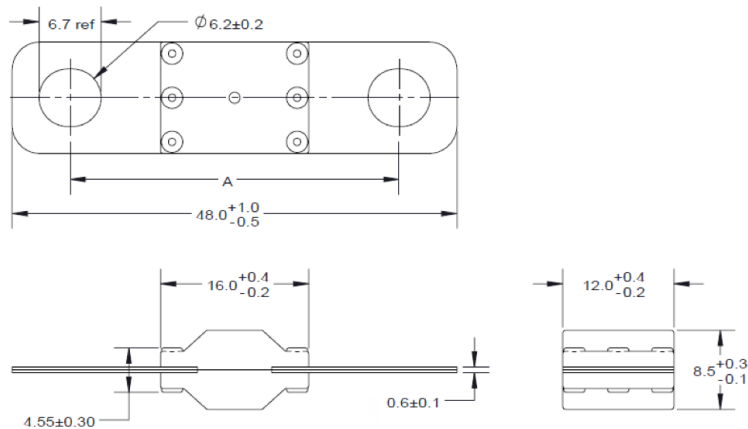
## Product specifications

| Part number | Rated current (A) | Voltage rating (Vdc) | Breaking capacity <sup>1</sup>                      | Typical cold resistance (mOhms) <sup>2</sup> |
|-------------|-------------------|----------------------|-----------------------------------------------------|----------------------------------------------|
| AMX(L)-80   | 80                | 63/100/125           | 8 kA @ 63 Vdc*<br>6 kA @ 100 Vdc*<br>3 kA @ 125 Vdc | 0.51                                         |
| AMX(L)-100  | 100               | 63/100/125           | 8 kA @ 63 Vdc*<br>6 kA @ 100 Vdc*<br>3 kA @ 125 Vdc | 0.43                                         |
| AMX(L)-150  | 150               | 63/100/125           | 8 kA @ 63 Vdc*<br>6 kA @ 100 Vdc*<br>3 kA @ 125 Vdc | 0.33                                         |
| AMX(L)-200  | 200               | 63/100/125           | 8 kA @ 63 Vdc*<br>6 kA @ 100 Vdc*<br>3 kA @ 125 Vdc | 0.24                                         |
| AMX(L)-250  | 250               | 63/100/125           | 8 kA @ 63 Vdc*<br>6 kA @ 100 Vdc*<br>3 kA @ 125 Vdc | 0.19                                         |
| AMX(L)-300  | 300               | 63/100/125           | 8 kA @ 63 Vdc*<br>6 kA @ 100 Vdc*<br>3 kA @ 125 Vdc | 0.16                                         |
| AMX(L)-350  | 350               | 63/100/125           | 3 kA @ 125 Vdc                                      | 0.13                                         |

- \*=Self-certified for 63 Vdc/8 kA and 100 Vdc/6 kA Breaking Capacity, TC < 1.5 ms
- Cold resistance is measured at <10% rated current

## Dimensions- mm

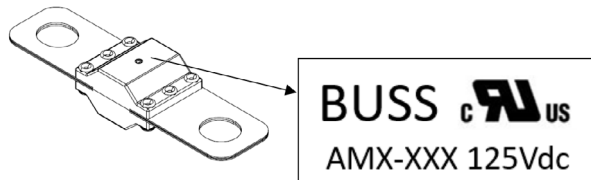
Drawing not to scale



| Part number | Dimension A (mm) |
|-------------|------------------|
| AMX-XXX     | 30.0 +/- 0.3     |
| AMXL-XXX    | 35.5 +/- 0.3     |

