

# Type 520C 85 °C Long Life, Inverter Grade, Aluminum

## High Ripple, Long Life Screw Terminal Type



Type 520C is the 85 °C version of the Type 550C Inverter-Grade capacitor. It delivers the ripple-current capability and exceptional life needed for motor-drive bus capacitors and approaches the performance of the 550C at lower cost. It is rated for 8000 h life with full ripple current, rated voltage, 85 °C and 100 lfm airflow while mounted horizontally. Horizontal mounting is more severe than vertical mounting. The extended cathode foil of the 520C assures heat flow from the capacitor element to the can in all orientations.

### Highlights

- 8,000 hour load life
- Ripple current to 55 amps
- ESRs to 8 mΩ
- Best value high ripple current
- Thermal-Pak™ extended cathode construction

### Specifications

|                                 |                                                                                              |       |       |        |        |       |       |             |
|---------------------------------|----------------------------------------------------------------------------------------------|-------|-------|--------|--------|-------|-------|-------------|
| Temperature Range               | -40 °C to +85 °C                                                                             |       |       |        |        |       |       |             |
| Rated Voltage Range             | 200 Vdc to 500 Vdc                                                                           |       |       |        |        |       |       |             |
| Capacitance Range               | 84 μF to 39,000 μF                                                                           |       |       |        |        |       |       |             |
| Capacitance Tolerance           | -10% +50%                                                                                    |       |       |        |        |       |       |             |
| Leakage Current                 | ≤3 √CV μA, 5 mA max, 5 minutes                                                               |       |       |        |        |       |       |             |
| Ripple Current Multipliers      | Ambient Temperature                                                                          |       |       |        |        |       |       |             |
|                                 | 45 °C                                                                                        | 55 °C | 65 °C | 75 °C  | 85 °C  |       |       |             |
|                                 | 1.80                                                                                         | 1.63  | 1.45  | 1.25   | 1.00   |       |       |             |
|                                 | Frequency                                                                                    |       |       |        |        |       |       |             |
|                                 |                                                                                              | 50 Hz | 60 Hz | 120 Hz | 360 Hz | 1 kHz | 5 kHz | 10 kHz & up |
|                                 | 1 3/8" & 1 3/4" Diameters                                                                    |       |       |        |        |       |       |             |
|                                 | 200 to 350 V                                                                                 | 0.76  | 0.81  | 1.00   | 1.24   | 1.36  | 1.43  | 1.44        |
|                                 | 400 to 500 V                                                                                 | 0.76  | 0.81  | 1.00   | 1.24   | 1.37  | 1.44  | 1.45        |
|                                 | 2" & 2 1/2" Diameters                                                                        |       |       |        |        |       |       |             |
|                                 | 200 to 350 V                                                                                 | 0.78  | 0.83  | 1.00   | 1.20   | 1.29  | 1.34  | 1.35        |
|                                 | 400 to 500 V                                                                                 | 0.77  | 0.82  | 1.00   | 1.22   | 1.33  | 1.39  | 1.40        |
|                                 | 3" & 3 1/2" Diameters                                                                        |       |       |        |        |       |       |             |
|                                 | 200 to 350 V                                                                                 | 0.84  | 0.88  | 1.00   | 1.12   | 1.17  | 1.20  | 1.20        |
|                                 | 400 to 500 V                                                                                 | 0.79  | 0.84  | 1.00   | 1.18   | 1.26  | 1.31  | 1.32        |
| Low Temperature Characteristics | Impedance ratio: Z <sub>-20°C</sub> /Z <sub>+25°C</sub><br>≤ 3 (200-500 Vdc)                 |       |       |        |        |       |       |             |
| Endurance Life Test             | 8000 h at full load at 85 °C<br>Δ Capacitance ±20%<br>ESR 200% of limit<br>DCL 100% of limit |       |       |        |        |       |       |             |
| Shelf Life Test                 | 500 h at 85 °C<br>Capacitance 100% of limit<br>ESR 100% of limit<br>DCL 100% of limit        |       |       |        |        |       |       |             |
| Vibration                       | 10 to 55 Hz, 0.06" and 10 g max, 1.5 h each of 2 axes                                        |       |       |        |        |       |       |             |
| RoHS Compliant                  |                                                                                              |       |       |        |        |       |       |             |

