

HP Series Snap-in Type 105°C



Features

- ◆ Highly reliable capacitors that with high ripple current.
- ◆ Terminal spacing fixed at 10 mm for printed circuit board plug in.
- ◆ Aluminum case designed explosion-proof vent.
- ◆ Best for switching power supplies.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E107
- ◆ RoHS Compliant

Specifications

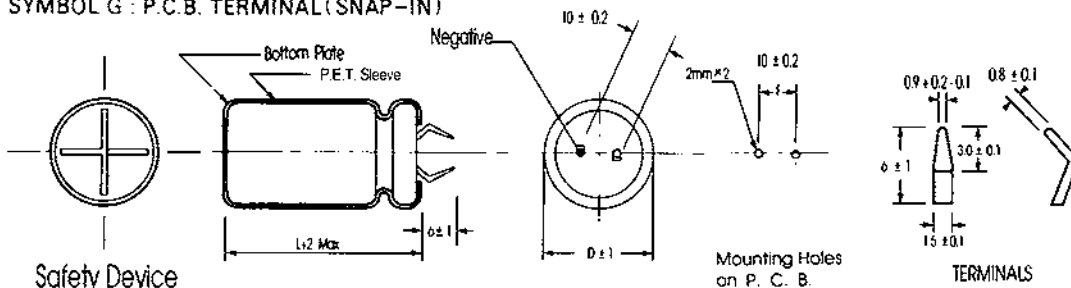
| Item | Performance Characteristics | | | | | | | | | | |
|---|--|---------------------------------------|-------|-------|--------|---------|---------|-----|-----|---------|---------|
| Operating Temperature Range | -40 to +105°C | -25 to +105°C | | | | | | | | | |
| Rated Voltage Range | 10 to 100 VDC | 160 to 450 VDC | | | | | | | | | |
| Capacitance Range | 330 to 68000 µF | 33 to 2200 µF | | | | | | | | | |
| Capacitance Tolerance | ± 20% (120Hz, +20°C) | | | | | | | | | | |
| Leakage Current (+20°C, max.) | I ≤ 0.02CV After 5 minutes with rated working voltage applied. | | | | | | | | | | |
| Dissipation Factor (tan δ , at 20°C , 120Hz) | Less than the value under table (%) | | | | | | | | | | |
| | µ F \ VDC | 10~16 | 25~35 | 50~63 | 80~100 | 160~250 | 315~450 | | | | |
| | 47~390 | — | — | — | 15 | 15 | 20 | | | | |
| | 470~3900 | 25 | 20 | 20 | 20 | 15 | 20 | | | | |
| | 4700~8200 | 35 | 30 | 30 | 25 | — | — | | | | |
| | 10000~22000 | 40 | 35 | 30 | — | — | — | | | | |
| | 27000~47000 | 45 | 40 | 35 | — | — | — | | | | |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio max. | | | | | | | | | | |
| | Rated voltage(V) | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200~250 | 400~450 |
| | Z - 25°C / Z+20°C | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 |
| Load Life | Test conditions | | | | | | | | | | |
| | Duration time | :2000 Hrs | | | | | | | | | |
| | Ambient temperature | :+105°C | | | | | | | | | |
| | Applied voltage | :Rated DC working voltage | | | | | | | | | |
| | After test requirement at +20°C | | | | | | | | | | |
| | Capacitance change | :≤ ±20% of the initial measured value | | | | | | | | | |
| Dissipation factor | :≤ 200% of the initial specified value | | | | | | | | | | |
| Leakage current | :≤ The initial specified value | | | | | | | | | | |
| Shelf Life | Test conditions | | | | | | | | | | |
| | Duration time | :1000 Hrs | | | | | | | | | |
| | Ambient temperature | :+105°C | | | | | | | | | |
| | Applied voltage | :None | | | | | | | | | |
| | After test requirement at +20°C | : Same limits as Load life. | | | | | | | | | |
| Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes. | | | | | | | | | | | |

Multiplier for Ripple Current vs. Frequency

| CAP(µ F) \ Frequency(Hz) | 50(60) | 120 | 400 | 1K | 10K | 50K-100K |
|--------------------------|--------|-----|------|------|------|----------|
| 10 < CAP ≤ 100 | 0.8 | 1 | 1.23 | 1.36 | 1.48 | 1.53 |
| 100 < CAP ≤ 1000 | 0.8 | 1 | 1.16 | 1.25 | 1.35 | 1.38 |
| 1000 < CAP | 0.8 | 1 | 1.11 | 1.17 | 1.25 | 1.28 |

