

Type 380LQ 85 °C Compact, High Capacitance, Snap-In Aluminum

High Capacitance per Case Size



Type 380LQ is on average 27% smaller and more than 10 mm shorter than Type 380LX. This is achieved with a new can-closure method that permits installing capacitor elements into smaller cans. Approaching the capability of the 380LX, the new 380LQ enables you to shrink equipment size and retain the original performance.

Highlights

- New, more capacitance per case
- Compare to Type 380LX
- New, lower voltages down to 16 V

Specifications

| Temperature Range | -40 °C to + 85 °C ≤ 315 Vdc -25 °C to + 85 °C ≥ 350 Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|-------|--------|---------|-------|-------------|------|------|------|---------|-------|-------|--------|---------|-------|-------------|-----------|------|------|------|------|------|------|------------|------|------|------|------|------|------|
| Rated Voltage Range | 16 Vdc to 450 Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Range | 82 µF to 100,000 µF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | ≤ 3 \sqrt{CV} µA, 4 mA max, 5 minutes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ripple Current Multipliers | <p>Ambient Temperature</p> <table border="1"> <thead> <tr> <th>45 °C</th> <th>60 °C</th> <th>70 °C</th> <th>85 °C</th> </tr> </thead> <tbody> <tr> <td>1.50</td> <td>1.40</td> <td>1.30</td> <td>1.00</td> </tr> </tbody> </table> <p>Frequency</p> <table border="1"> <thead> <tr> <th rowspan="2">Voltage</th> <th>50 Hz</th> <th>60 Hz</th> <th>120 Hz</th> <th>500 kHz</th> <th>1 kHz</th> <th>10 kHz & Up</th> </tr> </thead> <tbody> <tr> <td>16–100 WV</td> <td>0.93</td> <td>0.95</td> <td>1.00</td> <td>1.05</td> <td>1.08</td> <td>1.15</td> </tr> <tr> <td>160–450 WV</td> <td>0.75</td> <td>0.80</td> <td>1.00</td> <td>1.20</td> <td>1.25</td> <td>1.40</td> </tr> </tbody> </table> | 45 °C | 60 °C | 70 °C | 85 °C | 1.50 | 1.40 | 1.30 | 1.00 | Voltage | 50 Hz | 60 Hz | 120 Hz | 500 kHz | 1 kHz | 10 kHz & Up | 16–100 WV | 0.93 | 0.95 | 1.00 | 1.05 | 1.08 | 1.15 | 160–450 WV | 0.75 | 0.80 | 1.00 | 1.20 | 1.25 | 1.40 |
| 45 °C | 60 °C | 70 °C | 85 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.50 | 1.40 | 1.30 | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voltage | 50 Hz | 60 Hz | 120 Hz | 500 kHz | 1 kHz | 10 kHz & Up | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16–100 WV | 0.93 | 0.95 | 1.00 | 1.05 | 1.08 | 1.15 | | | | | | | | | | | | | | | | | | | | | | | |
| 160–450 WV | 0.75 | 0.80 | 1.00 | 1.20 | 1.25 | 1.40 | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Characteristics | Impedance ratio: $Z_{-20^{\circ}\text{C}}/Z_{+25^{\circ}\text{C}}$ ≤ 8 (16–50 Vdc) ≤ 4 (63–100 Vdc) ≤ 3 (150–450 Vdc) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance Life Test | 2000 h at full load at 85 °C Δ Capacitance ±20% ESR 200% of limit DCL 100% of limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life Test | 1000 h at 85 °C Δ Capacitance ±20% ESR 200% of limit DCL 100% of limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration | 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RoHS Compliant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

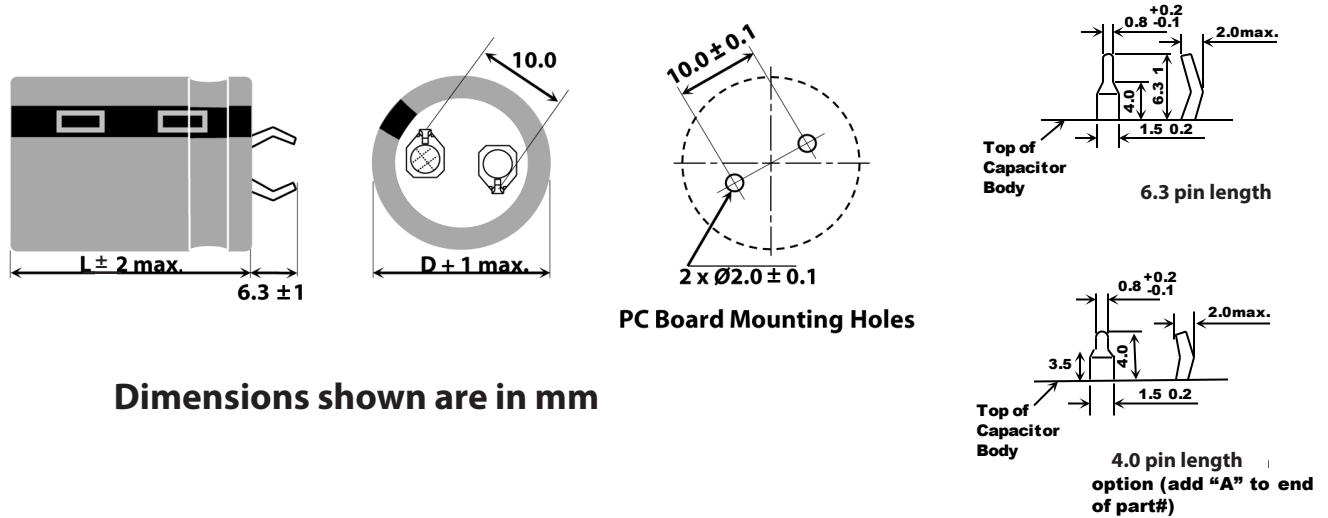
Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

