

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

## Higher 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<br>-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 √CV μA, 4 mA max, 5 minutes                                                                                                               |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| Ripple Current Multipliers                                                                                                                                                                                                                         | Ambient Temperature                                                                                                                           |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
|                                                                                                                                                                                                                                                    | <table><tr><td>45 °C</td><td>60 °C</td><td>70 °C</td><td>85 °C</td></tr><tr><td>1.50</td><td>1.40</td><td>1.30</td><td>1.00</td></tr></table> |       |        |         |       |             |         | 45 °C | 60 °C | 70 °C  | 85 °C   | 1.50  | 1.40        | 1.30      | 1.00 |      |      |      |      |      |
|                                                                                                                                                                                                                                                    | 45 °C                                                                                                                                         | 60 °C | 70 °C  | 85 °C   |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
|                                                                                                                                                                                                                                                    | 1.50                                                                                                                                          | 1.40  | 1.30   | 1.00    |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| Frequency                                                                                                                                                                                                                                          |                                                                                                                                               |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| <table><tr><td>Voltage</td><td>50 Hz</td><td>60 Hz</td><td>120 Hz</td><td>500 kHz</td><td>1 kHz</td><td>10 kHz &amp; Up</td></tr><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></table> |                                                                                                                                               |       |        |         |       |             | 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 |
| 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        |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| Low Temperature Characteristics                                                                                                                                                                                                                    | Impedance ratio: Z <sub>-20°C</sub> /Z <sub>+25°C</sub><br>≤ 8 (16–50 Vdc)<br>≤ 4 (63–100 Vdc)<br>≤ 3 (150–450 Vdc)                           |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| Endurance Life Test                                                                                                                                                                                                                                | 2000 h at full load at 85 °C<br>Δ Capacitance ±20%<br>ESR 200% of limit<br>DCL 100% of limit                                                  |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| Shelf Life Test                                                                                                                                                                                                                                    | 1000 h at 85 °C<br>Δ Capacitance ±20%<br>ESR 200% of limit<br>DCL 100% of limit                                                               |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| Vibration                                                                                                                                                                                                                                          | 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane                                                                                               |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |
| RoHS Compliant                                                                                                                                                                                                                                     |                                                                                                                                               |       |        |         |       |             |         |       |       |        |         |       |             |           |      |      |      |      |      |      |

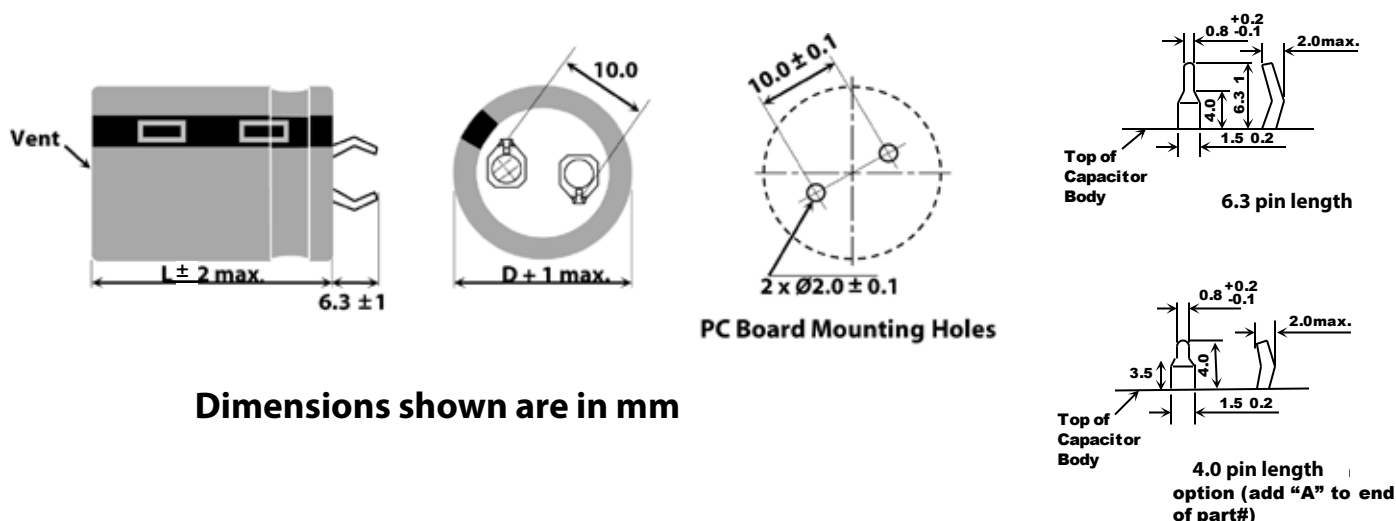
# Type 380LQ 85 °C Compact, High Capacitance Snap-in Capacitors

## Higher Capacitance per Case Size

### Part Numbering System

|              |                           |                       |                      |            |                |                                        |                                      |
|--------------|---------------------------|-----------------------|----------------------|------------|----------------|----------------------------------------|--------------------------------------|
| <b>380LQ</b> | <b>272</b>                | <b>M</b>              | <b>200</b>           | <b>A05</b> | <b>2</b>       | <b>A</b>                               | <b>+D</b>                            |
| Type         | Cap                       | Tolerance             | Voltage              | Case Code  | Insulation     | Pin Styles                             |                                      |
| <b>380LQ</b> | <b>561</b> = 560 $\mu$ F  | <b>M</b> = $\pm 20\%$ | <b>016</b> = 16 Vdc  |            | <b>2</b> = PVC | <b>Blank</b> = 2 pins snap-in 6.3 mm L | <b>Blank</b> = no end disk if <250 V |
|              | <b>272</b> = 2700 $\mu$ F |                       | <b>200</b> = 200 Vdc |            |                | <b>A</b> = 2 pins snap-in 4.0 mm L     | <b>D</b> = end disk, any voltage     |
|              | <b>392</b> = 3900 $\mu$ F |                       | <b>450</b> = 450 Vdc |            |                |                                        |                                      |

### Outline Drawing



Note that for 200 volts and under the insulating end disc is optional - If one is needed add a (+D) to the end of the part numbering system.

