

Features

- Screw terminal series for Load life 3000 hours at 85°C. High ripple capability. High reliability.

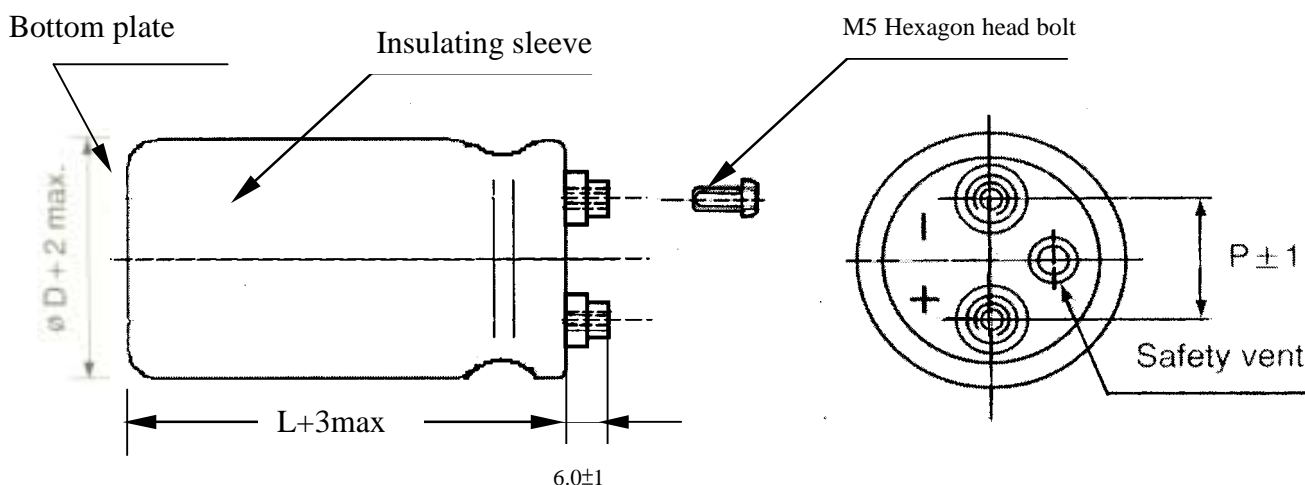
Application

- Designed for use as input filter capacitor for current U.P.S.
- Suited for smoothing circuits for general purpose inverters and control circuits for F.A. machines.

Characteristics

| | | | | | | | | | | | |
|---|--|---|-----|-----|-----|------|------|------|------|-----------|-----------|
| Voltage Range | 10 ~ 100V | 160 ~ 450V | | | | | | | | | |
| Capacitance Range | 2200 ~ 680000uF | 270 ~ 22000uF | | | | | | | | | |
| Temperature Range | -40 ~ +85°C | -25 ~ +85°C | | | | | | | | | |
| Capacitance Tolerance | +20% -20% (at 20°C, 120Hz) | | | | | | | | | | |
| Leakage Current | $I=(0.02CV) \mu A$ max C: Capacitance, V:W.V. (After 5 minutes) | | | | | | | | | | |
| Dissipation Factor(tan δ) (at 20°C, 120Hz) | Less than the value under table (%) | | | | | | | | | | |
| | ØD \\\ W.V. | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 ~ 250 | 350 ~ 450 |
| | 36 | 0.75 | 0.6 | 0.4 | 0.3 | 0.25 | 0.2 | 0.2 | 0.15 | 0.15 | 0.2 |
| | 51 | 1.0 | 0.7 | 0.5 | 0.5 | 0.3 | 0.25 | 0.2 | 0.2 | 0.15 | 0.2 |
| | 64 | 1.3 | 0.8 | 0.7 | 0.6 | 0.5 | 0.3 | 0.25 | 0.25 | 0.2 | 0.25 |
| | 77 | 1.5 | 1.0 | 0.8 | 0.7 | 0.6 | 0.4 | 0.3 | 0.25 | 0.2 | 0.25 |
| Stability at Low Temperature | Impedance ratio at 120Hz between the -25°C or -40°C value and 20°C value shall not exceed : | | | | | | | | | | |
| | $Z_{-25°C}/Z_{20°C}$ | | | | | | | | | 3 max | |
| | $Z_{-40°C}/Z_{20°C}$ | | | | | | | | | 12 max | |
| Load Life | The following specifications shall satisfied when the capacitors are restored to 20°C after rated voltage applied for 3,000 hours at max. operating temperature with the rated ripple current applied. | | | | | | | | | | |
| | Capacitance change | $\leq \pm 15\%$ of the initial value. | | | | | | | | | |
| | Dissipation factor | $\leq \pm 175\%$ of the initial specified value | | | | | | | | | |
| | Leakage current | \leq The initial specified value. | | | | | | | | | |
| Shelf Life | After storage for 500 hours at 85°C with no voltage applied, the capacitor shall meet the specified limit in load life. | | | | | | | | | | |