Recommended torque: M6: 5-5.5N·m  
M5: 3.5-4N·m

## Marking detail

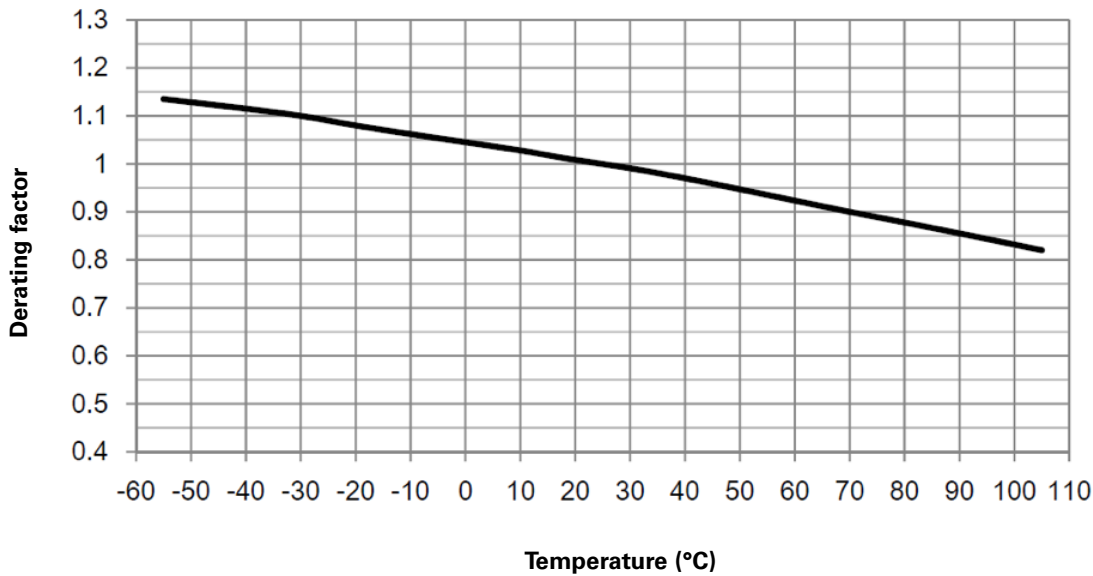


| Part number | Marking on body                |
|-------------|--------------------------------|
| AMX-80      | BUSS cURus<br>AMX-80 125 Vdc   |
| AMX-100     | BUSS cURus<br>AMX-100 125 Vdc  |
| AMX-150     | BUSS cURus<br>AMX-150 125 Vdc  |
| AMX-200     | BUSS cURus<br>AMX-200 125 Vdc  |
| AMX-250     | BUSS cURus<br>AMX-250 125 Vdc  |
| AMX-300     | BUSS cURus<br>AMX-300 125 Vdc  |
| AMX-350     | BUSS cURus<br>AMX-350 125 Vdc  |
| AMXL-80     | BUSS cURus<br>AMXL-80 125 Vdc  |
| AMXL-100    | BUSS cURus<br>AMXL-100 125 Vdc |
| AMXL-150    | BUSS cURus<br>AMXL-150 125 Vdc |
| AMXL-200    | BUSS cURus<br>AMXL-200 125 Vdc |
| AMXL-250    | BUSS cURus<br>AMXL-250 125 Vdc |
| AMXL-300    | BUSS cURus<br>AMXL-300 125 Vdc |
| AMXL-350    | BUSS cURus<br>AMXL-350 125 Vdc |

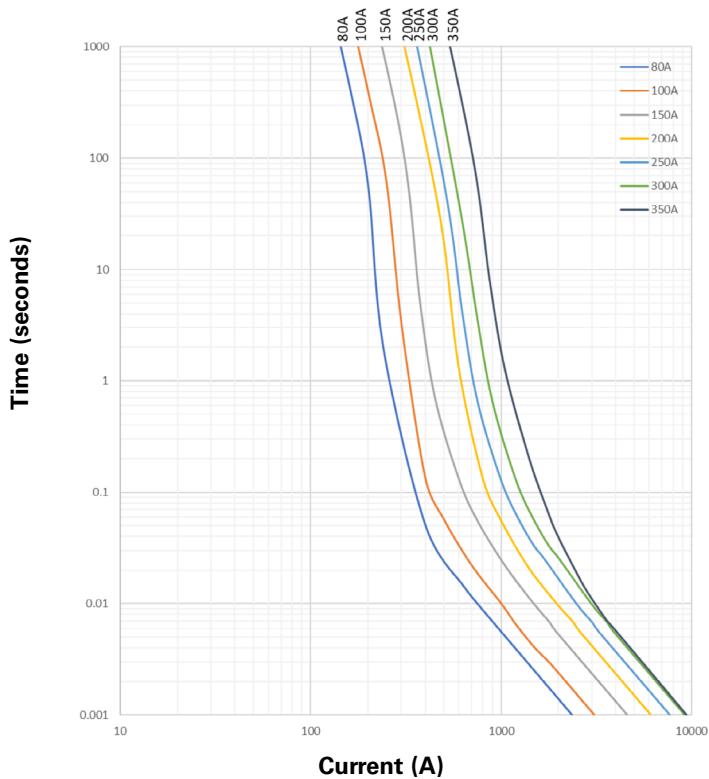
## General specifications

| Item                            | Standard/Specification                | Conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Acceptable value/range                                          |
|---------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Operating temperature           |                                       | -40 °C to +105 °C with proper derating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                 |
| Strength of terminals           | JASO D622<br>ISO8820-8                | M6: 5-5.5N·m; M5: 3.5-4N·m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                 |
| Temperature rise                | JASO D622<br>ISO8820-8                | 0.5 In, 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | not exceed 50 K,<br>electrical performance within spec          |
| Temperature humidity cycling    | JASO D622<br>ISO8820-8                | a) maintain the samples at standard conditions for 4 h;<br>b) increase T to 55+/-2 °C at 95% to 99% RH within 0.5 h;<br>c) maintain T at 55+/-2 °C at 95% to 99% RH for 10 h;<br>d) decrease T to -40+/-2 °C within 2.5 h; the humidity is uncontrolled;<br>e) maintain T at -40+/-2 °C for 2 h; the humidity is uncontrolled;<br>f) increase T to 120+/-2 °C within 1.5 h from -40+/-2 °C; the humidity is uncontrolled;<br>g) maintain T at 120+/-2 °C for 2 h; the humidity is uncontrolled;<br>h) allow to return to RT within 1.5 h; the humidity is uncontrolled;<br>10 cycles. | Resistance change <10%<br>electrical performance within spec    |
| Thermal shock                   | JASO D622<br>ISO8820-8<br>(reference) | a) -40+/-2 °C, 20 min;<br>b) 15 sec dwell time;<br>c) 125+/-2 °C, 20 min;<br>d) 15 sec dwell time;<br>48 cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Resistance change <10%,<br>electrical performance within spec   |
| Vibration                       | UL248-20<br>IEC 60068-2-64            | Random vibration. Condition C: rms 30.2 m/s <sup>2</sup> , 3 directions, 8 hrs each.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Resistance change <10%, elec-<br>trical performance within spec |
| Transient current cycling       | JASO D622<br>ISO8820-8<br>(reference) | 23+/-5 °C, each cycle current 2 In/0.25 sec, 0.5 In/5 sec, 50000 cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Resistance change <10%,<br>electrical performance within spec   |
| Lubricant & fuel oil resistance | GB/T31465.1-5.4                       | Wipe the marking with lubricant or oil 30 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Marking can be identified                                       |
| Breaking capacity               |                                       | Follow the spec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | IR > 0.1 Mohm, no explosion                                     |

