

HU Series 105°C 3000H



Features

Standard capacitors

Applications

- ◆ Switch-mode power supplies in industrial and entertainment electronics
- ◆ Uninterruptible power supplies

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

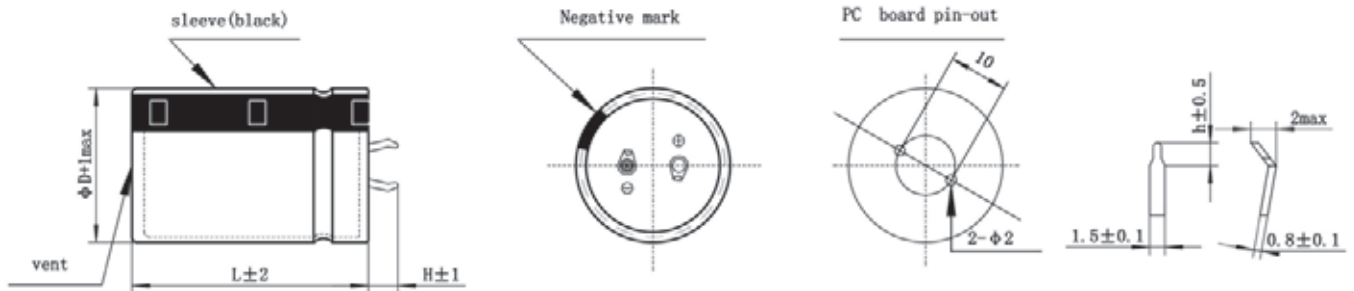
Specifications

| Item | Performance Characteristics | | | | | | | | | | | | |
|--|---|--|--|----|--------|---------|---------|---------|----|---------------|--|--|--|
| Operating Temperature Range | -40 to +105°C | -25 to +105°C | | | | | | | | | | | |
| Rated voltage V_R | 10 to 350 V DC | 385 to 500 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 | 56 to 82000 μF | 33 to 1200 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(%) | | | | | | | | | | | | |
| | $\mu F/Vdc$ | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~420 | 450~500 | |
| | ≤ 8200 | - | 35 | 35 | 30 | 25 | 20 | 20 | 15 | 15 | 15 | 20 | |
| | 10000 to 22000 | 55 | 40 | 40 | 35 | 30 | 30 | 25 | 15 | - | - | - | |
| ≥ 27000 | 60 | 50 | 40 | 35 | 35 | 30 | 25 | - | - | - | - | | |
| Self-inductance ESL | approx. 20 nH | | | | | | | | | | | | |
| Useful life 105°C; $V_R, I_{AC, R}$ | $V_R \leq 100V$: | Requirements: | | | | | | | | | | $V_R > 100V$ | |
| | >5000 h | $\Delta C/C$ | $\leq \pm 30\%$ of initial value | | | | | | | | $\Delta C/C$ | $\leq \pm 20\%$ of initial value | |
| $V_R > 100V$: | $\tan \delta$ | ≤ 3 times initial specified limit | | | | | | | | $\tan \delta$ | ≤ 2 times initial specified limit | | |
| >8000 h | I_{leak} | \leq initial specified limit | | | | | | | | I_{leak} | \leq initial specified limit | | |
| Voltage Endurance test 105°C; V_R | 3000 h | Post test requirements: | | | | | | | | | | | |
| | | $\Delta C/C$ | $\leq \pm 15\%$ of initial value | | | | | | | | $\Delta C/C$ | $\leq \pm 10\%$ of initial value | |
| | | $\tan \delta$ | ≤ 1.3 times initial specified limit | | | | | | | | $\tan \delta$ | ≤ 1.3 times initial specified limit | |
| | | I_{leak} | \leq initial specified limit | | | | | | | | I_{leak} | \leq initial specified limit | |
| Shelf Life 105°C | 1000 h | Post test requirements: | | | | | | | | | | | |
| | | $\Delta C/C$ | $\leq \pm 15\%$ of initial value | | | | | | | | $\Delta C/C$ | $\leq \pm 10\%$ of initial value | |
| | | $\tan \delta$ | ≤ 1.3 times initial specified limit | | | | | | | | $\tan \delta$ | ≤ 1.3 times initial specified limit | |
| | | I_{leak} | \leq 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 | | | | | | | | | | | | |
| | $V_R(V)$ | 6.3~16 | 25 | 35 | 50~100 | 160~250 | 300~350 | 400~500 | | | | | |
| | $Z_{25^\circ C} / Z_{20^\circ C}$ | 4 | 3 | 3 | 3 | 4 | 8 | 8 | | | | | |
| | $Z_{-40^\circ C} / Z_{20^\circ C}$ | 15 | 10 | 8 | 6 | 8 | 12 | | | | | | |
| 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 |
|-------------------------|--------|-----|------|------|------|----------|
| $10 \leq V_R \leq 100$ | 0.88 | 1 | 1.07 | 1.15 | 1.15 | 1.15 |
| $160 \leq V_R \leq 250$ | 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



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 |

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/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 10 | 4700 | 22x25 | 0.86 | 76 | 99 |
| 10 | 6800 | 22x25 | 1.31 | 53 | 68 |
| 10 | 8200 | 25x20 | 1.60 | 44 | 57 |
| 10 | 10000 | 25x20 | 1.81 | 36 | 46 |
| 10 | 12000 | 22x30 | 2.11 | 34 | 44 |
| 10 | 15000 | 22x35 | 2.31 | 27 | 35 |
| 10 | 18000 | 22x40 | 2.40 | 23 | 29 |
| 10 | 22000 | 25x35 | 2.60 | 19 | 24 |
| 10 | 27000 | 35x25 | 3.11 | 19 | 25 |
| 10 | 33000 | 35x30 | 3.42 | 15 | 20 |
| 10 | 39000 | 35x30 | 3.70 | 13 | 17 |
| 10 | 47000 | 35x35 | 4.21 | 11 | 14 |
| 10 | 56000 | 35x40 | 5.10 | 9 | 12 |
| 10 | 68000 | 35x50 | 5.51 | 8 | 10 |
| 16 | 3300 | 22x25 | 1.30 | 110 | 140 |
| 16 | 4700 | 22x25 | 1.52 | 76 | 99 |
| 16 | 6800 | 22x25 | 1.81 | 53 | 68 |
| 16 | 8200 | 22x30 | 2.05 | 44 | 57 |
| 16 | 10000 | 22x30 | 2.15 | 36 | 46 |
| 16 | 10000 | 25x25 | 2.20 | 36 | 46 |
| 16 | 12000 | 22x35 | 2.31 | 34 | 44 |
| 16 | 12000 | 25x30 | 2.32 | 34 | 44 |
| 16 | 12000 | 30x25 | 2.40 | 34 | 44 |
| 16 | 15000 | 22x40 | 2.70 | 27 | 35 |
| 16 | 15000 | 25x35 | 2.71 | 27 | 35 |
| 16 | 15000 | 30x30 | 2.73 | 27 | 35 |
| 16 | 18000 | 22x45 | 2.98 | 23 | 29 |
| 16 | 18000 | 25x40 | 3.17 | 23 | 29 |
| 16 | 18000 | 30x30 | 3.20 | 23 | 29 |
| 16 | 22000 | 25x45 | 3.41 | 19 | 24 |
| 16 | 22000 | 30x35 | 3.42 | 19 | 24 |
| 16 | 22000 | 35x30 | 3.43 | 19 | 24 |
| 16 | 27000 | 25x50 | 3.85 | 15 | 20 |
| 16 | 27000 | 30x40 | 3.86 | 15 | 20 |
| 16 | 27000 | 35x30 | 3.87 | 15 | 20 |
| 16 | 33000 | 30x45 | 4.40 | 12 | 16 |
| 16 | 33000 | 35x35 | 4.42 | 12 | 16 |
| 16 | 39000 | 30x50 | 4.82 | 10 | 14 |
| 16 | 39000 | 35x40 | 4.83 | 10 | 14 |
| 16 | 47000 | 35x45 | 5.54 | 9 | 11 |
| 16 | 56000 | 35x50 | 5.90 | 7 | 10 |
| 16 | 68000 | 35x60 | 6.60 | 6 | 8 |
| 16 | 82000 | 40x60 | 7.66 | 5 | 7 |
| 25 | 2200 | 22x25 | 1.30 | 140 | 180 |
| 25 | 3300 | 22x25 | 1.31 | 92 | 120 |
| 25 | 4700 | 22x25 | 1.62 | 65 | 85 |
| 25 | 5600 | 22x30 | 1.80 | 55 | 71 |
| 25 | 6800 | 25x25 | 1.92 | 45 | 59 |
| 25 | 8200 | 22x35 | 2.15 | 37 | 49 |
| 25 | 8200 | 30x25 | 2.30 | 37 | 49 |
| 25 | 10000 | 22x40 | 2.50 | 31 | 40 |
| 25 | 10000 | 25x30 | 2.50 | 31 | 40 |
| 25 | 10000 | 30x30 | 2.68 | 31 | 40 |
| 25 | 12000 | 22x45 | 2.76 | 30 | 39 |
| 25 | 12000 | 25x40 | 2.81 | 30 | 39 |
| 25 | 12000 | 30x30 | 2.82 | 30 | 39 |
| 25 | 15000 | 25x45 | 3.28 | 24 | 31 |
| 25 | 15000 | 30x35 | 3.29 | 24 | 31 |