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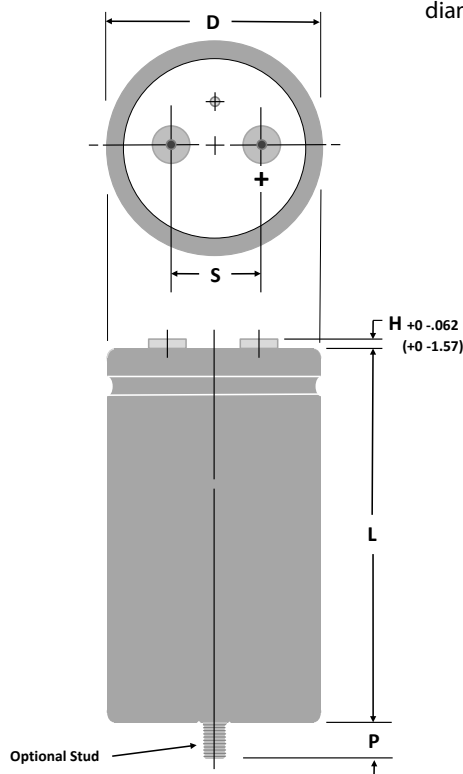
## High Ripple, Long Life Screw Terminal Type

### Part Numbering System

|             |               |                                          |                                |           |                                      |                                                                                                                                                       |                                                                      |
|-------------|---------------|------------------------------------------|--------------------------------|-----------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>520C</b> | <b>572</b>    | <b>T</b>                                 | <b>400</b>                     | <b>DF</b> | <b>2</b>                             | <b>B</b>                                                                                                                                              | <b>S</b>                                                             |
| Type        | Capacitance   | Tolerance                                | Voltage                        | Case Code | Insulation                           | Terminal                                                                                                                                              | Can Style                                                            |
|             | 572 = 5700 µF | M = ±20%<br>U = -10%+75%<br>T = -10%+50% | 200 = 200 Vdc<br>400 = 400 Vdc |           | 0 = None<br>1 = Polyester<br>2 = PVC | A = Low Post<br>B = High Post<br>D = High Current, Low Post<br>E = High Current, High Post<br>F or M = M5 Post<br>G = M6 Low Post<br>H = M6 High Post | Blank = Standard Can<br>S = Stud Bottom<br>P = Stud with Thermal Pad |

Standard insulation is 0.008-in PVC sleeve with 0.01-in polypropylene end disk.  
Polyester insulation is not available for 3.5 inch diameter units.

### Outline Drawing



### Stud Dimensions

| Case Diam. | Stud Thread | P ± 0.039" (±1.0 mm) |
|------------|-------------|----------------------|
| 1.375      | M8          | 0.470" (12.0)        |
| 1.750      | M8          | 0.470" (12.0)        |
| 2.000      | M12         | 0.630" (16.0)        |
| 2.500      | M12         | 0.630" (16.0)        |
| 3.000      | M12         | 0.630" (16.0)        |
| 3.500      | M12         | 0.630" (16.0)        |

NOTE: With the stud-mount feature, a thermally-conductive disk can be inserted in the bottom flush with the outer insulating sleeve. This reduces the thermal resistance through the can bottom by 0.3 °C/W. Can Style P.

