

UC Series 85°C



Features

Standard capacitors

Applications

- ◆ Professional power supplies
- ◆ Frequency converters
- ◆ Uninterruptible power supplies
- ◆ Used for air conditioner, general-purpose inverter

Features

- ◆ High reliability
- ◆ Long useful life
- ◆ High ripple current capability
- ◆ Aluminum case designed explosion-proof vent
- ◆ RoHS-compatible

Construction

- ◆ Charge-discharge proof, polar
- ◆ Aluminum case with insulating sleeve
- ◆ Aluminum case designed explosion-proof vent
- ◆ Snap-in solder pins to hold component in place on PC-board

Specifications

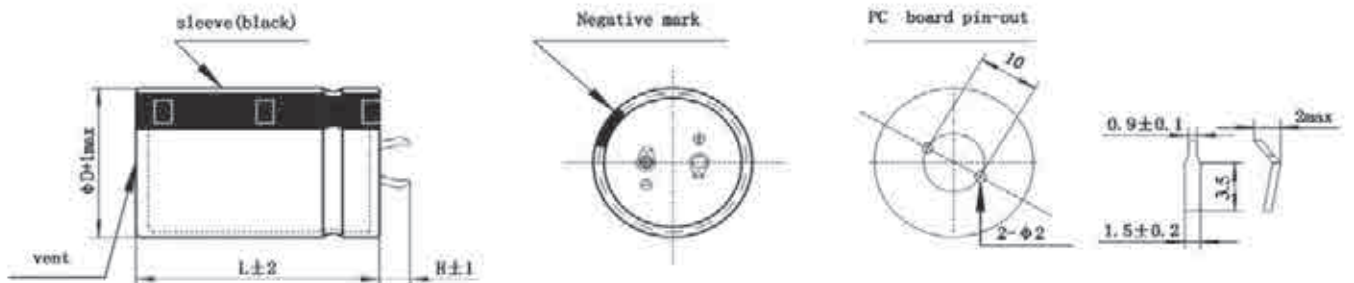
| Item | Performance Characteristics | | | | |
|---|---|--|-----------|-------|-----------|
| Operating Temperature Range | -40 to +85°C | -25 to +85°C | | | |
| Rated voltage V_R | 200 to 450 V DC | 500 to 630 V DC | | | |
| Surge voltage V_S | $V_R \leq 315V$ 1.15 V_R $V_R > 315V$ 1.10 V_R | | | | |
| Rated capacitance C_R | 68 ~ 6800 μF | 56 ~ 1500 μF | | | |
| Capacitance tolerance | $\pm 20\%$ (120Hz, +20°C) | | | | |
| Leakage Current I_{leak} (+20°C, max.) | $I \leq 3 \sqrt{CV}$ (μA) After 5 minutes with rated working voltage applied | | | | |
| Dissipation Factor ($\tan \delta$, at 20°C, 120Hz) | Less than the value under table(%) | | | | |
| | W.V.(V) | 160~420 450~630 | | | |
| | D.F.(%) max | 15 20 | | | |
| Self-inductance ESL | approx. 20 nH | | | | |
| Useful life 85°C; $V_R, I_{AC,R}$ | >7000 h | Requirements: | | | |
| | | $\Delta C/C \leq \pm 20\%$ of initial value $\tan \delta \leq 2$ times initial specified limit $I_{leak} \leq$ initial specified limit | | | |
| Voltage Endurance test 85°C; V_R | 3000 h | Post test requirements: | | | |
| | | $\Delta C/C \leq \pm 10\%$ of initial value $\tan \delta \leq 1.3$ times initial specified limit $I_{leak} \leq$ initial specified limit | | | |
| Shelf Life 85°C | 1000 h | Post test requirements: | | | |
| | | $\Delta C/C \leq \pm 10\%$ of initial value $\tan \delta \leq 1.3$ times initial specified limit $I_{leak} \leq$ initial specified limit | | | |
| Vibration Resistance test | To IEC 60068-2-6, test Fc: | | | | |
| | Displacement amplitude 0.75 mm, frequency range 10 ... 55 Hz, acceleration max. 10 g, duration 3x2 h. Capacitor mounted by its body which is rigidly clamped to the work surface. | | | | |
| Characteristics at low temperature | Max. impedance ratio at 120 Hz | | | | |
| | $V_R(V)$ | 200-250 V | 315-450 V | 500 V | 550-630 V |
| | $Z_{-25^\circ C} / Z_{20^\circ C}$ | 4 | 5 | 6 | 7 |
| | $Z_{-40^\circ C} / Z_{20^\circ C}$ | 7 | 10 | - | - |
| Sectional specification | IEC 60384-4 and JIS-C-5101 | | | | |

