

Data Sheet

Customer: _____

Product: Aluminum Electrolytic Capacitors – AELU Series

AEC-Q200 version available

Size : 22x25mm ~ 40x60mm

Issued Date: 16-Oct-2023

Edition: Ver. 1

Record of change

| Date | Ver. | Description | Page |
|-------------|------|-------------|------|
| 16-Oct-2023 | 1 | | |
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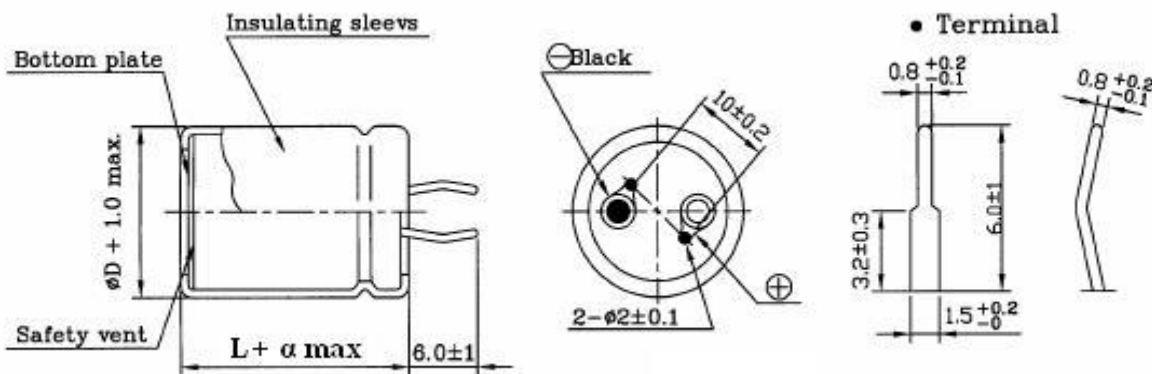
| Prepared by | Checked by | Approved by | Accepted by (customer) |
|-----------------|---------------|---------------|------------------------|
| 16-Oct-2023 | 16-Oct-2023 | 16-Oct-2023 | |
| <i>Andy Hsu</i> | <i>Hwa Wu</i> | <i>Hwa Wu</i> | |

- 85°C 3000 hours assured load life.
- Directly mountable on printed circuit board without holders.
- Rohs compliant
- Aluminum case designed explosion-proof vent.
- AEC-Q200 version available

Characteristics

| | | | | | | | | |
|---|---|--|-------------|---------|---------|---------|---------|--|
| Voltage Range | 16 ~ 100V | | 160 ~ 450V | | | | | |
| Capacitance Range | 220 ~ 8200uF | | 47 ~ 2700uF | | | | | |
| Temperature Range | -40 ~ +85°C | | -25 ~ +85°C | | | | | |
| Capacitance Tolerance | ±20% at 120Hz , 20°C(10% Tol. is available upon request) | | | | | | | |
| Leakage Current | $I = 3\sqrt{CV}$ (uA) max C: Capacitance, V:W.V. (After 5 minutes) | | | | | | | |
| Dissipation Factor (tanδ) (at 20°C, 120Hz) | Less than the value under table (%) | | | | | | | |
| | uF \\\ W.V. | 16 | 25~35 | 50~63 | 80~100 | 160~250 | 315~450 | |
| | 68 ~ 390 | - | - | - | - | 15 | 20 | |
| | 470 ~ 3900 | 25 | 20 | 20 | 20 | 15 | 20 | |
| | 4700~8200 | 35 | 30 | 30 | 25 | - | - | |
| | 10000~22000 | 40 | 35 | 30 | 25 | - | - | |
| | 27000~47000 | 45 | 40 | 35 | - | - | - | |
| Stability at Low Temperature | Impedance ration at 120Hz between the -25°C or -40°C value and 20°C value shall not exceed : | | | | | | | |
| | Rated Voltage (V) | 16 | 25~100 | 160~250 | 315~450 | | | |
| | Z-25°C/Z 20°C | 5 | 4 | 4 | 8 | | | |
| | Z-40°C/Z 20°C | 20 | 20 | - | - | | | |
| Load Life | The following specifications shall satisfied when the capacitors are restored to 20°C after rated working voltage applied for 3,000 hours at max. operating temperature with the rated ripple current. | | | | | | | |
| | Capacitance change | ≤ ±20% of the initial value. | | | | | | |
| | Dissipation factor | ≤ ±200% of the initial specified value | | | | | | |
| | Leakage current | ≤ The initial specified value. | | | | | | |
| Shelf Life | After storage for 1000 hours at 85°C with no voltage applied, the capacitor shall meet the specified limit in load life. Pre-treatment for measurement shall be conducted after application of DC working voltage for 30 minutes. | | | | | | | |