### Terminal Dimensions

| Terminal Style     | For Case                                                       | Code | Post Diameter |      | H max |     | Thread | min Full Thread |      | Torque |      |
|--------------------|----------------------------------------------------------------|------|---------------|------|-------|-----|--------|-----------------|------|--------|------|
|                    | Diameters                                                      |      | in            | mm   | in    | mm  |        | in              | mm   | in-lb  | N-m  |
| Low Post           | 1 <sup>3</sup> / <sub>8</sub> to 3                             | A    | 0.314         | 8.0  | 0.094 | 2.4 | 10-32  | 0.218           | 5.5  | 25     | 2.82 |
| High Post          | 1 <sup>3</sup> / <sub>8</sub> to 3                             | B    | 0.314         | 8.0  | 0.281 | 7.1 | 10-32  | 0.375           | 9.5  | 25     | 2.82 |
| High Current, Low  | 2 <sup>1</sup> / <sub>2</sub> to 3 <sup>1</sup> / <sub>2</sub> | D    | 0.684         | 17.4 | 0.125 | 3.2 | ¼-28   | 0.344           | 8.7  | 50     | 5.65 |
| High Current, High | 2 <sup>1</sup> / <sub>2</sub> to 3 <sup>1</sup> / <sub>2</sub> | E    | 0.684         | 17.4 | 0.281 | 7.1 | ¼-28   | 0.469           | 11.9 | 60     | 6.78 |
| M5 Post, Small     | 1 <sup>3</sup> / <sub>8</sub> to 2                             | M    | 0.314         | 8.0  | 0.281 | 7.1 | M5     | 0.375           | 9.5  | 25     | 2.82 |
| M5 Post            | 2 <sup>1</sup> / <sub>2</sub> & 3                              | F    | 0.512         | 13.0 | 0.230 | 5.8 | M5     | 0.344           | 8.7  | 25     | 2.82 |
| M6 Low Post        | 2 <sup>1</sup> / <sub>2</sub> to 3 <sup>1</sup> / <sub>2</sub> | G    | 0.684         | 17.4 | 0.125 | 3.2 | M6     | 0.344           | 8.7  | 50     | 5.65 |
| M6 High Post       | 2 <sup>1</sup> / <sub>2</sub> to 3 <sup>1</sup> / <sub>2</sub> | H    | 0.684         | 17.4 | 0.281 | 7.1 | M6     | 0.469           | 11.9 | 60     | 6.78 |

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### Uninsulated Case Dimensions

For insulated case, add 0.024"(0.610 mm) to "D" and 0.030"(0.762 mm) to length.