High Capacitance per Case Size

Part Numbering System

| | | | | | | |
|--------------|----------------------|------------------|----------------------|------------------|-------------------|---------------------------|
| 380LQ | 272 | M | 200 | A05 | 2 | A |
| | | | | | | |
| Type | Cap | Tolerance | Voltage | Case Code | Insulation | Pin Styles |
| 380LQ | 561 = 560 μF | M = ±20% | 016 = 16 Vdc | | 2 = PVC | Blank = 2 pins |
| | 272 = 2700 μF | | 200 = 200 Vdc | | | snap-in 6.3 mm L |
| | 392 = 3900 μF | | 450 = 450 Vdc | | | A = 2 pins snap-in |
| | | | | | | 4.0 mm L |

Outline Drawing



Insulated Case Dimensions

| Case Code | DIAMETER D | | LENGTH L | | Typical Weight (grams) | Case Code | DIAMETER D | | LENGTH L | | Typical Weight (grams) |
|-----------|------------|--------|----------|--------|------------------------|-----------|------------|--------|----------|--------|------------------------|
| | mm | inches | mm | inches | | | mm | inches | mm | inches | |
| H01 | 22 | 0.87 | 25 | 0.98 | 16 | K01 | 30 | 1.18 | 25 | 0.98 | 30 |
| H02 | 22 | 0.87 | 30 | 1.18 | 19 | K02 | 30 | 1.18 | 30 | 1.18 | 35 |
| H03 | 22 | 0.87 | 35 | 1.38 | 22 | K03 | 30 | 1.18 | 35 | 1.38 | 40 |
| H04 | 22 | 0.87 | 40 | 1.57 | 24 | K04 | 30 | 1.18 | 40 | 1.57 | 44 |
| H45 | 22 | 0.87 | 45 | 1.77 | 28 | K45 | 30 | 1.18 | 45 | 1.77 | 49 |
| H05 | 22 | 0.87 | 50 | 1.97 | 31 | K05 | 30 | 1.18 | 50 | 1.97 | 53 |
| J01 | 25 | 0.98 | 25 | 0.98 | 20 | A01 | 35 | 1.38 | 25 | 0.98 | 42 |
| J02 | 25 | 0.98 | 30 | 1.18 | 24 | A02 | 35 | 1.38 | 30 | 1.18 | 48 |
| J03 | 25 | 0.98 | 35 | 1.38 | 27 | A03 | 35 | 1.38 | 35 | 1.38 | 54 |
| J04 | 25 | 0.98 | 40 | 1.57 | 31 | A04 | 35 | 1.38 | 40 | 1.57 | 60 |
| J45 | 25 | 0.98 | 45 | 1.77 | 35 | A45 | 35 | 1.38 | 45 | 1.77 | 67 |
| J05 | 25 | 0.98 | 50 | 1.97 | 38 | A05 | 35 | 1.38 | 50 | 1.97 | 74 |

Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

High Capacitance per Case Size

Ratings

| Cap. (uF) | Catalog Part Number | Max. ESR @ +25°C | | Ripple Amps @ +85°C | | Nominal Size D x L (mm) |
|------------------------------|---------------------|---------------------|--------|------------------------|--------|----------------------------------|
| | | 120 Hz | 20 kHz | 120 Hz | 20 kHz | |
| | | (ohms) | (ohms) | (A) | (A) | |
| 16 Vdc (20 Vdc Surge) | | | | | | |
| 12000 | 380LQ123M016H022 | 0.069 | 0.059 | 3.13 | 3.60 | 22 x 30 |
| 15000 | 380LQ153M016H032 | 0.055 | 0.047 | 3.69 | 4.24 | 22 x 35 |
| 18000 | 380LQ183M016H032 | 0.046 | 0.039 | 3.10 | 4.58 | 22 x 35 |
| 22000 | 380LQ223M016H042 | 0.038 | 0.032 | 4.52 | 5.20 | 22 x 40 |
| 27000 | 380LQ273M016H052 | 0.031 | 0.026 | 6.31 | 7.26 | 22 x 50 |
| 33000 | 380LQ333M016K032 | 0.025 | 0.021 | 6.84 | 7.87 | 30 x 35 |
| 39000 | 380LQ393M016K042 | 0.024 | 0.020 | 6.94 | 7.98 | 30 x 40 |
| 47000 | 380LQ473M016K452 | 0.023 | 0.019 | 7.47 | 8.59 | 30 x 45 |
| 56000 | 380LQ563M016A452 | 0.022 | 0.018 | 8.73 | 10.04 | 35 x 45 |
| 68000 | 380LQ683M016A452 | 0.021 | 0.018 | 9.05 | 10.41 | 35 x 45 |
| 82000 | 380LQ823M016A052 | 0.020 | 0.018 | 9.49 | 10.91 | 35 x 50 |
| 100000 | 380LQ104M016A052 | 0.019 | 0.018 | 10.18 | 11.71 | 35 x 50 |
| 25 Vdc (32 Vdc Surge) | | | | | | |
| 8200 | 380LQ822M025H022 | 0.081 | 0.065 | 2.86 | 3.29 | 22 x 30 |
| 12000 | 380LQ123M025J022 | 0.055 | 0.044 | 4.10 | 4.72 | 25 x 30 |
| 15000 | 380LQ153M025J032 | 0.044 | 0.035 | 4.63 | 5.32 | 25 x 35 |
| 18000 | 380LQ183M025J042 | 0.037 | 0.029 | 5.47 | 6.29 | 25 x 40 |
| 18000 | 380LQ183M025K012 | 0.037 | 0.029 | 4.66 | 5.36 | 30 x 25 |
| 22000 | 380LQ223M025J452 | 0.030 | 0.024 | 6.10 | 7.02 | 25 x 45 |
| 27000 | 380LQ273M025K042 | 0.025 | 0.020 | 6.21 | 7.14 | 30 x 40 |
| 33000 | 380LQ333M025K452 | 0.020 | 0.016 | 6.84 | 7.87 | 30 x 45 |
| 39000 | 380LQ393M025A452 | 0.020 | 0.016 | 7.36 | 8.46 | 35 x 45 |
| 47000 | 380LQ473M025A052 | 0.019 | 0.015 | 8.00 | 9.20 | 35 x 50 |
| 56000 | 380LQ563M025A052 | 0.019 | 0.016 | 8.91 | 10.25 | 35 x 50 |
| 35 Vdc (44 Vdc Surge) | | | | | | |
| 5600 | 380LQ562M035H022 | 0.104 | 0.078 | 2.79 | 3.20 | 22 x 30 |
| 8200 | 380LQ822M035J022 | 0.071 | 0.053 | 4.00 | 4.60 | 25 x 30 |
| 10000 | 380LQ103M035J022 | 0.058 | 0.044 | 4.42 | 5.08 | 25 x 30 |
| 10000 | 380LQ103M035J032 | 0.058 | 0.044 | 4.42 | 5.08 | 25 x 35 |
| 12000 | 380LQ123M035J042 | 0.048 | 0.036 | 5.05 | 5.81 | 25 x 40 |
| 12000 | 380LQ123M035K012 | 0.048 | 0.036 | 4.15 | 4.77 | 30 x 25 |
| 15000 | 380LQ153M035K042 | 0.036 | 0.027 | 5.60 | 6.40 | 30 x 40 |
| 18000 | 380LQ183M035K452 | 0.032 | 0.024 | 5.68 | 6.53 | 30 x 45 |
| 22000 | 380LQ223M035K452 | 0.026 | 0.020 | 6.10 | 7.02 | 30 x 45 |
| 27000 | 380LQ273M035A052 | 0.021 | 0.016 | 6.84 | 7.87 | 35 x 50 |
| 33000 | 380LQ333M035A052 | 0.018 | 0.014 | 7.15 | 8.22 | 35 x 50 |
| 39000 | 380LQ393M035A052 | 0.017 | 0.014 | 7.91 | 9.10 | 35 x 50 |
| 47000 | 380LQ473M035A552 | 0.017 | 0.014 | 8.56 | 9.84 | 35 x 55 |
| 50 Vdc (63 Vdc Surge) | | | | | | |
| 3300 | 380LQ332M050H012 | 0.151 | 0.113 | 2.41 | 2.77 | 22 x 25 |
| 4700 | 380LQ472M050H032 | 0.106 | 0.079 | 3.03 | 3.48 | 22 x 35 |
| 5600 | 380LQ562M050J032 | 0.089 | 0.067 | 3.42 | 3.93 | 25 x 35 |

Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

High Capacitance per Case Size

| Cap. (uF) | Catalog Part Number | Max. ESR @ +25°C | | Ripple Amps @ +85°C | | Nominal Size D x L (mm) |
|--------------------------------|---------------------|---------------------|------------------|------------------------|---------------|----------------------------------|
| | | 120 Hz (ohms) | 20 kHz (ohms) | 120 Hz (A) | 20 kHz (A) | |
| 50 Vdc (63 Vdc Surge) | | | | | | |
| 6800 | 380LQ682M050H452 | 0.073 | 0.055 | 3.85 | 4.43 | 22 x 45 |
| 6800 | 380LQ682M050J022 | 0.073 | 0.055 | 3.22 | 3.71 | 25 x 30 |
| 8200 | 380LQ822M050H452 | 0.061 | 0.045 | 4.41 | 5.07 | 22 x 45 |
| 8200 | 380LQ822M050J032 | 0.061 | 0.045 | 4.41 | 5.07 | 25 x 35 |
| 10000 | 380LQ103M050J052 | 0.050 | 0.037 | 4.97 | 5.72 | 25 x 50 |
| 10000 | 380LQ103M050A032 | 0.050 | 0.037 | 4.97 | 5.72 | 35 x 35 |
| 12000 | 380LQ123M050A032 | 0.041 | 0.031 | 5.58 | 6.42 | 35 x 35 |
| 18000 | 380LQ183M050A452 | 0.028 | 0.021 | 6.94 | 7.98 | 35 x 45 |
| 22000 | 380LQ223M050A052 | 0.023 | 0.018 | 7.57 | 8.71 | 35 x 50 |
| 27000 | 380LQ273M050A052 | 0.018 | 0.015 | 8.96 | 10.30 | 35 x 50 |
| 63 Vdc (79 Vdc Surge) | | | | | | |
| 2200 | 380LQ222M063H022 | 0.188 | 0.141 | 2.35 | 2.70 | 22 x 30 |
| 3300 | 380LQ332M063H042 | 0.126 | 0.094 | 2.72 | 3.13 | 22 x 40 |
| 3900 | 380LQ392M063J022 | 0.106 | 0.080 | 3.13 | 3.60 | 25 x 30 |
| 4700 | 380LQ472M063J032 | 0.088 | 0.066 | 3.59 | 4.13 | 25 x 35 |
| 4700 | 380LQ472M063K022 | 0.061 | 0.046 | 3.89 | 4.48 | 30 x 30 |
| 5600 | 380LQ562M063K042 | 0.074 | 0.056 | 4.11 | 4.72 | 30 x 40 |
| 6800 | 380LQ682M063K042 | 0.061 | 0.046 | 4.55 | 5.24 | 30 x 40 |
| 8200 | 380LQ822M063A032 | 0.051 | 0.038 | 4.68 | 5.38 | 35 x 35 |
| 10000 | 380LQ103M063K042 | 0.041 | 0.031 | 5.35 | 6.15 | 30 x 40 |
| 10000 | 380LQ103M063K452 | 0.041 | 0.031 | 6.52 | 7.50 | 30 x 45 |
| 12000 | 380LQ123M063K052 | 0.035 | 0.026 | 7.15 | 8.22 | 30 x 50 |
| 15000 | 380LQ153M063A052 | 0.028 | 0.021 | 7.91 | 9.10 | 35 x 50 |
| 18000 | 380LQ183M063A552 | 0.023 | 0.018 | 8.55 | 9.83 | 35 x 55 |
| 80 Vdc (100 Vdc Surge) | | | | | | |
| 1500 | 380LQ152M080H022 | 0.221 | 0.166 | 2.01 | 2.31 | 22 x 30 |
| 1800 | 380LQ182M080H032 | 0.184 | 0.138 | 2.11 | 2.43 | 22 x 35 |
| 2200 | 380LQ222M080H042 | 0.151 | 0.113 | 2.73 | 3.14 | 22 x 40 |
| 2700 | 380LQ272M080J042 | 0.123 | 0.092 | 2.78 | 3.20 | 25 x 40 |
| 3300 | 380LQ332M080J042 | 0.100 | 0.075 | 3.21 | 3.69 | 25 x 40 |
| 3900 | 380LQ392M080K042 | 0.085 | 0.064 | 3.59 | 4.13 | 30 x 40 |
| 4700 | 380LQ472M080K042 | 0.071 | 0.053 | 4.09 | 4.70 | 30 x 40 |
| 5600 | 380LQ562M080K452 | 0.059 | 0.044 | 4.55 | 5.23 | 30 x 45 |
| 6800 | 380LQ682M080K052 | 0.049 | 0.037 | 5.16 | 5.93 | 30 x 50 |
| 8200 | 380LQ822M080A452 | 0.040 | 0.030 | 5.83 | 6.70 | 35 x 45 |
| 10000 | 380LQ103M080A052 | 0.040 | 0.030 | 5.83 | 6.70 | 35 x 50 |
| 100 Vdc (125 Vdc Surge) | | | | | | |
| 1000 | 380LQ102M100H022 | 0.332 | 0.216 | 2.12 | 2.44 | 22 x 30 |
| 1200 | 380LQ122M100H022 | 0.276 | 0.180 | 2.12 | 2.44 | 22 x 30 |
| 1500 | 380LQ152M100K012 | 0.221 | 0.144 | 2.57 | 2.96 | 30 x 25 |
| 1800 | 380LQ182M100H042 | 0.184 | 0.120 | 2.60 | 2.99 | 22 x 40 |
| 2200 | 380LQ222M100J452 | 0.151 | 0.098 | 3.14 | 3.61 | 25 x 45 |

Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

High Capacitance per Case Size

| Cap. (uF) | Catalog Part Number | Max. ESR @ +25°C | | Ripple Amps @ +85°C | | Nominal Size D x L (mm) |
|--------------------------------|---------------------|---------------------|--------|------------------------|--------|----------------------------------|
| | | 120 Hz | 20 kHz | 120 Hz | 20 kHz | |
| | | (ohms) | (ohms) | (A) | (A) | |
| 100 Vdc (125 Vdc Surge) | | | | | | |
| 2200 | 380LQ222M100K012 | 0.151 | 0.098 | 3.14 | 3.61 | 30 x 25 |
| 2700 | 380LQ272M100J452 | 0.123 | 0.080 | 3.66 | 4.21 | 25 x 45 |
| 2700 | 380LQ272M100A022 | 0.123 | 0.080 | 3.71 | 4.27 | 35 x 30 |
| 3300 | 380LQ332M100A022 | 0.100 | 0.065 | 4.06 | 4.67 | 35 x 30 |
| 3900 | 380LQ392M100K052 | 0.085 | 0.055 | 4.54 | 5.22 | 30 x 50 |
| 4700 | 380LQ472M100K052 | 0.071 | 0.046 | 5.13 | 5.90 | 30 x 50 |
| 5600 | 380LQ562M100A052 | 0.059 | 0.041 | 5.75 | 6.61 | 35 x 50 |
| 6800 | 380LQ682M100A052 | 0.049 | 0.034 | 6.60 | 7.59 | 35 x 50 |
| 160 Vdc (200 Vdc Surge) | | | | | | |
| 560 | 380LQ561M160H042 | 0.355 | 0.160 | 2.25 | 3.15 | 22 x 40 |
| 680 | 380LQ681M160H042 | 0.293 | 0.132 | 2.35 | 3.29 | 22 x 40 |
| 820 | 380LQ821M160J042 | 0.243 | 0.109 | 2.75 | 3.85 | 25 x 40 |
| 1000 | 380LQ102M160J042 | 0.199 | 0.090 | 3.00 | 4.20 | 25 x 40 |
| 1200 | 380LQ122M160K032 | 0.166 | 0.075 | 3.25 | 4.55 | 30 x 35 |
| 1500 | 380LQ152M160K452 | 0.133 | 0.060 | 3.73 | 5.22 | 30 x 45 |
| 1800 | 380LQ182M160K452 | 0.111 | 0.050 | 4.20 | 5.88 | 30 x 45 |
| 2200 | 380LQ222M160K052 | 0.098 | 0.049 | 4.78 | 6.69 | 30 x 50 |
| 2700 | 380LQ272M160A042 | 0.080 | 0.040 | 5.45 | 7.63 | 35 x 40 |
| 2700 | 380LQ272M160A052 | 0.074 | 0.033 | 5.45 | 7.63 | 35 x 50 |
| 3300 | 380LQ332M160A052 | 0.070 | 0.035 | 5.75 | 8.05 | 35 x 50 |
| 180 Vdc (225 Vdc Surge) | | | | | | |
| 470 | 380LQ471M180H022 | 0.423 | 0.190 | 1.91 | 2.68 | 22 x 30 |
| 560 | 380LQ561M180H042 | 0.355 | 0.160 | 2.25 | 3.15 | 22 x 40 |
| 680 | 380LQ681M180J032 | 0.290 | 0.130 | 1.70 | 2.38 | 25 x 35 |
| 820 | 380LQ821M180H452 | 0.240 | 0.110 | 2.00 | 2.80 | 22 x 45 |
| 1000 | 380LQ102M180H052 | 0.200 | 0.090 | 2.99 | 4.19 | 22 x 50 |
| 1200 | 380LQ122M180J052 | 0.170 | 0.080 | 3.31 | 4.63 | 25 x 50 |
| 1500 | 380LQ152M180J052 | 0.130 | 0.060 | 3.83 | 5.36 | 25 x 50 |
| 1800 | 380LQ182M180K052 | 0.120 | 0.054 | 4.32 | 6.05 | 30 x 50 |
| 2200 | 380LQ222M180K052 | 0.100 | 0.050 | 4.86 | 6.81 | 30 x 50 |
| 2700 | 380LQ272M180A052 | 0.090 | 0.040 | 5.30 | 7.42 | 35 x 50 |
| 200 Vdc (250 Vdc Surge) | | | | | | |
| 390 | 380LQ391M200H022 | 0.510 | 0.230 | 1.68 | 2.35 | 22 x 30 |
| 470 | 380LQ471M200H022 | 0.423 | 0.190 | 1.85 | 2.59 | 22 x 30 |
| 560 | 380LQ561M200H042 | 0.360 | 0.160 | 2.18 | 3.05 | 22 x 40 |
| 680 | 380LQ681M200J032 | 0.290 | 0.130 | 2.48 | 3.47 | 25 x 35 |
| 820 | 380LQ821M200H452 | 0.240 | 0.110 | 2.75 | 3.85 | 22 x 45 |
| 1000 | 380LQ102M200H452 | 0.199 | 0.090 | 3.25 | 4.55 | 22 x 45 |
| 1000 | 380LQ102M200H052 | 0.200 | 0.090 | 3.20 | 4.48 | 22 x 50 |
| 1000 | 380LQ102M200K022 | 0.199 | 0.090 | 3.25 | 4.55 | 30 x 30 |
| 1200 | 380LQ122M200J052 | 0.166 | 0.075 | 3.50 | 4.90 | 25 x 50 |
| 1200 | 380LQ122M200K022 | 0.166 | 0.075 | 3.50 | 4.90 | 30 x 30 |