Diagram of Dimensions: (unit:mm)



Multiplier for Ripple Current VS Frequency

| Cap.(uF)\\ (Hz) | 60 | 120 | 1K | 10K | 50K - 100K |
|-------------------|-----|-----|------|------|------------|
| 10 < Cap. ≤ 100 | 0.8 | 1 | 1.36 | 1.48 | 1.53 |
| 100 < Cap. ≤ 1000 | 0.8 | 1 | 1.25 | 1.35 | 1.38 |
| 1000 < Cap. | 0.8 | 1 | 1.17 | 1.25 | 1.28 |

(mm)

| Dia | 22 ~ 25 | 30 ~ 40 |
|-----|---------|---------|
| α | 2 | 3 |

Standard Products Table

| W.V. | 400 | | | | | | 450 | | | | | |
|------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| Dimension | A | | B | | C | | A | | B | | C | |
| Cap. (uF) | Size | RC | Size | RC | Size | RC | Size | RC | Size | RC | Size | RC |
| 47 | 22x25 | 0.47 | | | | | 22x25 | 0.59 | | | | |
| 68 | 22x25 | 0.69 | | | | | 22x25 | 0.71 | | | | |
| 82 | 22x25 | 0.83 | | | | | 22x30 | 0.83 | 25x25 | 0.83 | | |
| 100 | 22x25 | 0.92 | 25x25 | 0.92 | | | 22x30 | 0.93 | 25x25 | 0.93 | | |
| 120 | 22x35 | 1.02 | 25x25 | 1.02 | | | 22x40 | 1.04 | 25x30 | 1.04 | 30x25 | 1.04 |
| 150 | 22x35 | 1.16 | 25x30 | 1.16 | 30x25 | 1.16 | 22x40 | 1.19 | 25x30 | 1.19 | 30x30 | 1.19 |
| 180 | 22x45 | 1.44 | 25x35 | 1.44 | | | 25x45 | 1.35 | 30x35 | 1.35 | 35x25 | 1.35 |
| 220 | 22x45 | 1.49 | 25x35 | 1.49 | 30x30 | 1.49 | 25x40 | 1.55 | 30x30 | 1.55 | 35x30 | 1.55 |
| 270 | 25x45 | 1.67 | 30x35 | 1.67 | 35x30 | 1.67 | 30x45 | 1.78 | 35x35 | 1.78 | | |
| 330 | 25x45 | 1.90 | 30x35 | 1.90 | | | 30x40 | 2.01 | 35x35 | 2.01 | | |
| 390 | 30x45 | 2.13 | 35x40 | 2.13 | | | 35x45 | 2.24 | | | | |
| 470 | 35x45 | 2.39 | 35x35 | 2.39 | | | 35x45 | 2.53 | 35x50 | 2.53 | 40x40 | 2.53 |
| 560 | 35x45 | 2.69 | 35x50 | 2.69 | 40x40 | 2.69 | 35x50 | 2.88 | | | | |
| 680 | 35x50 | 3.00 | | | | | 40x50 | 3.15 | | | | |
| 820 | 40x50 | 3.38 | | | | | | | | | | |

Unit : (mm)

Ripple Current (A, rms) at 85°C 120Hz

Part Numbering Designation

| | | | | | |
|--------------------|-------------------|-----------------|------------------|-----------------|-----------------|
| <u>AELU</u> | <u>101</u> | <u>M</u> | <u>2G</u> | <u>B</u> | <u>A</u> |
| SERIES | CAPACITANCE | TOL. | W.V. | PACKAGE | SIZE |
| | IN 3DIGITS | M= ± 20% | 16= 16V | B= Bulk | A= A Size |
| | 101= 100uF | K= ± 10% | 25= 25V | | B= B Size |
| | 102= 1000uF | | 35= 35V | | C= C Size |
| | 103= 10,000uF | | 50= 50V | | |
| | | | 63= 63V | | |
| | | | 80= 80V | | |
| | | | 2A= 100V | | |
| | | | 2C= 160V | | |
| | | | 2D= 200V | | |
| | | | 2E= 250V | | |
| | | | 2V= 350V | | |
| | | | 2T= 385V | | |
| | | | 2G= 400V | | |
| | | | 2W= 450V | | |