| Case Code | Diam. (D)    |         | Length (L)   |          | Terminals (S) |         | Typical Weight |        |
|-----------|--------------|---------|--------------|----------|---------------|---------|----------------|--------|
|           | ±.031 Inches | ±.78 mm | ±.062 Inches | ±1.57 mm | ±0.015 Inches | ±.38 mm | oz             | g      |
| AK        | 1.375        | 34.93   | 1.625        | 41.28    | 0.50          | 12.70   | 1.9            | 54     |
| AA        | 1.375        | 34.93   | 2.125        | 53.98    | 0.50          | 12.70   | 2.0            | 57     |
| AH        | 1.375        | 34.93   | 2.625        | 66.68    | 0.50          | 12.70   | 2.7            | 77     |
| AB        | 1.375        | 34.93   | 3.125        | 79.38    | 0.50          | 12.70   | 3.3            | 94     |
| AJ        | 1.375        | 34.93   | 3.625        | 92.08    | 0.50          | 12.70   | 3.8            | 108    |
| AC        | 1.375        | 34.93   | 4.125        | 104.78   | 0.50          | 12.70   | 4.4            | 125    |
| AD        | 1.375        | 34.93   | 4.625        | 117.48   | 0.50          | 12.70   | 5.1            | 145    |
| AE        | 1.375        | 34.93   | 5.125        | 130.18   | 0.50          | 12.70   | 6.8            | 193    |
| AF        | 1.375        | 34.93   | 5.625        | 142.88   | 0.50          | 12.70   | 8.1            | 230    |
| EA        | 1.750        | 44.45   | 2.125        | 53.98    | 0.75          | 19.05   | 2.7            | 76     |
| EH        | 1.750        | 44.45   | 2.625        | 66.68    | 0.75          | 19.05   | 3.8            | 108    |
| EB        | 1.750        | 44.45   | 3.125        | 79.38    | 0.75          | 19.05   | 5.1            | 145    |
| EJ        | 1.750        | 44.45   | 3.625        | 92.08    | 0.75          | 19.05   | 6.8            | 193    |
| EC        | 1.750        | 44.45   | 4.125        | 104.78   | 0.75          | 19.05   | 8.1            | 230    |
| ED        | 1.750        | 44.45   | 4.625        | 117.48   | 0.75          | 19.05   | 9.0            | 255    |
| EE        | 1.750        | 44.45   | 5.125        | 130.18   | 0.75          | 19.05   | 9.5            | 269    |
| EF        | 1.750        | 44.45   | 5.625        | 142.88   | 0.75          | 19.05   | 10.5           | 298    |
| BA        | 2.000        | 50.80   | 2.125        | 53.98    | 0.88          | 22.23   | 5.4            | 153    |
| BH        | 2.000        | 50.80   | 2.625        | 66.68    | 0.88          | 22.23   | 6.1            | 173    |
| BB        | 2.000        | 50.80   | 3.125        | 79.38    | 0.88          | 22.23   | 6.8            | 193    |
| BJ        | 2.000        | 50.80   | 3.625        | 92.08    | 0.88          | 22.23   | 8.2            | 232    |
| BC        | 2.000        | 50.80   | 4.125        | 104.78   | 0.88          | 22.23   | 9.5            | 269    |
| BD        | 2.000        | 50.80   | 4.625        | 117.48   | 0.88          | 22.23   | 10.3           | 292    |
| BE        | 2.000        | 50.80   | 5.125        | 130.18   | 0.88          | 22.23   | 10.7           | 303    |