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High Capacitance per Case Size

| Cap. (uF) | Catalog Part Number | Max. ESR @ +25°C | | Ripple Amps @ +85°C | | Nominal Size D x L (mm) |
|--------------------------------|---------------------|---------------------|------------------|------------------------|---------------|----------------------------------|
| | | 120 Hz (ohms) | 20 kHz (ohms) | 120 Hz (A) | 20 kHz (A) | |
| 200 Vdc (250 Vdc Surge) | | | | | | |
| 1500 | 380LQ152M200K052 | 0.130 | 0.070 | 3.87 | 5.12 | 30 x 50 |
| 1800 | 380LQ182M200K052 | 0.160 | 0.080 | 4.32 | 6.05 | 30 x 50 |
| 1800 | 380LQ182M200A032 | 0.120 | 0.060 | 4.32 | 6.05 | 35 x 35 |
| 2200 | 380LQ222M200K052 | 0.098 | 0.049 | 4.92 | 6.89 | 30 x 50 |
| 2200 | 380LQ222M200A042 | 0.105 | 0.053 | 4.81 | 6.73 | 35 x 40 |
| 2700 | 380LQ272M200A052 | 0.105 | 0.052 | 5.00 | 7.00 | 35 x 50 |
| 250 Vdc (300 Vdc Surge) | | | | | | |
| 270 | 380LQ271M250H022 | 0.737 | 0.332 | 1.31 | 1.83 | 22 x 30 |
| 330 | 380LQ331M250H022 | 0.603 | 0.271 | 1.66 | 2.32 | 22 x 30 |
| 390 | 380LQ391M250J032 | 0.510 | 0.230 | 1.91 | 2.67 | 25 x 35 |
| 470 | 380LQ471M250J032 | 0.420 | 0.190 | 2.11 | 2.95 | 25 x 35 |
| 470 | 380LQ471M250J042 | 0.423 | 0.190 | 2.11 | 2.95 | 25 x 40 |
| 560 | 380LQ561M250J022 | 0.355 | 0.160 | 2.20 | 3.08 | 25 x 30 |
| 560 | 380LQ561M250J032 | 0.355 | 0.160 | 2.25 | 3.15 | 25 x 35 |
| 680 | 380LQ681M250H052 | 0.293 | 0.132 | 2.30 | 3.20 | 22 x 50 |
| 680 | 380LQ681M250J032 | 0.293 | 0.132 | 2.50 | 3.50 | 25 x 35 |
| 680 | 380LQ681M250K022 | 0.293 | 0.132 | 2.50 | 3.50 | 30 x 30 |
| 820 | 380LQ821M250J452 | 0.240 | 0.110 | 2.77 | 3.88 | 25 x 45 |
| 820 | 380LQ821M250K022 | 0.243 | 0.109 | 2.77 | 3.88 | 30 x 30 |
| 1000 | 380LQ102M250K032 | 0.199 | 0.090 | 3.32 | 4.65 | 30 x 35 |
| 1000 | 380LQ102M250A022 | 0.199 | 0.090 | 3.32 | 4.65 | 35 x 30 |
| 1200 | 380LQ122M250K042 | 0.166 | 0.075 | 3.53 | 4.94 | 30 x 40 |
| 1200 | 380LQ122M250A032 | 0.166 | 0.083 | 3.53 | 4.94 | 35 x 35 |
| 1500 | 380LQ152M250K052 | 0.133 | 0.066 | 4.04 | 5.66 | 30 x 50 |
| 1500 | 380LQ152M250A042 | 0.133 | 0.066 | 4.04 | 5.66 | 35 x 40 |
| 1800 | 380LQ182M250A452 | 0.111 | 0.055 | 4.55 | 6.37 | 35 x 45 |
| 2200 | 380LQ222M250A052 | 0.105 | 0.052 | 5.00 | 7.00 | 35 x 50 |
| 315 Vdc (365 Vdc Surge) | | | | | | |
| 180 | 380LQ181M315H022 | 1.100 | 0.553 | 1.21 | 1.69 | 22 x 30 |
| 220 | 380LQ221M315H032 | 0.900 | 0.452 | 1.41 | 1.97 | 22 x 35 |
| 270 | 380LQ271M315J032 | 0.740 | 0.370 | 1.60 | 2.24 | 25 x 35 |
| 330 | 380LQ331M315J042 | 0.600 | 0.300 | 1.82 | 2.55 | 25 x 40 |
| 390 | 380LQ391M315J042 | 0.510 | 0.255 | 2.01 | 2.81 | 25 x 40 |
| 390 | 380LQ391M315K022 | 0.510 | 0.255 | 2.01 | 2.81 | 30 x 30 |
| 470 | 380LQ471M315J042 | 0.420 | 0.270 | 2.27 | 3.18 | 25 x 40 |
| 470 | 380LQ471M315K022 | 0.423 | 0.212 | 2.27 | 3.18 | 30 x 30 |
| 560 | 380LQ561M315J052 | 0.360 | 0.200 | 2.49 | 3.56 | 25 x 50 |
| 560 | 380LQ561M315K032 | 0.355 | 0.178 | 2.56 | 3.58 | 30 x 35 |
| 680 | 380LQ681M315K042 | 0.293 | 0.148 | 2.87 | 4.02 | 30 x 40 |
| 680 | 380LQ681M315A032 | 0.293 | 0.146 | 2.87 | 4.55 | 35 x 35 |
| 820 | 380LQ821M315K452 | 0.243 | 0.121 | 3.25 | 4.55 | 30 x 45 |
| 820 | 380LQ821M315A042 | 0.243 | 0.121 | 3.25 | 4.55 | 35 x 40 |

Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

High Capacitance per Case Size

| Cap. (uF) | Catalog Part Number | Max. ESR @ +25°C | | Ripple Amps @ +85°C | | Nominal Size |
|--------------------------------|---------------------|---------------------|--------|------------------------|--------|-----------------|
| | | 120 Hz | 20 kHz | 120 Hz | 20 kHz | D x L |
| | | (ohms) | (ohms) | (A) | (A) | (mm) |
| 315 Vdc (365 Vdc Surge) | | | | | | |
| 1000 | 380LQ102M315K052 | 0.199 | 0.090 | 3.63 | 5.08 | 30 x 50 |
| 1000 | 380LQ102M315A452 | 0.199 | 0.109 | 3.63 | 5.08 | 35 x 45 |
| 350 Vdc (400 Vdc Surge) | | | | | | |
| 150 | 380LQ151M350H022 | 1.330 | 0.660 | 1.12 | 1.57 | 22 x 30 |
| 180 | 380LQ181M350H022 | 1.106 | 0.497 | 1.20 | 1.70 | 22 x 30 |
| 220 | 380LQ221M350H032 | 0.900 | 0.452 | 1.44 | 2.02 | 22 x 35 |
| 270 | 380LQ271M350H452 | 0.737 | 0.376 | 1.66 | 2.32 | 22 x 45 |
| 270 | 380LQ271M350J022 | 0.737 | 0.376 | 1.66 | 2.32 | 25 x 30 |
| 330 | 380LQ331M350J032 | 0.603 | 0.301 | 1.88 | 2.63 | 25 x 35 |
| 330 | 380LQ331M350J042 | 0.600 | 0.300 | 1.88 | 2.63 | 25 x 40 |
| 390 | 380LQ391M350J042 | 0.510 | 0.260 | 2.06 | 2.88 | 25 x 40 |
| 390 | 380LQ391M350K022 | 0.510 | 0.255 | 2.06 | 2.88 | 30 x 30 |
| 470 | 380LQ471M350K032 | 0.423 | 0.211 | 2.40 | 3.36 | 30 x 35 |
| 470 | 380LQ471M350A022 | 0.420 | 0.211 | 2.39 | 3.35 | 35 x 30 |
| 560 | 380LQ561M350K042 | 0.355 | 0.178 | 2.60 | 3.64 | 30 x 40 |
| 680 | 380LQ681M350K452 | 0.293 | 0.146 | 2.96 | 4.14 | 30 x 45 |
| 680 | 380LQ681M350A032 | 0.293 | 0.146 | 2.96 | 4.14 | 35 x 35 |
| 820 | 380LQ821M350K052 | 0.243 | 0.121 | 3.25 | 4.55 | 30 x 50 |
| 820 | 380LQ821M350A452 | 0.243 | 0.121 | 3.25 | 4.55 | 35 x 45 |
| 1000 | 380LQ102M350A052 | 0.199 | 0.109 | 3.54 | 4.96 | 35 x 50 |
| 400 Vdc (450 Vdc Surge) | | | | | | |
| 150 | 380LQ151M400H022 | 1.659 | 0.748 | 0.70 | 0.98 | 22 x 30 |
| 180 | 380LQ181M400J032 | 1.105 | 0.550 | 1.44 | 2.02 | 25 x 35 |
| 220 | 380LQ221M400H042 | 0.900 | 0.450 | 1.49 | 2.09 | 22 x 40 |
| 220 | 380LQ221M400J022 | 0.905 | 0.452 | 1.49 | 2.09 | 25 x 30 |
| 270 | 380LQ271M400H452 | 0.737 | 0.368 | 1.67 | 2.34 | 22 x 45 |
| 270 | 380LQ271M400K022 | 0.737 | 0.368 | 1.67 | 2.34 | 30 x 30 |
| 330 | 380LQ331M400K022 | 0.603 | 0.301 | 1.90 | 2.66 | 30 x 30 |
| 330 | 380LQ331M400K032 | 0.603 | 0.300 | 1.90 | 2.66 | 30 x 35 |
| 330 | 380LQ331M400A012 | 0.603 | 0.301 | 1.90 | 2.66 | 35 x 25 |
| 390 | 380LQ391M400J452 | 0.510 | 0.255 | 2.13 | 2.98 | 25 x 45 |
| 390 | 380LQ391M400K032 | 0.510 | 0.255 | 2.13 | 2.98 | 30 x 35 |
| 390 | 380LQ391M400A022 | 0.510 | 0.255 | 2.13 | 2.98 | 35 x 30 |
| 470 | 380LQ471M400K042 | 0.423 | 0.212 | 2.39 | 3.35 | 30 x 40 |
| 470 | 380LQ471M400A032 | 0.420 | 0.210 | 2.39 | 3.35 | 35 x 35 |
| 560 | 380LQ561M400K452 | 0.355 | 0.178 | 2.69 | 3.77 | 30 x 45 |
| 560 | 380LQ561M400A032 | 0.355 | 0.178 | 2.69 | 3.77 | 35 x 35 |
| 680 | 380LQ681M400K052 | 0.293 | 0.148 | 2.96 | 4.14 | 30 x 50 |
| 680 | 380LQ681M400A042 | 0.293 | 0.148 | 2.70 | 3.80 | 35 x 40 |
| 680 | 380LQ681M400A452 | 0.293 | 0.148 | 2.96 | 4.14 | 35 x 45 |
| 820 | 380LQ821M400A452 | 0.243 | 0.122 | 2.95 | 4.15 | 35 x 45 |
| 820 | 380LQ821M400A052 | 0.243 | 0.122 | 3.25 | 4.55 | 35 x 50 |

Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

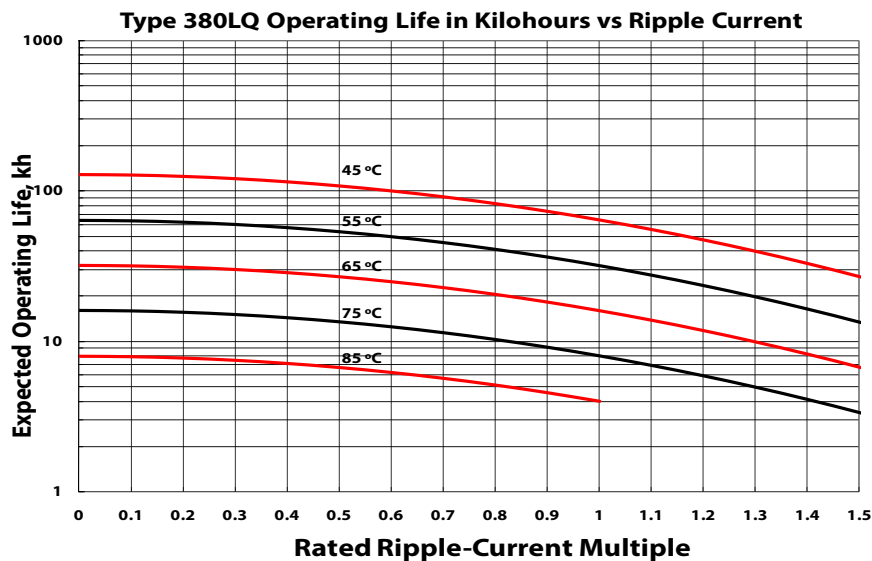
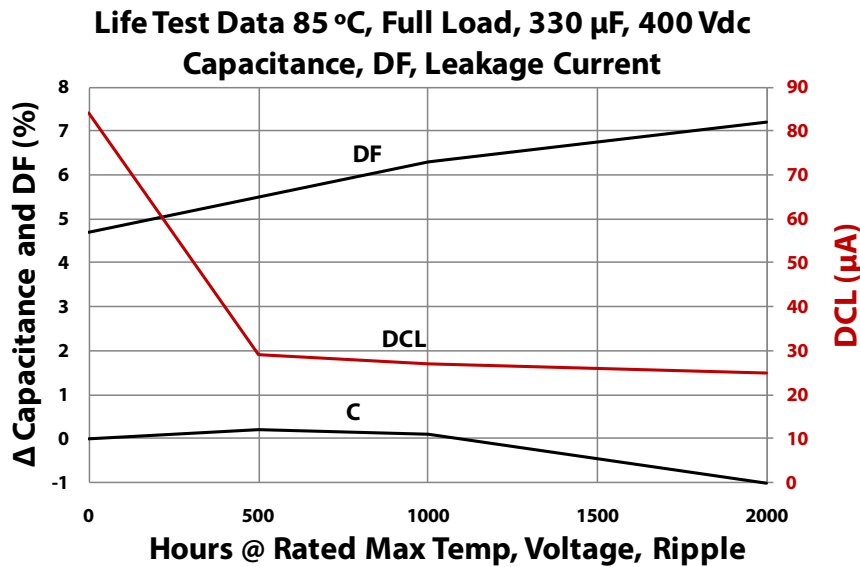
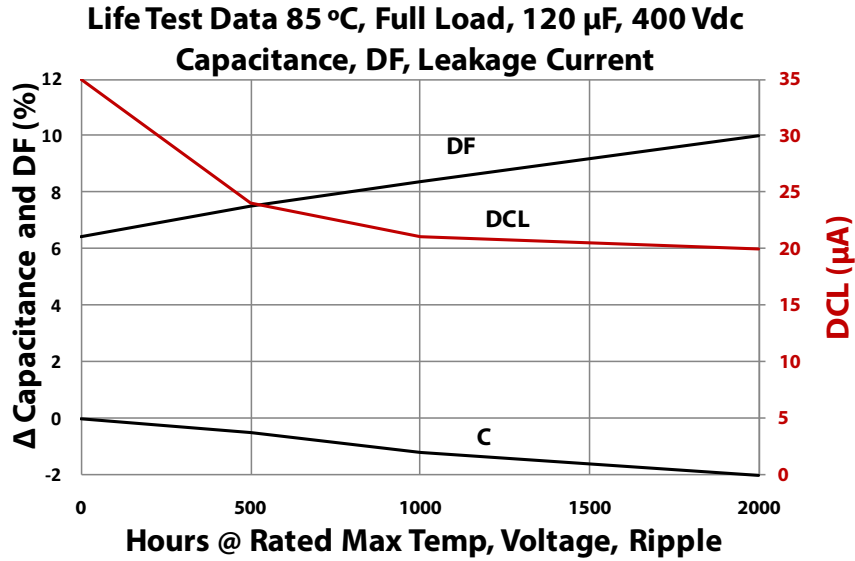
High Capacitance per Case Size

