

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

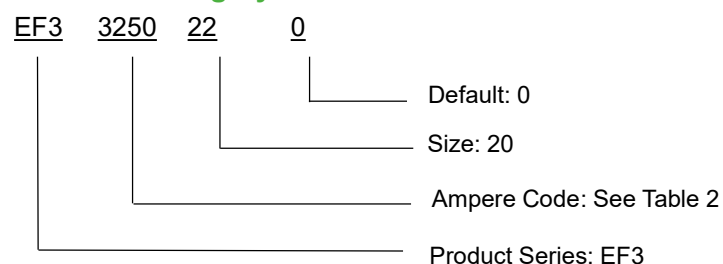
Description

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.

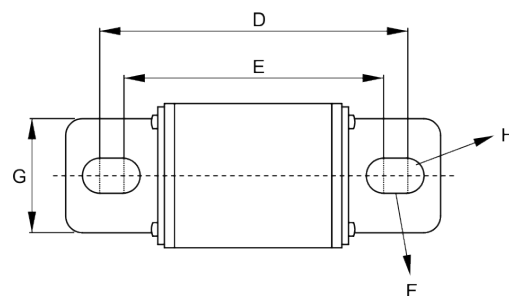
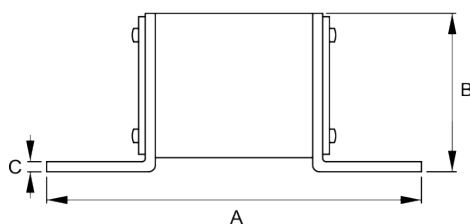
Agency Information

- 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



Dimensions (mm):



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	Part Number	Rated Current	Ampere Code	Rated Voltage	Breaking Capacity		I ² t (A ² sec)	Watt Loss (W)
(mm)					UL **	Self-Certified	Pre-arcing	1.0I _n
36x22	EF33150220	150 A	3150	200 Vdc 315 Vdc	4.1I _n ~50 kA@200 Vdc	6kA@315 Vdc , 4I _n ~50kA@250 Vdc	4500	23.1
	EF33175220	175 A	3175				6600	25.2
	EF33200220	200 A	3200				8500	27.5
	EF33250220	250 A	3250				16000	30.5
	EF33300220	300 A	3300	200 Vdc	○	50 kA@200 Vdc	29000	34.3
	EF33350220	350 A	3350				31500	37.5
36x37	EF33350370	350 A	3350	250 Vdc	4.1I _n ~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	○	50 kA@150 Vdc	82000	66.0
	EF3370037A	700 A	3700		○		128000	75.0