Diagram of Dimensions:(unit:mm)

SYMBOL G : P.C.B. TERMINAL (SNAP-IN)



Case Size

φ DxL(mm)

| Cap (μF) | WV(SV) φ D | 10 (13) | | | | | | | | 16 (20) | | | | | | | |
|-------------|---------------|---------|--------|-------|--------|-------|--------|-------|--------|---------|--------|-------|--------|-------|--------|-------|--------|
| | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 3300 | | | | | | | | | | 22x26 | 1.17 | | | | | | |
| 4700 | | 22x26 | 1.24 | | | | | | | 22x26 | 1.53 | 25x26 | 1.55 | | | | |
| 6800 | | 22x26 | 1.56 | 25x26 | 1.56 | | | | | 22x31 | 1.65 | | | | | | |
| 8200 | | 22x26 | 2.04 | 25x26 | 2.04 | | | | | 22x31 | 2.02 | 25x26 | 2.02 | 30x26 | 2.02 | | |
| 10000 | | 22x31 | 2.20 | 25x26 | 2.20 | 30x26 | 2.20 | | | 22x31 | 2.79 | 25x26 | 2.79 | 30x26 | 2.81 | | |
| 12000 | | 22x31 | 2.34 | | | | | | | 22x36 | 2.97 | 25x31 | 2.97 | | | | |
| | | 22x36 | 2.49 | 25x26 | 2.40 | | | | | 22x36 | 3.06 | 25x31 | 3.06 | 30x26 | 3.06 | | |
| 15000 | | 22x36 | 2.76 | 25x26 | 2.60 | 30x26 | 2.80 | | | 22x41 | 3.24 | 25x36 | 3.24 | 30x26 | 3.24 | 35x32 | 3.24 |
| | | | | 25x31 | 2.76 | | | | | | | 25x41 | 3.42 | | | | |
| 18000 | | 22x36 | 2.94 | 25x31 | 2.94 | | | | | 22x51 | 3.51 | 25x46 | 3.51 | 30x36 | 3.51 | 35x32 | 3.54 |
| | | 22x41 | 3.12 | 25x36 | 3.12 | 30x26 | 3.08 | 35x27 | 3.20 | | | 25x46 | 4.08 | 30x36 | 4.08 | 35x32 | 4.08 |
| 22000 | | | | | | 30x31 | 3.30 | | | | | 25x51 | 4.25 | | | | |
| | | 22x46 | 3.48 | 25x36 | 3.48 | 30x31 | 3.48 | 35x27 | 3.48 | | | 25x51 | 4.30 | 30x41 | 4.30 | 35x32 | 4.30 |
| 33000 | | | | 25x46 | 3.72 | 30x36 | 3.72 | 35x27 | 3.65 | | | | | 30x46 | 4.83 | 35x37 | 4.83 |
| | | | | | | | | 35x32 | 3.85 | | | | | | | | |
| 39000 | | | 25x51 | 4.10 | 30x41 | 4.10 | 35x32 | 4.10 | | | | | | 30x51 | 5.78 | 35x42 | 5.78 |
| 47000 | | | | | 30x46 | 4.38 | 35x37 | 4.38 | | | | | | | | 35x47 | 6.32 |
| 56000 | | | | | 30x51 | 4.64 | 35x42 | 4.64 | | | | | | | | 35x52 | 7.05 |
| 68000 | | | | | | | 35x52 | 4.80 | | | | | | | | | |

