

# Type 0ALC

## Electric Vehicle Power Fuses

0ALC



RoHS Compliant

### Features

- DC fuse for EV/HEV/ESS
- Stud-mount / Through hole, optional for other installation
- Excellent DC performance
- Reliability performance design refer to ISO8820-8&GB/T31465.6
- Designed to UL248-20
- Fully compliance with EU Directive 2011/65/EU and amending directive 2015/863



### Physical Specifications

|           |  |
|-----------|--|
| Materials | Body : Ceramic   |
|           | Cap : Silver Plated copper   |
| Marking   | On Fuse :  |
|           | "bel", "Current Rating", "Voltage Rating"  |
|           | On Label :   |
|           | "bel", "0ALCX", "Current Rating", "Voltage Rating", "Interrupting Rating", and "  ", "  "(China RoHS compliant). |

### Ratings

| Ampere Rating / Voltage Rating | Ampere Range / Volt @ I.R. ability* |
|--------------------------------|-------------------------------------|
| 50A-80A / 800V DC              | 50A-80A / 800V @ 50KA DC            |
| *I.R.=DC Interrupting Rating   |                                     |

### Electrical Specifications

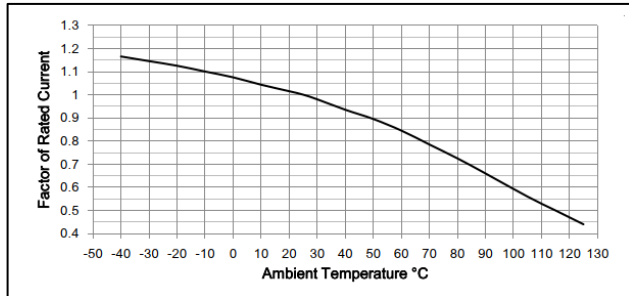
| Part Number  | Ampere Rating | Voltage and Interrupting Ratings   | Typical Pre-Arcing I <sup>2</sup> t (A <sup>2</sup> Sec)** | Power Loss@0.5In (W) |
|--------------|---------------|--|--|----------------------|
| 0ALCx9500-xx | 50A           | See Table of Ratings on Page 1 for Voltage and associated Interrupting Ratings | 2000   | 1.6                  |
| 0ALCx9600-xx | 60A           |  | 3600   | 1.65                 |
| 0ALCx9700-xx | 70A           |  | 5800   | 1.8                  |
| 0ALCx9800-xx | 80A           |  | 12500  | 2                    |

Consult manufacturer for other ratings

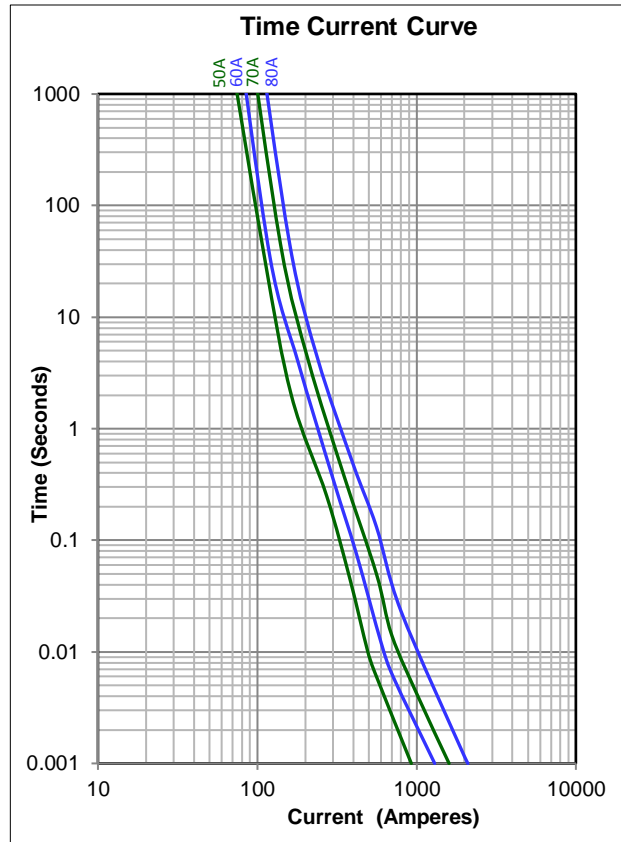
\*\*Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current.