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 25 | 15000 | 35x30 | 3.30 | 24 | 31 |
| 25 | 18000 | 25x50 | 3.55 | 20 | 26 |
| 25 | 18000 | 30x40 | 3.56 | 20 | 26 |
| 25 | 22000 | 30x45 | 4.25 | 16 | 21 |
| 25 | 22000 | 35x35 | 4.26 | 16 | 21 |
| 25 | 27000 | 35x45 | 4.76 | 13 | 17 |
| 25 | 33000 | 35x50 | 5.50 | 11 | 14 |
| 35 | 2200 | 25x25 | 1.52 | 120 | 150 |
| 35 | 3300 | 22x25 | 1.53 | 77 | 100 |
| 35 | 3900 | 22x30 | 1.70 | 65 | 85 |
| 35 | 4700 | 22x35 | 2.03 | 54 | 71 |
| 35 | 4700 | 25x25 | 2.04 | 54 | 71 |
| 35 | 5600 | 22x35 | 2.13 | 46 | 59 |
| 35 | 5600 | 25x30 | 2.14 | 46 | 59 |
| 35 | 5600 | 30x25 | 2.15 | 46 | 59 |
| 35 | 6800 | 22x40 | 2.60 | 38 | 49 |
| 35 | 6800 | 25x35 | 2.60 | 38 | 49 |
| 35 | 6800 | 30x25 | 2.55 | 38 | 49 |
| 35 | 8200 | 22x50 | 2.85 | 31 | 40 |
| 35 | 8200 | 25x40 | 2.86 | 31 | 40 |
| 35 | 8200 | 30x30 | 2.87 | 31 | 40 |
| 35 | 10000 | 25x45 | 3.07 | 26 | 33 |
| 35 | 10000 | 30x35 | 3.08 | 26 | 33 |
| 35 | 12000 | 25x50 | 3.37 | 26 | 33 |
| 35 | 12000 | 30x40 | 3.38 | 26 | 33 |
| 35 | 12000 | 35x30 | 3.40 | 26 | 33 |
| 35 | 15000 | 30x45 | 3.75 | 20 | 27 |
| 35 | 15000 | 35x35 | 3.76 | 20 | 27 |
| 35 | 18000 | 35x40 | 4.37 | 17 | 22 |
| 35 | 22000 | 35x50 | 4.95 | 14 | 18 |
| 50 | 1500 | 25x20 | 1.15 | 140 | 180 |
| 50 | 1800 | 22x25 | 1.35 | 120 | 150 |
| 50 | 2200 | 22x25 | 1.55 | 92 | 120 |
| 50 | 2700 | 22x30 | 1.75 | 76 | 98 |
| 50 | 2700 | 25x25 | 1.76 | 76 | 98 |
| 50 | 3300 | 22x35 | 1.99 | 62 | 80 |
| 50 | 3300 | 25x30 | 2.00 | 62 | 80 |
| 50 | 3900 | 22x40 | 2.25 | 52 | 68 |
| 50 | 3900 | 30x25 | 2.26 | 52 | 68 |
| 50 | 4700 | 22x45 | 2.56 | 43 | 56 |
| 50 | 4700 | 25x35 | 2.62 | 43 | 56 |
| 50 | 4700 | 30x30 | 2.63 | 43 | 56 |
| 50 | 5600 | 22x50 | 2.89 | 36 | 47 |
| 50 | 5600 | 25x40 | 2.90 | 36 | 47 |
| 50 | 5600 | 30x30 | 2.95 | 36 | 47 |
| 50 | 6800 | 25x45 | 3.37 | 30 | 39 |
| 50 | 6800 | 30x35 | 3.39 | 30 | 39 |
| 50 | 6800 | 35x30 | 3.40 | 30 | 39 |
| 50 | 8200 | 30x40 | 3.71 | 25 | 32 |
| 50 | 8200 | 35x35 | 3.72 | 25 | 32 |
| 50 | 10000 | 30x50 | 4.09 | 20 | 27 |
| 50 | 10000 | 35x40 | 4.10 | 20 | 27 |
| 50 | 12000 | 35x45 | 4.56 | 26 | 33 |
| 50 | 15000 | 35x50 | 4.77 | 20 | 27 |
| 63 | 1000 | 22x25 | 1.17 | 210 | 270 |
| 63 | 1200 | 22x25 | 1.25 | 170 | 220 |
| 63 | 1500 | 22x30 | 1.48 | 140 | 180 |
| 63 | 1500 | 25x25 | 1.50 | 140 | 180 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 63 | 1800 | 22x30 | 1.59 | 120 | 150 |
| 63 | 1800 | 25x25 | 1.60 | 120 | 150 |
| 63 | 2200 | 22x35 | 1.83 | 92 | 120 |
| 63 | 2200 | 25x30 | 1.84 | 92 | 120 |
| 63 | 2700 | 22x40 | 2.05 | 76 | 98 |
| 63 | 2700 | 25x35 | 2.05 | 76 | 98 |
| 63 | 2700 | 30x25 | 2.03 | 76 | 98 |
| 63 | 3300 | 22x45 | 2.33 | 62 | 80 |
| 63 | 3300 | 30x30 | 2.40 | 62 | 80 |
| 63 | 3900 | 25x40 | 2.54 | 52 | 68 |
| 63 | 3900 | 30x35 | 2.57 | 52 | 68 |
| 63 | 4700 | 25x50 | 2.98 | 43 | 56 |
| 63 | 4700 | 30x40 | 3.02 | 43 | 56 |
| 63 | 4700 | 35x30 | 3.05 | 43 | 56 |
| 63 | 5600 | 30x40 | 3.28 | 36 | 47 |
| 63 | 5600 | 35x35 | 3.31 | 36 | 47 |
| 63 | 6800 | 30x50 | 3.73 | 30 | 39 |
| 63 | 6800 | 35x40 | 3.75 | 30 | 39 |
| 63 | 8200 | 35x45 | 4.20 | 25 | 32 |
| 63 | 10000 | 35x50 | 4.70 | 20 | 27 |
| 80 | 680 | 22x25 | 1.00 | 220 | 290 |
| 80 | 820 | 22x25 | 1.15 | 180 | 240 |
| 80 | 1000 | 22x25 | 1.29 | 150 | 200 |
| 80 | 1200 | 22x30 | 1.63 | 130 | 170 |
| 80 | 1200 | 25x25 | 1.65 | 130 | 170 |
| 80 | 1500 | 22x30 | 1.75 | 100 | 130 |
| 80 | 1500 | 25x25 | 1.76 | 100 | 130 |
| 80 | 1800 | 22x35 | 1.83 | 85 | 110 |
| 80 | 1800 | 25x30 | 1.86 | 85 | 110 |
| 80 | 1800 | 30x25 | 1.87 | 85 | 110 |
| 80 | 2200 | 22x40 | 2.09 | 70 | 90 |
| 80 | 2200 | 25x35 | 2.10 | 70 | 90 |
| 80 | 2200 | 30x25 | 2.11 | 70 | 90 |
| 80 | 2700 | 25x40 | 2.43 | 57 | 74 |
| 80 | 2700 | 30x30 | 2.44 | 57 | 74 |
| 80 | 3300 | 25x45 | 2.76 | 46 | 60 |
| 80 | 3300 | 30x35 | 2.79 | 46 | 60 |
| 80 | 3300 | 35x30 | 2.80 | 46 | 60 |
| 80 | 3900 | 25x50 | 3.09 | 39 | 51 |
| 80 | 3900 | 30x40 | 3.12 | 39 | 51 |
| 80 | 3900 | 35x30 | 3.13 | 39 | 51 |
| 80 | 4700 | 30x45 | 3.52 | 33 | 42 |
| 80 | 4700 | 35x35 | 3.53 | 33 | 42 |
| 80 | 5600 | 30x50 | 3.80 | 27 | 36 |
| 80 | 5600 | 35x40 | 3.87 | 27 | 36 |
| 80 | 6800 | 35x45 | 4.19 | 23 | 29 |
| 100 | 330 | 22x20 | 0.80 | 460 | 600 |
| 100 | 470 | 22x25 | 0.92 | 320 | 420 |
| 100 | 470 | 25x20 | 1.00 | 320 | 420 |