| Cap (μF) | WV(SV) φ D | 25 (32) | | | | | | | | 35 (44) | | | | | | | |
|-------------|---------------|---------|--------|-------|--------|-------|--------|-------|--------|---------|--------|-------|--------|-------|--------|-------|--------|
| | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 1500 | | | | | | | | | | 22x26 | 1.26 | | | | | | |
| 2200 | | 22x26 | 1.03 | | | | | | | 22x26 | 1.35 | 25x26 | 1.45 | | | | |
| | | | | | | | | | | 22x31 | 1.45 | | | | | | |
| 3300 | | 22x26 | 1.48 | 25x26 | 1.48 | | | | | 22x26 | 1.80 | 25x26 | 1.90 | 30x26 | 1.92 | | |
| | | | | | | | | | | 22x31 | 1.90 | | | | | | |
| 3900 | | | | | | | | | | 22x31 | 2.23 | | | | | | |
| 4700 | | 22x26 | 1.88 | 25x26 | 1.90 | 30x26 | 1.92 | | | 22x36 | 2.42 | 25x26 | 2.30 | 30x26 | 2.54 | | |
| | | 22x31 | 1.92 | | | | | | | | 25x31 | 2.44 | | | | | |
| 5600 | | 22x31 | 2.25 | | | | | | | 22x36 | 2.89 | 25x31 | 2.89 | 30x26 | 2.89 | | |
| 6800 | | 22x31 | 2.60 | 25x26 | 2.60 | 30x26 | 2.60 | | | 22x41 | 3.24 | 25x36 | 3.24 | 30x26 | 3.21 | 35x27 | 3.24 |
| | | | | | | | | | | | | | | 30x31 | 3.43 | | |
| 8200 | | 22x36 | 3.14 | 25x31 | 3.14 | 30x26 | 3.14 | | | 22x51 | 3.57 | 25x41 | 3.57 | 30x31 | 3.57 | 35x27 | 3.57 |
| | | 22x41 | 3.50 | 25x36 | 3.50 | 30x31 | 3.50 | 35x27 | 3.50 | | | 25x46 | 3.96 | 30x36 | 3.96 | 35x27 | 3.75 |
| 10000 | | | | | | | | | | | | | | | | 35x32 | 4.00 |
| | | 22x46 | 4.02 | 25x41 | 4.02 | 30x31 | 4.02 | 35x27 | 4.02 | | | 25x51 | 4.21 | 30x41 | 4.21 | 35x32 | 4.21 |
| 15000 | | | | 25x46 | 4.58 | 30x36 | 4.58 | 35x32 | 4.58 | | | | | 30x46 | 4.69 | 35x37 | 4.69 |
| | | | | 25x51 | 4.82 | 30x41 | 4.82 | 35x32 | 4.79 | | | | | | | 35x42 | 5.07 |
| 18000 | | | | | | | | 35x37 | 4.82 | | | | | | | | |
| | | | | | | 30x46 | 5.12 | 35x37 | 5.12 | | | | | | | 35x52 | 5.50 |
| 22000 | | | | | | | | 35x42 | 5.30 | | | | | | | | |
| | | | | | | | | 35x47 | 5.47 | | | | | | | | |
| 27000 | | | | | | | | 35x52 | 6.09 | | | | | | | | |
| 33000 | | | | | | | | | | | | | | | | | |

| Cap (μF) | WV(SV) φ D | 50 (63) | | | | | | | | 63 (79) | | | | | | | |
|-------------|---------------|---------|--------|-------|--------|-------|--------|-------|--------|---------|--------|-------|--------|-------|--------|-------|--------|
| | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 680 | | | | | | | | | | 22x26 | 0.70 | | | | | | |
| 1000 | | 22x26 | 0.84 | | | | | | | 22x26 | 0.85 | 25x26 | 0.85 | | | | |
| | | | | | | | | | | 22x26 | 0.98 | | | | | | |
| 1500 | | 22x26 | 1.10 | 25x26 | 1.12 | | | | | 22x26 | 1.10 | 25x26 | 1.12 | 30x26 | 1.14 | | |
| | | 22x31 | 1.12 | | | | | | | 22x31 | 1.15 | | | | | | |
| 1800 | | 22x26 | 1.50 | | | | | | | 22x31 | 1.40 | 25x26 | 1.40 | | | | |
| | | 22x331 | 1.62 | | | | | | | | | | | | | | |
| 2200 | | 22x31 | 1.65 | 25x26 | 1.65 | 30x26 | 1.65 | | | 22x36 | 1.65 | 25x31 | 1.65 | 30x26 | 1.65 | | |
| | | 22x31 | 1.85 | 25x26 | 1.85 | | | | | 22x41 | 2.07 | 25x36 | 2.07 | 30x26 | 2.07 | | |
| 2700 | | 22x36 | 1.97 | 25x31 | 1.98 | | | | | | | | | | | | |
| | | 22x36 | 2.24 | 25x31 | 2.24 | 30x26 | 2.24 | | | 22x46 | 2.46 | 25x36 | 2.40 | 30x31 | 2.48 | 35x27 | 2.48 |
| 3300 | | | | | | | | | | 22x51 | 2.55 | 25x41 | 2.54 | | | | |
| | | 22x41 | 2.54 | 25x36 | 2.54 | 30x26 | 2.49 | | | | | 25x41 | 2.92 | 30x36 | 3.05 | 35x27 | 3.05 |
| 3900 | | | | | | 30x31 | 2.66 | | | | | 25x46 | 3.07 | | | | |
| | | 22x46 | 2.95 | 25x36 | 2.80 | 30x31 | 2.95 | 35x27 | 2.95 | | | 25x51 | 3.43 | 30x41 | 3.43 | 35x32 | 3.43 |
| 4700 | | | | 25x41 | 3.01 | | | | | | | | | | | | |
| | | 22x51 | 3.10 | 25x41 | 3.02 | 30x36 | 3.14 | 35x27 | 3.10 | | | | | 30x46 | 3.86 | 35x37 | 3.86 |
| 5600 | | | | 25x46 | 3.15 | 30x41 | 3.20 | 35x32 | 3.20 | | | | | | | | |
| | | | | 25x46 | 3.23 | 30x41 | 3.26 | 35x32 | 3.26 | | | | | 30x51 | 4.64 | 35x42 | 4.64 |
| 6800 | | | | 25x51 | 3.35 | | | | | | | | | | | | |
| | | | | | | 30x46 | 3.58 | 35x37 | 3.58 | | | | | | | 35x47 | 5.05 |
| 10000 | | | | | 30x51 | 4.11 | 35x42 | 4.11 | | | | | | | | 35x52 | 5.75 |
| 12000 | | | | | | | | 35x47 | 4.62 | | | | | | | | |
| 15000 | | | | | | | | 35x52 | 5.05 | | | | | | | | |

