

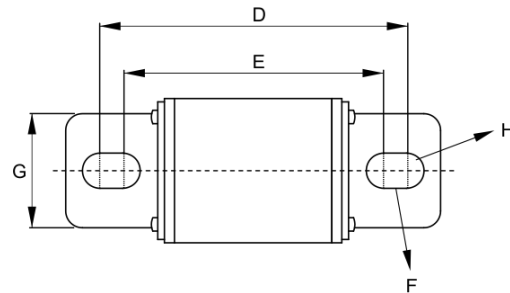
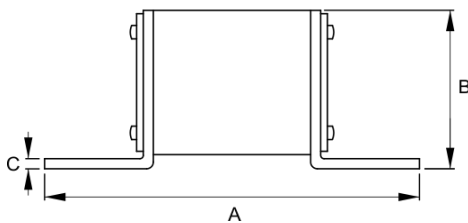
EF3 EV Fuse



Features

- Reliable clearing of DC fault currents
- High cycling performance
- Low watt losses
- Ultra-compact size and power density
- High breaking capacity to 50kA
- Operation as low as 410% I_n overload protection
- QR code marks on each fuse for traceability

Dimensions (mm):



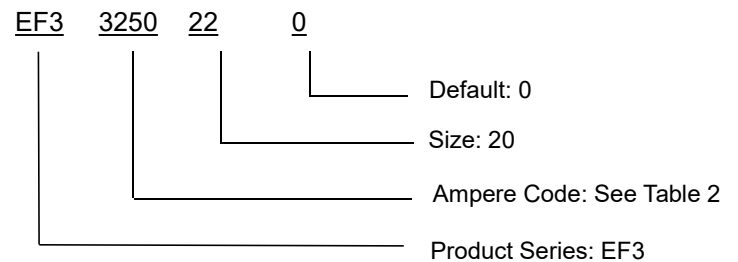
Description

Adler EF3 series EV fuses are specially engineered and tested to provide best-in-class protection performance in protecting high power battery charging and managing systems of Electrical Vehicles and Hybrid Electrical Vehicles, up to 315 Vdc in ratings from 150A to 700A.

Agency Information

- Designed to UL 248-20, ISO 8820-8, GB/T 31465, IEC 60269-7
- UL Recognized Component (File No: E506668)
- Manufactured under IATF 16949 quality system
- RoHS and REACH Compliant

Part Numbering System



| Fuse Size | A mm | B mm | C±0.1 mm | D mm | E mm | F mm | G mm | H mm |
|-----------|--------|---------|----------|----------|----------|----------|----------|-----------|
| 36x22 | 77±1 | 25.0±1 | 2 | 62±0.8 | 49.5±0.8 | 6.25±0.8 | 20.0±0.5 | φ 8.5±0.5 |
| 36x37 | 79±1.5 | 24.0±1 | 2 | 62.5±1.0 | 49.5±1.0 | 6.5±1.0 | 32.3±1.0 | φ 8.5±0.5 |
| 36x37 | 77±1.5 | 31.85±1 | 2 | 59.0±1.0 | 51.0±1.0 | 4.0±1.0 | 30.0±0.5 | φ 8.5±0.3 |

Table 1

Electrical Specifications

| Size (mm) | Part Number | Rated Current | Ampere Code | Rated Voltage | Breaking Capacity | | I ² t (A ² sec) Pre-arcing | Watt Loss (W) 1.0In |
|--------------|-------------|---------------|-------------|--------------------|------------------------|-----------------------------------|---|------------------------|
| | | | | | UL * | Self-Certified | | |
| 36x22 | EF33100220 | 100A | 3100 | 200Vdc | o | 50kA @ 200Vdc | 1530 | 14.5 |
| | EF33150220 | 150 A | 3150 | 200 Vdc 315 Vdc | 4.1In~50 kA@200 Vdc | 6kA@315 Vdc , 4In~50kA@250 Vdc | 4500 | 23.1 |
| | EF33175220 | 175 A | 3175 | | | | 6600 | 25.2 |
| | EF33200220 | 200 A | 3200 | | | | 8500 | 27.5 |
| | EF33250220 | 250 A | 3250 | 200 Vdc | | 16000 | 30.5 | |
| | EF33300220 | 300 A | 3300 | | | 4In~50kA@250 Vdc | 29000 | 34.3 |
| | EF33350220 | 350 A | 3350 | o | 50 kA@200 Vdc | 31500 | 37.5 | |
| 36x37 | EF33350370 | 350 A | 3350 | 250 Vdc | 4.1In~50 kA@250 Vdc | - | 28750 | 44.5 |
| | EF33400370 | 400 A | 3400 | | | - | 43700 | 45.5 |
| | EF33450370 | 450 A | 3450 | | | - | 56350 | 57.0 |
| | EF33500370 | 500 A | 3500 | | | - | 67600 | 61.3 |
| 36x37 | EF3360037A | 600 A | 3600 | 150 Vdc | o | 50 kA@150 Vdc | 82000 | 66.0 |
| | EF3370037A | 700 A | 3700 | o | 128000 | | 75.0 | |

