

ALUMINUM ELECTROLYTIC CAPACITORS

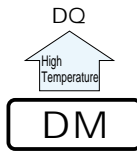
DM series 85°C Horizontal Mounting Type



Smaller

- For $\phi 20$, $\phi 22$ and $\phi 25$, but suited for horizontal mounting to assure flat and low-profile design.
- Adapted to the RoHS directive (2002/95/EC).

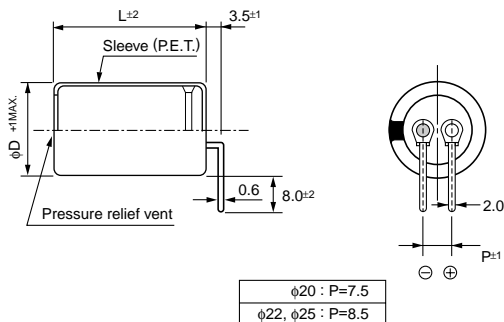
Products which are scheduled to be discontinued. Not recommended for new designs



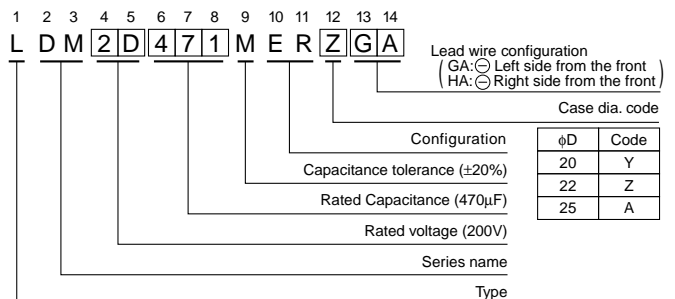
Specifications

| Item | Performance Characteristics | | |
|---------------------------------------|--|--------------------------------|---|
| Category Temperature Range | - 40 to + 85°C (200V), - 25 to + 85°C (400V) | | |
| Rated Voltage Range | 200 - 400V | | |
| Rated Capacitance Range | 82 to 1200 μ F | | |
| Capacitance Tolerance | $\pm 20\%$ at 120Hz, 20°C | | |
| Leakage Current | $I \leq 3\sqrt{CV}$ (μ A) (After 5 minutes' application of rated voltage) [C : Rated Capacitance (μ F) V : Voltage (V)] | | |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz, Temperature : 20°C | | |
| | Rated voltage (V) | 200 400 | |
| | tan δ (MAX.) | 0.15 0.15 | |
| Stability at Low Temperature | Measurement frequency : 120Hz | | |
| | Rated voltage (V) | 200 400 | |
| | Impedance ratio | Z - 25°C/Z+20°C 3 8 | |
| | ZT/Z20(MAX.) | Z - 40°C/Z+20°C 12 — | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 85°C, the peak voltage shall not exceed the rated voltage. | Capacitance change | Within $\pm 20\%$ of initial value |
| | | tan δ | 200% or less of initial specified value |
| Shelf Life | After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the characteristic requirements at right. | Capacitance change | Within $\pm 15\%$ of initial value |
| | | tan δ | 150% or less of initial specified value |
| Marking | Printed with white color letter on black sleeve. | Leakage current | Less than or equal to the initial specified value |

Drawing



Type numbering system (Example : 200V 470 μ F)



Dimensions

| Cap. (μ F) | V(Code) | Code | ϕD | 200V (2D) | | | 400V (2G) | | | | | |
|-----------------|---------|---------|----------|-----------|------|---------|-----------|------|---------|------|-------------------------------------|--------------|
| | | | | 20 | 22 | 25 | 20 | 22 | 25 | | | |
| 82 | 820 | | | | | | 20 × 30 | 0.78 | | | | |
| 100 | 101 | | | | | | 20 × 30 | 0.90 | | | | |
| 120 | 121 | | | | | | 20 × 35 | 1.02 | | | | |
| 150 | 151 | | | | | | 20 × 40 | 1.17 | 22 × 35 | 1.20 | | |
| 180 | 181 | | | | | | 20 × 50 | 1.30 | 22 × 40 | 1.38 | 25 × 35 | 1.25 |
| 220 | 221 | | | | | | | | 22 × 45 | 1.55 | 25 × 40 | 1.56 |
| 270 | 271 | 20 × 30 | 1.32 | | | | | | 22 × 60 | 1.70 | 25 × 45 | 1.70 |
| 330 | 331 | 20 × 30 | 1.49 | | | | | | | | 25 × 50 | 1.90 |
| 390 | 391 | 20 × 35 | 1.66 | | | | | | | | 25 × 60 | 2.15 |
| 470 | 471 | 20 × 40 | 1.93 | 22 × 35 | 1.88 | | | | | | | |
| 560 | 561 | 20 × 45 | 2.00 | 22 × 40 | 1.96 | | | | | | | |
| 680 | 681 | 20 × 50 | 2.30 | 22 × 45 | 2.43 | 25 × 35 | 2.68 | | | | | |
| 820 | 821 | | | 22 × 50 | 2.80 | 25 × 40 | 2.80 | | | | | |
| 1000 | 102 | | | 22 × 60 | 3.00 | 25 × 45 | 3.12 | | | | | |
| 1200 | 122 | | | | | 25 × 60 | 3.44 | | | | Case size $\phi D \times L$ (mm) | Rated ripple |

* Other ratings also available on request.

Rated Ripple (Arms) at 85°C 120Hz

Frequency coefficient of rated ripple current

| Frequency (Hz) | 50 | 60 | 120 | 300 | 1k | 10k | 50k or more |
|----------------|------|------|------|------|------|------|-------------|
| 200V | 0.81 | 0.85 | 1.00 | 1.17 | 1.32 | 1.45 | 1.50 |
| 400V | 0.77 | 0.82 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |

Minimum order quantity : 50pcs.