Multiplier for Ripple Current vs. Frequency

| $V_R(V)/$ Frequency(Hz) | 50(60) | 120 | 300 | 1K | 10K | 50K-100K |
|-------------------------|--------|-----|------|------|------|----------|
| $160 \leq V_R \leq 250$ | 0.81 | 1 | 1.17 | 1.32 | 1.45 | 1.5 |
| $315 \leq V_R \leq 600$ | 0.77 | 1 | 1.16 | 1.30 | 1.41 | 1.43 |

Dimensional drawings

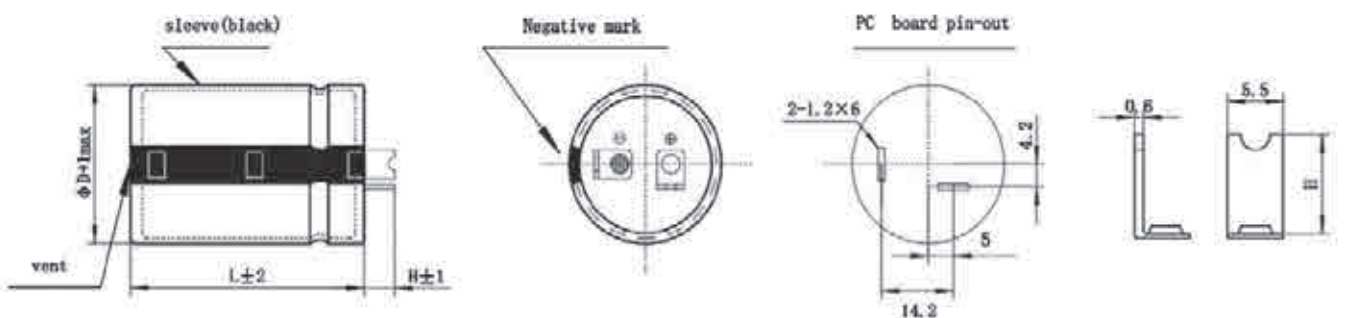
1. Standard 2 terminals



Standard snap-in terminals: length (6.0 ± 1) mm
 Also available with length of (4.0 ± 1) mm

| H | h |
|---|-----|
| 6 | 2.5 |
| 4 | 1.5 |

2. Vibration proof terminal T type



Standard terminals: Length 4.5 ± 1 mm. Also available with length of 5.5 ± 1 mm

Packing

| Capacitor diameter D(mm) | Length L(mm) | Terminal length H(mm) | Each carton packing Qty units(pcs.) | Box/carton units(pcs.) | Each box packing Qty units(pcs.) |
|--------------------------|---------------------|-----------------------|-------------------------------------|------------------------|----------------------------------|
| 20 | all | / | 720 | 6 | 120 |
| 22 | < 55 | / | 600 | 6 | 100 |
| 22 | ≥ 55 | / | 400 | 4 | 100 |
| 25 | < 65 | / | 500 | 5 | 100 |
| 25 | ≥ 65 | / | 400 | 4 | 100 |
| 30 | ≤ 36 | < 6 (L=35、36) | 400 | 8 | 50 |
| 30 | $35 \leq L \leq 65$ | ≥ 6 (L=35、36) | 300 | 6 | 50 |
| 30 | > 65 | / | 200 | 4 | 50 |
| 35 | ≤ 25 | / | 400 | 8 | 50 |
| 35 | $25 < L < 45$ | / | 300 | 6 | 50 |
| 35 | $45 \leq L \leq 85$ | / | 200 | 4 | 50 |
| 35 | > 85 | / | 100 | 2 | 50 |
| 40 | 35 | < 6 | 200 | 5 | 40 |
| 40 | 35 | ≥ 6 | 160 | 4 | 40 |
| 40 | $40 \leq L \leq 45$ | / | 160 | 4 | 40 |
| 40 | $45 < L \leq 75$ | / | 120 | 3 | 40 |
| 40 | > 75 | / | 80 | 2 | 40 |
| 45 | $40 \leq L \leq 65$ | / | 140 | 4 | 35 |
| 45 | $65 < L \leq 100$ | / | 70 | 2 | 35 |

