

FEATURES

- Load life of 20,000 hours application of ripple current at 85°C.
- High ripple, high reliability.
- Best for use in industrial power supplies for inverter circuitry.



SPECIFICATIONS

| Item | Performance Characteristics | |
|---------------------------------|--|--|
| Operating Temperature Range | -25 to +85°C | |
| Rated Working Voltage Range | 350 to 450V | |
| Nominal Capacitance Range | 2200 to 12000µF | |
| Capacitance Tolerance | ±20% at 120Hz, +20°C | |
| Leakage Current | I ≤ 0.02CV (µA) or 5 (mA) whichever is smaller measured after 5 minutes application of rated working voltage at +20°C | |
| tan δ (120Hz, +20°C) | Working Voltage (V) | 350~450 |
| | tan δ (max.) | 0.25 |
| Low Temperature Characteristics | Impedance ratio max. at 120Hz | |
| | Working Voltage (V) Z-25°C / Z+20°C | 350~450 8 |
| High Temperature Loading | Test time : 20,000 hours Test temperature : +85°C Test conditions : Rated DC working voltage with rated ripple current | Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±30% of the initial measured value tan δ : ≤ 300% of the initial specified value |
| | Shelf Life | At +85°C no voltage applied after 1,000 hours and then being stabilized at +20°C the capacitors shall meet the following limits Leakage current : ≤ Initial specified value Cap. change : within ±20% of the initial measured value tan δ : ≤ 200% of the initial specified value |
| Industrial Standard | JIS C - 5101-4 (IEC 60384-4) | |

PART NUMBER SYSTEM (EXAMPLE : 350V 4700µF)

| | | | | | | | |
|---|-----|-------|---|-----|----|-------|-------|
| 1 | 2 3 | 4 5 6 | 7 | 8 9 | 10 | 11 12 | 13 14 |
| E | WL | 478 | M | 2V | U | 1N | OO |

Type (Terminal Code)
 Case Length (120mm)
 Diameter (76.2mm)
 Voltage (350V)
 Tolerance (±20%)
 Capacitance (4700µF)
 Series
 E-CAP

CASE SIZE TABLE

Method mount metal bracket

Unit : mm

Method to mount resin bushing (φ76) (Apply to L=150 or more)

Unit : mm

*** B**
3-leg brackets for φ90 capacitors have different hole shapes from the ordinary ones illustrated below.

Unit : mm

Method to mount resin bushing (φ90) (Apply to L=150 or more)

Unit : mm

Screw terminal type (φ35)

Unit : mm

Dimension of terminal pitch (w) and Nominal dia. of bolt

| φD | w | α | Nominal dia. of bolt |
|------|------|---|----------------------|
| 35 | 12.7 | 3 | M5 |
| 51 | 22.0 | 3 | M5 |
| 63.5 | 28.6 | 3 | M5 |
| 76 | 31.8 | 3 | M5 |
| 90 | 31.8 | 3 | M5 |

Dimensions of mounting bracket

| Voltage (Code) | | 3 - Leg | | | 2 - Leg | | |
|----------------|----|---------|------|------|---------|------|-----|
| Symbol | φD | 63.5 | 76 | 90 | 63.5 | 76 | 90 |
| P | | 38.1 | 44.5 | 50.8 | 40.5 | 46.5 | 53 |
| A | | 43 | 49.2 | 58.5 | 46.5 | 53 | 59 |
| T | | 8.0 | 7.0 | 8.0 | 7.0 | 6.0 | 6.0 |
| S | | 5.0 | 5.0 | 5.0 | 4.5 | 4.5 | 4.5 |
| U | | 14 | 14 | 18 | 14 | 14 | 14 |
| θ° | | 60 | 60 | 60 | 30 | 30 | 30 |
| H | | 25 | 30 | 35 | 35 | 35 | 35 |
| h | | 20 | 24 | 25 | 20 | 20 | 20 |

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

| Coefficient | Freq. (Hz) | 50 | 120 | 300 | 1k | 10k~ |
|---------------|------------|------|------|------|------|------|
| Rated Voltage | <160V | 0.80 | 1.00 | 1.08 | 1.15 | 1.15 |
| | ≥160V | 0.80 | 1.00 | 1.08 | 1.15 | 1.20 |

STANDARD RATINGS

| Voltage (Code) | | 350V (2V) | | 400V (2G) | | 450V (2W) | |
|----------------|------|------------|----------------|------------|----------------|------------|----------------|
| SV | | 400 | | 450 | | 500 | |
| Cap. (μF) | Code | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current |
| 2200 | 228 | | | | | 63.5 x 120 | 9.1 |
| 2700 | 278 | | | 63.5 x 120 | 10.1 | 63.5 x 130 | 10.6 |
| | | | | | | 76 x 120 | 11.2 |
| 3300 | 338 | 63.5 x 120 | 11.1 | 63.5 x 130 | 11.7 | 63.5 x 160 | 12.7 |
| | | | | | | 76 x 130 | 13.0 |
| 3900 | 398 | 63.5 x 130 | 12.8 | 63.5 x 160 | 13.8 | 63.5 x 170 | 14.4 |
| | | | | 76 x 120 | 14.7 | | |
| 4700 | 478 | 63.5 x 160 | 15.2 | 63.5 x 170 | 15.8 | 76 x 160 | 16.7 |
| | | 76 x 120 | 14.7 | 76 x 130 | 15.5 | | |
| 5600 | 568 | 63.5 x 170 | 17.3 | 63.5 x 190 | 18.2 | 76 x 190 | 20.1 |
| | | 76 x 130 | 16.9 | 76 x 160 | 18.3 | 90 x 160 | 19.9 |
| 6800 | 688 | 63.5 x 190 | 20.0 | 76 x 170 | 21.0 | 90 x 170 | 23.0 |
| | | 76 x 160 | 20.2 | | | | |
| 8200 | 828 | 76 x 170 | 23.1 | 90 x 160 | 24.1 | 90 x 190 | 26.4 |
| 10000 | 109 | 90 x 160 | 26.6 | 90 x 190 | 29.1 | | |
| 12000 | 129 | 90 x 190 | 32.0 | | | | |

Maximum Allowable Ripple Current (Arms) at 85°C 120Hz

Case Size Φ D x L (mm)