| BF        | 2.000        | 50.80   | 5.625        | 142.88   | 0.88          | 22.23   | 13.0           | 369    |
| CH        | 2.500        | 63.50   | 2.625        | 66.68    | 1.13          | 28.58   | 9.2            | 261    |
| CB        | 2.500        | 63.50   | 3.125        | 79.38    | 1.13          | 28.58   | 10.4           | 295    |
| CJ        | 2.500        | 63.50   | 3.625        | 92.08    | 1.13          | 28.58   | 12.7           | 361    |
| CC        | 2.500        | 63.50   | 4.125        | 104.78   | 1.13          | 28.58   | 15.0           | 425    |
| CD        | 2.500        | 63.50   | 4.625        | 117.48   | 1.13          | 28.58   | 17.2           | 488    |
| CE        | 2.500        | 63.50   | 5.125        | 130.18   | 1.13          | 28.58   | 19.3           | 547    |
| CF        | 2.500        | 63.50   | 5.625        | 142.88   | 1.13          | 28.58   | 21.4           | 607    |
| DB        | 3.000        | 76.20   | 3.125        | 79.38    | 1.25          | 31.75   | 16.7           | 473    |
| DJ        | 3.000        | 76.20   | 3.625        | 92.08    | 1.25          | 31.75   | 20.0           | 567    |
| DC        | 3.000        | 76.20   | 4.125        | 104.78   | 1.25          | 31.75   | 22.2           | 629    |
| DD        | 3.000        | 76.20   | 4.625        | 117.48   | 1.25          | 31.75   | 25.5           | 723    |
| DE        | 3.000        | 76.20   | 5.125        | 130.18   | 1.25          | 31.75   | 30.0           | 850    |
| DF        | 3.000        | 76.20   | 5.625        | 142.88   | 1.25          | 31.75   | 31.9           | 904    |
| DM        | 3.000        | 76.20   | 6.625        | 168.28   | 1.25          | 31.75   | 34.4           | 933.5  |
| DP        | 3.000        | 76.20   | 5.875        | 149.23   | 1.25          | 31.75   | 32.8           | 931    |
| DN        | 3.000        | 76.20   | 7.625        | 193.68   | 1.25          | 31.75   | 39.5           | 1119   |
| DG        | 3.000        | 76.20   | 8.625        | 219.08   | 1.25          | 31.75   | 43.3           | 1227   |
| FC        | 3.500        | 88.90   | 4.125        | 104.78   | 1.25          | 31.75   | 30.0           | 850    |
| FD        | 3.500        | 88.90   | 4.625        | 117.48   | 1.25          | 31.75   | 34.4           | 976    |
| FE        | 3.500        | 88.90   | 5.125        | 130.18   | 1.25          | 31.75   | 40.5           | 1148   |
| FF        | 3.500        | 88.90   | 5.625        | 142.88   | 1.25          | 31.75   | 43.1           | 1221   |
| FP        | 3.500        | 88.90   | 5.875        | 149.23   | 1.25          | 31.75   | 44.3           | 1257   |
| FN        | 3.500        | 88.90   | 7.625        | 193.68   | 1.25          | 31.75   | 53.3           | 1512   |
| FG        | 3.500        | 88.90   | 8.625        | 219.08   | 1.25          | 31.75   | 58.5           | 1658   |
| FM        | 3.500        | 88.90   | 6.625        | 168.28   | 1.25          | 31.75   | 46.4           | 1315.4 |