### 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

## Higher Capacitance per Case Size

### Ratings

|                       |                  | ESR Max |        | Ripple Amps |        | Nominal |
|-----------------------|------------------|---------|--------|-------------|--------|---------|
|                       |                  | @ 25° C |        | @ 85 °C     |        | Size    |
| Cap.                  | Catalog          | 120 Hz  | 20 kHz | 120 Hz      | 20 kHz | D x L   |
| (µF)                  | Part Number      | (Ω)     | (Ω)    | (A)         | (A)    | (mm)    |
| 16 Vdc (20 Vdc Surge) |                  |         |        |             |        |         |
| 12000                 | 380LQ123M016H012 | 0.069   | 0.059  | 4.52        | 5.20   | 22 x 25 |
| 15000                 | 380LQ153M016H022 | 0.055   | 0.047  | 5.26        | 6.05   | 22 x 30 |
| 18000                 | 380LQ183M016H032 | 0.046   | 0.039  | 5.57        | 6.41   | 22 x 35 |
| 18000                 | 380LQ183M016J012 | 0.046   | 0.039  | 5.57        | 6.41   | 25 x 25 |
| 22000                 | 380LQ223M016H042 | 0.038   | 0.032  | 6.10        | 7.02   | 22 x 40 |
| 22000                 | 380LQ223M016J022 | 0.038   | 0.032  | 6.10        | 7.02   | 25 x 30 |
| 27000                 | 380LQ273M016H452 | 0.031   | 0.026  | 6.31        | 7.26   | 22 x 45 |
| 27000                 | 380LQ273M016J032 | 0.031   | 0.026  | 6.31        | 7.26   | 25 x 25 |
| 27000                 | 380LQ273M016K012 | 0.031   | 0.026  | 6.31        | 7.26   | 30 x 25 |
| 33000                 | 380LQ333M016H052 | 0.025   | 0.021  | 6.84        | 7.87   | 22 x 50 |
| 33000                 | 380LQ333M016J042 | 0.025   | 0.021  | 6.84        | 7.87   | 25 x 40 |
| 33000                 | 380LQ333M016K022 | 0.025   | 0.021  | 6.84        | 7.87   | 30 x 30 |
| 33000                 | 380LQ333M016A012 | 0.025   | 0.021  | 6.84        | 7.87   | 35 x 25 |
| 39000                 | 380LQ393M016J452 | 0.024   | 0.020  | 6.94        | 7.98   | 25 x 45 |
| 39000                 | 380LQ393M016K032 | 0.024   | 0.020  | 6.94        | 7.98   | 30 x 35 |
| 47000                 | 380LQ473M016J052 | 0.023   | 0.019  | 7.47        | 8.59   | 25 x 50 |
| 47000                 | 380LQ473M016K042 | 0.023   | 0.019  | 7.47        | 8.59   | 30 x 40 |
| 47000                 | 380LQ473M016A022 | 0.023   | 0.019  | 7.47        | 8.59   | 35 x 30 |
| 56000                 | 380LQ563M016K452 | 0.022   | 0.019  | 8.73        | 10.04  | 30 x 45 |
| 56000                 | 380LQ563M016A032 | 0.022   | 0.018  | 8.73        | 10.04  | 35 x 35 |
| 68000                 | 380LQ683M016K052 | 0.021   | 0.018  | 9.05        | 10.41  | 30 x 50 |
| 68000                 | 380LQ683M016A042 | 0.021   | 0.018  | 9.05        | 10.41  | 35 x 40 |
| 82000                 | 380LQ823M016A452 | 0.020   | 0.018  | 9.49        | 10.91  | 35 x 45 |
| 100000                | 380LQ104M016A052 | 0.019   | 0.018  | 10.18       | 11.71  | 35 x 50 |
| 25 Vdc (32 Vdc Surge) |                  |         |        |             |        |         |
| 8200                  | 380LQ822M025H012 | 0.081   | 0.065  | 3.57        | 4.11   | 22 x 25 |
| 12000                 | 380LQ123M025H022 | 0.055   | 0.044  | 4.10        | 4.72   | 22 x 30 |
| 12000                 | 380LQ123M025J012 | 0.055   | 0.044  | 4.10        | 4.72   | 25 x 25 |
| 15000                 | 380LQ153M025H032 | 0.044   | 0.035  | 4.63        | 5.32   | 22 x 35 |
| 15000                 | 380LQ153M025J022 | 0.044   | 0.035  | 4.63        | 5.32   | 25 x 30 |
| 18000                 | 380LQ183M025H042 | 0.037   | 0.029  | 5.47        | 6.29   | 22 x 40 |
| 18000                 | 380LQ183M025J032 | 0.037   | 0.029  | 5.47        | 6.29   | 25 x 35 |
| 18000                 | 380LQ183M025K012 | 0.037   | 0.029  | 5.47        | 6.29   | 30 x 25 |
| 22000                 | 380LQ223M025H452 | 0.030   | 0.024  | 6.10        | 7.02   | 22 x 45 |
| 22000                 | 380LQ223M025J042 | 0.030   | 0.024  | 6.10        | 7.02   | 25 x 40 |
| 22000                 | 380LQ223M025K022 | 0.030   | 0.024  | 6.10        | 7.02   | 30 x 30 |
| 22000                 | 380LQ223M025A012 | 0.030   | 0.024  | 6.10        | 7.02   | 35 x 25 |
| 27000                 | 380LQ273M025J452 | 0.025   | 0.020  | 6.21        | 7.14   | 25 x 45 |
| 27000                 | 380LQ273M025K032 | 0.025   | 0.020  | 6.21        | 7.14   | 30 x 35 |
| 33000                 | 380LQ333M025J052 | 0.020   | 0.016  | 6.84        | 7.87   | 25 x 50 |
| 33000                 | 380LQ333M025K042 | 0.020   | 0.016  | 6.84        | 7.87   | 30 x 40 |
| 33000                 | 380LQ333M025A022 | 0.020   | 0.016  | 6.84        | 7.87   | 35 x 30 |