Table 2

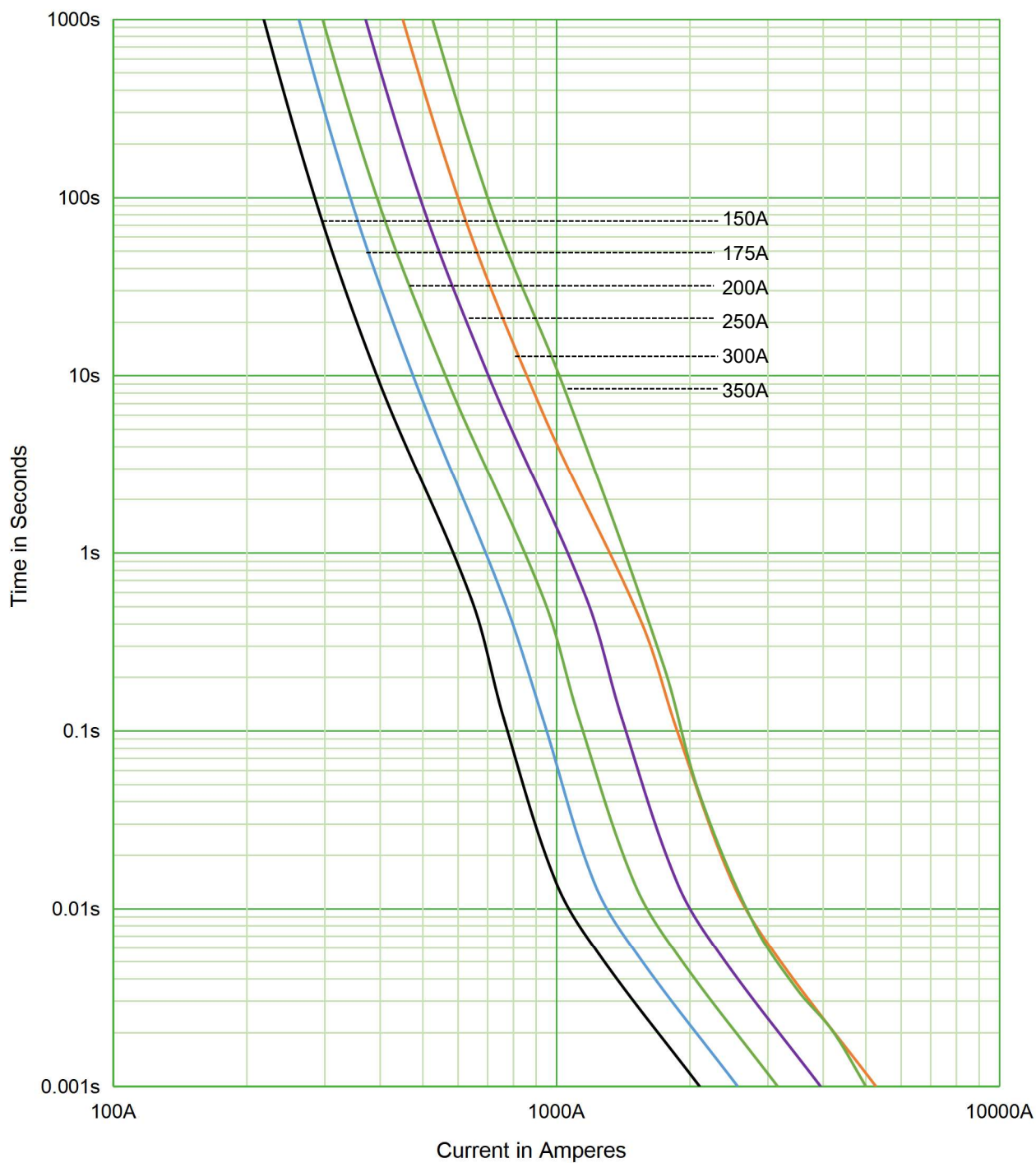
1. ** --- UL File: E506668
2. ○ ---UL: No certification for this rating.
3. I²t is measured with 10I_n.
