# ALUMINUM ELECTROLYTIC CAPACITOR (CD71 NP)

## NP FEATURES

- Non - polarity standard for radial lead type
- Ideally suited for exchange polarity circuits

## SPECIFICATIONS

| Item | Performance Characteristics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Operating Temperature Range | 6.3V.DC-100V.DC | | | | | | | | |
| Rated Voltage Range | -40℃~+85℃ | | | | | | | | |
| Nominal Capacitance Range | 0.1μF~4700μF | | | | | | | | |
| Capacitance Tolerance | ±20%(M,+25℃ 120Hz) | | | | | | | | |
| Leakage Current | After application of rated voltage for 2 minutes :I≤0.01CV or 3 μA(Whichever is greater ) 25 ℃<br>C: Nominal Capacitance in μF ; V: Rated Working Voltage in V | | | | | | | | |
| Dissipation Factor (tanδ) | When capacitance is over 1000 tanδ shall be added 0.02 with increase of every 1000 μF | | | | | | | | |
| | Rated Working Voltage(V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| | tanδ(MAX)(25℃,120Hz) | 0.24 | 0.24 | 0.20 | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 |
| Temperature Stability | Rated Working Voltage(V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| | Impedance Ratio(120Hz) | 4 | 3 | 2 | | | | | |
| | | 10 | 8 | 6 | 4 | 3 | | | |
| Load Life | After application of rated working voltage and maximum permissible ripple current specified at +85℃ for 500×2 hours, capacitors meet the characteristics requirements measured at +25°C listed below | | | | | | | | |
| | Leakage Current | Less than the initial specified value | | | | | | | |
| | tanδ | Less than 200% of the initial specified value | | | | | | | |
| | Capacitance Change | Within ±20% of the initial measured value | | | | | | | |
| Shelf Life | After leaving capacitors under no load at +85℃ for 500 hours ,capacitors meet the characteristics listed above | | | | | | | | |

## MULTIPLIER FOR RIPPLE CURRENT

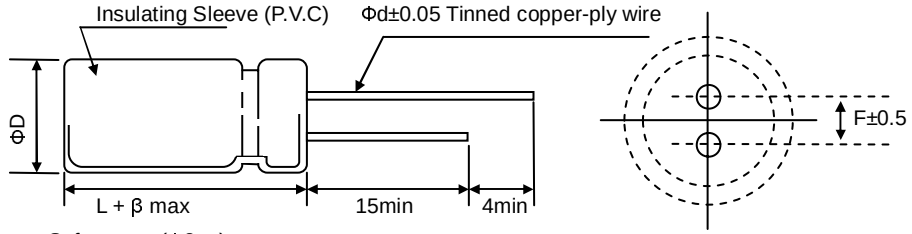
*Frequency coefficient*

| Freq(Hz) / Cap(μF) | 50(60) | 100(120) | 1k | 10k |
|---|---|---|---|---|
| 0.1~47 | 0.8 | 1.0 | 1.30 | 1.50 |
| 68~1000 | 0.8 | 1.0 | 1.15 | 1.20 |
| 2200~4700 | 0.8 | 1.0 | 1.10 | 1.15 |

*Temperature coefficient*

| Ambient Temperature(℃) | +85 | +70 | +50 |
|---|---|---|---|
| Factor | 1.0 | 1.6 | 2.0 |

## CASE SIZE TABLE




Safety vent (Φ8up)
*Φ6.3 is available by Request

| β | 0.5 | | 1.0 | | | | | |
|---|---|---|---|---|---|---|---|---|
| ΦD | 5 | 6.3 | 8 | 10 | 12 13 | | 16 | 18 |
| F±0.5 | 2.0 | 2.5 | 3.5 | 5 | | | 7.5 | |
| Φd±0.1 | 0.5 | | 0.6 | | | | 0.8 | |
| L | 11 | | | | | | | |
| α | 1.0 | | L<17: 1.0 L≥17:2.0 | | | | | |