φ DxDL(mm)

| Cap (μF) | WV(SV) φ D | 80 (100) | | | | | | | | 100 (125) | | | | | | | |
|-------------|---------------|----------|--------|-------|--------|-------|--------|-------|--------|-----------|--------|-------|--------|-------|--------|-------|--------|
| | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 330 | | | | | | | | | | 22x26 | 0.54 | | | | | | |
| 470 | | 22x26 | 0.63 | | | | | | | 22x26 | 0.79 | 25x26 | 0.81 | | | | |
| 560 | | 22x26 | 0.70 | | | | | | | 22x31 | 0.85 | | | | | | |
| | | 22x31 | 0.75 | | | | | | | 22x26 | 0.90 | 25x26 | 0.95 | | | | |
| 680 | | 22x26 | 0.81 | 25x26 | 0.86 | | | | | 22x31 | 1.02 | 25x26 | 1.02 | 30x26 | 1.14 | | |
| | | 22x31 | 0.87 | | | | | | | | | | | | | | |
| 820 | | 22x31 | 1.02 | 25x26 | 1.02 | | | | | 22x31 | 1.26 | 25x26 | 1.26 | 30x26 | 1.32 | | |
| | | | | 25x31 | 1.09 | | | | | | | | | | | | |
| 1000 | | 22x31 | 1.11 | 25x31 | 1.16 | 30x26 | 1.16 | | | 22x36 | 1.38 | 25x31 | 1.38 | 30x26 | 1.38 | | |
| | | 22x36 | 1.18 | | | | | | | | | | | | | | |
| 1200 | | 22x36 | 1.46 | 25x31 | 1.46 | 30x26 | 1.46 | | | 22x41 | 1.65 | 25x36 | 1.65 | 30x31 | 1.65 | | |
| | | | | | | 30x31 | 1.56 | | | | | | | | | | |
| 1500 | | 22x41 | 1.74 | 25x36 | 1.74 | 30x26 | 1.70 | | | 22x46 | 1.83 | 25x41 | 1.83 | 30x31 | 1.83 | 35x27 | 1.83 |
| | | | | | | 30x31 | 1.82 | | | | | | | | | | |
| 1800 | | 22x46 | 1.95 | 25x36 | 1.89 | 30x31 | 1.95 | 35x27 | 1.95 | | | 25x41 | 2.52 | 30x36 | 2.52 | 35x32 | 2.52 |
| | | | | 25x41 | 1.99 | | | | | | | | | | | | |
| 2200 | | 22x51 | 2.25 | 25x41 | 2.20 | 30x31 | 2.20 | 35x27 | 2.25 | | | 25x51 | 3.03 | 30x41 | 3.03 | 35x32 | 3.03 |
| | | | | 25x46 | 2.31 | 30x36 | 2.31 | 35x32 | 2.40 | | | | | | | | |
| 2700 | | | | 25x46 | 2.58 | 30x36 | 2.58 | 35x32 | 2.68 | | | | | 30x46 | 4.10 | 35x37 | 4.10 |
| | | | | 25x51 | 2.70 | 30x41 | 2.72 | 35x37 | 2.85 | | | | | | | | |
| 3300 | | | | 25x51 | 3.30 | 30x41 | 3.30 | 35x37 | 3.30 | | | | | 30x56 | 4.59 | 35x47 | 4.59 |
| | | | | 25x56 | 3.45 | 30x46 | 3.50 | 35x42 | 3.50 | | | | | | | | |
| 3900 | | | | | | 30x46 | 3.73 | 35x37 | 3.73 | | | | | | | 35x47 | 4.98 |
| | | | | | | 30x51 | 3.90 | 35x42 | 3.93 | | | | | | | | |
| 4700 | | | | | | 30x51 | 4.29 | 35x42 | 4.29 | | | | | | | 35x52 | 5.43 |
| 5600 | | | | | | | | 35x47 | 5.10 | | | | | | | | |
| 6800 | | | | | | | | 35x52 | 5.66 | | | | | | | | |