Packing of snap-in



Case Size

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 200 | 220 | 22x25 | 1.16 | 510 | 900 |
| 200 | 270 | 22x25 | 1.31 | 420 | 740 |
| 200 | 330 | 22x25 | 1.41 | 340 | 600 |
| 200 | 390 | 22x25 | 1.43 | 290 | 510 |
| 200 | 470 | 22x30 | 1.69 | 240 | 420 |
| 200 | 470 | 25x25 | 1.69 | 240 | 420 |
| 200 | 560 | 22x35 | 2.06 | 210 | 360 |
| 200 | 560 | 25x30 | 2.06 | 210 | 360 |
| 200 | 560 | 30x25 | 2.06 | 210 | 360 |
| 200 | 680 | 22x40 | 2.26 | 170 | 290 |
| 200 | 680 | 25x30 | 2.15 | 170 | 290 |
| 200 | 680 | 30x25 | 2.23 | 170 | 290 |
| 200 | 820 | 22x45 | 2.62 | 140 | 240 |
| 200 | 820 | 25x35 | 2.62 | 140 | 240 |
| 200 | 820 | 30x30 | 2.63 | 140 | 240 |
| 200 | 820 | 35x25 | 2.69 | 140 | 240 |
| 200 | 1000 | 22x50 | 2.70 | 110 | 200 |
| 200 | 1000 | 25x40 | 2.64 | 110 | 200 |
| 200 | 1000 | 30x30 | 2.63 | 110 | 200 |
| 200 | 1000 | 35x25 | 2.69 | 110 | 200 |
| 200 | 1200 | 25x45 | 2.90 | 97 | 170 |
| 200 | 1200 | 30x35 | 2.90 | 97 | 170 |
| 200 | 1200 | 35x30 | 3.00 | 97 | 170 |
| 200 | 1500 | 25x55 | 3.45 | 74 | 130 |
| 200 | 1500 | 30x45 | 3.47 | 74 | 130 |
| 200 | 1500 | 35x35 | 3.45 | 74 | 130 |
| 200 | 1800 | 30x50 | 4.00 | 63 | 110 |
| 200 | 1800 | 35x40 | 4.00 | 63 | 110 |
| 200 | 2200 | 30x60 | 4.60 | 52 | 90 |
| 200 | 2200 | 35x45 | 4.43 | 52 | 90 |
| 200 | 2200 | 40x40 | 4.52 | 52 | 90 |
| 200 | 2700 | 35x55 | 5.00 | 42 | 74 |
| 200 | 2700 | 40x50 | 5.24 | 42 | 74 |
| 200 | 3300 | 35x65 | 5.85 | 34 | 60 |
| 200 | 3300 | 40x60 | 5.91 | 34 | 60 |
| 200 | 3900 | 35x80 | 6.32 | 29 | 51 |
| 200 | 3900 | 40x60 | 6.00 | 29 | 51 |
| 200 | 4700 | 40x70 | 6.81 | 24 | 42 |
| 200 | 5600 | 40x80 | 7.45 | 20 | 36 |