| 100 | 560 | 22x25 | 1.10 | 280 | 360 |
| 100 | 680 | 22x30 | 1.22 | 220 | 290 |
| 100 | 680 | 25x25 | 1.24 | 220 | 290 |
| 100 | 820 | 22x30 | 1.88 | 180 | 240 |
| 100 | 820 | 25x25 | 1.96 | 180 | 240 |
| 100 | 1000 | 22x30 | 1.93 | 150 | 200 |
| 100 | 1000 | 25x25 | 1.92 | 150 | 200 |
| 100 | 1200 | 22x40 | 2.08 | 130 | 170 |
| 100 | 1200 | 25x30 | 2.08 | 130 | 170 |
| 100 | 1200 | 30x25 | 2.08 | 130 | 170 |
| 100 | 1500 | 22x45 | 2.15 | 100 | 130 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 100 | 1500 | 25x35 | 2.15 | 100 | 130 |
| 100 | 1500 | 30x30 | 2.15 | 100 | 130 |
| 100 | 1500 | 35x25 | 2.15 | 100 | 130 |
| 100 | 1800 | 25x40 | 2.37 | 85 | 110 |
| 100 | 1800 | 30x35 | 2.37 | 85 | 110 |
| 100 | 2200 | 25x50 | 2.65 | 70 | 90 |
| 100 | 2200 | 30x35 | 2.61 | 70 | 90 |
| 100 | 2200 | 35x30 | 2.75 | 70 | 90 |
| 100 | 2700 | 25x50 | 2.76 | 57 | 74 |
| 100 | 2700 | 30x45 | 2.96 | 57 | 74 |
| 100 | 2700 | 35x35 | 2.96 | 57 | 74 |
| 100 | 3300 | 30x50 | 3.34 | 46 | 60 |
| 100 | 3300 | 35x40 | 3.34 | 46 | 60 |
| 100 | 3900 | 35x45 | 3.69 | 39 | 51 |
| 100 | 4700 | 35x50 | 4.15 | 33 | 42 |
| 160 | 220 | 20x25 | 0.81 | 470 | 900 |
| 160 | 220 | 22x20 | 0.78 | 470 | 900 |
| 160 | 270 | 22x25 | 1.01 | 390 | 740 |
| 160 | 270 | 25x20 | 1.01 | 390 | 740 |
| 160 | 330 | 22x25 | 1.17 | 320 | 600 |
| 160 | 330 | 25x20 | 1.17 | 320 | 600 |
| 160 | 390 | 22x30 | 1.43 | 270 | 510 |
| 160 | 390 | 25x25 | 1.43 | 270 | 510 |
| 160 | 470 | 22x30 | 1.52 | 220 | 420 |
| 160 | 470 | 25x25 | 1.52 | 220 | 420 |
| 160 | 470 | 30x20 | 1.53 | 220 | 420 |
| 160 | 680 | 22x40 | 1.53 | 150 | 290 |
| 160 | 680 | 25x30 | 1.53 | 150 | 290 |
| 160 | 680 | 30x25 | 1.53 | 150 | 290 |
| 160 | 680 | 35x20 | 1.56 | 150 | 290 |
| 160 | 820 | 22x45 | 1.96 | 130 | 240 |
| 160 | 820 | 25x35 | 1.96 | 130 | 240 |
| 160 | 820 | 30x30 | 1.96 | 130 | 240 |
| 160 | 820 | 35x25 | 1.96 | 130 | 240 |
| 160 | 1000 | 25x40 | 2.23 | 110 | 200 |
| 160 | 1200 | 25x45 | 2.40 | 89 | 170 |
| 160 | 1200 | 30x35 | 2.40 | 89 | 170 |
| 160 | 1200 | 35x30 | 2.40 | 89 | 170 |
| 160 | 1500 | 25x50 | 2.60 | 68 | 130 |
| 160 | 1500 | 30x40 | 2.60 | 68 | 130 |
| 160 | 1500 | 35x30 | 2.60 | 68 | 130 |
| 160 | 1800 | 30x45 | 2.82 | 58 | 110 |
| 160 | 1800 | 35x35 | 2.82 | 58 | 110 |
| 160 | 2200 | 30x50 | 3.32 | 48 | 90 |
| 160 | 2200 | 35x45 | 3.50 | 48 | 90 |
| 160 | 2700 | 35x50 | 3.78 | 39 | 74 |
| 160 | 3300 | 35x55 | 3.86 | 32 | 60 |
| 180 | 180 | 22x20 | 0.76 | 580 | 1110 |
| 180 | 220 | 25x20 | 0.90 | 470 | 900 |
| 180 | 270 | 22x25 | 1.02 | 390 | 740 |
| 180 | 270 | 25x20 | 1.03 | 390 | 740 |
| 180 | 330 | 20x30 | 1.20 | 320 | 600 |
| 180 | 330 | 22x25 | 1.20 | 320 | 600 |
| 180 | 330 | 25x20 | 1.22 | 320 | 600 |
| 180 | 390 | 22x30 | 1.32 | 270 | 510 |
| 180 | 390 | 25x25 | 1.35 | 270 | 510 |
| 180 | 390 | 30x20 | 1.35 | 270 | 510 |
| 180 | 470 | 22x35 | 1.53 | 220 | 420 |
| 180 | 470 | 25x30 | 1.54 | 220 | 420 |
| 180 | 470 | 30x25 | 1.55 | 220 | 420 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 180 | 560 | 22x40 | 1.67 | 190 | 360 |
| 180 | 560 | 25x30 | 1.67 | 190 | 360 |
| 180 | 560 | 30x25 | 1.67 | 190 | 360 |
| 180 | 560 | 35x20 | 1.67 | 190 | 360 |
| 180 | 680 | 22x45 | 1.78 | 150 | 290 |
| 180 | 680 | 25x35 | 1.78 | 150 | 290 |
| 180 | 680 | 30x30 | 1.78 | 150 | 290 |
| 180 | 680 | 35x25 | 1.78 | 150 | 290 |
| 180 | 820 | 22x50 | 2.09 | 130 | 240 |
| 180 | 820 | 25x40 | 2.09 | 130 | 240 |
| 180 | 820 | 30x30 | 2.09 | 130 | 240 |
| 180 | 820 | 35x25 | 2.09 | 130 | 240 |
| 180 | 1000 | 22x50 | 2.15 | 110 | 200 |
| 180 | 1000 | 25x45 | 2.15 | 110 | 200 |
| 180 | 1000 | 30x35 | 2.15 | 110 | 200 |
| 180 | 1000 | 35x30 | 2.15 | 110 | 200 |
| 180 | 1200 | 22x60 | 2.22 | 89 | 170 |
| 180 | 1200 | 25x50 | 2.22 | 89 | 170 |
| 180 | 1200 | 30x40 | 2.22 | 89 | 170 |
| 180 | 1200 | 35x30 | 2.22 | 89 | 170 |
| 180 | 1500 | 25x50 | 2.24 | 68 | 130 |
| 180 | 1500 | 30x45 | 2.24 | 68 | 130 |
| 180 | 1500 | 35x35 | 2.24 | 68 | 130 |
| 180 | 1800 | 30x50 | 2.88 | 58 | 110 |
| 180 | 1800 | 35x35 | 2.88 | 58 | 110 |
| 180 | 1800 | 35x40 | 2.94 | 58 | 110 |
| 180 | 2200 | 30x55 | 3.12 | 48 | 90 |
| 180 | 2200 | 35x45 | 3.12 | 48 | 90 |
| 180 | 2200 | 35x50 | 3.23 | 48 | 90 |
| 180 | 2200 | 35x55 | 3.32 | 48 | 90 |
| 180 | 2700 | 35x50 | 3.81 | 39 | 74 |
| 200 | 150 | 20x20 | 0.74 | 700 | 1330 |
| 200 | 180 | 22x20 | 0.76 | 580 | 1110 |