| Cap (μF) | WV(SV) φ D | 160 (200) | | | | | | | | 200 (250) | | | | | | | |
|-------------|---------------|-----------|--------|-------|--------|-------|--------|-------|--------|-----------|--------|-------|--------|-------|--------|-------|--------|
| | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 100 | | | | | | | | | | 22x26 | 0.38 | | | | | | |
| 150 | | 22x26 | 0.37 | | | | | | | 22x26 | 0.54 | 25x26 | 0.54 | | | | |
| 220 | | 22x26 | 0.42 | | | | | | | 22x31 | 0.92 | 25x26 | 0.92 | 30x26 | 0.92 | | |
| 270 | | 22x26 | 0.74 | | | | | | | 22x31 | 1.03 | 25x26 | 1.03 | 30x26 | 1.05 | | |
| 330 | | 22x31 | 0.98 | 25x26 | 0.98 | 30x26 | 1.00 | | | 22x36 | 1.21 | 25x31 | 1.21 | 30x26 | 1.21 | | |
| | | 22x31 | 1.09 | 25x31 | 1.10 | 30x26 | 1.10 | | | 22x36 | 1.33 | 25x31 | 1.34 | 30x31 | 1.45 | | |
| 390 | | 22x36 | 1.15 | | | | | | | 22x41 | 1.41 | 25x36 | 1.43 | | | | |
| | | 22x36 | 1.21 | 25x31 | 1.21 | 30x26 | 1.21 | | | 22x41 | 1.57 | 25x36 | 1.59 | 30x31 | 1.65 | 35x27 | 1.65 |
| 470 | | | | | | | | | | 22x46 | 1.65 | 25x41 | 1.68 | | | | |
| | | 22x41 | 1.40 | 25x36 | 1.40 | 30x31 | 1.40 | 35x27 | 1.40 | 22x46 | 1.81 | 25x41 | 1.85 | 30x31 | 1.85 | 35x27 | 1.85 |
| 560 | | | | | | | | | | 22x51 | 1.90 | 25x46 | 1.94 | 30x36 | 1.94 | | |
| | | 22x46 | 1.64 | 25x36 | 1.58 | 30x31 | 1.65 | 35x27 | 1.71 | 22x51 | 2.04 | 25x46 | 2.07 | 30x31 | 2.04 | 35x32 | 2.17 |
| 680 | | | | 25x41 | 1.67 | 30x36 | 1.75 | 35x32 | 1.80 | 22x56 | 2.12 | 25x51 | 2.17 | 30x36 | 2.17 | | |
| | | | | 25x41 | 1.76 | 30x36 | 1.85 | 35x32 | 1.85 | | | 25x51 | 2.30 | 30x36 | 2.30 | 35x37 | 2.31 |
| 820 | | | | 25x46 | 1.85 | | | | | | | 25x56 | 2.40 | 30x41 | 2.40 | | |
| | | | | 25x51 | 2.15 | 30x41 | 2.15 | 35x32 | 2.15 | | | | | 30x41 | 2.62 | 35x37 | 2.62 |
| 1000 | | | | | | | | | | | | | | 30x46 | 2.75 | 35x42 | 2.75 |
| 1200 | | | | 25x56 | 2.46 | 30x46 | 2.46 | 35x37 | 2.46 | | | | | 30x51 | 3.00 | 35x42 | 3.00 |
| 1500 | | | | | | 30x51 | 2.80 | 35x42 | 2.80 | | | | | | | 35x47 | 3.28 |
| 1800 | | | | | | | | | | | | | | | | 35x52 | 3.46 |
| 2200 | | | | | | 30x51 | 3.13 | 35x42 | 3.13 | | | | | | | 35x52 | 4.01 |
| | | | | | | | | 35x52 | 3.26 | | | | | | | | |
| | | | | | | | | 35x57 | 3.39 | | | | | | | | |