# ALUMINUM ELECTROLYTIC CAPACITOR (CD71 NP)

## DIMENSIONS, RATED VOLTAGE RANGE AND CAPACITANCE

| WV(v) / Cap(μF) | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 100 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) |
| **0.1** | | | | | | | | | | | 5X11 | 4 | | | | |
| **0.15** | | | | | | | | | | | 5X11 | 5 | | | | |
| **0.22** | | | | | | | | | | | 5X11 | 7 | | | | |
| **0.33** | | | | | | | | | | | 5X11 | 8 | | | | |
| **0.47** | | | | | | | | | | | 5X11 | 10 | | | | |
| **0.68** | | | | | | | | | | | 5X11 | 12 | | | | |
| **1** | | | | | | | | | | | 5X11 | 14 | 5X11 | 14 | 5X11 | 16 |
| **1.5** | | | | | | | | | | | 5X11 | 18 | 5X11 | 18 | 5X11 | 19 |
| **2.2** | | | | | | | | | | | 5X11 | 21 | 5X11 | 23 | 6.3X11 | 24 |
| **3.3** | | | | | | | | | | | 5X11 | 25 | 5X11 | 28 | 6.3X11 | 34 |
| **4.7** | | | | | | | | | 5X11 | 28 | 5X11 | 31 | 5X11 | 34 | 6.3X11 | 41 |
| **6.8** | | | | | | | | | 5X11 | 34 | 5X11 | 37 | 6.3X11 | 47 | 8X12 | 50 |
| **10** | | | | | 5X11 | 39 | 5X11 | 40 | 5X11 | 42 | 6.3X11 | 45 | 6.3X11 | 57 | 8X12 | 70 |
| **15** | | | | | 5X11 | 47 | 5X11 | 48 | 6.3X11 | 51 | 6.3X11 | 55 | 8X12 | 69 | 8X16 (10x14) | 85 |
| **22** | 5X11 | 47 | 5X11 | 52 | 5X11 | 58 | 5X11 | 60 | 6.3X11 | 71 | 8X12 | 77 | 8X12 | 89 | 10X20 | 136 |
| **33** | 5X11 | 58 | 5X11 | 63 | 6.3X11 | 71 | 6.3X11 | 84 | 8X12 | 87 | 8X12 | 111 | 8X16 (10X14) | 144 | 10X20 | 181 |
| **47** | 5X11 | 69 | 5X11 | 75 | 6.3X11 | 97 | 6.3X11 | 100 | 8X12 | 122 | 8X16 (10x14) | 157 | 10X17 | 188 | 12X20 | 248 |
| **68** | 6.3X11 | 83 | 6.3X11 | 91 | 8X12 | 114 | 8X12 | 120 | 8X16 (10X14) | 149 | 10X20 | 191 | 10X20 | 229 | 13X25 | 303 |
| **100** | 6.3X11 | 115 | 6.3X11 | 126 | 8X12 | 167 | 8X12 | 210 | 10X17 | 212 | 10X20 | 273 | 12X20 | 343 | 16X25 | 458 |
| **150** | 8X12 | 141 | 8X12 | 221 | 8X12 | 200 | 8X16 (10X14) | 256 | 10X17 | 259 | 13X20 | 333 | 13X20 | 418 | 16X30 | 559 |
| **220** | 8X12 | 202 | 8X12 | 271 | 8X16 (10X14) | 294 | 10X17 | 332 | 12X20 | 375 | 13X20 | 506 | 16X25 | 645 | 18X35 | 837 |
| **330** | 8X12 | 247 | 8X16 (10X14) | 322 | 10X17 | 394 | 10X20 | 444 | 13X20 | 526 | 13X20 | 620 | 16X30 | 786 | | |
| **470** | 8X16 (10X14) | 250 | 10X20 | 420 | 10X20 | 513 | 12X20 | 607 | 13X25 | 685 | 16X25 | 861 | 18X35 | 940 | | |
| **680** | 10X17 | 420 | 10X20 | 504 | 13X20 | 616 | 13X25 | 741 | 16X25 | 836 | 16X30 | 1050 | | | | |
| **1000** | 10X20 | 530 | 10X20 | 767 | 13X25 | 935 | 16X25 | 1120 | 16X30 | 1270 | 18X35 | 1282 | | | | |
| **2200** | 13X20 | 840 | 16X25 | 1230 | 18X30 | 1500 | 18X30 | 1800 | | | | | | | | |
| **3300** | 16X25 | 1090 | 16X30 | 1560 | 18X35 | 1915 | | | | | | | | | | |
| **4700** | 16X30 | 1450 | 18X30 | 1930 | | | | | | | | | | | | |

(1) Case Size D×L(mm)
(2) Max allowable ripple current (mArns+85℃120Hz)