Diagram of dimensions



Multiplier for Ripple Current VS Frequency

| Cap.(uF)\\ (Hz) | 60 | 120 | 400 | 1K | 10K ≤ |
|-----------------|-----|-----|------|------|-------|
| 10~50 WV | 0.8 | 1 | 1.03 | 1.05 | 1.08 |
| 63~100 WV | 0.8 | 1 | 1.05 | 1.07 | 1.10 |
| 160~450 WV | 0.8 | 1 | 1.10 | 1.13 | 1.18 |

Dimension of terminal pitch (W)

| ΦD (mm) | P (mm) |
|---------|--------|
| 36 | 12.7 |
| 51 | 22.0 |
| 64 | 28.6 |
| 77 | 31.8 |

Multiplier for R.C. vs Temperature

| Temp.(°C) | 60 ≥ | 70 | 85 |
|------------|------|-----|-----|
| Multiplier | 1.8 | 1.6 | 1.0 |

Standard Products Table

| CAP | WV | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 80 | | |
|--------|--------|------|--------|-------|--------|-------|--------|-------|--------|--------|--------|--------|--------|--------|-------|------|
| | | μF | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. |
| 3300 | | | | | | | | | | | | | | 36x53 | 2.5 | |
| 3900 | | | | | | | | | | | | | | 36x53 | 2.6 | |
| 4700 | | | | | | | | | | | | | | 36x53 | 2.8 | |
| 5600 | | | | | | | | | | | | | 36x53 | 3.0 | 36x65 | 2.9 |
| 6800 | | | | | | | | | | 36x53 | 3.3 | 36x53 | 3.2 | 36x83 | 3.7 | |
| 8200 | | | | | | | | | | 36x53 | 3.7 | 36x65 | 3.8 | 36x83 | 4.2 | |
| 10000 | | | | | | | | 36x53 | 3.6 | 36x53 | 4.3 | 36x83 | 4.1 | 36x101 | 5.0 | |
| 12000 | | | | | | | | 36x53 | 3.7 | 36x65 | 5.3 | 36x83 | 4.4 | 36x121 | 5.4 | |
| 15000 | | | | | | | | 36x53 | 4.0 | 36x83 | 5.5 | 36x101 | 5.5 | 51x83 | 7.7 | |
| 18000 | | | | | | 36x53 | 5.0 | 36x65 | 4.7 | 36x83 | 5.7 | 36x121 | 6.2 | 51x83 | 7.8 | |
| 22000 | | | | | | 36x65 | 5.4 | 36x83 | 5.6 | 36x83 | 6.1 | 51x83 | 7.1 | 51x83 | 8.0 | |
| 27000 | | | | 36x53 | 4.6 | 36x83 | 5.8 | 36x83 | 6.2 | 36x101 | 6.7 | 51x83 | 7.4 | 51x101 | 8.7 | |