Table 2

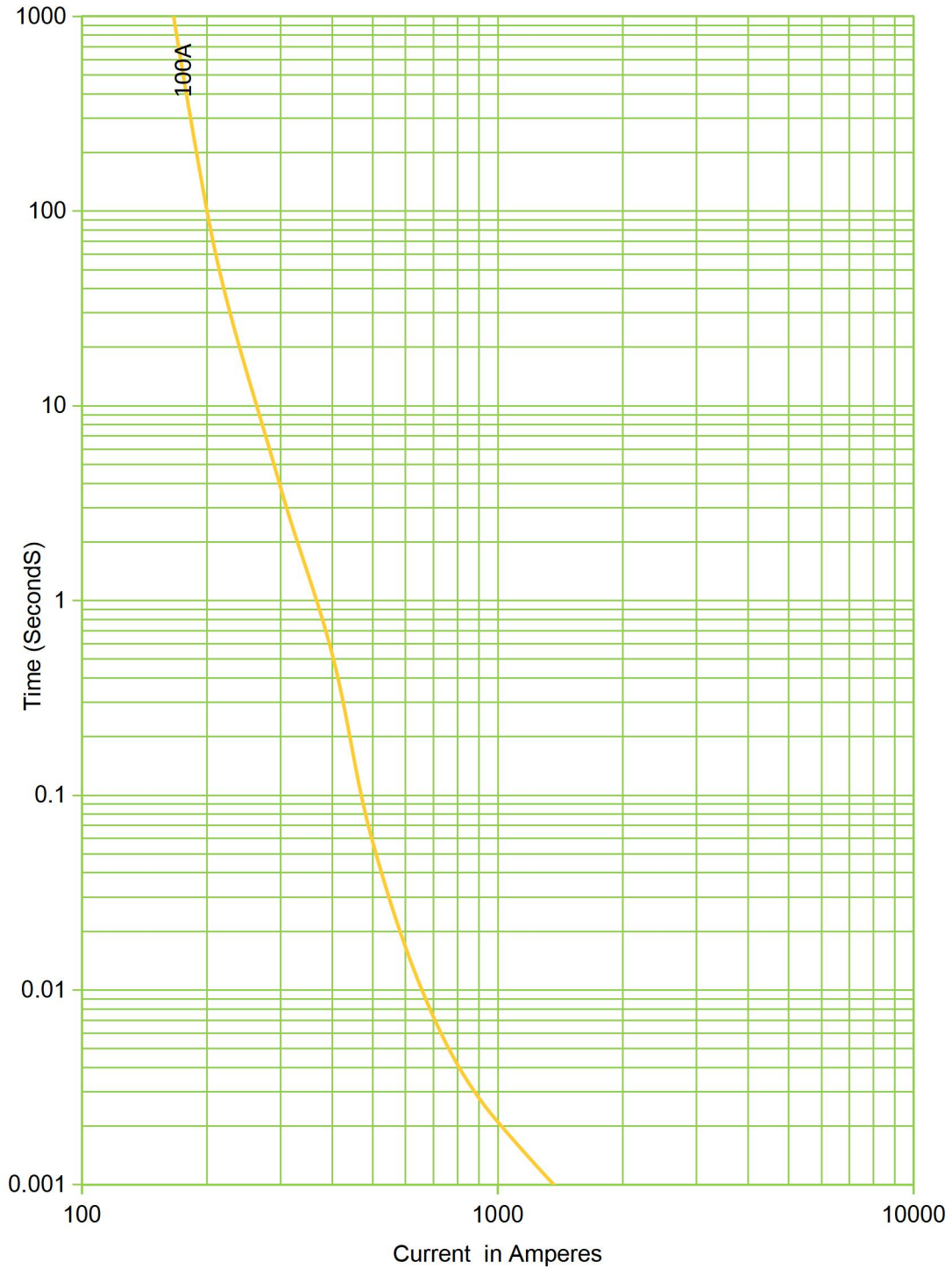
- * --- UL File: E506668
- o ---UL: No certification for this rating.
- I²t is measured with 10In.
- Recommend tightening torque is 12 ± 1.0 Nm (M8);