| 200 | 220 | 20x25 | 1.01 | 470 | 900 |
| 200 | 220 | 22x25 | 1.05 | 470 | 900 |
| 200 | 220 | 25x20 | 1.06 | 470 | 900 |
| 200 | 270 | 20x25 | 1.07 | 390 | 740 |
| 200 | 270 | 22x25 | 1.11 | 390 | 740 |
| 200 | 330 | 20x30 | 1.21 | 320 | 600 |
| 200 | 330 | 22x30 | 1.26 | 320 | 600 |
| 200 | 330 | 25x25 | 1.27 | 320 | 600 |
| 200 | 390 | 20x35 | 1.35 | 270 | 510 |
| 200 | 390 | 22x25 | 1.35 | 270 | 510 |
| 200 | 390 | 22x30 | 1.36 | 270 | 510 |
| 200 | 390 | 25x25 | 1.37 | 270 | 510 |
| 200 | 470 | 20x40 | 1.55 | 220 | 420 |
| 200 | 470 | 22x30 | 1.56 | 220 | 420 |
| 200 | 470 | 22x35 | 1.57 | 220 | 420 |
| 200 | 470 | 25x30 | 1.58 | 220 | 420 |
| 200 | 470 | 30x25 | 1.59 | 220 | 420 |
| 200 | 560 | 20x45 | 1.73 | 190 | 360 |
| 200 | 560 | 22x35 | 1.73 | 190 | 360 |
| 200 | 560 | 22x40 | 1.77 | 190 | 360 |
| 200 | 560 | 25x30 | 1.77 | 190 | 360 |
| 200 | 560 | 30x25 | 1.77 | 190 | 360 |
| 200 | 680 | 22x40 | 2.12 | 150 | 290 |
| 200 | 680 | 22x45 | 2.15 | 150 | 290 |
| 200 | 680 | 25x35 | 2.15 | 150 | 290 |
| 200 | 680 | 30x30 | 2.15 | 150 | 290 |
| 200 | 680 | 35x25 | 2.15 | 150 | 290 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 200 | 820 | 22x50 | 2.19 | 130 | 240 |
| 200 | 820 | 25x45 | 2.19 | 130 | 240 |
| 200 | 820 | 30x25 | 2.20 | 130 | 240 |
| 200 | 820 | 30x30 | 2.24 | 130 | 240 |
| 200 | 820 | 35x25 | 2.24 | 130 | 240 |
| 200 | 1000 | 25x40 | 2.24 | 110 | 200 |
| 200 | 1000 | 30x30 | 2.24 | 110 | 200 |
| 200 | 1000 | 30x35 | 2.50 | 110 | 200 |
| 200 | 1000 | 35x30 | 2.50 | 110 | 200 |
| 200 | 1200 | 25x50 | 2.95 | 89 | 170 |
| 200 | 1200 | 30x35 | 2.70 | 89 | 170 |
| 200 | 1200 | 30x40 | 2.95 | 89 | 170 |
| 200 | 1200 | 35x30 | 2.95 | 89 | 170 |
| 200 | 1200 | 35x35 | 3.13 | 89 | 170 |
| 200 | 1500 | 30x50 | 3.20 | 68 | 130 |
| 200 | 1500 | 35x40 | 3.20 | 68 | 130 |
| 200 | 1800 | 30x50 | 3.30 | 58 | 110 |
| 200 | 1800 | 35x40 | 3.30 | 58 | 110 |
| 200 | 1800 | 35x45 | 3.55 | 58 | 110 |
| 200 | 2200 | 35x45 | 3.85 | 48 | 90 |
| 200 | 2200 | 35x50 | 4.00 | 48 | 90 |
| 200 | 2700 | 35x55 | 4.30 | 39 | 74 |
| 220 | 150 | 20x20 | 0.71 | 700 | 1330 |
| 220 | 180 | 22x20 | 0.77 | 580 | 1110 |
| 220 | 220 | 20x30 | 1.07 | 470 | 900 |
| 220 | 220 | 22x25 | 1.07 | 470 | 900 |
| 220 | 270 | 20x35 | 1.16 | 390 | 740 |
| 220 | 270 | 22x30 | 1.17 | 390 | 740 |
| 220 | 270 | 25x25 | 1.18 | 390 | 740 |
| 220 | 330 | 20x35 | 1.27 | 320 | 600 |
| 220 | 330 | 22x35 | 1.28 | 320 | 600 |
| 220 | 330 | 25x25 | 1.28 | 320 | 600 |
| 220 | 330 | 30x20 | 1.30 | 320 | 600 |
| 220 | 390 | 20x40 | 1.35 | 270 | 510 |
| 220 | 390 | 22x35 | 1.41 | 270 | 510 |
| 220 | 390 | 25x30 | 1.42 | 270 | 510 |
| 220 | 470 | 20x45 | 1.63 | 220 | 420 |
| 220 | 470 | 22x40 | 1.65 | 220 | 420 |
| 220 | 470 | 25x35 | 1.65 | 220 | 420 |
| 220 | 470 | 30x25 | 1.64 | 220 | 420 |
| 220 | 560 | 22x40 | 1.79 | 190 | 360 |
| 220 | 560 | 22x45 | 1.81 | 190 | 360 |
| 220 | 560 | 25x40 | 1.83 | 190 | 360 |
| 220 | 560 | 30x30 | 1.84 | 190 | 360 |
| 220 | 680 | 25x45 | 2.23 | 150 | 290 |
| 220 | 680 | 30x35 | 2.23 | 150 | 290 |
| 220 | 680 | 35x25 | 2.23 | 150 | 290 |
| 220 | 820 | 25x50 | 2.25 | 130 | 240 |
| 220 | 820 | 30x40 | 2.25 | 130 | 240 |
| 220 | 820 | 35x30 | 2.25 | 130 | 240 |
| 220 | 1000 | 25x55 | 2.28 | 110 | 200 |
| 220 | 1000 | 30x45 | 2.28 | 110 | 200 |
| 220 | 1000 | 35x35 | 2.28 | 110 | 200 |
| 220 | 1200 | 30x50 | 2.32 | 89 | 170 |
| 220 | 1200 | 35x40 | 2.32 | 89 | 170 |
| 220 | 1500 | 30x55 | 3.13 | 68 | 130 |
| 220 | 1500 | 35x45 | 3.23 | 68 | 130 |
| 220 | 1800 | 35x50 | 3.89 | 58 | 110 |
| 220 | 2200 | 35x60 | 3.95 | 48 | 90 |
| 250 | 150 | 20x20 | 0.67 | 700 | 1330 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 250 | 150 | 22x25 | 0.76 | 700 | 1330 |
| 250 | 150 | 25x20 | 0.77 | 700 | 1330 |
| 250 | 180 | 22x25 | 0.79 | 580 | 1110 |
| 250 | 180 | 25x25 | 0.91 | 580 | 1110 |
| 250 | 220 | 22x25 | 1.11 | 470 | 900 |
| 250 | 220 | 25x25 | 1.12 | 470 | 900 |
| 250 | 270 | 22x30 | 1.22 | 390 | 740 |
| 250 | 270 | 25x30 | 1.25 | 390 | 740 |
| 250 | 270 | 30x25 | 1.25 | 390 | 740 |
| 250 | 330 | 22x35 | 1.44 | 320 | 600 |
| 250 | 330 | 25x25 | 1.43 | 320 | 600 |
| 250 | 330 | 25x30 | 1.45 | 320 | 600 |
| 250 | 330 | 30x25 | 1.45 | 320 | 600 |
| 250 | 390 | 22x35 | 1.72 | 270 | 510 |
| 250 | 390 | 22x40 | 1.75 | 270 | 510 |
| 250 | 390 | 25x35 | 1.77 | 270 | 510 |