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### Ratings

Additional Smaller Sizes available at [www.cde.com/catalogs/520C.pdf](http://www.cde.com/catalogs/520C.pdf)

| Cap.<br>(µF)                   | Catalog<br>Part Number | ESR Max.<br>@ 25 °C 120 Hz<br>(mΩ) | Ripple Max. @<br>85 °C 120 Hz<br>(A) | Nominal Size<br>D x L (inches) |
|--------------------------------|------------------------|------------------------------------|--------------------------------------|--------------------------------|
| <b>200 Vdc (250 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 3200                           | 520C322T200CH2B        | 44.3                               | 9.0                                  | 2 1/2 x 2 5/8                  |
| 4400                           | 520C442T200CB2B        | 32.8                               | 11.1                                 | 2 1/2 x 3 1/8                  |
| 5700                           | 520C572T200CJ2B        | 23.4                               | 13.8                                 | 2 1/2 x 3 5/8                  |
| 6400                           | 520C642T200DB2B        | 31.8                               | 12.6                                 | 3 x 3 1/8                      |
| 7000                           | 520C702T200CC2B        | 21.3                               | 15.1                                 | 2 1/2 x 4 1/8                  |
| 8200                           | 520C822T200CD2B        | 18.2                               | 17.0                                 | 2 1/2 x 4 5/8                  |
| 8200                           | 520C822T200DJ2B        | 24.9                               | 15.0                                 | 3 x 3 5/8                      |
| 9500                           | 520C952T200CD2B        | 16.6                               | 18.4                                 | 2 1/2 x 5 1/8                  |
| 10000                          | 520C103T200DC2B        | 20.7                               | 17.1                                 | 3 x 4 1/8                      |
| 11000                          | 520C113T200CF2B        | 14.4                               | 20.4                                 | 2 1/2 x 5 5/8                  |
| 12000                          | 520C123T200DD2B        | 17.7                               | 19.2                                 | 3 x 4 5/8                      |
| 14000                          | 520C143T200DE2B        | 18.0                               | 19.7                                 | 3 x 5 1/8                      |
| 15000                          | 520C153T200FC2D        | 15.6                               | 21.7                                 | 3 1/2 x 4 1/8                  |
| 16000                          | 520C163T200DF2B        | 14.0                               | 23.0                                 | 3 x 5 5/8                      |
| 16000                          | 520C163T200DP2B        | 16.1                               | 21.7                                 | 3 x 5 7/8                      |
| 17000                          | 520C173T200FD2D        | 13.3                               | 24.4                                 | 3 1/2 x 4 5/8                  |
| 20000                          | 520C203T200FE2D        | 14.1                               | 24.4                                 | 3 1/2 x 5 1/8                  |
| 22000                          | 520C223T200DN2D        | 12.3                               | 27.6                                 | 3 x 7 5/8                      |
| 23000                          | 520C233T200FF2D        | 12.6                               | 26.5                                 | 3 1/2 x 5 5/8                  |
| 24000                          | 520C243T200FP2D        | 12.0                               | 27.5                                 | 3 1/2 x 5 7/8                  |
| 26000                          | 520C263T200DG2D        | 10.1                               | 31.0                                 | 3 x 8 5/8                      |
| 34000                          | 520C343T200FN2D        | 9.7                                | 33.6                                 | 3 1/2 x 7 5/8                  |
| 39000                          | 520C393T200FG2D        | 8.3                                | 37.2                                 | 3.5 x 8 5/8                    |
| <b>250 Vdc (300 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 2100                           | 520C212T250CH2B        | 54.2                               | 8.2                                  | 2 1/2 x 2 5/8                  |
| 3000                           | 520C302T250CB2B        | 33.6                               | 11.0                                 | 2 1/2 x 3 1/8                  |
| 3900                           | 520C392T250CJ2B        | 26.3                               | 13.0                                 | 2 1/2 x 3 5/8                  |
| 4300                           | 520C432T250DB2B        | 29.0                               | 13.2                                 | 3 x 3 1/8                      |
| 4700                           | 520C472T250CC2B        | 21.8                               | 15.0                                 | 2 1/2 x 4 1/8                  |
| 5600                           | 520C562T250CD2B        | 18.6                               | 16.8                                 | 2 1/2 x 4 5/8                  |
| 5600                           | 520C562T250DJ2B        | 22.7                               | 15.7                                 | 3 x 3 5/8                      |
| 6400                           | 520C642T250CD2B        | 16.3                               | 18.6                                 | 2 1/2 x 5 1/8                  |
| 6800                           | 520C682T250DC2B        | 18.5                               | 18.2                                 | 3 x 4 1/8                      |
| 7300                           | 520C732T250CF2B        | 14.5                               | 20.3                                 | 2 1/2 x 5 5/8                  |
| 8000                           | 520C802T250DD2B        | 17.1                               | 19.5                                 | 3 x 4 5/8                      |
| 9300                           | 520C932T250DE2B        | 15.0                               | 21.6                                 | 3 x 5 1/8                      |
| 10000                          | 520C103T250FC2D        | 20.4                               | 19.0                                 | 3 1/2 x 4 1/8                  |
| 11000                          | 520C113T250DF2B        | 12.6                               | 24.3                                 | 3 x 5 5/8                      |
| 11000                          | 520C113T250DP2B        | 12.1                               | 25.1                                 | 3 x 5 7/8                      |
| 12000                          | 520C123T250FD2D        | 18.1                               | 20.9                                 | 3 1/2 x 4 5/8                  |
| 14000                          | 520C143T250FE2D        | 15.8                               | 23.0                                 | 3 1/2 x 5 1/8                  |
| 15000                          | 520C153T250FF2D        | 13.9                               | 25.3                                 | 3 1/2 x 5 5/8                  |
| 16000                          | 520C163T250DN2B        | 9.1                                | 32.2                                 | 3 x 7 5/8                      |