TIME VS CURRENT CHARACTERISTIC

| Part Number | 200% | 300% | 500% |
|-------------|----------|-----------|-----------|
| EF3xxxx370 | 1 – 300s | 0.2 – 30s | 0.1 - 10s |

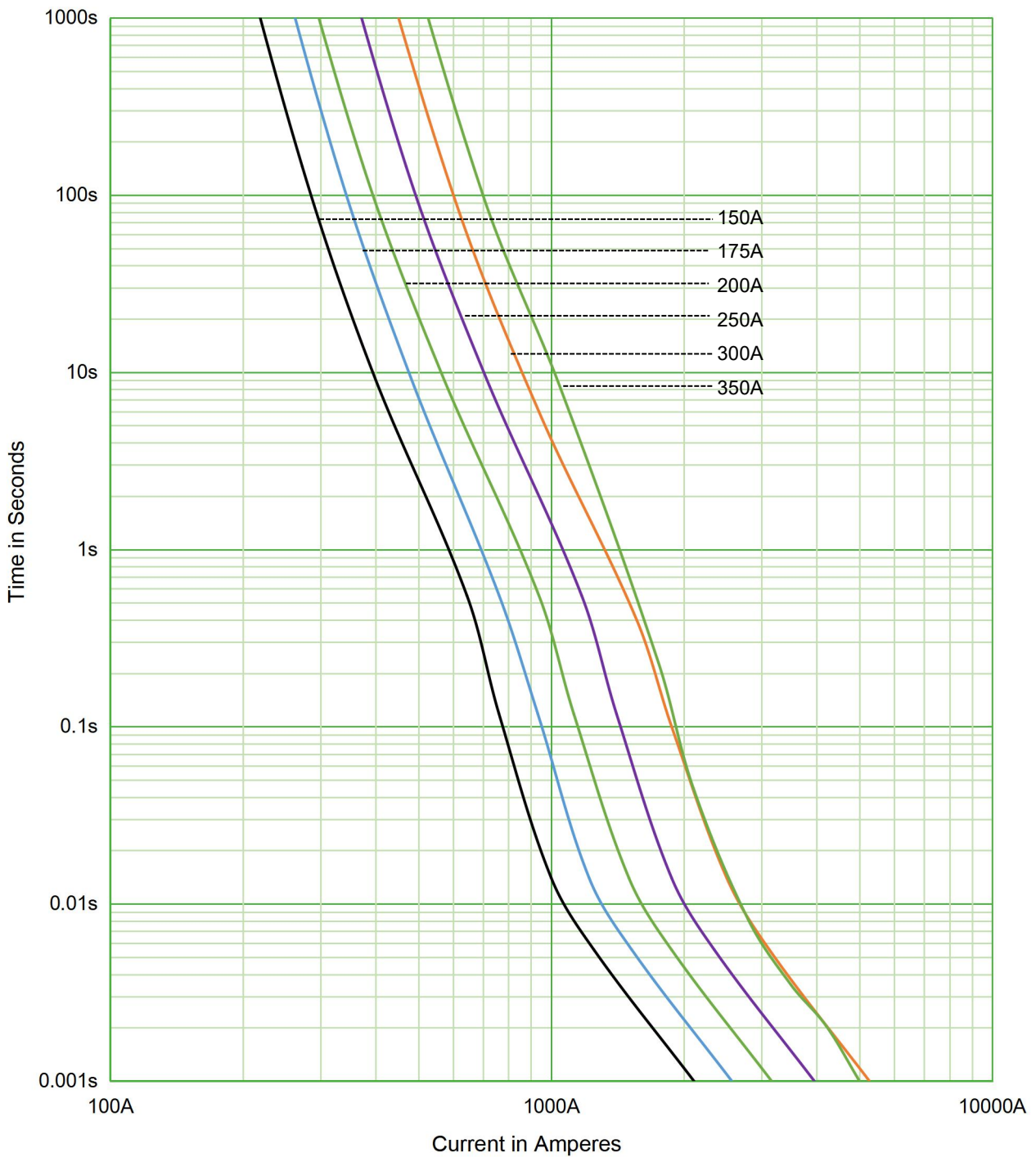
Time Current Curve

EF3xxx220

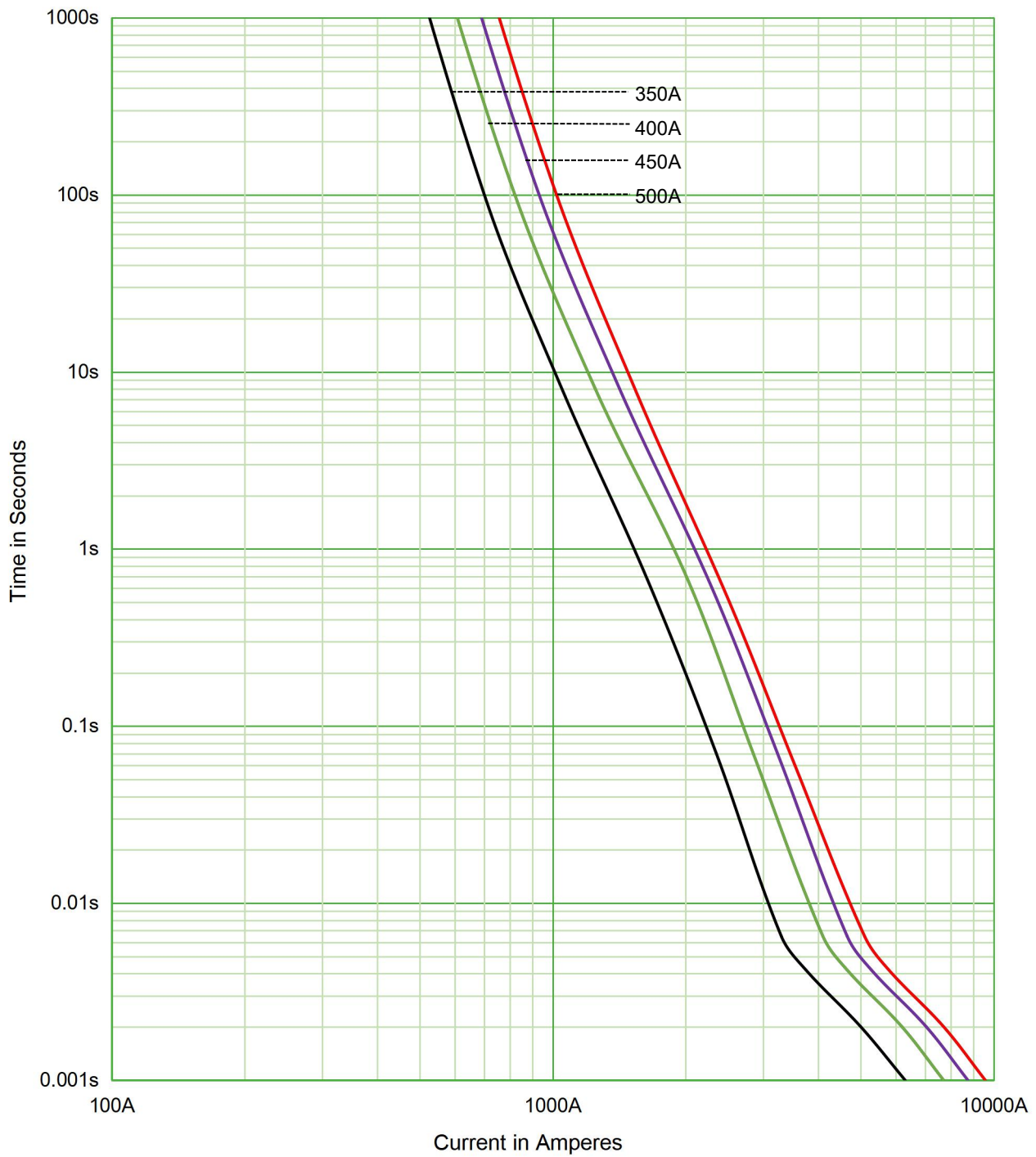




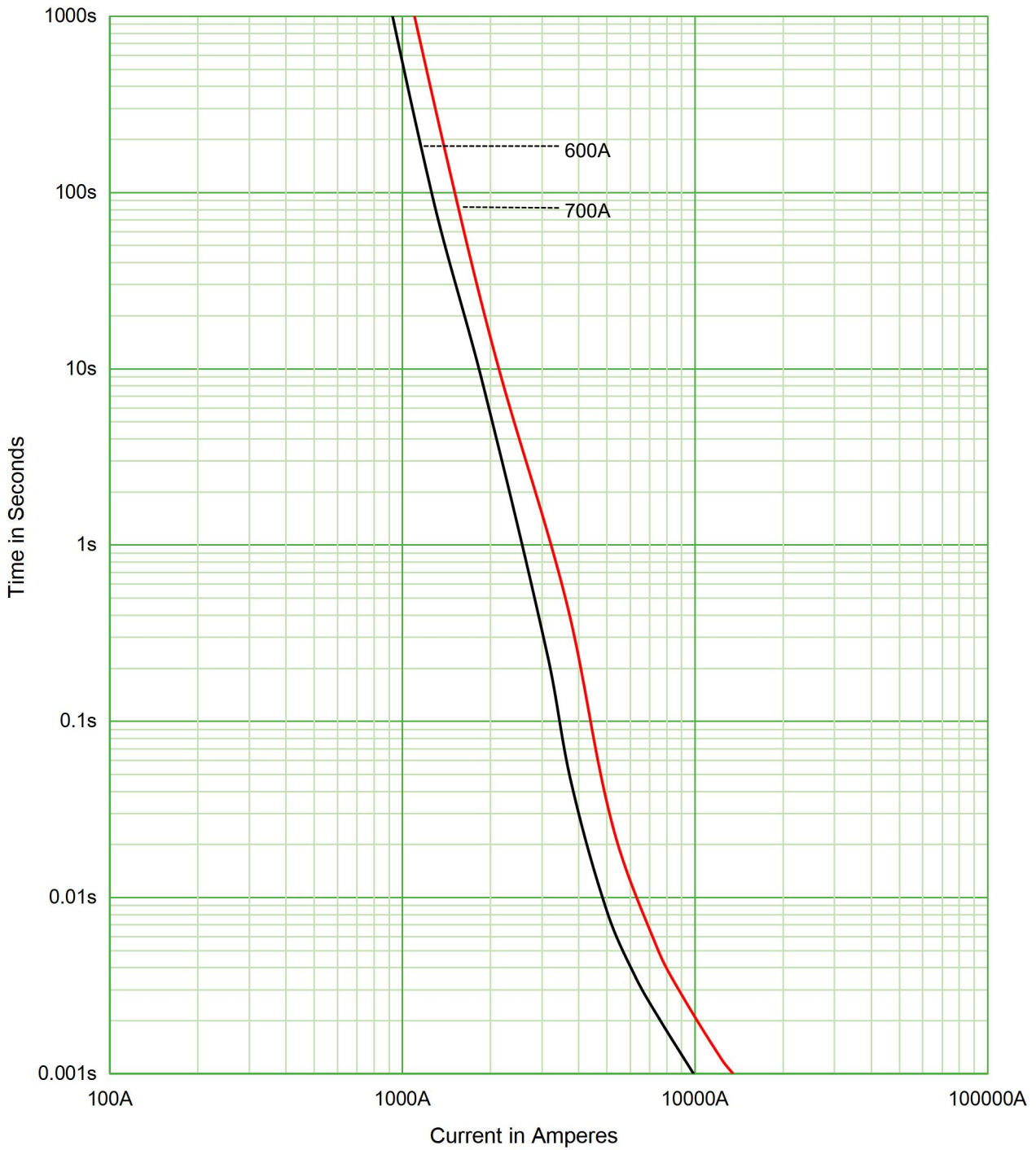
EF3xxx220



EF3xxx370



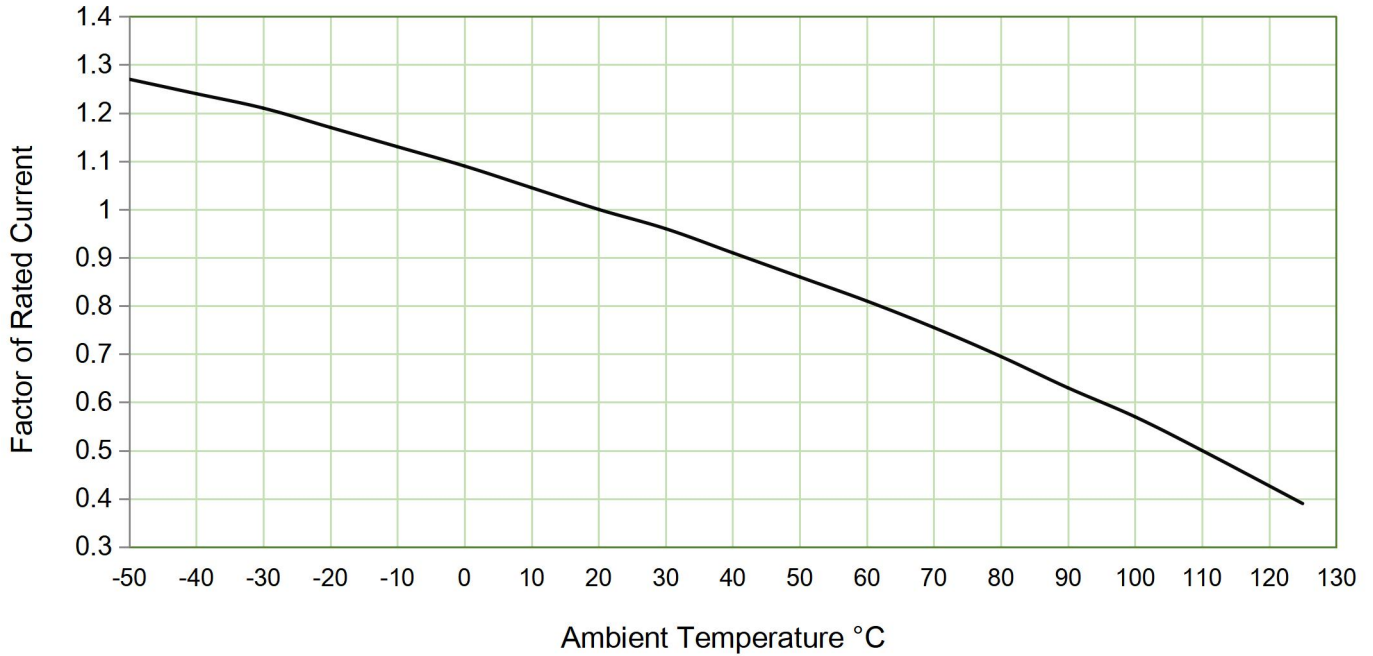
EF3xxx37A



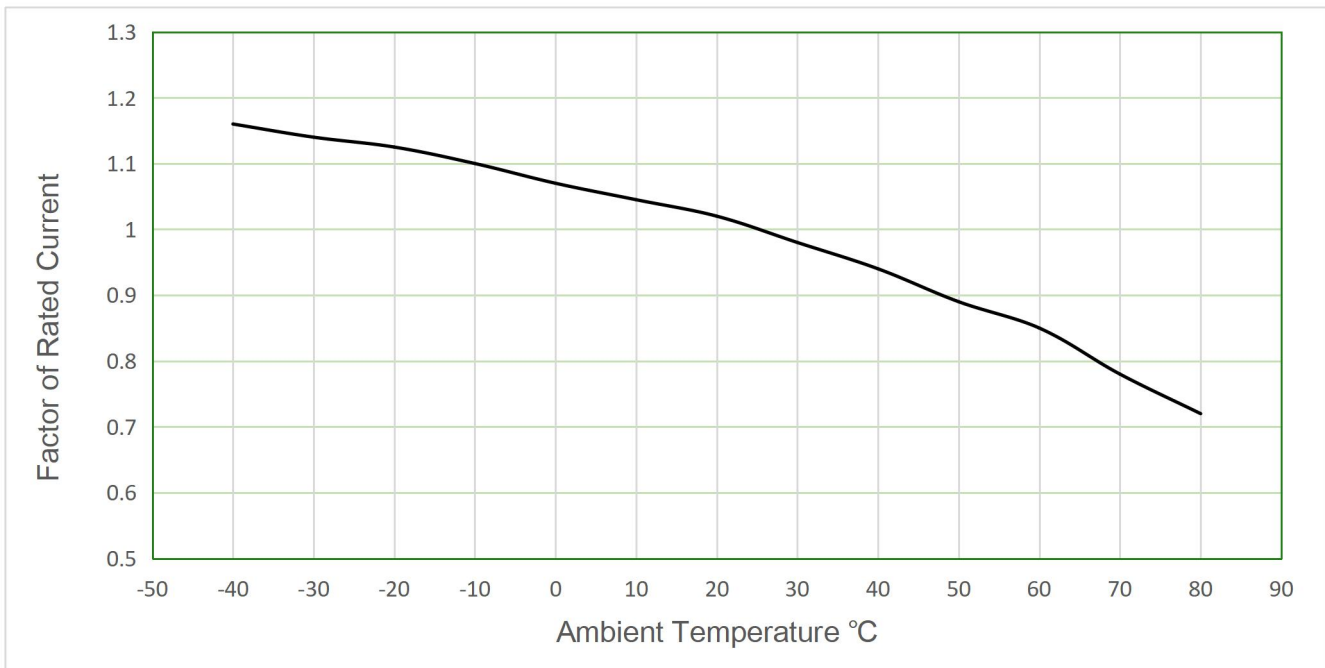