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 200 | 6800 | 40x100 | 8.68 | 17 | 29 |
| 250 | 180 | 22x25 | 1.01 | 630 | 1110 |
| 250 | 220 | 22x25 | 1.26 | 510 | 900 |
| 250 | 270 | 22x25 | 1.41 | 420 | 740 |
| 250 | 330 | 22x30 | 1.59 | 340 | 600 |
| 250 | 330 | 25x25 | 1.54 | 340 | 600 |
| 250 | 390 | 22x30 | 1.60 | 290 | 510 |
| 250 | 390 | 25x25 | 1.58 | 290 | 510 |
| 250 | 470 | 22x35 | 1.74 | 240 | 420 |
| 250 | 470 | 25x30 | 1.74 | 240 | 420 |
| 250 | 470 | 30x25 | 1.81 | 240 | 420 |
| 250 | 560 | 22x45 | 2.13 | 210 | 360 |
| 250 | 560 | 25x35 | 2.05 | 210 | 360 |
| 250 | 560 | 30x25 | 2.02 | 210 | 360 |
| 250 | 680 | 22x50 | 2.50 | 170 | 290 |
| 250 | 680 | 25x45 | 2.55 | 170 | 290 |
| 250 | 680 | 30x30 | 2.40 | 170 | 290 |
| 250 | 820 | 25x50 | 2.93 | 140 | 240 |
| 250 | 820 | 30x35 | 2.80 | 140 | 240 |
| 250 | 820 | 35x30 | 2.90 | 140 | 240 |
| 250 | 1000 | 25x55 | 3.07 | 110 | 200 |
| 250 | 1000 | 30x45 | 3.12 | 110 | 200 |
| 250 | 1000 | 35x35 | 3.07 | 110 | 200 |
| 250 | 1200 | 25x60 | 3.35 | 97 | 170 |
| 250 | 1200 | 30x50 | 3.41 | 97 | 170 |
| 250 | 1200 | 35x35 | 3.21 | 97 | 170 |
| 250 | 1500 | 30x60 | 4.10 | 74 | 130 |
| 250 | 1500 | 35x45 | 3.95 | 74 | 130 |
| 250 | 1500 | 40x40 | 4.05 | 74 | 130 |
| 250 | 1800 | 30x65 | 4.30 | 63 | 110 |
| 250 | 1800 | 35x50 | 4.20 | 63 | 110 |
| 250 | 1800 | 40x45 | 4.30 | 63 | 110 |
| 250 | 2200 | 35x60 | 4.95 | 52 | 90 |
| 250 | 2200 | 40x50 | 4.95 | 52 | 90 |
| 250 | 2700 | 35x80 | 6.10 | 42 | 74 |
| 250 | 2700 | 40x70 | 6.10 | 42 | 74 |
| 250 | 3300 | 35x80 | 6.52 | 34 | 60 |
| 250 | 3300 | 40x70 | 6.61 | 34 | 60 |
| 250 | 3900 | 40x80 | 7.50 | 29 | 51 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 250 | 4700 | 40x100 | 8.91 | 24 | 42 |
| 350 | 82 | 22x20 | 0.65 | 1390 | 2430 |
| 350 | 100 | 22x25 | 0.78 | 1140 | 1990 |
| 350 | 100 | 25x20 | 0.75 | 1140 | 1990 |
| 350 | 120 | 22x25 | 1.00 | 950 | 1660 |
| 350 | 120 | 25x20 | 0.98 | 950 | 1660 |
| 350 | 150 | 22x30 | 1.26 | 760 | 1330 |
| 350 | 150 | 25x25 | 1.26 | 760 | 1330 |
| 350 | 180 | 22x35 | 1.30 | 630 | 1110 |
| 350 | 180 | 25x30 | 1.32 | 630 | 1110 |
| 350 | 180 | 30x25 | 1.38 | 630 | 1110 |
| 350 | 220 | 22x40 | 1.41 | 510 | 900 |
| 350 | 220 | 25x30 | 1.48 | 510 | 900 |
| 350 | 220 | 30x25 | 1.48 | 510 | 900 |
| 350 | 270 | 22x45 | 1.63 | 420 | 740 |
| 350 | 270 | 25x35 | 1.66 | 420 | 740 |
| 350 | 270 | 30x30 | 1.71 | 420 | 740 |
| 350 | 270 | 35x25 | 1.72 | 420 | 740 |
| 350 | 330 | 22x50 | 1.90 | 340 | 600 |
| 350 | 330 | 25x40 | 1.85 | 340 | 600 |
| 350 | 330 | 30x30 | 1.75 | 340 | 600 |
| 350 | 330 | 35x25 | 1.78 | 340 | 600 |
| 350 | 390 | 25x45 | 2.10 | 290 | 510 |
| 350 | 390 | 30x35 | 2.15 | 290 | 510 |
| 350 | 390 | 35x30 | 2.20 | 290 | 510 |
| 350 | 470 | 30x40 | 2.52 | 240 | 420 |
| 350 | 470 | 35x30 | 2.36 | 240 | 420 |
| 350 | 560 | 30x45 | 2.63 | 210 | 360 |
| 350 | 560 | 35x35 | 2.63 | 210 | 360 |
| 350 | 680 | 35x40 | 2.80 | 170 | 290 |
| 350 | 820 | 35x45 | 3.36 | 140 | 240 |
| 350 | 1000 | 35x60 | 4.60 | 110 | 200 |
| 350 | 1000 | 40x50 | 4.48 | 110 | 200 |
| 350 | 1200 | 35x60 | 4.65 | 97 | 170 |
| 350 | 1200 | 40x50 | 4.65 | 97 | 170 |
| 350 | 1500 | 35x80 | 6.10 | 74 | 130 |
| 350 | 1500 | 40x70 | 6.10 | 74 | 130 |
| 350 | 1500 | 45x60 | 6.15 | 74 | 130 |
| 350 | 1800 | 40x80 | 7.00 | 63 | 110 |
| 350 | 1800 | 45x70 | 7.00 | 63 | 110 |