|                       |                  | ESR Max |        | Ripple Amps |        | Nominal |
|-----------------------|------------------|---------|--------|-------------|--------|---------|
|                       |                  | @ 25° C |        | @ 85 °C     |        | Size    |
| Cap.                  | Catalog          | 120 Hz  | 20 kHz | 120 Hz      | 20 kHz | D x L   |
| (µF)                  | Part Number      | (Ω)     | (Ω)    | (A)         | (A)    | (mm)    |
| 25 Vdc (44 Vdc Surge) |                  |         |        |             |        |         |
| 39000                 | 380LQ393M025K452 | 0.020   | 0.016  | 7.36        | 8.46   | 30 x 45 |
| 39000                 | 380LQ393M025A032 | 0.020   | 0.016  | 7.36        | 8.46   | 35 x 35 |
| 47000                 | 380LQ473M025K052 | 0.019   | 0.016  | 8.00        | 9.20   | 30 x 50 |
| 47000                 | 380LQ473M025A042 | 0.019   | 0.015  | 8.00        | 9.20   | 35 x 40 |
| 56000                 | 380LQ563M025A452 | 0.019   | 0.016  | 8.91        | 10.25  | 35 x 45 |
| 68000                 | 380LQ683M025A052 | 0.018   | 0.016  | 9.79        | 11.26  | 35 x 50 |
| 35 Vdc (32 Vdc Surge) |                  |         |        |             |        |         |
| 5600                  | 380LQ562M035H012 | 0.104   | 0.078  | 3.36        | 3.86   | 22 x 25 |
| 8200                  | 380LQ822M035H022 | 0.071   | 0.053  | 4.00        | 4.60   | 22 x 30 |
| 8200                  | 380LQ822M035J012 | 0.071   | 0.053  | 4.00        | 4.60   | 25 x 25 |
| 10000                 | 380LQ103M035H032 | 0.058   | 0.044  | 4.42        | 5.08   | 22 x 35 |
| 10000                 | 380LQ103M035J022 | 0.058   | 0.044  | 4.42        | 5.08   | 25 x 30 |
| 12000                 | 380LQ123M035H042 | 0.048   | 0.036  | 5.05        | 5.81   | 22 x 40 |
| 12000                 | 380LQ123M035J032 | 0.048   | 0.036  | 5.05        | 5.81   | 25 x 35 |
| 12000                 | 380LQ123M035K012 | 0.048   | 0.036  | 5.05        | 5.81   | 30 x 25 |
| 15000                 | 380LQ153M035H452 | 0.039   | 0.029  | 5.57        | 6.41   | 22 x 45 |
| 15000                 | 380LQ153M035J042 | 0.039   | 0.029  | 5.57        | 6.41   | 25 x 40 |
| 18000                 | 380LQ183M035J452 | 0.032   | 0.024  | 5.68        | 6.53   | 25 x 45 |
| 18000                 | 380LQ183M035K022 | 0.032   | 0.024  | 5.68        | 6.53   | 30 x 30 |
| 18000                 | 380LQ183M035A012 | 0.032   | 0.024  | 5.68        | 6.53   | 35 x 25 |
| 22000                 | 380LQ223M035J052 | 0.026   | 0.020  | 6.10        | 7.02   | 25 x 50 |
| 22000                 | 380LQ223M035K032 | 0.026   | 0.020  | 6.10        | 7.02   | 30 x 35 |
| 22000                 | 380LQ223M035A022 | 0.026   | 0.020  | 6.10        | 7.02   | 35 x 30 |
| 27000                 | 380LQ273M035K452 | 0.021   | 0.016  | 6.84        | 7.87   | 30 x 45 |
| 27000                 | 380LQ273M035A032 | 0.021   | 0.016  | 6.84        | 7.87   | 35 x 35 |
| 33000                 | 380LQ333M035K052 | 0.018   | 0.013  | 7.15        | 8.22   | 30 x 50 |
| 33000                 | 380LQ333M035A042 | 0.018   | 0.014  | 7.15        | 8.22   | 35 x 40 |
| 39000                 | 380LQ393M035A452 | 0.017   | 0.014  | 7.91        | 9.10   | 35 x 45 |
| 47000                 | 380LQ473M035A052 | 0.017   | 0.014  | 8.56        | 9.84   | 35 x 50 |
| 50 Vdc (63 Vdc Surge) |                  |         |        |             |        |         |
| 3300                  | 380LQ332M050H012 | 0.151   | 0.113  | 2.73        | 3.14   | 22 x 25 |
| 4700                  | 380LQ472M050H022 | 0.106   | 0.079  | 3.03        | 3.48   | 22 x 30 |
| 4700                  | 380LQ472M050J012 | 0.106   | 0.079  | 3.03        | 3.48   | 25 x 25 |
| 5600                  | 380LQ562M050H032 | 0.089   | 0.067  | 3.42        | 3.93   | 22 x 35 |
| 6800                  | 380LQ682M050H042 | 0.073   | 0.055  | 3.85        | 4.43   | 22 x 40 |
| 6800                  | 380LQ682M050J022 | 0.073   | 0.055  | 3.85        | 4.43   | 25 x 30 |
| 6800                  | 380LQ682M050K012 | 0.073   | 0.055  | 3.85        | 4.43   | 30 x 25 |
| 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                 | 380LQ103M050H052 | 0.050   | 0.037  | 4.97        | 5.72   | 22 x 50 |
| 10000                 | 380LQ103M050J042 | 0.050   | 0.037  | 4.97        | 5.72   | 25 x 40 |
| 10000                 | 380LQ103M050K022 | 0.050   | 0.037  | 4.97        | 5.72   | 30 x 30 |

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## Higher Capacitance per Case Size