| 250 | 390 | 30x25 | 1.78 | 270 | 510 |
| 250 | 470 | 22x40 | 1.85 | 220 | 420 |
| 250 | 470 | 22x45 | 1.86 | 220 | 420 |
| 250 | 470 | 25x40 | 1.87 | 220 | 420 |
| 250 | 470 | 30x35 | 1.88 | 220 | 420 |
| 250 | 470 | 35x30 | 1.89 | 220 | 420 |
| 250 | 560 | 22x45 | 2.16 | 190 | 360 |
| 250 | 560 | 25x45 | 2.17 | 190 | 360 |
| 250 | 560 | 30x30 | 2.18 | 190 | 360 |
| 250 | 560 | 35x25 | 2.19 | 190 | 360 |
| 250 | 680 | 22x50 | 2.25 | 150 | 290 |
| 250 | 680 | 25x40 | 2.25 | 150 | 290 |
| 250 | 680 | 30x30 | 2.25 | 150 | 290 |
| 250 | 680 | 30x35 | 2.40 | 150 | 290 |
| 250 | 680 | 35x30 | 2.40 | 150 | 290 |
| 250 | 820 | 25x50 | 2.52 | 130 | 240 |
| 250 | 820 | 30x40 | 2.52 | 130 | 240 |
| 250 | 820 | 35x35 | 2.52 | 130 | 240 |
| 250 | 1000 | 30x40 | 2.75 | 110 | 200 |
| 250 | 1000 | 30x50 | 2.88 | 110 | 200 |
| 250 | 1000 | 35x40 | 2.88 | 110 | 200 |
| 250 | 1200 | 30x50 | 3.15 | 89 | 170 |
| 250 | 1200 | 30x60 | 3.35 | 89 | 170 |
| 250 | 1200 | 35x45 | 3.28 | 89 | 170 |
| 250 | 1500 | 35x45 | 3.76 | 68 | 130 |
| 250 | 1800 | 35x50 | 4.06 | 58 | 110 |
| 315 | 68 | 22x20 | 0.48 | 1540 | 2930 |
| 315 | 82 | 22x20 | 0.52 | 1280 | 2430 |
| 315 | 100 | 25x20 | 0.58 | 1050 | 1990 |
| 315 | 120 | 22x25 | 0.76 | 870 | 1660 |
| 315 | 120 | 30x20 | 0.77 | 870 | 1660 |
| 315 | 150 | 22x30 | 0.83 | 700 | 1330 |
| 315 | 150 | 25x25 | 0.85 | 700 | 1330 |
| 315 | 150 | 30x20 | 0.86 | 700 | 1330 |
| 315 | 180 | 22x30 | 0.93 | 580 | 1110 |
| 315 | 180 | 25x25 | 0.95 | 580 | 1110 |
| 315 | 220 | 22x40 | 1.17 | 470 | 900 |
| 315 | 220 | 25x30 | 1.14 | 470 | 900 |
| 315 | 220 | 30x25 | 1.14 | 470 | 900 |
| 315 | 270 | 22x45 | 1.28 | 390 | 740 |
| 315 | 270 | 25x35 | 1.26 | 390 | 740 |
| 315 | 270 | 30x25 | 1.27 | 390 | 740 |
| 315 | 330 | 22x50 | 1.49 | 320 | 600 |
| 315 | 330 | 25x40 | 1.49 | 320 | 600 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 315 | 330 | 30x30 | 1.49 | 320 | 600 |
| 315 | 330 | 35x25 | 1.49 | 320 | 600 |
| 315 | 390 | 25x45 | 1.86 | 270 | 510 |
| 315 | 390 | 30x35 | 1.86 | 270 | 510 |
| 315 | 390 | 35x30 | 1.86 | 270 | 510 |
| 315 | 470 | 25x50 | 1.96 | 220 | 420 |
| 315 | 470 | 30x40 | 1.97 | 220 | 420 |
| 315 | 470 | 35x35 | 1.99 | 220 | 420 |
| 315 | 560 | 30x45 | 2.35 | 190 | 360 |
| 315 | 560 | 35x35 | 2.36 | 190 | 360 |
| 315 | 680 | 30x50 | 2.37 | 150 | 290 |
| 315 | 680 | 35x40 | 2.37 | 150 | 290 |
| 315 | 820 | 35x45 | 2.38 | 130 | 240 |
| 315 | 1000 | 35x45 | 2.46 | 110 | 200 |
| 350 | 56 | 22x20 | 0.42 | 1870 | 3550 |
| 350 | 68 | 25x20 | 0.52 | 1540 | 2930 |
| 350 | 82 | 25x20 | 0.55 | 1280 | 2430 |
| 350 | 100 | 22x30 | 0.71 | 1050 | 1990 |
| 350 | 120 | 25x25 | 0.77 | 870 | 1660 |
| 350 | 120 | 30x20 | 0.77 | 870 | 1660 |
| 350 | 150 | 22x30 | 0.87 | 700 | 1330 |
| 350 | 150 | 25x25 | 0.87 | 700 | 1330 |
| 350 | 150 | 30x20 | 0.89 | 700 | 1330 |
| 350 | 180 | 22x35 | 0.95 | 580 | 1110 |
| 350 | 180 | 25x30 | 0.96 | 580 | 1110 |
| 350 | 180 | 30x25 | 1.05 | 580 | 1110 |
| 350 | 220 | 22x45 | 1.25 | 470 | 900 |
| 350 | 220 | 25x35 | 1.26 | 470 | 900 |
| 350 | 220 | 35x25 | 1.28 | 470 | 900 |
| 350 | 270 | 22x50 | 1.30 | 390 | 740 |
| 350 | 270 | 25x40 | 1.31 | 390 | 740 |
| 350 | 270 | 30x30 | 1.31 | 390 | 740 |
| 350 | 270 | 35x25 | 1.32 | 390 | 740 |
| 350 | 330 | 25x45 | 1.52 | 320 | 600 |
| 350 | 330 | 30x35 | 1.54 | 320 | 600 |
| 350 | 330 | 35x30 | 1.55 | 320 | 600 |
| 350 | 390 | 25x50 | 1.94 | 270 | 510 |
| 350 | 390 | 30x35 | 1.88 | 270 | 510 |
| 350 | 390 | 35x30 | 1.88 | 270 | 510 |
| 350 | 470 | 25x50 | 2.10 | 220 | 420 |
| 350 | 470 | 30x40 | 2.10 | 220 | 420 |
| 350 | 470 | 35x40 | 2.10 | 220 | 420 |
| 350 | 560 | 30x45 | 2.39 | 190 | 360 |
| 350 | 560 | 35x40 | 2.39 | 190 | 360 |
| 350 | 680 | 30x50 | 2.40 | 150 | 290 |
| 350 | 680 | 35x40 | 2.41 | 150 | 290 |
| 350 | 820 | 35x45 | 2.45 | 130 | 240 |
| 385 | 33 | 22x20 | 0.20 | 3170 | 6030 |
| 385 | 39 | 20x20 | 0.35 | 2680 | 5100 |
| 385 | 56 | 22x20 | 0.43 | 1870 | 3550 |
| 385 | 68 | 22x25 | 0.52 | 1540 | 2930 |
| 385 | 68 | 25x20 | 0.52 | 1540 | 2930 |
| 385 | 82 | 22x25 | 0.64 | 1280 | 2430 |
| 385 | 82 | 25x20 | 0.64 | 1280 | 2430 |
| 385 | 100 | 22x25 | 0.69 | 1050 | 1990 |
| 385 | 100 | 22x30 | 0.75 | 1050 | 1990 |
| 385 | 100 | 25x25 | 0.75 | 1050 | 1990 |
| 385 | 120 | 22x35 | 0.80 | 870 | 1660 |
| 385 | 120 | 25x25 | 0.80 | 870 | 1660 |
| 385 | 120 | 30x20 | 0.80 | 870 | 1660 |