| 350 | 2200 | 45x80 | 8.07 | 52 | 90 |
| 350 | 2700 | 45x100 | 9.48 | 42 | 74 |
| 400 | 68 | 22x20 | 0.67 | 1670 | 2930 |
| 400 | 82 | 22x25 | 0.81 | 1390 | 2430 |
| 400 | 100 | 22x25 | 0.82 | 1140 | 1990 |
| 400 | 100 | 25x20 | 0.80 | 1140 | 1990 |
| 400 | 120 | 22x25 | 1.01 | 950 | 1660 |
| 400 | 120 | 25x20 | 1.01 | 950 | 1660 |
| 400 | 150 | 22x25 | 1.40 | 760 | 1330 |
| 400 | 150 | 22x30 | 1.48 | 760 | 1330 |
| 400 | 150 | 25x25 | 1.48 | 760 | 1330 |
| 400 | 180 | 22x30 | 1.58 | 630 | 1110 |
| 400 | 180 | 22x35 | 1.65 | 630 | 1110 |
| 400 | 180 | 25x30 | 1.63 | 630 | 1110 |
| 400 | 180 | 30x25 | 1.65 | 630 | 1110 |
| 400 | 220 | 22x30 | 1.74 | 510 | 900 |
| 400 | 220 | 22x35 | 1.82 | 510 | 900 |
| 400 | 220 | 25x25 | 1.78 | 510 | 900 |
| 400 | 220 | 25x30 | 1.80 | 510 | 900 |
| 400 | 220 | 30x25 | 1.80 | 510 | 900 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 400 | 270 | 22x35 | 1.99 | 420 | 740 |
| 400 | 270 | 22x40 | 2.06 | 420 | 740 |
| 400 | 270 | 25x30 | 2.06 | 420 | 740 |
| 400 | 270 | 25x35 | 2.16 | 420 | 740 |
| 400 | 270 | 30x25 | 2.06 | 420 | 740 |
| 400 | 270 | 30x30 | 2.10 | 420 | 740 |
| 400 | 330 | 22x45 | 2.32 | 340 | 600 |
| 400 | 330 | 22x50 | 2.40 | 340 | 600 |
| 400 | 330 | 25x35 | 2.23 | 340 | 600 |
| 400 | 330 | 25x40 | 2.32 | 340 | 600 |
| 400 | 330 | 30x30 | 2.23 | 340 | 600 |
| 400 | 330 | 30x35 | 2.27 | 340 | 600 |
| 400 | 330 | 30x40 | 2.32 | 340 | 600 |
| 400 | 330 | 35x25 | 2.23 | 340 | 600 |
| 400 | 330 | 35x35 | 2.32 | 340 | 600 |
| 400 | 390 | 22x50 | 2.64 | 290 | 510 |
| 400 | 390 | 25x40 | 2.50 | 290 | 510 |
| 400 | 390 | 30x30 | 2.30 | 290 | 510 |
| 400 | 390 | 30x35 | 2.41 | 290 | 510 |
| 400 | 390 | 30x40 | 2.64 | 290 | 510 |
| 400 | 390 | 35x25 | 2.30 | 290 | 510 |
| 400 | 390 | 35x30 | 2.41 | 290 | 510 |
| 400 | 390 | 35x35 | 2.64 | 290 | 510 |
| 400 | 470 | 25x45 | 2.81 | 240 | 420 |
| 400 | 470 | 25x55 | 2.95 | 240 | 420 |
| 400 | 470 | 30x35 | 2.61 | 240 | 420 |
| 400 | 470 | 30x40 | 2.70 | 240 | 420 |
| 400 | 470 | 30x50 | 2.86 | 240 | 420 |
| 400 | 470 | 35x30 | 2.61 | 240 | 420 |
| 400 | 470 | 35x40 | 2.81 | 240 | 420 |
| 400 | 470 | 35x45 | 2.86 | 240 | 420 |
| 400 | 560 | 25x55 | 3.24 | 210 | 360 |
| 400 | 560 | 30x40 | 3.10 | 210 | 360 |
| 400 | 560 | 30x45 | 3.21 | 210 | 360 |
| 400 | 560 | 30x55 | 3.36 | 210 | 360 |
| 400 | 560 | 35x35 | 3.10 | 210 | 360 |
| 400 | 560 | 35x45 | 3.36 | 210 | 360 |
| 400 | 680 | 30x50 | 3.40 | 170 | 290 |
| 400 | 680 | 30x55 | 3.55 | 170 | 290 |
| 400 | 680 | 35x40 | 3.40 | 170 | 290 |
| 400 | 680 | 35x50 | 3.55 | 170 | 290 |
| 400 | 820 | 30x55 | 3.74 | 140 | 240 |
| 400 | 820 | 30x60 | 3.85 | 140 | 240 |
| 400 | 820 | 35x45 | 3.45 | 140 | 240 |
| 400 | 820 | 35x50 | 3.74 | 140 | 240 |
| 400 | 820 | 35x55 | 3.85 | 140 | 240 |
| 400 | 1000 | 35x55 | 4.60 | 110 | 200 |
| 400 | 1000 | 35x70 | 4.76 | 110 | 200 |
| 400 | 1000 | 40x45 | 4.48 | 110 | 200 |
| 400 | 1000 | 40x60 | 4.76 | 110 | 200 |
| 400 | 1000 | 45x40 | 4.48 | 110 | 200 |
| 400 | 1200 | 35x55 | 4.60 | 97 | 170 |
| 400 | 1200 | 35x60 | 4.77 | 97 | 170 |
| 400 | 1200 | 35x65 | 4.90 | 97 | 170 |
| 400 | 1200 | 40x60 | 4.95 | 97 | 170 |
| 400 | 1200 | 45x50 | 5.20 | 97 | 170 |
| 400 | 1500 | 35x80 | 6.20 | 74 | 130 |
| 400 | 1500 | 40x70 | 6.20 | 74 | 130 |
| 400 | 1500 | 45x60 | 6.20 | 74 | 130 |
| 400 | 1800 | 40x80 | 7.10 | 63 | 110 |