|                        |                  | ESR Max |        | Ripple Amps |        | Nominal |                         |                  | ESR Max |        | Ripple Amps |        | Nominal |
|------------------------|------------------|---------|--------|-------------|--------|---------|-------------------------|------------------|---------|--------|-------------|--------|---------|
|                        |                  | @ 25° C |        | @ 85 °C     |        | Size    |                         |                  | @ 25° C |        | @ 85 °C     |        | Size    |
| Cap.                   | Catalog          | 120 Hz  | 20 kHz | 120 Hz      | 20 kHz | D x L   | Cap.                    | Catalog          | 120 Hz  | 20 kHz | 120 Hz      | 20 kHz | D x L   |
| (µF)                   | Part Number      | (Ω)     | (Ω)    | (A)         | (A)    | (mm)    | (µF)                    | Part Number      | (Ω)     | (Ω)    | (A)         | (A)    | (mm)    |
| 50 Vdc (63 Vdc Surge)  |                  |         |        |             |        |         | 80 Vdc (100 Vdc Surge)  |                  |         |        |             |        |         |
| 10000                  | 380LQ103M050A012 | 0.05    | 0.037  | 4.97        | 5.72   | 35 x 25 | 3900                    | 380LQ392M080H052 | 0.085   | 0.064  | 3.59        | 4.13   | 22 x 50 |
| 12000                  | 380LQ123M050J452 | 0.041   | 0.031  | 5.58        | 6.42   | 25 x 45 | 3900                    | 380LQ392M080J042 | 0.085   | 0.064  | 3.59        | 4.13   | 25 x 40 |
| 12000                  | 380LQ123M050K032 | 0.041   | 0.031  | 5.58        | 6.42   | 30 x 35 | 3900                    | 380LQ392M080A012 | 0.085   | 0.064  | 3.59        | 4.13   | 35 x 25 |
| 12000                  | 380LQ123M050A022 | 0.041   | 0.031  | 5.58        | 6.42   | 35 x 30 | 4700                    | 380LQ472M080H452 | 0.071   | 0.053  | 4.09        | 4.70   | 25 x 45 |
| 15000                  | 380LQ153M050K042 | 0.033   | 0.025  | 6.44        | 7.41   | 30 x 40 | 4700                    | 380LQ472M080K022 | 0.071   | 0.053  | 4.09        | 4.70   | 30 x 30 |
| 15000                  | 380LQ153M050A032 | 0.033   | 0.025  | 6.44        | 7.41   | 35 x 35 | 5600                    | 380LQ562M080J052 | 0.059   | 0.044  | 4.55        | 5.23   | 25 x 50 |
| 18000                  | 380LQ183M050K452 | 0.028   | 0.021  | 6.94        | 7.98   | 30 x 45 | 5600                    | 380LQ562M080K032 | 0.059   | 0.044  | 4.55        | 5.23   | 30 x 35 |
| 18000                  | 380LQ183M050A042 | 0.028   | 0.021  | 6.94        | 7.98   | 35 x 40 | 5600                    | 380LQ562M080A022 | 0.059   | 0.044  | 4.55        | 5.23   | 35 x 30 |
| 22000                  | 380LQ223M050A452 | 0.023   | 0.018  | 7.57        | 8.71   | 35 x 45 | 6800                    | 380LQ682M080K452 | 0.049   | 0.037  | 5.16        | 5.93   | 30 x 45 |
| 27000                  | 380LQ273M050A052 | 0.018   | 0.015  | 8.96        | 10.30  | 35 x 50 | 6800                    | 380LQ682M080A032 | 0.049   | 0.037  | 5.16        | 5.93   | 35 x 35 |
| 63 Vdc (79 Vdc Surge)  |                  |         |        |             |        |         | 100 Vdc (125 Vdc Surge) |                  |         |        |             |        |         |
| 2200                   | 380LQ222M063H012 | 0.188   | 0.141  | 2.52        | 2.90   | 22 x 25 | 8200                    | 380LQ822M080K052 | 0.04    | 0.03   | 5.83        | 6.70   | 30 x 50 |
| 3300                   | 380LQ332M063H022 | 0.126   | 0.094  | 4.10        | 4.72   | 22 x 30 | 8200                    | 380LQ822M080A042 | 0.04    | 0.03   | 5.83        | 6.70   | 35 x 40 |
| 3300                   | 380LQ332M063J012 | 0.126   | 0.094  | 4.10        | 4.72   | 25 x 25 | 10000                   | 380LQ103M080A452 | 0.033   | 0.025  | 6.51        | 7.49   | 35 x 45 |
| 3900                   | 380LQ392M063H032 | 0.106   | 0.080  | 4.44        | 5.11   | 22 x 35 | 12000                   | 380LQ122M080A052 | 0.028   | 0.021  | 7.28        | 8.37   | 35 x 50 |
| 3900                   | 380LQ392M063J022 | 0.106   | 0.080  | 4.44        | 5.11   | 25 x 30 |                         |                  |         |        |             |        |         |
| 4700                   | 380LQ472M063H042 | 0.088   | 0.066  | 4.86        | 5.59   | 22 x 40 | 1000                    | 380LQ102M100H012 | 0.332   | 0.216  | 1.96        | 2.25   | 22 x 25 |
| 5600                   | 380LQ562M063H452 | 0.074   | 0.056  | 5.36        | 6.16   | 22 x 45 | 1200                    | 380LQ122M100J012 | 0.276   | 0.18   | 2.31        | 2.66   | 25 x 25 |
| 5600                   | 380LQ562M063J042 | 0.074   | 0.056  | 5.36        | 6.16   | 25 x 40 | 1500                    | 380LQ152M100H022 | 0.221   | 0.144  | 2.57        | 2.96   | 22 x 30 |
| 6800                   | 380LQ682M063J452 | 0.061   | 0.046  | 5.84        | 6.72   | 25 x 45 | 1800                    | 380LQ182M100H032 | 0.184   | 0.120  | 2.84        | 3.27   | 22 x 35 |
| 6800                   | 380LQ682M063K022 | 0.061   | 0.046  | 5.84        | 6.72   | 30 x 30 | 1800                    | 380LQ182M100J022 | 0.184   | 0.120  | 2.84        | 3.27   | 25 x 30 |
| 6800                   | 380LQ682M063A012 | 0.061   | 0.046  | 5.84        | 6.72   | 35 x 25 | 2200                    | 380LQ222M100H452 | 0.151   | 0.098  | 3.14        | 3.61   | 22 x 45 |
| 8200                   | 380LQ822M063J052 | 0.051   | 0.038  | 6.00        | 6.90   | 25 x 50 | 2200                    | 380LQ222M100J032 | 0.151   | 0.098  | 3.14        | 3.61   | 25 x 35 |
| 8200                   | 380LQ822M063K032 | 0.051   | 0.038  | 6.00        | 6.90   | 30 x 35 | 2200                    | 380LQ222M100K012 | 0.151   | 0.098  | 3.14        | 3.61   | 30 x 25 |
| 8200                   | 380LQ822M063A022 | 0.051   | 0.038  | 6.00        | 6.90   | 35 x 30 | 2700                    | 380LQ272M100H052 | 0.123   | 0.08   | 3.71        | 4.27   | 22 x 50 |
| 10000                  | 380LQ103M063K042 | 0.041   | 0.031  | 6.52        | 7.50   | 30 x 40 | 2700                    | 380LQ272M100J042 | 0.123   | 0.08   | 3.71        | 4.27   | 25 x 40 |
| 10000                  | 380LQ103M063A032 | 0.041   | 0.031  | 6.52        | 7.50   | 35 x 35 | 2700                    | 380LQ272M100K022 | 0.123   | 0.08   | 3.71        | 4.27   | 30 x 30 |
| 12000                  | 380LQ123M063K452 | 0.035   | 0.026  | 7.15        | 8.22   | 30 x 45 | 2700                    | 380LQ272M100A012 | 0.123   | 0.08   | 3.71        | 4.27   | 35 x 25 |
| 12000                  | 380LQ123M063A042 | 0.035   | 0.026  | 7.15        | 8.22   | 35 x 40 | 3300                    | 380LQ332M100J452 | 0.100   | 0.065  | 4.06        | 4.67   | 25 x 45 |
| 15000                  | 380LQ153M063A452 | 0.028   | 0.021  | 7.91        | 9.10   | 35 x 45 | 3300                    | 380LQ332M100K032 | 0.100   | 0.065  | 4.06        | 4.67   | 30 x 35 |
| 18000                  | 380LQ183M063A052 | 0.023   | 0.018  | 8.55        | 9.83   | 35 x 50 | 3900                    | 380LQ392M100J052 | 0.085   | 0.055  | 4.54        | 5.22   | 25 x 50 |
| 18000                  | 380LQ183M063A052 | 0.023   | 0.018  | 8.55        | 9.83   | 35 x 50 | 3900                    | 380LQ392M100K042 | 0.085   | 0.055  | 4.54        | 5.22   | 30 x 40 |
| 80 Vdc (100 Vdc Surge) |                  |         |        |             |        |         | 3900                    | 380LQ392M100A022 | 0.085   | 0.055  | 4.54        | 5.22   | 35 x 30 |
| 1500                   | 380LQ152M080H012 | 0.221   | 0.166  | 2.26        | 2.60   | 22 x 25 | 4700                    | 380LQ472M100K452 | 0.071   | 0.046  | 5.13        | 5.90   | 30 x 45 |
| 1800                   | 380LQ182M080H022 | 0.184   | 0.138  | 2.52        | 2.90   | 22 x 30 | 4700                    | 380LQ472M100A032 | 0.071   | 0.046  | 5.13        | 5.90   | 35 x 35 |
| 2200                   | 380LQ222M080H032 | 0.151   | 0.113  | 2.73        | 3.14   | 22 x 35 | 5600                    | 380LQ562M100K052 | 0.059   | 0.041  | 5.75        | 6.61   | 30 x 50 |
| 2200                   | 380LQ222M080J012 | 0.151   | 0.113  | 2.73        | 3.14   | 25 x 25 | 5600                    | 380LQ562M100A042 | 0.059   | 0.038  | 5.75        | 6.61   | 35 x 40 |
| 2700                   | 380LQ272M080H042 | 0.123   | 0.092  | 2.78        | 3.20   | 22 x 40 | 6800                    | 380LQ682M100A452 | 0.049   | 0.034  | 6.60        | 7.59   | 35 x 45 |
| 2700                   | 380LQ272M080J022 | 0.123   | 0.092  | 2.78        | 3.20   | 25 x 30 | 8200                    | 380LQ822M100A052 | 0.040   | 0.030  | 7.29        | 8.38   | 35 x 50 |
| 3300                   | 380LQ332M080H452 | 0.100   | 0.075  | 3.21        | 3.69   | 22 x 45 | 160 Vdc (200 Vdc Surge) |                  |         |        |             |        |         |
| 3300                   | 380LQ332M080J032 | 0.100   | 0.075  | 3.21        | 3.69   | 25 x 35 | 560                     | 380LQ561M160H012 | 0.355   | 0.16   | 2.25        | 3.15   | 22 x 25 |
| 3300                   | 380LQ332M080K012 | 0.1     | 0.075  | 3.21        | 3.69   | 30 x 25 | 680                     | 380LQ681M160H022 | 0.293   | 0.132  | 2.50        | 3.50   | 22 x 30 |
|                        |                  |         |        |             |        |         | 820                     | 380LQ821M160H032 | 0.243   | 0.109  | 2.75        | 3.85   | 22 x 35 |