| Cap (μF) | WV(SV) φ D | 220 (270) | | | | | | | | 250 (300) | | | | | | | |
|-------------|---------------|-----------|--------|-------|--------|-------|--------|-------|--------|-----------|--------|-------|--------|-------|--------|-------|--------|
| | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 68 | | | | | | | | | | 22x26 | 0.27 | | | | | | |
| 100 | | | | | | | | | | 22x31 | 0.44 | 25x26 | 0.44 | | | | |
| 150 | | 22x26 | 0.50 | 25x26 | 0.50 | | | | | 22x31 | 0.60 | 25x26 | 0.60 | 30x26 | 0.60 | | |
| 180 | | 22x26 | 0.60 | 25x26 | 0.60 | | | | | 22x31 | 0.69 | 25x26 | 0.69 | 30x26 | 0.69 | | |
| 220 | | 22x31 | 0.85 | 25x26 | 0.85 | 30x26 | 0.85 | | | 22x36 | 1.00 | 25x31 | 1.00 | 30x26 | 1.00 | | |
| 270 | | 22x31 | 1.05 | 25x26 | 1.05 | 30x26 | 1.05 | | | 22x41 | 1.16 | 25x36 | 1.16 | 30x31 | 1.16 | | |
| 330 | | 22x36 | 1.15 | 25x31 | 1.15 | 30x26 | 1.15 | | | 22x46 | 1.28 | 25x36 | 1.28 | 30x31 | 1.28 | 35x27 | 1.28 |
| | | 22x41 | 1.25 | 25x31 | 1.20 | 30x26 | 1.25 | | | 22x46 | 1.48 | 25x36 | 1.48 | 30x31 | 1.48 | 35x27 | 1.48 |
| 390 | | | | 25x36 | 1.28 | 30x31 | 1.33 | | | | | | | | | | |
| | | 22x46 | 1.35 | 25x36 | 1.31 | 30x31 | 1.35 | 35x27 | 1.35 | | | 25x41 | 1.76 | 30x36 | 1.76 | 35x32 | 1.76 |
| 470 | | | | 25x41 | 1.38 | | | | | | | 25x46 | 1.85 | | | | |
| | | 22x51 | 1.60 | 25x46 | 1.60 | 30x36 | 1.60 | 35x27 | 1.60 | | | 25x51 | 1.93 | 30x41 | 1.93 | 35x32 | 1.93 |
| 680 | | 22x56 | 1.70 | 25x51 | 1.75 | 30x41 | 1.75 | 35x32 | 1.75 | | | | | 30x46 | 2.22 | 35x37 | 2.22 |
| 820 | | | | 25x56 | 2.00 | 30x46 | 2.00 | 35x37 | 2.00 | | | | | 30x51 | 2.48 | 35x42 | 2.48 |
| 1000 | | | | | | 30x51 | 2.30 | 35x42 | 2.30 | | | | | | | 35x47 | 2.80 |
| 1200 | | | | | | | | 35x47 | 2.35 | | | | | | | 35x52 | 3.17 |
| 1500 | | | | | | | | 35x52 | 2.40 | | | | | | | | |
| 1800 | | | | | | | | 35x56 | 2.50 | | | | | | | | |