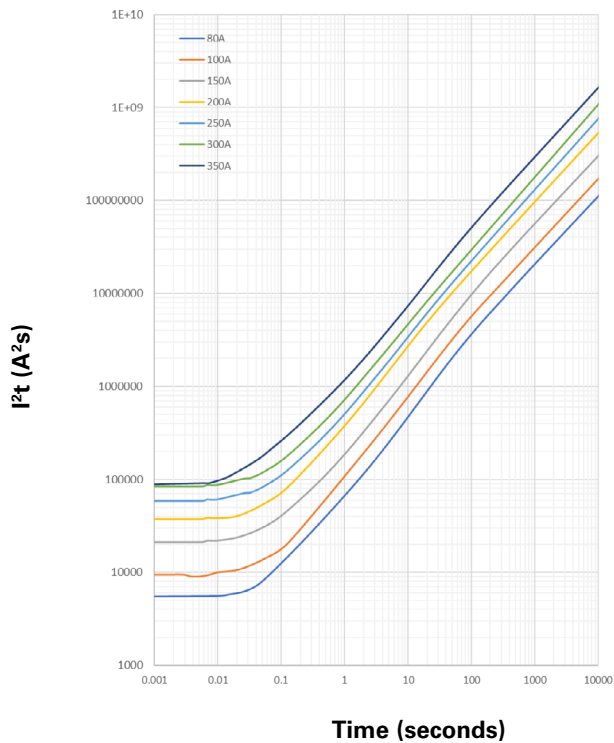
Temperature derating curve



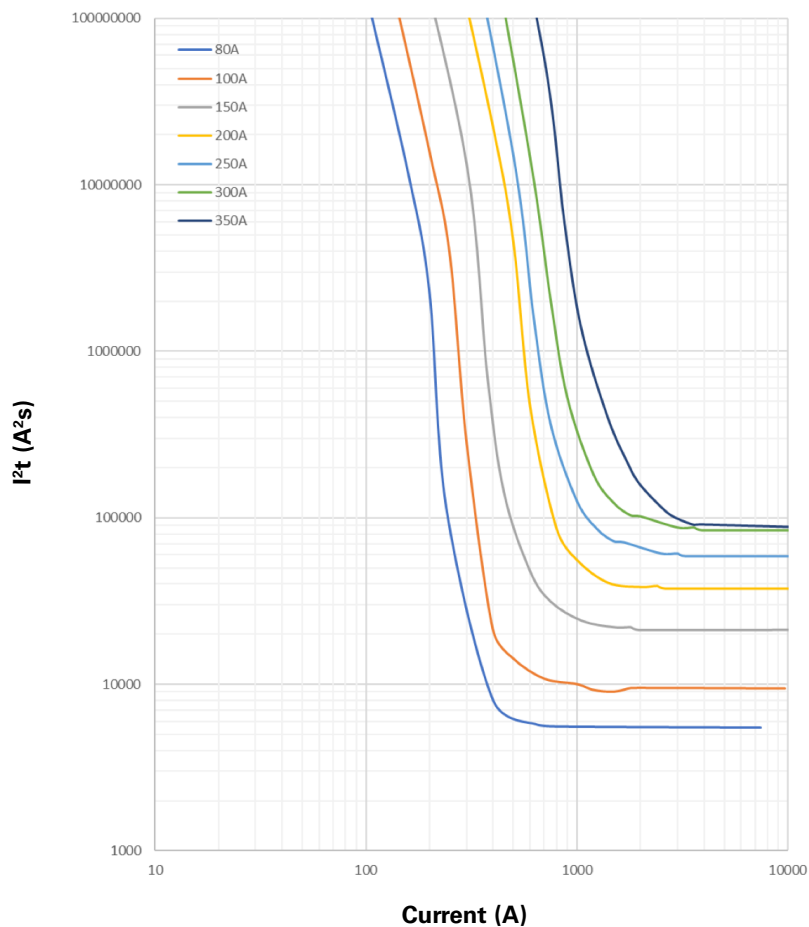
Current vs. time curve



I²t vs. time curve



## $I^2t$ vs. current curve



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