4. Recommend tightening torque is 12 ± 1.0 Nm (M8);

TIME VS CURRENT CHARACTERISTIC

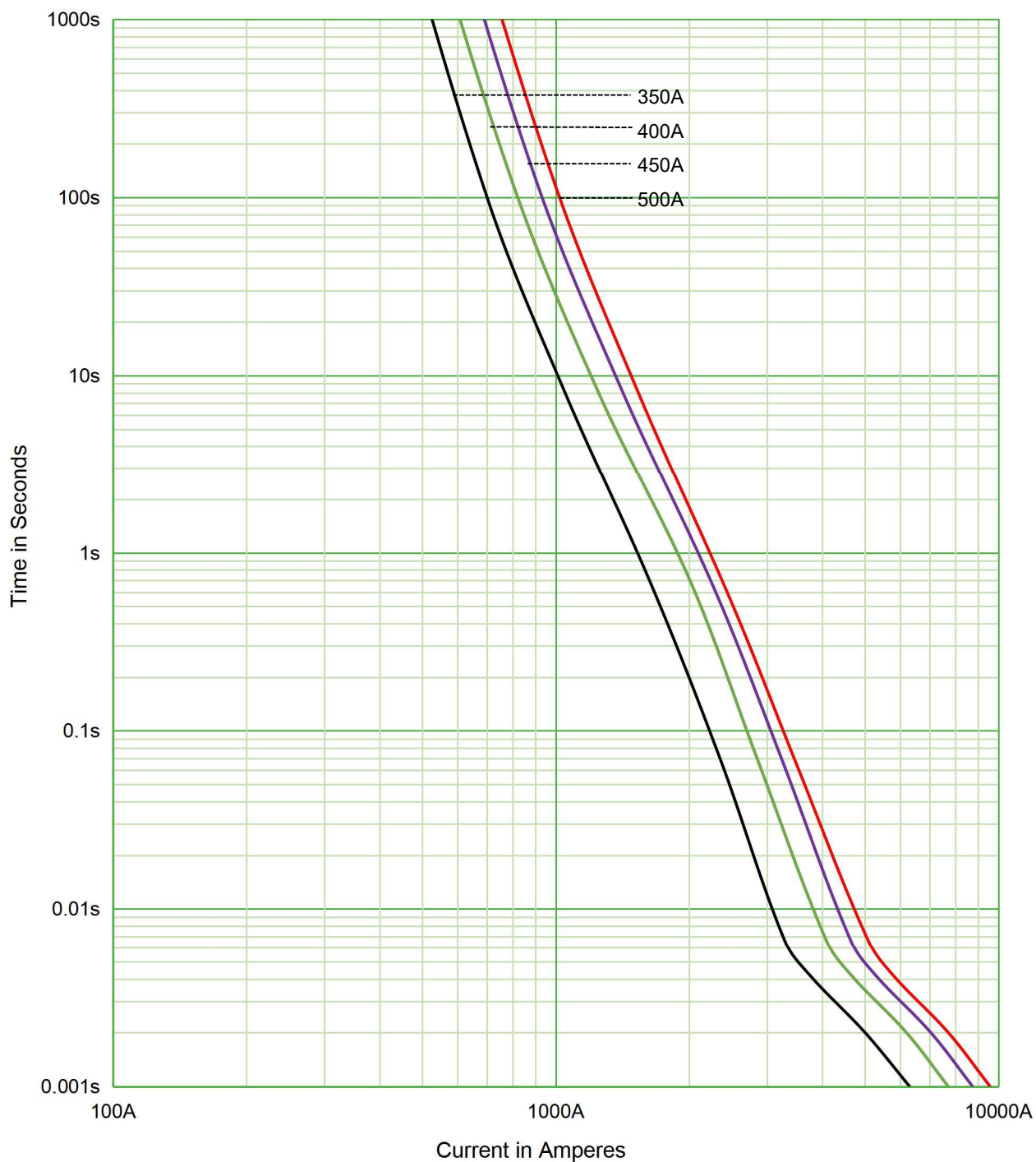
Part Number	200%	300%	500%
EF3xxx370	1 – 300s	0.2 – 30s	0.1 - 10s