TEMPERATURE DERATING CURVE

EF3xxxx220/EF3xxxx37A



EF3xxxx370



TRANSPORTATION and STORAGE

During transportation and storage, customer should avoid water seepage and mechanical damage.

CONDITIONS for OPERATION in SERVICE

Where the following conditions apply, fuses complying with this standard are deemed capable of operating satisfactorily without further qualification.

- Normal temperature: -5°C to 40°C;
- The altitude of the site of installation of these fuses should not exceed 2000 m above sea level;
- The air should be clean and its relative humidity does not exceed 50% at the maximum temperature of 40°C;
- Higher relative humidities are permitted at lower temperatures, e.g., 90 % at 20°C;
- Under these conditions, moderate condensation may occasionally occur due to variation in temperature.

For operating conditions other than above, please contact the manufacturer.

VIBRATION

These fuse meet UL248-20 Section 8.6.2.3 Vibration Test C requirement, can be use on Electrical Vehicle application.

PACKAGING INFORMATION

| Part No | Inner box | | | | Outer box | | | | | |
|-----------|-----------|-----------|-----------|--------------|--------------------------|--------------------|----------------------|-----------|-----------|-----------|
| | L (mm) | W (mm) | H (mm) | Qty (pcs) | Qty boxes / outer box | Net Weight (kg) | Gross Weight (kg) | L (mm) | W (mm) | H (mm) |
| EF3xxx220 | 145 | 85 | 55 | 12 | 18 | 15.919 | 17.28 | 320 | 320 | 200 |
| EF3xxx370 | 100 | 80 | 43 | 3 | 35 | 12.810 | 14.469 | 385 | 250 | 210 |
| EF3xxx37A | 158 | 85 | 38 | 4 | 24 | 13.152 | 14.237 | 330 | 280 | 170 |

Web Resources

Download the latest technical documents: www.adlerelectric.com. Specifications are subject to change without notice.