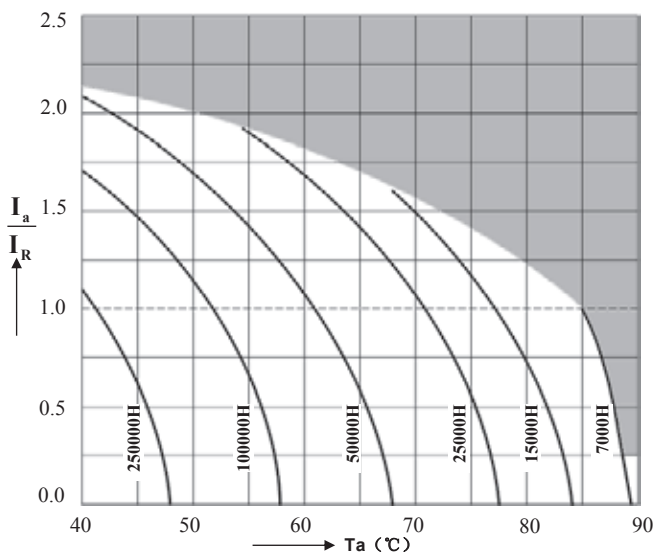
| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 400 | 1800 | 45x70 | 7.10 | 63 | 110 |
| 400 | 2200 | 45x85 | 8.25 | 52 | 90 |
| 450 | 68 | 22x20 | 0.68 | 2230 | 3900 |
| 450 | 82 | 22x25 | 0.82 | 1850 | 3230 |
| 450 | 100 | 22x25 | 0.84 | 1510 | 2650 |
| 450 | 120 | 22x25 | 1.30 | 1260 | 2210 |
| 450 | 120 | 22x30 | 1.36 | 1260 | 2210 |
| 450 | 120 | 25x25 | 1.40 | 1260 | 2210 |
| 450 | 150 | 22x30 | 1.53 | 1010 | 1770 |
| 450 | 150 | 22x35 | 1.59 | 1010 | 1770 |
| 450 | 150 | 25x30 | 1.59 | 1010 | 1770 |
| 450 | 150 | 30x25 | 1.55 | 1010 | 1770 |
| 450 | 180 | 22x35 | 1.65 | 840 | 1470 |
| 450 | 180 | 22x40 | 1.71 | 840 | 1470 |
| 450 | 180 | 25x35 | 1.71 | 840 | 1470 |
| 450 | 180 | 30x25 | 1.69 | 840 | 1470 |
| 450 | 220 | 22x35 | 1.79 | 690 | 1210 |
| 450 | 220 | 22x40 | 1.88 | 690 | 1210 |
| 450 | 220 | 25x30 | 1.85 | 690 | 1210 |
| 450 | 220 | 30x30 | 1.90 | 690 | 1210 |
| 450 | 270 | 22x40 | 2.15 | 560 | 980 |
| 450 | 270 | 22x45 | 2.22 | 560 | 980 |
| 450 | 270 | 25x35 | 2.12 | 560 | 980 |
| 450 | 270 | 30x30 | 2.12 | 560 | 980 |
| 450 | 330 | 22x50 | 2.41 | 460 | 800 |
| 450 | 330 | 22x55 | 2.46 | 460 | 800 |
| 450 | 330 | 25x40 | 2.41 | 460 | 800 |
| 450 | 330 | 25x45 | 2.44 | 460 | 800 |
| 450 | 330 | 30x30 | 2.22 | 460 | 800 |
| 450 | 330 | 30x35 | 2.41 | 460 | 800 |
| 450 | 330 | 35x25 | 2.11 | 460 | 800 |
| 450 | 390 | 25x50 | 2.65 | 390 | 680 |
| 450 | 390 | 30x35 | 2.51 | 390 | 680 |
| 450 | 390 | 30x40 | 2.65 | 390 | 680 |
| 450 | 390 | 35x30 | 2.39 | 390 | 680 |
| 450 | 470 | 25x55 | 3.09 | 320 | 560 |
| 450 | 470 | 30x40 | 2.82 | 320 | 560 |
| 450 | 470 | 30x45 | 3.09 | 320 | 560 |
| 450 | 470 | 35x35 | 2.82 | 320 | 560 |
| 450 | 470 | 35x40 | 3.09 | 320 | 560 |
| 450 | 470 | 35x45 | 3.20 | 320 | 560 |
| 450 | 560 | 25x60 | 3.40 | 270 | 470 |
| 450 | 560 | 30x50 | 3.17 | 270 | 470 |
| 450 | 560 | 30x55 | 3.23 | 270 | 470 |
| 450 | 560 | 35x35 | 2.82 | 270 | 470 |
| 450 | 560 | 35x40 | 3.17 | 270 | 470 |
| 450 | 680 | 30x55 | 3.50 | 220 | 390 |
| 450 | 680 | 35x45 | 3.40 | 220 | 390 |
| 450 | 680 | 35x50 | 3.50 | 220 | 390 |
| 450 | 680 | 40x40 | 3.40 | 220 | 390 |
| 450 | 820 | 35x50 | 3.60 | 180 | 320 |
| 450 | 820 | 35x55 | 3.86 | 180 | 320 |
| 450 | 820 | 40x50 | 4.10 | 180 | 320 |
| 450 | 820 | 45x45 | 4.10 | 180 | 320 |
| 450 | 1000 | 35x55 | 4.60 | 150 | 270 |
| 450 | 1000 | 35x60 | 4.71 | 150 | 270 |
| 450 | 1000 | 40x55 | 4.71 | 150 | 270 |
| 450 | 1000 | 45x50 | 4.71 | 150 | 270 |
| 450 | 1200 | 35x80 | 5.52 | 130 | 220 |
| 450 | 1200 | 40x65 | 5.43 | 130 | 220 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 450 | 1200 | 45x55 | 5.20 | 130 | 220 |
| 450 | 1500 | 45x70 | 6.28 | 100 | 180 |
| 450 | 1800 | 45x80 | 7.10 | 86 | 150 |
| 450 | 2200 | 45x90 | 8.50 | 69 | 120 |
| 500 | 56 | 22x25 | 0.60 | 2710 | 4740 |
| 500 | 68 | 22x25 | 0.64 | 2230 | 3900 |
| 500 | 68 | 25x20 | 0.63 | 2230 | 3900 |
| 500 | 82 | 22x30 | 0.76 | 1850 | 3230 |
| 500 | 82 | 25x25 | 0.76 | 1850 | 3230 |
| 500 | 100 | 22x35 | 0.87 | 1510 | 2650 |
| 500 | 100 | 25x30 | 0.87 | 1510 | 2650 |
| 500 | 100 | 30x20 | 0.85 | 1510 | 2650 |
| 500 | 120 | 22x40 | 1.05 | 1260 | 2210 |
| 500 | 120 | 25x30 | 1.05 | 1260 | 2210 |
| 500 | 120 | 30x25 | 1.05 | 1260 | 2210 |
| 500 | 150 | 22x45 | 1.20 | 1010 | 1770 |
| 500 | 150 | 25x35 | 1.20 | 1010 | 1770 |
| 500 | 150 | 30x30 | 1.20 | 1010 | 1770 |
| 500 | 150 | 35x25 | 1.20 | 1010 | 1770 |
| 500 | 180 | 22x50 | 1.35 | 840 | 1470 |
| 500 | 180 | 25x40 | 1.31 | 840 | 1470 |
| 500 | 180 | 30x30 | 1.30 | 840 | 1470 |
| 500 | 180 | 35x25 | 1.23 | 840 | 1470 |
| 500 | 220 | 30x35 | 1.52 | 690 | 1210 |
| 500 | 220 | 35x30 | 1.55 | 690 | 1210 |
| 500 | 270 | 30x40 | 1.78 | 560 | 980 |
| 500 | 270 | 35x35 | 1.83 | 560 | 980 |
| 500 | 330 | 30x50 | 2.16 | 460 | 800 |
| 500 | 330 | 35x35 | 2.04 | 460 | 800 |
| 500 | 390 | 35x45 | 2.45 | 390 | 680 |
| 500 | 390 | 35x50 | 2.58 | 390 | 680 |
| 500 | 470 | 35x50 | 2.80 | 320 | 560 |
| 500 | 470 | 35x55 | 2.92 | 320 | 560 |
| 500 | 560 | 35x60 | 3.37 | 270 | 470 |
| 500 | 560 | 40x50 | 3.32 | 270 | 470 |
| 500 | 680 | 35x70 | 3.92 | 220 | 390 |
| 500 | 680 | 40x55 | 3.83 | 220 | 390 |
| 500 | 680 | 40x60 | 3.92 | 220 | 390 |
| 500 | 820 | 35x80 | 4.57 | 180 | 320 |
| 500 | 820 | 40x60 | 4.35 | 180 | 320 |
| 500 | 1000 | 40x80 | 5.45 | 150 | 270 |
| 500 | 1500 | 40x100 | 6.58 | 100 | 180 |
| 575 | 180 | 30x45 | 1.16 | 840 | 1470 |
| 575 | 220 | 30x50 | 1.31 | 690 | 1210 |
| 575 | 270 | 30x60 | 1.65 | 560 | 980 |
| 575 | 270 | 35x45 | 1.65 | 560 | 980 |
| 575 | 330 | 30x70 | 1.76 | 460 | 800 |
| 575 | 330 | 35x50 | 1.76 | 460 | 800 |
| 575 | 330 | 40x45 | 1.76 | 460 | 800 |
| 575 | 390 | 30x85 | 2.00 | 390 | 680 |
| 575 | 390 | 35x60 | 2.00 | 390 | 680 |
| 575 | 390 | 40x55 | 2.00 | 390 | 680 |
| 575 | 470 | 35x70 | 2.25 | 320 | 560 |
| 575 | 470 | 40x60 | 2.25 | 320 | 560 |
| 575 | 470 | 45x50 | 2.25 | 320 | 560 |
| 575 | 560 | 35x80 | 2.50 | 270 | 470 |
| 575 | 560 | 40x70 | 2.50 | 270 | 470 |
| 575 | 560 | 45x55 | 2.50 | 270 | 470 |
| 575 | 680 | 35x95 | 2.85 | 220 | 390 |
| 575 | 680 | 40x80 | 2.85 | 220 | 390 |