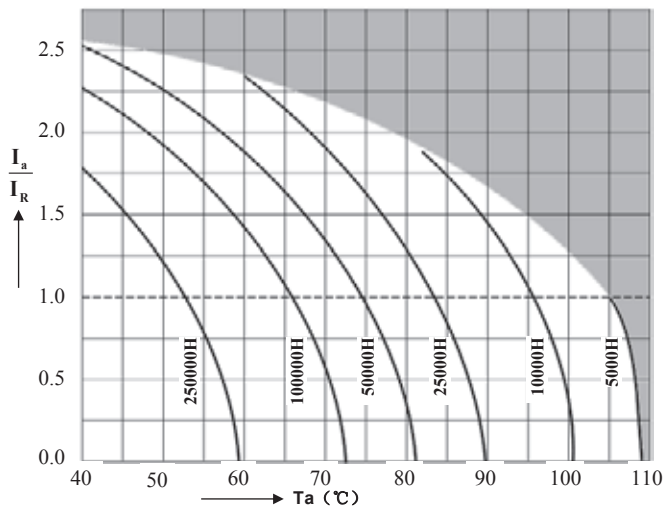
| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 385 | 150 | 22x35 | 0.92 | 700 | 1330 |
| 385 | 150 | 25x35 | 0.92 | 700 | 1330 |
| 385 | 150 | 30x30 | 0.92 | 700 | 1330 |
| 385 | 180 | 22x35 | 1.22 | 580 | 1110 |
| 385 | 180 | 22x40 | 1.25 | 580 | 1110 |
| 385 | 180 | 25x30 | 1.32 | 580 | 1110 |
| 385 | 180 | 30x30 | 1.34 | 580 | 1110 |
| 385 | 180 | 35x25 | 1.34 | 580 | 1110 |
| 385 | 270 | 30x30 | 1.47 | 390 | 740 |
| 385 | 270 | 35x30 | 1.48 | 390 | 740 |
| 385 | 390 | 25x50 | 1.95 | 270 | 510 |
| 385 | 390 | 30x40 | 1.95 | 270 | 510 |
| 385 | 390 | 35x30 | 1.95 | 270 | 510 |
| 385 | 470 | 30x50 | 2.32 | 220 | 420 |
| 385 | 470 | 35x35 | 2.32 | 220 | 420 |
| 385 | 680 | 30x55 | 2.55 | 150 | 290 |
| 385 | 680 | 35x50 | 2.55 | 150 | 290 |
| 385 | 820 | 35x55 | 2.65 | 130 | 240 |
| 400 | 47 | 22x20 | 0.40 | 2230 | 4230 |
| 400 | 56 | 22x20 | 0.44 | 1870 | 3550 |
| 400 | 68 | 22x25 | 0.53 | 1540 | 2930 |
| 400 | 68 | 25x20 | 0.53 | 1540 | 2930 |
| 400 | 82 | 22x25 | 0.58 | 1280 | 2430 |
| 400 | 82 | 25x20 | 0.58 | 1280 | 2430 |
| 400 | 82 | 25x25 | 0.63 | 1280 | 2430 |
| 400 | 100 | 22x25 | 0.66 | 1050 | 1990 |
| 400 | 100 | 22x30 | 0.69 | 1050 | 1990 |
| 400 | 100 | 25x25 | 0.69 | 1050 | 1990 |
| 400 | 120 | 22x30 | 0.76 | 870 | 1660 |
| 400 | 120 | 22x35 | 0.81 | 870 | 1660 |
| 400 | 120 | 25x25 | 0.81 | 870 | 1660 |
| 400 | 120 | 25x30 | 0.84 | 870 | 1660 |
| 400 | 120 | 30x20 | 0.81 | 870 | 1660 |
| 400 | 120 | 30x25 | 0.84 | 870 | 1660 |
| 400 | 150 | 22x35 | 0.90 | 700 | 1330 |
| 400 | 150 | 22x40 | 0.95 | 700 | 1330 |
| 400 | 150 | 25x25 | 0.90 | 700 | 1330 |
| 400 | 150 | 25x30 | 0.95 | 700 | 1330 |
| 400 | 150 | 30x20 | 0.90 | 700 | 1330 |
| 400 | 150 | 30x25 | 0.95 | 700 | 1330 |
| 400 | 180 | 22x35 | 0.99 | 580 | 1110 |
| 400 | 180 | 22x40 | 1.05 | 580 | 1110 |
| 400 | 180 | 22x45 | 1.10 | 580 | 1110 |
| 400 | 180 | 25x30 | 1.05 | 580 | 1110 |
| 400 | 180 | 25x35 | 1.10 | 580 | 1110 |
| 400 | 180 | 30x30 | 1.05 | 580 | 1110 |
| 400 | 180 | 35x25 | 1.05 | 580 | 1110 |
| 400 | 220 | 22x45 | 1.12 | 470 | 900 |
| 400 | 220 | 22x50 | 1.16 | 470 | 900 |
| 400 | 220 | 25x35 | 1.12 | 470 | 900 |
| 400 | 220 | 25x40 | 1.16 | 470 | 900 |
| 400 | 220 | 25x45 | 1.16 | 470 | 900 |
| 400 | 220 | 30x25 | 1.12 | 470 | 900 |
| 400 | 220 | 30x30 | 1.16 | 470 | 900 |
| 400 | 220 | 30x35 | 1.19 | 470 | 900 |
| 400 | 220 | 35x25 | 1.16 | 470 | 900 |
| 400 | 270 | 22x50 | 1.29 | 390 | 740 |
| 400 | 270 | 25x40 | 1.29 | 390 | 740 |
| 400 | 270 | 25x45 | 1.32 | 390 | 740 |
| 400 | 270 | 25x50 | 1.38 | 390 | 740 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 400 | 270 | 30x30 | 1.29 | 390 | 740 |
| 400 | 270 | 30x35 | 1.32 | 390 | 740 |
| 400 | 270 | 35x30 | 1.38 | 390 | 740 |
| 400 | 330 | 25x45 | 1.46 | 320 | 600 |
| 400 | 330 | 25x50 | 1.53 | 320 | 600 |
| 400 | 330 | 30x35 | 1.48 | 320 | 600 |
| 400 | 330 | 30x40 | 1.55 | 320 | 600 |
| 400 | 330 | 35x30 | 1.55 | 320 | 600 |
| 400 | 330 | 35x35 | 1.59 | 320 | 600 |
| 400 | 390 | 25x45 | 1.61 | 270 | 510 |
| 400 | 390 | 30x40 | 1.67 | 270 | 510 |
| 400 | 390 | 30x45 | 1.76 | 270 | 510 |
| 400 | 390 | 35x30 | 1.67 | 270 | 510 |
| 400 | 390 | 35x35 | 1.76 | 270 | 510 |
| 400 | 390 | 35x40 | 1.83 | 270 | 510 |
| 400 | 470 | 30x45 | 1.93 | 220 | 420 |
| 400 | 470 | 30x50 | 2.02 | 220 | 420 |
| 400 | 470 | 35x30 | 1.67 | 220 | 420 |
| 400 | 470 | 35x35 | 1.93 | 220 | 420 |
| 400 | 470 | 35x40 | 2.01 | 220 | 420 |
| 400 | 560 | 30x50 | 2.21 | 190 | 360 |
| 400 | 560 | 35x40 | 2.21 | 190 | 360 |
| 400 | 560 | 35x45 | 2.30 | 190 | 360 |
| 400 | 560 | 35x50 | 2.41 | 190 | 360 |
| 400 | 680 | 30x55 | 2.53 | 150 | 290 |
| 400 | 680 | 35x40 | 2.53 | 150 | 290 |
| 400 | 680 | 35x50 | 2.65 | 150 | 290 |
| 400 | 820 | 35x55 | 2.90 | 130 | 240 |
| 400 | 820 | 35x60 | 2.95 | 170 | 320 |
| 400 | 1000 | 35x60 | 3.00 | 140 | 270 |
| 400 | 1200 | 35x70 | 3.12 | 120 | 220 |
| 420 | 47 | 22x20 | 0.40 | 2970 | 5640 |
| 420 | 56 | 22x20 | 0.44 | 2490 | 4740 |
| 420 | 68 | 22x25 | 0.54 | 2050 | 3900 |
| 420 | 68 | 25x20 | 0.54 | 2050 | 3900 |
| 420 | 82 | 22x25 | 0.58 | 1700 | 3230 |
| 420 | 82 | 25x25 | 0.63 | 1700 | 3230 |
| 420 | 100 | 22x25 | 0.66 | 1390 | 2650 |
| 420 | 100 | 22x30 | 0.69 | 1390 | 2650 |
| 420 | 100 | 25x25 | 0.69 | 1390 | 2650 |
| 420 | 100 | 30x20 | 0.69 | 1390 | 2650 |
| 420 | 120 | 22x30 | 0.76 | 1160 | 2210 |
| 420 | 120 | 22x35 | 0.81 | 1160 | 2210 |
| 420 | 120 | 25x25 | 0.81 | 1160 | 2210 |
| 420 | 120 | 25x30 | 0.83 | 1160 | 2210 |
| 420 | 120 | 30x25 | 0.83 | 1160 | 2210 |
| 420 | 120 | 35x20 | 0.83 | 1160 | 2210 |
| 420 | 150 | 22x35 | 0.90 | 930 | 1770 |
| 420 | 150 | 22x40 | 0.96 | 930 | 1770 |
| 420 | 150 | 25x30 | 0.96 | 930 | 1770 |
| 420 | 150 | 25x35 | 0.97 | 930 | 1770 |
| 420 | 150 | 30x25 | 0.97 | 930 | 1770 |
| 420 | 180 | 25x35 | 1.06 | 770 | 1470 |
| 420 | 180 | 30x30 | 1.11 | 770 | 1470 |
| 420 | 180 | 35x25 | 1.11 | 770 | 1470 |
| 420 | 220 | 22x45 | 1.11 | 640 | 1210 |
| 420 | 220 | 22x50 | 1.16 | 640 | 1210 |
| 420 | 220 | 25x35 | 1.11 | 640 | 1210 |
| 420 | 220 | 25x45 | 1.19 | 640 | 1210 |
| 420 | 220 | 30x30 | 1.12 | 640 | 1210 |