## Temperature Re-Rating Curve

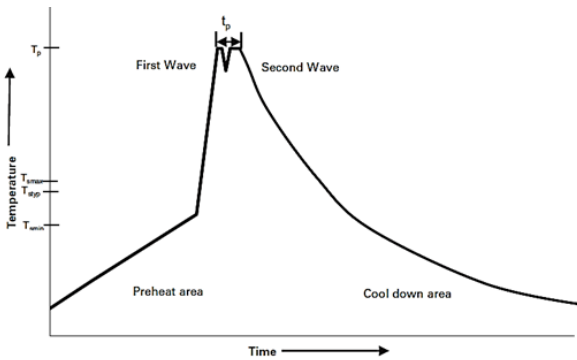
Normal Operating Temperature:  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$   
 Operating Temperature:  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  with proper correction factor applied.  
 Chart of correction factor



## Average Time Current Curve



## Wave Soldering profile



Reflow soldering not recommended

## Reference EN 61760-1:2006

| Profile Feature                      | Lead (Pb) Free Solder                         |            |
|--------------------------------------|---|------------|
| Preheat                              | • Temperature min. ( $T_{smin}$ )             | 100°C      |
|                                      | • Temperature typ. ( $T_{styp}$ )             | 120°C      |
|                                      | • Temperature max. ( $T_{smax}$ )             | 130°C      |
|                                      | • Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ ) | 70 seconds |
| $\Delta$ preheat to max. Temperature | 150°C max.                                    |            |
| Peak temperature ( $T_p$ )*          | 250°C – 260°C                                 |            |
| Time at peak temperature ( $t_p$ )   | 10 seconds max                                |            |
|                                      | 5 seconds max each wave                       |            |
| Ramp-down rate                       | - 2 K/s min<br>- 3.5 K/s typ<br>- 5 K/s max   |            |
| Time 25°C to 25°C                    | 4 minutes                                     |            |

## Fuse FGNO Explanation

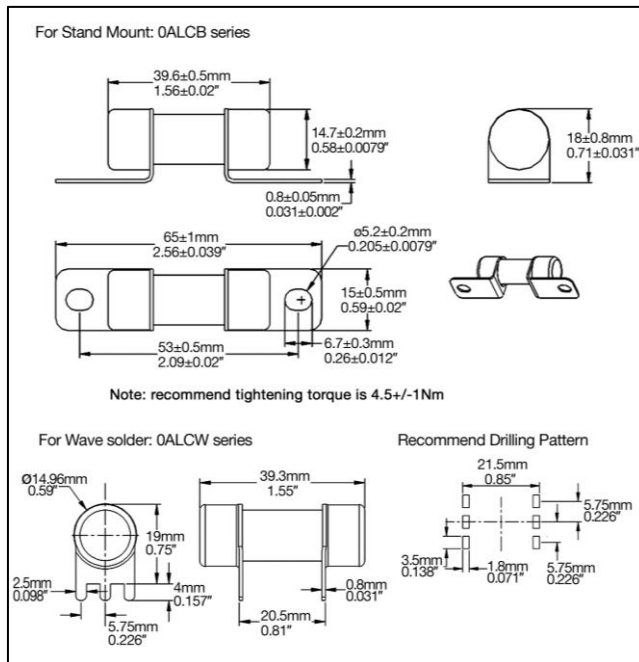
0ALC X [XXXX] -XX

0ALCB=0ALCB; 0ALCW=0ALCW

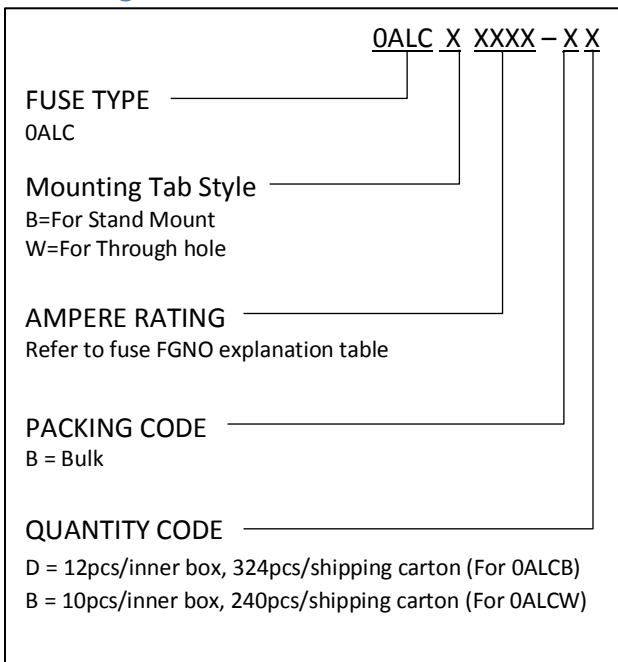
[XXXX]=Ampere Rating; XX=See Ordering Information as below

| Decimal | Amps | Bel FGNO[XXXX] |
|---------|------|----------------|
| 50      | 50   | 9500           |
| 60      | 60   | 9600           |
| 70      | 70   | 9700           |
| 80      | 80   | 9800           |

## Mechanical Dimensions



## Ordering Information



## Packaging

| Packaging Option | Quantity                                | Packaging Code |
|------------------|---|----------------|
| Bulk(0ALCB)      | 12pcs/inner box, 324pcs/shipping carton | BD             |
| Bulk(0ALCW)      | 10pcs/inner box, 240pcs/shipping carton | BB             |