| Cap. (uF) | Catalog Part Number | Max. ESR @ +25°C | | Ripple Amps @ +85°C | | Nominal Size |
|--------------------------------|---------------------|---------------------|--------|------------------------|--------|-----------------|
| | | 120 Hz | 20 kHz | 120 Hz | 20 kHz | D x L |
| | | (ohms) | (ohms) | (A) | (A) | (mm) |
| 420 Vdc (470 Vdc Surge) | | | | | | |
| 220 | 380LQ221M420H452 | 0.905 | 0.407 | 1.50 | 2.10 | 22 x 45 |
| 270 | 380LQ271M420J452 | 0.737 | 0.332 | 1.70 | 2.30 | 25 x 45 |
| 330 | 380LQ331M420J052 | 0.603 | 0.302 | 2.01 | 2.81 | 25 x 50 |
| 330 | 380LQ331M420K022 | 0.603 | 0.302 | 1.95 | 2.75 | 30 x 30 |
| 390 | 380LQ391M420K032 | 0.510 | 0.255 | 2.15 | 3.05 | 30 x 35 |
| 390 | 380LQ391M420K042 | 0.510 | 0.255 | 2.10 | 3.00 | 30 x 40 |
| 470 | 380LQ471M420K042 | 0.423 | 0.212 | 2.45 | 3.40 | 30 x 40 |
| 470 | 380LQ471M420A032 | 0.423 | 0.212 | 2.45 | 3.40 | 35 x 35 |
| 560 | 380LQ561M420K452 | 0.355 | 0.178 | 2.75 | 3.85 | 30 x 45 |
| 560 | 380LQ561M420A042 | 0.355 | 0.178 | 2.75 | 3.85 | 35 x 40 |
| 680 | 380LQ681M420A452 | 0.293 | 0.146 | 3.10 | 4.35 | 35 x 45 |
| 450 Vdc (500 Vdc Surge) | | | | | | |
| 82 | 380LQ820M450H022 | 2.430 | 1.210 | 0.83 | 1.16 | 22 x 30 |
| 100 | 380LQ101M450H022 | 1.990 | 0.985 | 0.93 | 1.30 | 22 x 30 |
| 120 | 380LQ121M450H022 | 1.656 | 0.829 | 1.04 | 1.46 | 22 x 30 |
| 150 | 380LQ151M450H032 | 1.330 | 0.660 | 1.19 | 1.67 | 22 x 35 |
| 180 | 380LQ181M450H042 | 1.110 | 0.550 | 1.32 | 1.85 | 22 x 40 |
| 180 | 380LQ181M450J022 | 1.105 | 0.553 | 1.35 | 1.89 | 25 x 30 |
| 220 | 380LQ221M450H452 | 0.900 | 0.450 | 1.32 | 1.84 | 22 x 45 |
| 220 | 380LQ221M450J042 | 0.904 | 0.452 | 1.55 | 2.17 | 25 x 40 |
| 220 | 380LQ221M450K022 | 0.904 | 0.452 | 1.55 | 2.17 | 30 x 30 |
| 220 | 380LQ221M450A012 | 0.904 | 0.452 | 1.55 | 2.17 | 35 x 25 |
| 270 | 380LQ271M450H052 | 0.740 | 0.370 | 1.72 | 2.42 | 22 x 50 |
| 270 | 380LQ271M450K022 | 0.737 | 0.368 | 1.78 | 2.49 | 30 x 30 |
| 330 | 380LQ331M450J052 | 0.600 | 0.300 | 2.01 | 2.81 | 25 x 50 |
| 330 | 380LQ331M450K032 | 0.603 | 0.302 | 1.90 | 2.60 | 30 x 35 |
| 330 | 380LQ331M450K042 | 0.603 | 0.302 | 2.01 | 2.81 | 30 x 40 |
| 330 | 380LQ331M450A022 | 0.600 | 0.300 | 2.01 | 2.81 | 35 x 30 |
| 390 | 380LQ391M450K042 | 0.510 | 0.255 | 2.24 | 3.14 | 30 x 40 |
| 390 | 380LQ391M450A032 | 0.510 | 0.255 | 2.24 | 3.14 | 35 x 35 |
| 470 | 380LQ471M450K452 | 0.423 | 0.212 | 2.53 | 3.54 | 30 x 45 |
| 470 | 380LQ471M450A042 | 0.423 | 0.212 | 2.53 | 3.54 | 35 x 40 |
| 560 | 380LQ561M450K052 | 0.355 | 0.178 | 2.82 | 3.95 | 30 x 50 |
| 560 | 380LQ561M450A452 | 0.355 | 0.178 | 2.82 | 3.95 | 35 x 45 |
| 680 | 380LQ681M450A052 | 0.293 | 0.146 | 3.00 | 4.25 | 35 x 50 |

Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

High Capacitance per Case Size

Typical Performance Curves



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