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 575 | 680 | 45x65 | 2.85 | 220 | 390 |
| 575 | 820 | 40x100 | 3.20 | 180 | 320 |
| 575 | 820 | 45x75 | 3.20 | 180 | 320 |
| 575 | 1000 | 45x90 | 3.36 | 150 | 270 |
| 575 | 1200 | 45x105 | 3.56 | 130 | 220 |
| 600 | 150 | 30x45 | 1.10 | 1010 | 1770 |
| 600 | 180 | 30x50 | 1.11 | 840 | 1470 |
| 600 | 220 | 30x60 | 1.24 | 690 | 1210 |
| 600 | 270 | 30x70 | 1.35 | 560 | 980 |
| 600 | 330 | 30x80 | 1.36 | 460 | 800 |
| 600 | 330 | 40x50 | 1.36 | 460 | 800 |
| 600 | 390 | 40x60 | 1.60 | 390 | 680 |
| 600 | 470 | 40x70 | 1.75 | 320 | 560 |
| 600 | 470 | 45x55 | 1.75 | 320 | 560 |
| 600 | 560 | 40x80 | 1.90 | 270 | 470 |
| 600 | 560 | 45x60 | 1.90 | 270 | 470 |
| 600 | 680 | 40x90 | 2.00 | 220 | 390 |