| 33000 | | | | 36x65 | 5.0 | 36x83 | 6.0 | 36x83 | 6.3 | 36x121 | 7.1 | 51x101 | 8.8 | 51x121 | 10.5 | |
| 39000 | 36x53 | 4.8 | 36x83 | 6.3 | 36x83 | 6.7 | 36x101 | 7.6 | 51x83 | 7.4 | 51x121 | 10.0 | 64x101 | 12.1 | | |
| 47000 | 36x65 | 5.4 | 36x101 | 6.6 | 36x101 | 8.0 | 36x121 | 8.7 | 51x83 | 8.7 | 64x101 | 11.9 | 64x101 | 14.4 | | |
| 56000 | 36x83 | 5.7 | 36x101 | 6.8 | 36x121 | 8.4 | 51x83 | 10.0 | 51x101 | 9.8 | 64x101 | 12.6 | 64x121 | 15.0 | | |
| 68000 | 36x83 | 7.1 | 36x101 | 9.3 | 51x83 | 9.3 | 51x83 | 10.8 | 51x101 | 12.0 | 64x121 | 15.0 | 64x141 | 16.8 | | |
| 82000 | 36x121 | 7.6 | 36x121 | 9.5 | 51x83 | 10.0 | 51x101 | 12.0 | 64x101 | 12.3 | 77X101 | 16.4 | 77X121 | 19.4 | | |
| 100000 | 36x121 | 8.4 | 51x83 | 9.8 | 51x101 | 12.0 | 51x121 | 13.6 | 64x121 | 14.2 | 77X121 | 18.9 | 77X141 | 21.5 | | |
| 120000 | 51x83 | 9.0 | 51x101 | 10.0 | 51x121 | 12.9 | 64x101 | 13.8 | 64x121 | 16.0 | 77X141 | 21.6 | | | | |
| 150000 | 51x83 | 9.9 | 51x101 | 11.3 | 64x101 | 15.3 | 64x101 | 14.6 | 77X121 | 18.6 | | | | | | |
| 180000 | 51x101 | 10.9 | 51x121 | 11.9 | 64x101 | 15.5 | 64x121 | 16.7 | 77X141 | 19.5 | | | | | | |
| 220000 | 51x101 | 12.6 | 64x101 | 13.2 | 64x121 | 18.0 | 77X101 | 17.4 | | | | | | | | |
| 270000 | 51x121 | 12.8 | 64x121 | 13.9 | 77x101 | 18.8 | 77X141 | 23.1 | | | | | | | | |
| 330000 | 64x101 | 15.6 | 64x141 | 16.5 | 77X121 | 23.2 | 77X151 | 25.9 | | | | | | | | |
| 390000 | 64x121 | 16.2 | 77X121 | 17.1 | 77X141 | 23.5 | | | | | | | | | | |
| 470000 | 64x141 | 17.4 | 77X141 | 19.8 | | | | | | | | | | | | |
| 560000 | 77X121 | 18.1 | 77X151 | 20.7 | | | | | | | | | | | | |
| 680000 | 77X141 | 21.6 | | | | | | | | | | | | | | |