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

## Higher Capacitance per Case Size

| Cap.<br>(µF)            | Catalog<br>Part Number | ESR Max<br>@ 25° C |        | Ripple Amps<br>@ 85 °C |        | Nominal<br>Size |
|-------------------------|------------------------|--------------------|--------|------------------------|--------|-----------------|
|                         |                        | 120 Hz             | 20 kHz | 120 Hz                 | 20 kHz | D x L           |
|                         |                        | (Ω)                | (Ω)    | (A)                    | (A)    | (mm)            |
| 160 Vdc (200 Vdc Surge) |                        |                    |        |                        |        |                 |
| 1000                    | 380LQ102M160H042       | 0.199              | 0.09   | 3.00                   | 4.20   | 22 x 40         |
| 1000                    | 380LQ102M160J022       | 0.199              | 0.09   | 3.00                   | 4.20   | 25 x 30         |
| 1200                    | 380LQ122M160H452       | 0.166              | 0.075  | 3.25                   | 4.55   | 22 x 45         |
| 1200                    | 380LQ122M160J032       | 0.166              | 0.075  | 3.25                   | 4.55   | 25 x 35         |
| 1200                    | 380LQ122M160K012       | 0.166              | 0.075  | 3.25                   | 4.55   | 30 x 25         |
| 1500                    | 380LQ152M160H052       | 0.133              | 0.060  | 3.73                   | 5.22   | 22 x 50         |
| 1500                    | 380LQ152M160J042       | 0.133              | 0.060  | 3.73                   | 5.22   | 25 x 40         |
| 1500                    | 380LQ152M160K022       | 0.133              | 0.060  | 3.73                   | 5.22   | 30 x 30         |
| 1500                    | 380LQ152M160A012       | 0.133              | 0.06   | 3.73                   | 5.22   | 35 x 25         |
| 1800                    | 380LQ182M160J452       | 0.111              | 0.05   | 4.20                   | 5.88   | 25 x 45         |
| 1800                    | 380LQ182M160K032       | 0.12               | 0.054  | 4.20                   | 5.88   | 30 x 35         |
| 1800                    | 380LQ182M160A022       | 0.111              | 0.05   | 4.20                   | 5.88   | 35 x 30         |
| 2200                    | 380LQ222M160K042       | 0.090              | 0.041  | 4.78                   | 6.69   | 30 x 40         |
| 2200                    | 380LQ222M160A032       | 0.098              | 0.049  | 4.78                   | 6.69   | 35 x 35         |
| 2700                    | 380LQ272M160K452       | 0.074              | 0.033  | 5.45                   | 7.63   | 30 x 45         |
| 2700                    | 380LQ272M160A042       | 0.080              | 0.040  | 5.45                   | 7.63   | 35 x 40         |
| 3300                    | 380LQ332M160A452       | 0.070              | 0.035  | 5.75                   | 8.05   | 35 x 45         |
| 3900                    | 380LQ392M160A052       | 0.055              | 0.028  | 6.00                   | 8.40   | 35 x 50         |
| 180 Vdc (225 Vdc Surge) |                        |                    |        |                        |        |                 |
| 470                     | 380LQ471M180H012       | 0.423              | 0.19   | 2.08                   | 2.91   | 22 x 25         |
| 560                     | 380LQ561M180H022       | 0.355              | 0.16   | 2.25                   | 3.15   | 22 x 30         |
| 680                     | 380LQ681M180H022       | 0.293              | 0.132  | 2.50                   | 3.50   | 22 x 30         |
| 680                     | 380LQ681M180J012       | 0.293              | 0.132  | 2.50                   | 3.50   | 25 x 25         |
| 820                     | 380LQ821M180H032       | 0.243              | 0.109  | 2.75                   | 3.85   | 22 x 35         |
| 820                     | 380LQ821M180J022       | 0.243              | 0.109  | 2.75                   | 3.85   | 25 x 30         |
| 1000                    | 380LQ102M180H452       | 0.199              | 0.090  | 3.00                   | 4.20   | 22 x 45         |
| 1000                    | 380LQ102M180J032       | 0.199              | 0.090  | 3.00                   | 4.20   | 25 x 35         |
| 1000                    | 380LQ102M180K012       | 0.199              | 0.09   | 3.00                   | 4.20   | 30 x 25         |
| 1200                    | 380LQ122M180H052       | 0.166              | 0.075  | 3.31                   | 4.63   | 22 x 50         |
| 1200                    | 380LQ122M180J042       | 0.166              | 0.075  | 3.31                   | 4.63   | 25 x 40         |
| 1200                    | 380LQ122M180K022       | 0.166              | 0.075  | 3.31                   | 4.63   | 30 x 30         |
| 1200                    | 380LQ122M180A012       | 0.166              | 0.075  | 3.31                   | 4.63   | 35 x 25         |
| 1500                    | 380LQ152M180J452       | 0.133              | 0.060  | 3.83                   | 5.36   | 25 x 45         |
| 1500                    | 380LQ152M180K032       | 0.133              | 0.060  | 3.83                   | 5.36   | 30 x 35         |
| 1500                    | 380LQ152M180A022       | 0.133              | 0.060  | 3.83                   | 5.36   | 35 x 30         |
| 1800                    | 380LQ182M180J052       | 0.120              | 0.054  | 4.32                   | 6.05   | 25 x 50         |
| 1800                    | 380LQ182M180K042       | 0.12               | 0.054  | 4.32                   | 6.05   | 30 x 40         |
| 1800                    | 380LQ182M180A022       | 0.12               | 0.054  | 4.32                   | 6.05   | 35 x 30         |
| 2200                    | 380LQ222M180K452       | 0.098              | 0.049  | 4.92                   | 6.89   | 30 x 45         |
| 2200                    | 380LQ222M180A042       | 0.098              | 0.049  | 4.92                   | 6.89   | 35 x 40         |
| 2700                    | 380LQ272M180K052       | 0.086              | 0.043  | 5.52                   | 7.73   | 30 x 50         |
| 2700                    | 380LQ272M180A452       | 0.086              | 0.043  | 5.52                   | 7.73   | 35 x 45         |
| 3300                    | 380LQ332M180A052       | 0.080              | 0.040  | 5.75                   | 8.05   | 35 x 50         |