Time Current Curve

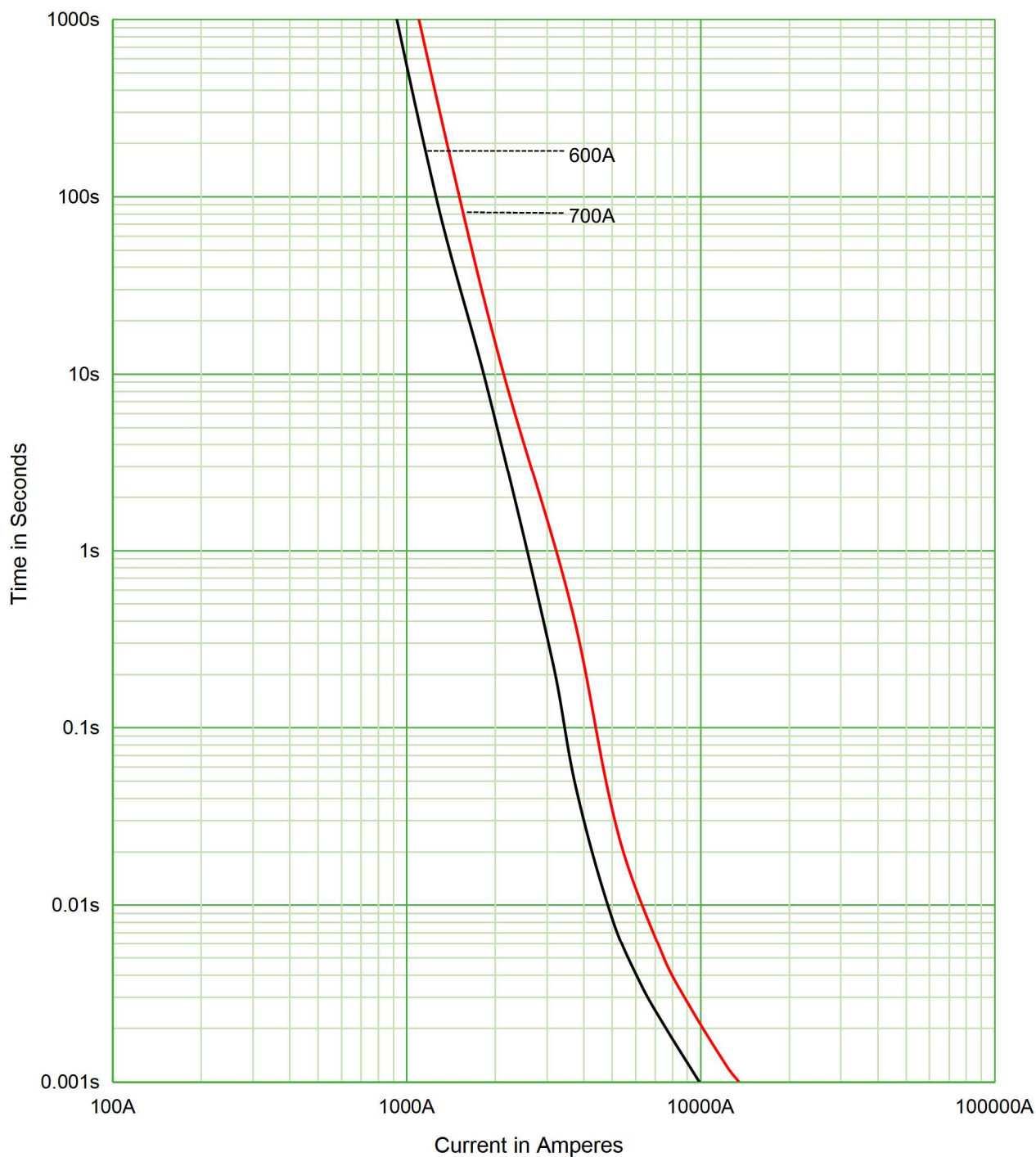
EF3xxx220



EF3xxx370



EF3xxx37A

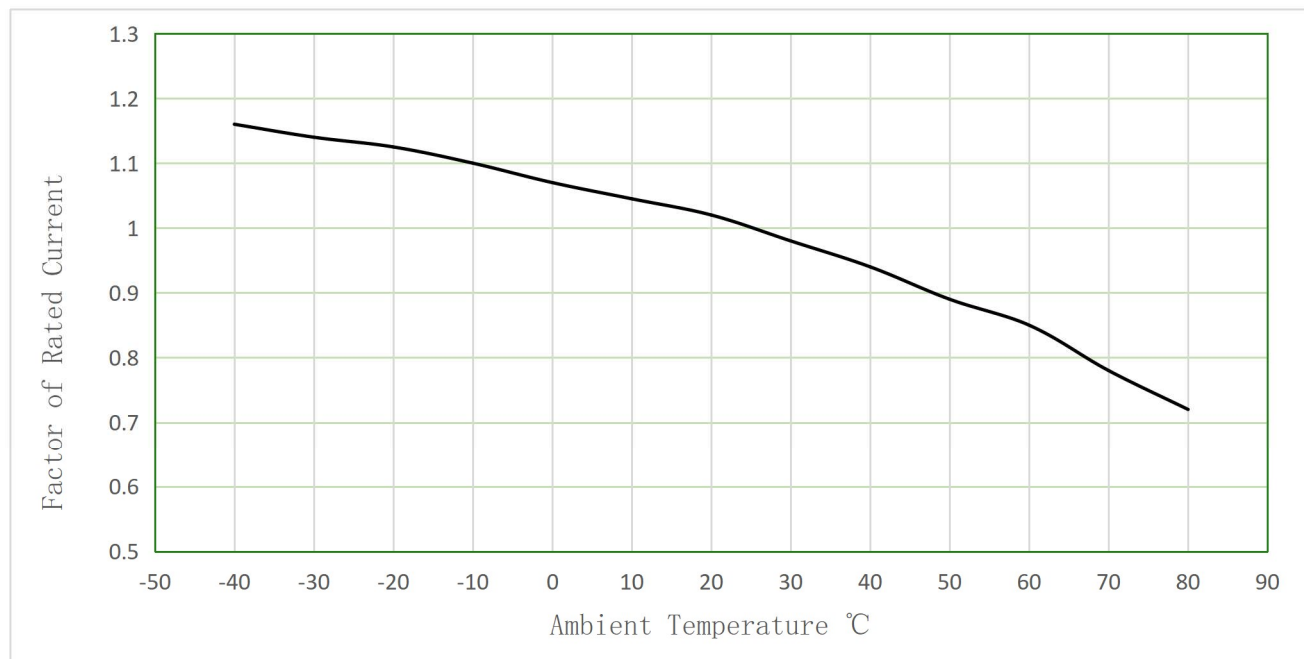


TEMPERATURE DERATING CURVE

EF3xxxx220 and 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.