| CAP | WV | 100 | | 160 | | 200 | | 250 | | 350 | | 400 | | 450 | | |
|-------|--------|------|--------|-------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| | | μF | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. | Size | R.C. |
| 270 | | | | | | | | | | | | 36x53 | 1.3 | 36x53 | 1.6 | |
| 330 | | | | | | | | | | | | 36x53 | 1.7 | 36x65 | 1.8 | |
| 390 | | | | | | | | | | 36x53 | 1.9 | 36x65 | 1.8 | 36x83 | 2.2 | |
| 470 | | | | | | | | 36x53 | 1.6 | 36x65 | 2.1 | 36x83 | 2.3 | 36x83 | 2.4 | |
| 560 | | | | | | | | 36x53 | 1.6 | 36x83 | 2.4 | 36x83 | 2.7 | 36x101 | 2.8 | |
| 680 | | | | | | 36x53 | 1.6 | 36x53 | 1.7 | 36x83 | 2.9 | 36x101 | 2.9 | 36x121 | 3.1 | |
| 820 | | | | | | 36x53 | 1.7 | 36x65 | 1.8 | 36x101 | 3.4 | 36x101 | 3.4 | 51x83 | 3.6 | |
| 1000 | | | | | | 36x65 | 2.2 | 36x83 | 2.4 | 36x101 | 3.8 | 36x121 | 3.9 | 51x83 | 4.0 | |
| 1200 | | | | 36x53 | 2.3 | 36x65 | 2.3 | 36x83 | 2.4 | 36x121 | 4.2 | 51x83 | 4.2 | 51x101 | 4.8 | |
| 1500 | | | | 36x65 | 3.2 | 36x83 | 2.9 | 36x101 | 3.1 | 51x83 | 4.7 | 51x101 | 4.8 | 51x121 | 5.7 | |
| 1800 | | | | 36x83 | 3.4 | 36x83 | 2.9 | 36x121 | 3.4 | 51x101 | 6.3 | 51x101 | 5.7 | 64x101 | 6.5 | |
| 2200 | 36x53 | 2.5 | 36x83 | 3.6 | 36x101 | 3.6 | 51x83 | 3.9 | 51x101 | 6.4 | 51x121 | 7.0 | 64x101 | 7.2 | | |
| 2700 | 36x53 | 2.7 | 36x101 | 3.8 | 36x121 | 4.0 | 51x83 | 4.0 | 64x101 | 8.8 | 64x101 | 7.9 | 64x121 | 8.7 | | |
| 3300 | 36x53 | 3.2 | 36x121 | 4.7 | 51x83 | 4.6 | 51x101 | 5.4 | 64x101 | 8.8 | 64x121 | 9.5 | 77X121 | 10.5 | | |
| 3900 | 36x65 | 3.3 | 51x83 | 5.3 | 51x83 | 4.7 | 51x121 | 6.0 | 64x121 | 10.3 | 77X101 | 10.7 | 77X121 | 12.0 | | |
| 4700 | 36x83 | 3.5 | 51x83 | 5.6 | 51x101 | 7.1 | 64x101 | 7.3 | 77X101 | 12.0 | 77X121 | 12.8 | 77X141 | 13.3 | | |
| 5600 | 36x83 | 3.8 | 51x101 | 6.4 | 51x121 | 8.3 | 64x101 | 7.3 | 77X121 | 12.7 | 77X141 | 14.5 | | | | |
| 6800 | 36x101 | 4.5 | 51x101 | 7.5 | 64x101 | 9.5 | 64x121 | 8.9 | 77X141 | 16.0 | 77X151 | 17.5 | | | | |
| 8200 | 36x101 | 6.0 | 51x121 | 8.1 | 64x101 | 10.0 | 77X101 | 8.9 | | | | | | | | |
| 10000 | 36x121 | 6.3 | 64x101 | 9.9 | 64x121 | 11.1 | 77X121 | 11.8 | | | | | | | | |
| 12000 | 51x83 | 6.6 | 64x121 | 10.8 | 77X101 | 11.6 | 77X141 | 13.1 | | | | | | | | |
| 15000 | 51x83 | 8.5 | 77X101 | 12.7 | 77X121 | 12.9 | | | | | | | | | | |
| 18000 | 51x101 | 8.9 | 77X121 | 14.1 | 77X141 | 15.2 | | | | | | | | | | |
| 22000 | 51x121 | 10.2 | 77X141 | 16.6 | | | | | | | | | | | | |
| 27000 | 64x101 | 11.0 | | | | | | | | | | | | | | |
| 33000 | 64x121 | 11.7 | | | | | | | | | | | | | | |
| 39000 | 77X101 | 12.5 | | | | | | | | | | | | | | |
| 47000 | 77X121 | 14.5 | | | | | | | | | | | | | | |
| 56000 | 77X141 | 16.2 | | | | | | | | | | | | | | |
| 68000 | 77X151 | 18.3 | | | | | | | | | | | | | | |

Ripple Current (A, rms) at 85°C 120Hz