| Cap.<br>(μF)            | Catalog<br>Part Number | ESR Max<br>@ 25° C |        | Ripple Amps<br>@ 85 °C |        | Nominal<br>Size |
|-------------------------|------------------------|--------------------|--------|------------------------|--------|-----------------|
|                         |                        | 120 Hz             | 20 kHz | 120 Hz                 | 20 kHz | D x L           |
|                         |                        | ( Ω )              | ( Ω )  | ( A )                  | ( A )  | ( mm )          |
| 200 Vdc (250 Vdc Surge) |                        |                    |        |                        |        |                 |
| 390                     | 380LQ391M200H012       | 0.51               | 0.23   | 1.68                   | 2.35   | 22 x 25         |
| 470                     | 380LQ471M200H022       | 0.423              | 0.19   | 1.85                   | 2.59   | 22 x 30         |
| 560                     | 380LQ561M200H022       | 0.355              | 0.16   | 2.43                   | 3.40   | 22 x 30         |
| 560                     | 380LQ561M200J012       | 0.355              | 0.160  | 2.43                   | 3.40   | 25 x 25         |
| 680                     | 380LQ681M200H032       | 0.293              | 0.132  | 2.68                   | 3.75   | 22 x 35         |
| 680                     | 380LQ681M200J022       | 0.293              | 0.132  | 2.68                   | 3.75   | 25 x 30         |
| 820                     | 380LQ821M200H042       | 0.243              | 0.109  | 2.93                   | 4.10   | 22 x 40         |
| 820                     | 380LQ821M200J022       | 0.243              | 0.109  | 2.93                   | 4.10   | 25 x 30         |
| 820                     | 380LQ821M200K012       | 0.243              | 0.109  | 2.93                   | 4.10   | 30 x 25         |
| 1000                    | 380LQ102M200H452       | 0.199              | 0.09   | 3.25                   | 4.55   | 22 x 45         |
| 1000                    | 380LQ102M200J032       | 0.199              | 0.09   | 3.25                   | 4.55   | 25 x 35         |
| 1000                    | 380LQ102M200K022       | 0.199              | 0.09   | 3.25                   | 4.55   | 30 x 30         |
| 1000                    | 380LQ102M200A012       | 0.232              | 0.116  | 3.25                   | 4.55   | 35 x 25         |
| 1200                    | 380LQ122M200H052       | 0.166              | 0.075  | 3.50                   | 4.90   | 22 x 50         |
| 1200                    | 380LQ122M200J042       | 0.166              | 0.075  | 3.50                   | 4.90   | 25 x 40         |
| 1200                    | 380LQ122M200K022       | 0.166              | 0.075  | 3.50                   | 4.90   | 30 x 30         |
| 1500                    | 380LQ152M200J052       | 0.133              | 0.060  | 3.87                   | 5.42   | 25 x 50         |
| 1500                    | 380LQ152M200K032       | 0.144              | 0.065  | 3.87                   | 5.42   | 30 x 35         |
| 1500                    | 380LQ152M200A022       | 0.144              | 0.065  | 3.87                   | 5.42   | 35 x 30         |
| 1800                    | 380LQ182M200K452       | 0.16               | 0.08   | 4.32                   | 6.05   | 30 x 45         |
| 1800                    | 380LQ182M200A032       | 0.12               | 0.06   | 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  | 4.92                   | 6.89   | 35 x 40         |
| 2700                    | 380LQ272M200A052       | 0.086              | 0.043  | 5.45                   | 7.63   | 35 x 50         |
| 250 Vdc (300 Vdc Surge) |                        |                    |        |                        |        |                 |
| 270                     | 380LQ271M250H012       | 0.737              | 0.332  | 1.31                   | 1.83   | 22 x 25         |
| 330                     | 380LQ331M250H022       | 0.603              | 0.271  | 1.75                   | 2.45   | 22 x 30         |
| 390                     | 380LQ391M250H022       | 0.51               | 0.23   | 1.91                   | 2.67   | 22 x 30         |
| 390                     | 380LQ391M250J012       | 0.510              | 0.230  | 1.91                   | 2.67   | 25 x 25         |
| 470                     | 380LQ471M250H032       | 0.423              | 0.190  | 2.11                   | 2.95   | 22 x 35         |
| 470                     | 380LQ471M250J022       | 0.423              | 0.190  | 2.11                   | 2.95   | 25 x 30         |
| 560                     | 380LQ561M250H042       | 0.355              | 0.160  | 2.25                   | 3.15   | 22 x 40         |
| 560                     | 380LQ561M250J022       | 0.355              | 0.160  | 2.25                   | 3.15   | 25 x 30         |
| 560                     | 380LQ561M250K012       | 0.355              | 0.16   | 2.25                   | 3.15   | 30 x 25         |
| 680                     | 380LQ681M250H452       | 0.293              | 0.132  | 2.50                   | 3.50   | 22 x 45         |
| 680                     | 380LQ681M250J032       | 0.293              | 0.132  | 2.50                   | 3.50   | 25 x 35         |
| 680                     | 380LQ681M250K012       | 0.293              | 0.132  | 2.30                   | 3.20   | 30 x 25         |
| 680                     | 380LQ681M250K022       | 0.293              | 0.132  | 2.50                   | 3.50   | 30 x 30         |
| 820                     | 380LQ821M250H052       | 0.243              | 0.109  | 2.77                   | 3.88   | 22 x 50         |
| 820                     | 380LQ821M250J042       | 0.243              | 0.109  | 2.77                   | 3.88   | 25 x 40         |
| 820                     | 380LQ821M250K022       | 0.243              | 0.109  | 2.77                   | 3.88   | 30 x 30         |
| 820                     | 380LQ821M250A012       | 0.243              | 0.121  | 2.77                   | 3.88   | 35 x 25         |
| 1000                    | 380LQ102M250J452       | 0.199              | 0.09   | 3.32                   | 4.65   | 25 x 45         |

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

## Higher Capacitance per Case Size

| Cap.<br>(µF)            | Catalog<br>Part Number | ESR Max<br>@ 25° C |        | Ripple Amps<br>@ 85 °C |        | Nominal<br>Size |
|-------------------------|------------------------|--------------------|--------|------------------------|--------|-----------------|
|                         |                        | 120 Hz             | 20 kHz | 120 Hz                 | 20 kHz | D x L           |
|                         |                        | (Ω)                | (Ω)    | (A)                    | (A)    | (mm)            |
| 250 Vdc (300 Vdc Surge) |                        |                    |        |                        |        |                 |
| 1000                    | 380LQ102M250K032       | 0.199              | 0.09   | 3.32                   | 4.65   | 30 x 35         |
| 1000                    | 380LQ102M250A022       | 0.199              | 0.09   | 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                     | 380LQ181M315H012       | 1.105              | 0.553  | 1.21                   | 1.69   | 22 x 25         |
| 220                     | 380LQ221M315H022       | 0.904              | 0.452  | 1.41                   | 1.97   | 22 x 30         |
| 270                     | 380LQ271M315H022       | 0.737              | 0.368  | 1.60                   | 2.24   | 22 x 30         |
| 330                     | 380LQ331M315H042       | 0.603              | 0.301  | 1.82                   | 2.55   | 22 x 40         |
| 330                     | 380LQ331M315J022       | 0.603              | 0.301  | 1.82                   | 2.55   | 25 x 30         |
| 330                     | 380LQ331M315K012       | 0.603              | 0.301  | 1.82                   | 2.55   | 30 x 25         |
| 390                     | 380LQ391M315H452       | 0.510              | 0.255  | 2.01                   | 2.81   | 22 x 45         |
| 390                     | 380LQ391M315J032       | 0.510              | 0.255  | 2.01                   | 2.81   | 25 x 35         |
| 390                     | 390LQ391M315K022       | 0.51               | 0.255  | 2.01                   | 2.81   | 30 x 30         |
| 470                     | 380LQ471M315H052       | 0.423              | 0.212  | 2.27                   | 3.18   | 22 x 50         |
| 470                     | 380LQ471M315J042       | 0.423              | 0.212  | 2.27                   | 3.18   | 25 x 40         |
| 470                     | 380LQ471M315K022       | 0.423              | 0.212  | 2.27                   | 3.18   | 30 x 30         |
| 470                     | 380LQ471M315A012       | 0.423              | 0.233  | 2.27                   | 3.18   | 35 x 25         |
| 560                     | 380LQ561M315J452       | 0.355              | 0.178  | 2.56                   | 3.58   | 25 x 45         |
| 560                     | 380LQ561M315K032       | 0.355              | 0.178  | 2.56                   | 3.58   | 30 x 35         |
| 560                     | 380LQ561M315A022       | 0.355              | 0.195  | 2.56                   | 3.58   | 35 x 30         |
| 680                     | 380LQ681M350K042       | 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         |
| 1000                    | 380LQ102M315K052       | 0.199              | 0.09   | 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                     | 380LQ151M350H012       | 1.328              | 0.663  | 1.12                   | 1.57   | 22 x 25         |
| 180                     | 380LQ181M350H022       | 1.105              | 0.553  | 1.22                   | 1.71   | 22 x 30         |
| 220                     | 380LQ221M350H032       | 0.904              | 0.452  | 1.44                   | 2.02   | 22 x 35         |
| 270                     | 380LQ271M350H042       | 0.737              | 0.368  | 1.66                   | 2.32   | 22 x 40         |
| 270                     | 380LQ271M350J022       | 0.737              | 0.368  | 1.66                   | 2.32   | 25 x 30         |
| 330                     | 380LQ331M350H452       | 0.603              | 0.301  | 1.88                   | 2.63   | 22 x 45         |
| 330                     | 380LQ331M350J032       | 0.603              | 0.301  | 1.88                   | 2.63   | 25 x 35         |
| 390                     | 380LQ391M350H052       | 0.510              | 0.255  | 2.06                   | 2.88   | 22 x 50         |
| 390                     | 380LQ391M350J042       | 0.51               | 0.255  | 2.06                   | 2.88   | 25 x 40         |
| 390                     | 380LQ391M350K022       | 0.51               | 0.255  | 2.06                   | 2.88   | 30 x 30         |