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/85°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|---|--------------------------|-------------------------|
| 600 | 680 | 45x70 | 2.00 | 220 | 390 |
| 600 | 820 | 45x85 | 2.50 | 180 | 320 |
| 600 | 1000 | 45x100 | 2.90 | 150 | 270 |
| 630 | 150 | 30x45 | 1.00 | 1010 | 1770 |
| 630 | 180 | 30x50 | 1.02 | 840 | 1470 |
| 630 | 220 | 30x60 | 1.11 | 690 | 1210 |
| 630 | 270 | 30x70 | 1.30 | 560 | 980 |
| 630 | 330 | 30x85 | 1.33 | 460 | 800 |
| 630 | 330 | 40x50 | 1.33 | 460 | 800 |
| 630 | 470 | 40x70 | 1.70 | 320 | 560 |
| 630 | 470 | 45x55 | 1.70 | 320 | 560 |
| 630 | 560 | 40x80 | 1.80 | 270 | 470 |
| 630 | 560 | 45x65 | 1.80 | 270 | 470 |
| 630 | 680 | 40x95 | 1.95 | 220 | 390 |
| 630 | 680 | 45x75 | 1.95 | 220 | 390 |
| 630 | 820 | 45x90 | 2.30 | 180 | 320 |
| 630 | 1000 | 45x105 | 2.30 | 150 | 270 |

Useful life



depending on ambient temperature T_a versus under ripple current operating conditions