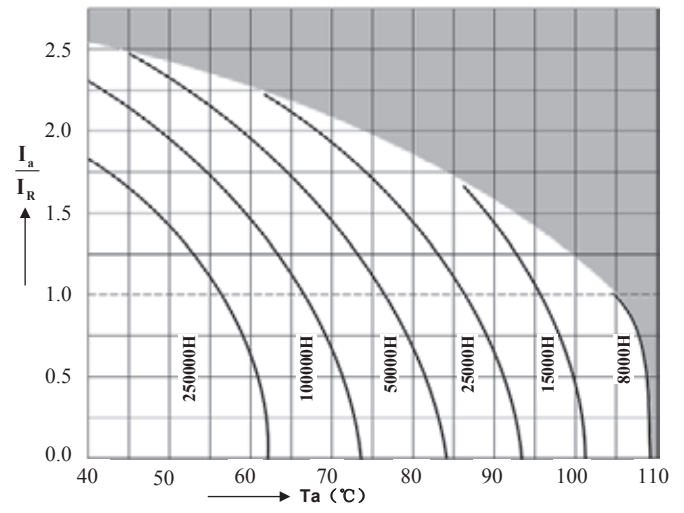
| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 420 | 220 | 30x35 | 1.19 | 640 | 1210 |
| 420 | 220 | 35x25 | 1.19 | 640 | 1210 |
| 420 | 270 | 25x40 | 1.25 | 520 | 980 |
| 420 | 270 | 30x30 | 1.25 | 520 | 980 |
| 420 | 270 | 30x35 | 1.32 | 520 | 980 |
| 420 | 270 | 30x40 | 1.39 | 520 | 980 |
| 420 | 270 | 35x25 | 1.32 | 520 | 980 |
| 420 | 270 | 35x30 | 1.39 | 520 | 980 |
| 420 | 330 | 25x50 | 1.53 | 420 | 800 |
| 420 | 330 | 30x35 | 1.46 | 420 | 800 |
| 420 | 330 | 30x40 | 1.53 | 420 | 800 |
| 420 | 330 | 30x45 | 1.62 | 420 | 800 |
| 420 | 330 | 35x30 | 1.62 | 420 | 800 |
| 420 | 330 | 35x35 | 1.63 | 420 | 800 |
| 420 | 390 | 30x40 | 1.67 | 360 | 680 |
| 420 | 390 | 30x45 | 1.76 | 360 | 680 |
| 420 | 390 | 30x50 | 1.84 | 360 | 680 |
| 420 | 390 | 35x35 | 1.77 | 360 | 680 |
| 420 | 390 | 35x40 | 1.84 | 360 | 680 |
| 420 | 470 | 30x50 | 2.02 | 290 | 560 |
| 420 | 470 | 30x60 | 2.19 | 290 | 560 |
| 420 | 470 | 35x40 | 2.01 | 290 | 560 |
| 420 | 470 | 35x45 | 2.11 | 290 | 560 |
| 420 | 560 | 35x45 | 2.30 | 250 | 470 |
| 420 | 560 | 35x50 | 2.41 | 250 | 470 |
| 420 | 680 | 35x50 | 2.41 | 210 | 390 |
| 420 | 680 | 35x55 | 2.76 | 210 | 390 |
| 420 | 820 | 30x60 | 2.90 | 170 | 320 |
| 420 | 820 | 35x55 | 2.95 | 170 | 320 |
| 420 | 820 | 35x60 | 3.00 | 170 | 320 |
| 450 | 56 | 22x25 | 0.47 | 2490 | 4740 |
| 450 | 68 | 22x25 | 0.52 | 2050 | 3900 |
| 450 | 68 | 22x30 | 0.56 | 2050 | 3900 |
| 450 | 68 | 25x25 | 0.57 | 2050 | 3900 |
| 450 | 82 | 22x25 | 0.56 | 1700 | 3230 |
| 450 | 82 | 22x30 | 0.62 | 1700 | 3230 |
| 450 | 82 | 25x25 | 0.62 | 1700 | 3230 |
| 450 | 100 | 22x30 | 0.68 | 1390 | 2650 |
| 450 | 100 | 22x35 | 0.73 | 1390 | 2650 |
| 450 | 100 | 25x25 | 0.73 | 1390 | 2650 |
| 450 | 100 | 25x30 | 0.76 | 1390 | 2650 |
| 450 | 100 | 30x25 | 0.76 | 1390 | 2650 |
| 450 | 120 | 22x35 | 0.80 | 1160 | 2210 |
| 450 | 120 | 22x40 | 0.84 | 1160 | 2210 |
| 450 | 120 | 25x30 | 0.84 | 1160 | 2210 |
| 450 | 120 | 25x35 | 0.86 | 1160 | 2210 |
| 450 | 120 | 30x25 | 0.86 | 1160 | 2210 |
| 450 | 150 | 22x40 | 0.94 | 930 | 1770 |
| 450 | 150 | 22x45 | 0.99 | 930 | 1770 |
| 450 | 150 | 25x30 | 0.94 | 930 | 1770 |
| 450 | 150 | 25x35 | 0.99 | 930 | 1770 |
| 450 | 150 | 25x40 | 1.01 | 930 | 1770 |
| 450 | 150 | 30x25 | 0.99 | 930 | 1770 |
| 450 | 150 | 30x30 | 1.01 | 930 | 1770 |
| 450 | 150 | 35x25 | 1.01 | 930 | 1770 |
| 450 | 180 | 25x35 | 1.05 | 770 | 1470 |
| 450 | 180 | 25x40 | 1.11 | 770 | 1470 |
| 450 | 180 | 25x45 | 1.18 | 770 | 1470 |
| 450 | 180 | 30x30 | 1.12 | 770 | 1470 |
| 450 | 180 | 30x35 | 1.18 | 770 | 1470 |
| 450 | 180 | 35x25 | 1.18 | 770 | 1470 |