φ DxL(mm)

| Cap (μF) | WV(SV) | φ D | 400 (450) | | | | | | | | 420 (470) | | | | | | | |
|-------------|--------|-----|-----------|--------|-------|--------|-------|--------|-------|--------|-----------|--------|-------|--------|-------|--------|-------|--------|
| | | | 22 | | 25 | | 30 | | 35 | | 22 | | 25 | | 30 | | 35 | |
| | | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 33 | | | 22x26 | 0.39 | | | | | | | | | | | | | | |
| 47 | | | 22x26 | 0.56 | 25x26 | 0.56 | | | | | | | | | | | | |
| 56 | | | 22x26 | 0.63 | 25x26 | 0.68 | | | | | | | | | | | | |
| | | | 22x31 | 0.68 | | | | | | | | | | | | | | |
| 68 | | | 22x31 | 0.72 | 25x26 | 0.72 | 30x26 | 0.72 | | | | | | | | | | |
| 82 | | | 22x31 | 0.77 | 25x31 | 0.82 | 30x26 | 0.85 | | | | | | | | | | |
| | | | 22x36 | 0.82 | | | | | | | | | | | | | | |
| 100 | | | 22x36 | 0.82 | 25x31 | 0.82 | 30x26 | 0.82 | | | | | | | | | | |
| 120 | | | 22x36 | 0.90 | 25x31 | 0.90 | 30x26 | 0.90 | | | | | | | | | | |
| 150 | | | 22x41 | 0.98 | 25x36 | 0.98 | 30x31 | 0.95 | 35x27 | 0.95 | 22x41 | 0.97 | 25x36 | 0.97 | 30x31 | 0.97 | | |
| 180 | | | 22x46 | 1.14 | 25x41 | 1.14 | 30x36 | 1.14 | 35x32 | 1.14 | 22x46 | 1.02 | 25x41 | 1.02 | 30x36 | 1.02 | 35x27 | 1.02 |
| | | | | | | | | | | | | | | | | | | |
| 220 | | | | | 25x46 | 1.21 | 30x41 | 1.21 | 35x32 | 1.21 | | | 25x46 | 1.22 | 30x41 | 1.22 | 35x32 | 1.22 |
| 270 | | | | | | | 30x46 | 1.40 | 35x37 | 1.40 | | | | | 30x46 | 1.5 | 35x37 | 1.5 |
| 330 | | | | | | | 30x51 | 1.57 | 35x42 | 1.57 | | | | | 30x51 | 1.68 | 35x42 | 1.68 |
| 390 | | | | | | | | | 35x42 | 1.71 | | | | | | | 35x47 | 1.76 |
| | | | | | | | | | 35x47 | 1.79 | | | | | | | | |
| 470 | | | | | | | | | 35x47 | 1.94 | | | | | | | 35x52 | 1.87 |
| | | | | | | | | | 35x52 | 2.03 | | | | | | | | |
| 560 | | | | | | | | | 35x52 | 2.23 | | | | | | | | |

| Cap (μF) | WV(SV) | φ D | 450 (500) | | | | | | | | | | |
|-------------|--------|-----|-----------|--------|-------|--------|-------|--------|-------|--------|--|--|--|
| | | | 22 | | 25 | | 30 | | 35 | | | | |
| | | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | | |
| 33 | | | 22x26 | 0.24 | | | | | | | | | |
| 47 | | | 22x31 | 0.35 | 25x26 | 0.35 | | | | | | | |
| 56 | | | 22x31 | 0.41 | 25x26 | 0.41 | | | | | | | |
| | | | | | | | | | | | | | |
| 68 | | | 22x36 | 0.55 | 25x31 | 0.55 | 30x26 | 0.55 | | | | | |
| 82 | | | 22x36 | 0.64 | 25x31 | 0.64 | 30x26 | 0.64 | | | | | |
| 100 | | | 22x41 | 0.74 | 25x31 | 0.74 | 30x31 | 0.74 | | | | | |
| 120 | | | 22x46 | 0.82 | 25x36 | 0.82 | 30x31 | 0.82 | | | | | |
| 150 | | | 22x51 | 0.96 | 25x41 | 0.96 | 30x36 | 0.96 | 35x27 | 0.96 | | | |
| 180 | | | | | 25x46 | 1.14 | 30x36 | 1.10 | 35x32 | 1.14 | | | |
| | | | | | | | 30x41 | 1.16 | | | | | |
| 220 | | | | | | | 30x41 | 1.24 | 35x37 | 1.24 | | | |
| 270 | | | | | | | 30x51 | 1.48 | 35x42 | 1.48 | | | |
| 330 | | | | | | | | | 35x47 | 1.64 | | | |
| 390 | | | | | | | | | 35x52 | 1.86 | | | |
| 470 | | | | | | | | | | | | | |
| 560 | | | | | | | | | | | | | |

Ripple Current (A, rms) at 105°C 120Hz