| Cap.<br>(µF)            | Catalog<br>Part Number | ESR Max<br>@ 25° C |        | Ripple Amps<br>@ 85 °C |        | Nominal<br>Size |
|-------------------------|------------------------|--------------------|--------|------------------------|--------|-----------------|
|                         |                        | 120 Hz             | 20 kHz | 120 Hz                 | 20 kHz | D x L           |
|                         |                        | (Ω)                | (Ω)    | (A)                    | (A)    | (mm)            |
| 350 Vdc (400 Vdc Surge) |                        |                    |        |                        |        |                 |
| 390                     | 380LQ391M350A012       | 0.51               | 0.255  | 2.06                   | 2.88   | 35 x 25         |
| 470                     | 380LQ471M350J452       | 0.423              | 0.211  | 2.40                   | 3.36   | 25 x 45         |
| 470                     | 380LQ471M350K032       | 0.423              | 0.211  | 2.40                   | 3.36   | 30 x 35         |
| 470                     | 380LQ471M350A022       | 0.423              | 0.211  | 2.40                   | 3.36   | 35 x 30         |
| 560                     | 380LQ561M350J050       | 0.355              | 0.178  | 2.60                   | 3.64   | 25 x 50         |
| 560                     | 380LQ561M350K042       | 0.355              | 0.178  | 2.60                   | 3.64   | 30 x 40         |
| 560                     | 380LQ561M350A022       | 0.355              | 0.178  | 2.60                   | 3.64   | 35 x 30         |
| 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) |                        |                    |        |                        |        |                 |
| 120                     | 380LQ121M400H012       | 1.658              | 0.83   | 1.02                   | 1.43   | 22 x 25         |
| 150                     | 380LQ151M400H022       | 1.326              | 0.66   | 1.16                   | 1.62   | 22 x 30         |
| 180                     | 380LQ181M400H022       | 1.105              | 0.552  | 1.30                   | 1.80   | 22 x 30         |
| 180                     | 380LQ181M400H032       | 1.105              | 0.552  | 1.44                   | 2.02   | 22 x 35         |
| 220                     | 380LQ221M400H032       | 0.904              | 0.452  | 1.40                   | 1.90   | 22 x 35         |
| 220                     | 380LQ221M400H042       | 0.904              | 0.452  | 1.49                   | 2.09   | 22 x 40         |
| 220                     | 380LQ221M400J022       | 0.904              | 0.452  | 1.49                   | 2.09   | 25 x 30         |
| 270                     | 380LQ271M400H452       | 0.737              | 0.368  | 1.67                   | 2.34   | 22 x 45         |
| 270                     | 380LQ271M400J032       | 0.737              | 0.368  | 1.67                   | 2.34   | 25 x 35         |
| 270                     | 380LQ271M400K022       | 0.737              | 0.368  | 1.67                   | 2.34   | 30 x 30         |
| 330                     | 380LQ331M400H052       | 0.603              | 0.301  | 1.90                   | 2.66   | 22 x 50         |
| 330                     | 380LQ331M400J042       | 0.603              | 0.301  | 1.90                   | 2.66   | 25 x 40         |
| 330                     | 380LQ331M400K022       | 0.603              | 0.301  | 1.90                   | 2.66   | 30 x 30         |
| 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                     | 380LQ471M400J052       | 0.423              | 0.212  | 2.39                   | 3.35   | 25 x 50         |
| 470                     | 380LQ471M400K042       | 0.423              | 0.212  | 2.39                   | 3.35   | 30 x 40         |
| 470                     | 380LQ471M400A022       | 0.423              | 0.212  | 2.39                   | 3.35   | 35 x 30         |
| 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         |
| 420 Vdc (470 Vdc Surge) |                        |                    |        |                        |        |                 |
| 150                     | 380LQ151M420H022       | 1.33               | 0.66   | 1.20                   | 1.65   | 22 x 30         |