| VV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (Arms/105°C /120Hz) | Typ. ESR 20°C 120Hz (mΩ) | MAX ESR 20°C 120Hz (mΩ) |
|----------|----------|-----------|--|--------------------------|-------------------------|
| 450 | 220 | 22x50 | 1.16 | 640 | 1210 |
| 450 | 220 | 25x40 | 1.16 | 640 | 1210 |
| 450 | 220 | 25x45 | 1.19 | 640 | 1210 |
| 450 | 220 | 25x50 | 1.25 | 640 | 1210 |
| 450 | 220 | 30x30 | 1.16 | 640 | 1210 |
| 450 | 220 | 30x35 | 1.19 | 640 | 1210 |
| 450 | 220 | 30x40 | 1.25 | 640 | 1210 |
| 450 | 220 | 35x25 | 1.19 | 640 | 1210 |
| 450 | 220 | 35x30 | 1.25 | 640 | 1210 |
| 450 | 270 | 25x50 | 1.38 | 520 | 980 |
| 450 | 270 | 30x30 | 1.18 | 520 | 980 |
| 450 | 270 | 30x35 | 1.32 | 520 | 980 |
| 450 | 270 | 30x40 | 1.39 | 520 | 980 |
| 450 | 270 | 30x45 | 1.46 | 520 | 980 |
| 450 | 270 | 35x30 | 1.40 | 520 | 980 |
| 450 | 270 | 35x35 | 1.47 | 520 | 980 |
| 450 | 330 | 30x40 | 1.54 | 420 | 800 |
| 450 | 330 | 30x45 | 1.62 | 420 | 800 |
| 450 | 330 | 30x50 | 1.69 | 420 | 800 |
| 450 | 330 | 35x35 | 1.63 | 420 | 800 |
| 450 | 330 | 35x40 | 1.70 | 420 | 800 |
| 450 | 390 | 30x50 | 1.84 | 360 | 680 |
| 450 | 390 | 35x40 | 1.86 | 360 | 680 |
| 450 | 390 | 35x45 | 1.92 | 360 | 680 |
| 450 | 470 | 35x40 | 2.01 | 290 | 560 |
| 450 | 470 | 35x45 | 2.11 | 290 | 560 |
| 450 | 560 | 30x60 | 2.39 | 250 | 470 |
| 450 | 560 | 35x50 | 2.41 | 250 | 470 |
| 450 | 560 | 35x55 | 2.51 | 250 | 470 |
| 450 | 680 | 35x50 | 2.65 | 210 | 390 |
| 450 | 680 | 35x55 | 2.76 | 210 | 390 |
| 500 | 39 | 22x25 | 0.36 | 3580 | 6800 |
| 500 | 47 | 22x25 | 0.40 | 2970 | 5640 |
| 500 | 56 | 22x30 | 0.47 | 2490 | 4740 |
| 500 | 68 | 22x30 | 0.52 | 2050 | 3900 |
| 500 | 68 | 25x25 | 0.53 | 2050 | 3900 |
| 500 | 82 | 22x35 | 0.61 | 1700 | 3230 |
| 500 | 82 | 25x30 | 0.62 | 1700 | 3230 |
| 500 | 82 | 30x25 | 0.65 | 1700 | 3230 |
| 500 | 100 | 22x40 | 0.71 | 1390 | 2650 |
| 500 | 100 | 25x35 | 0.72 | 1390 | 2650 |
| 500 | 100 | 30x25 | 0.70 | 1390 | 2650 |
| 500 | 120 | 22x45 | 0.70 | 1160 | 2210 |
| 500 | 120 | 25x35 | 0.70 | 1160 | 2210 |
| 500 | 120 | 30x30 | 0.82 | 1160 | 2210 |
| 500 | 120 | 35x30 | 0.91 | 1160 | 2210 |
| 500 | 150 | 22x50 | 0.96 | 930 | 1770 |
| 500 | 150 | 25x45 | 0.98 | 930 | 1770 |
| 500 | 150 | 30x35 | 0.98 | 930 | 1770 |
| 500 | 150 | 35x30 | 0.98 | 930 | 1770 |
| 500 | 180 | 25x50 | 1.13 | 770 | 1470 |
| 500 | 180 | 30x40 | 1.13 | 770 | 1470 |
| 500 | 180 | 35x30 | 1.13 | 770 | 1470 |
| 500 | 220 | 30x45 | 1.32 | 640 | 1210 |
| 500 | 220 | 35x35 | 1.32 | 640 | 1210 |
| 500 | 270 | 30x50 | 1.53 | 520 | 980 |
| 500 | 270 | 35x40 | 1.53 | 520 | 980 |
| 500 | 330 | 35x45 | 1.77 | 420 | 800 |
| 500 | 390 | 35x50 | 1.88 | 360 | 680 |
| 500 | 470 | 35x55 | 2.20 | 290 | 560 |

Useful life



depending on ambient temperature T_a versus under ripple current operating conditions $V_R \leq 100V$



depending on ambient temperature T_a versus under ripple current operating conditions $V_R \geq 160V$