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

## Higher Capacitance per Case Size

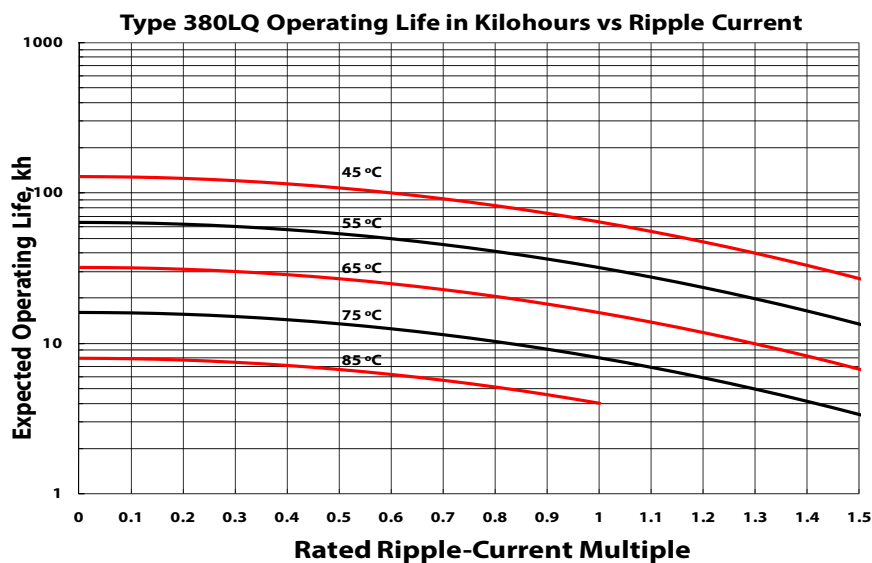
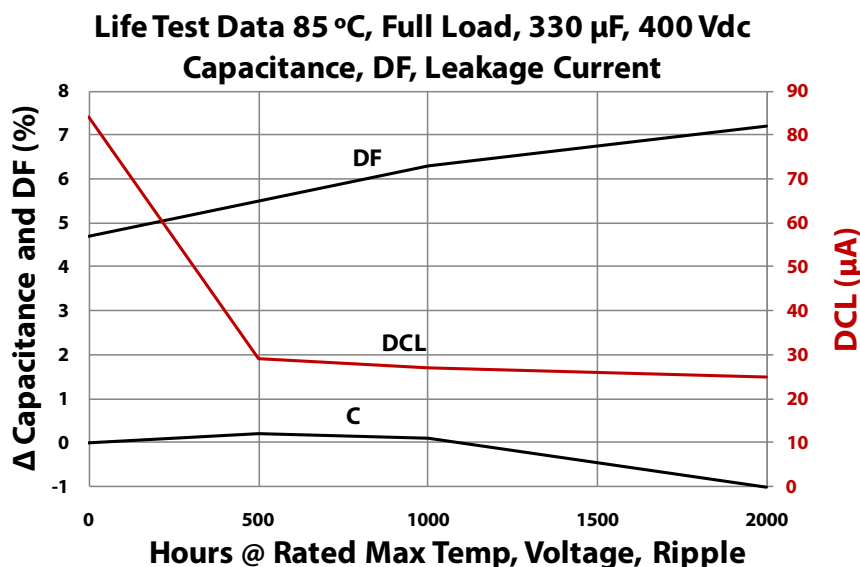
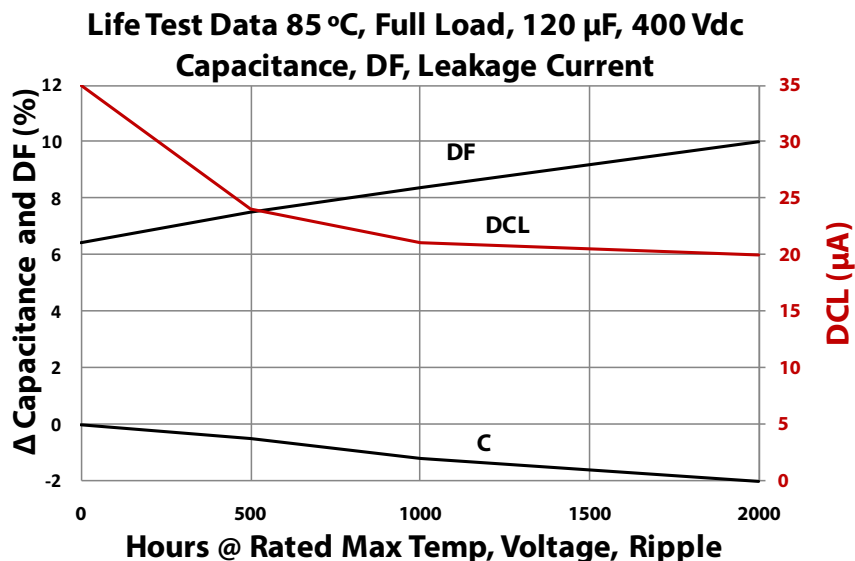
|                         |                  | ESR Max |        | Ripple Amps |        | Nominal |
|-------------------------|------------------|---------|--------|-------------|--------|---------|
|                         |                  | @ 25° C |        | @ 85 °C     |        | Size    |
| Cap.                    | Catalog          | 120 Hz  | 20 kHz | 120 Hz      | 20 kHz | D x L   |
| (µF)                    | Part Number      | (Ω)     | (Ω)    | (A)         | (A)    | (mm)    |
| 420 Vdc (470 Vdc Surge) |                  |         |        |             |        |         |
| 150                     | 380LQ151M420J012 | 1.33    | 0.66   | 1.20        | 1.65   | 25 x 25 |
| 180                     | 380LQ181M420H032 | 1.1     | 0.55   | 1.40        | 1.95   | 22 x 35 |
| 220                     | 380LQ221M420H042 | 0.904   | 0.452  | 1.50        | 2.10   | 22 x 40 |
| 220                     | 380LQ221M420J032 | 0.904   | 0.452  | 1.50        | 2.10   | 25 x 35 |
| 220                     | 380LQ221M420K012 | 0.904   | 0.452  | 1.50        | 2.10   | 30 x 25 |
| 270                     | 380LQ271M420H452 | 0.737   | 0.368  | 1.75        | 2.40   | 22 x 45 |
| 270                     | 380LQ271M420J042 | 0.737   | 0.368  | 1.75        | 2.40   | 25 x 40 |
| 330                     | 380LQ331M420J452 | 0.603   | 0.302  | 1.95        | 2.75   | 25 x 45 |
| 330                     | 380LQ331M420K022 | 0.603   | 0.302  | 1.95        | 2.75   | 30 x 30 |
| 390                     | 380LQ391M420J052 | 0.51    | 0.255  | 2.15        | 3.05   | 25 x 50 |
| 390                     | 380LQ391M420K032 | 0.51    | 0.255  | 2.15        | 3.05   | 30 x 35 |
| 390                     | 380LQ391M420A022 | 0.51    | 0.255  | 2.15        | 3.05   | 35 x 30 |
| 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 |
|                         |                  |         |        |             |        |         |
| 82                      | 380LQ820M450H012 | 2.426   | 1.213  | 0.83        | 1.16   | 22 x 25 |
| 100                     | 380LQ101M450H012 | 1.99    | 0.995  | 0.93        | 1.30   | 22 x 25 |
| 120                     | 380LQ121M450H022 | 1.656   | 0.829  | 1.04        | 1.46   | 22 x 30 |
| 150                     | 380LQ151M450H032 | 1.326   | 0.663  | 1.19        | 1.67   | 22 x 35 |
|                         |                  |         |        |             |        |         |
|                         |                  | ESR Max |        | Ripple Amps |        | Nominal |
|                         |                  | @ 25° C |        | @ 85 °C     |        | Size    |
| Cap.                    | Catalog          | 120 Hz  | 20 kHz | 120 Hz      | 20 kHz | D x L   |
| (µF)                    | Part Number      | (Ω)     | (Ω)    | (A)         | (A)    | (mm)    |
| 450 Vdc (500 Vdc Surge) |                  |         |        |             |        |         |
| 150                     | 380LQ151M450J022 | 1.326   | 0.663  | 1.19        | 1.67   | 25 x 30 |
| 180                     | 380LQ181M450H042 | 1.105   | 0.553  | 1.35        | 1.89   | 22 x 40 |
| 180                     | 380LQ181M450J022 | 1.105   | 0.553  | 1.35        | 1.89   | 25 x 30 |
| 220                     | 380LQ221M450H452 | 0.904   | 0.452  | 1.55        | 2.17   | 22 x 45 |
| 220                     | 380LQ221M450J032 | 0.904   | 0.452  | 1.45        | 2.00   | 25 x 35 |
| 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 | 0.737   | 0.368  | 1.78        | 2.49   | 22 x 50 |
| 270                     | 380LQ271M450J042 | 0.737   | 0.368  | 1.78        | 2.49   | 25 x 40 |
| 270                     | 380LQ271M450K022 | 0.737   | 0.368  | 1.78        | 2.49   | 30 x 30 |
| 330                     | 380LQ331M450J052 | 0.603   | 0.302  | 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 | 0.603   | 0.302  | 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

Higher Capacitance per Case Size

## Typical Performance Curves





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