| Cap.<br>(µF)                   | Catalog<br>Part Number | ESR Max.<br>@ 25 °C 120 Hz<br>(mΩ) | Ripple Max. @<br>85 °C 120 Hz<br>(A) | Nominal Size<br>D x L (inches) |
|--------------------------------|------------------------|------------------------------------|--------------------------------------|--------------------------------|
| <b>250 Vdc (300 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 16000                          | 520C163T250FP2D        | 13.5                               | 26.0                                 | 3 1/2 x 5 7/8                  |
| 18000                          | 520C183T250DG2D        | 7.4                                | 36.2                                 | 3 x 8 5/8                      |
| 22000                          | 520C223T250FN2D        | 11.0                               | 31.5                                 | 3 1/2 x 7 5/8                  |
| 26000                          | 520C263T250FG2D        | 9.6                                | 34.6                                 | 3 1/2 x 8 5/8                  |
| <b>300 Vdc (350 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 1600                           | 520C162T300CH2B        | 59.5                               | 7.8                                  | 2 1/2 x 2 5/8                  |
| 2200                           | 520C222T300CB2B        | 48.8                               | 9.1                                  | 2 1/2 x 3 1/8                  |
| 2900                           | 520C292T300CJ2B        | 40.0                               | 10.6                                 | 2 1/2 x 3 5/8                  |
| 3400                           | 520C342T300DB2B        | 44.9                               | 10.6                                 | 3 x 3 1/8                      |
| 3500                           | 520C352T300CC2B        | 31.4                               | 12.5                                 | 2 1/2 x 4 1/8                  |
| 4100                           | 520C412T300CD2B        | 26.8                               | 14.0                                 | 2 1/2 x 4 5/8                  |
| 4300                           | 520C432T300DJ2B        | 35.7                               | 12.5                                 | 3 x 3 5/8                      |
| 4800                           | 520C482T300CD2B        | 23.3                               | 15.5                                 | 2 1/2 x 5 1/8                  |
| 5300                           | 520C532T300DC2B        | 27.5                               | 14.9                                 | 3 x 4 1/8                      |
| 5400                           | 520C542T300CF2B        | 20.7                               | 17.0                                 | 2 1/2 x 5 5/8                  |
| 6300                           | 520C632T300DD2B        | 24.8                               | 16.3                                 | 3 x 4 5/8                      |
| 7200                           | 520C722T300DE2B        | 21.5                               | 18.0                                 | 3 x 5 1/8                      |
| 7400                           | 520C742T300FC2D        | 22.1                               | 18.2                                 | 3 1/2 x 4 1/8                  |
| 8200                           | 520C822T300DF2B        | 18.9                               | 19.8                                 | 3 x 5 5/8                      |
| 8700                           | 520C872T300DP2B        | 17.9                               | 20.6                                 | 3 x 5 7/8                      |
| 8800                           | 520C882T300FD2D        | 19.1                               | 20.3                                 | 3 1/2 x 4 5/8                  |
| 10000                          | 520C103T300FE2D        | 16.8                               | 22.3                                 | 3 1/2 x 5 1/8                  |
| 11000                          | 520C113T300FF2D        | 15.0                               | 24.4                                 | 3 1/2 x 5 5/8                  |
| 12000                          | 520C123T300DN2B        | 13.8                               | 26.1                                 | 3 x 7 5/8                      |
| 12000                          | 520C123T300FP2D        | 14.2                               | 25.3                                 | 3 1/2 x 5 7/8                  |
| 14000                          | 520C143T300DG2B        | 11.3                               | 29.3                                 | 3 x 8 5/8                      |
| 17000                          | 520C173T300FN2D        | 11.5                               | 30.9                                 | 3 1/2 x 7 5/8                  |
| 20000                          | 520C203T300FG2D        | 9.8                                | 34.2                                 | 3 1/2 x 8 5/8                  |
| <b>350 Vdc (400 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 1500                           | 520C152T350CH2B        | 91.3                               | 6.3                                  | 2 1/2 x 2 5/8                  |
| 2000                           | 520C202T350CB2B        | 64.0                               | 8.0                                  | 2 1/2 x 3 1/8                  |
| 2600                           | 520C262T350CJ2B        | 51.0                               | 9.4                                  | 2 1/2 x 3 5/8                  |
| 3100                           | 520C312T350DB2B        | 56.6                               | 9.5                                  | 3 x 3 1/8                      |
| 3200                           | 520C322T350CC2B        | 41.9                               | 10.8                                 | 2 1/2 x 4 1/8                  |
| 3800                           | 520C382T350CD2B        | 35.7                               | 12.1                                 | 2 1/2 x 4 5/8                  |
| 4000                           | 520C402T350DJ2B        | 43.8                               | 11.3                                 | 3 x 3 5/8                      |
| 4400                           | 520C442T350CD2B        | 31.1                               | 13.5                                 | 2 1/2 x 5 1/8                  |
| 4800                           | 520C482T350DC2B        | 36.5                               | 12.9                                 | 3 x 4 1/8                      |
| 4900                           | 520C492T350CF2B        | 27.6                               | 14.7                                 | 2 1/2 x 5 5/8                  |
| 5700                           | 520C572T350DD2B        | 31.0                               | 14.5                                 | 3 x 4 5/8                      |
| 6600                           | 520C662T350DE2B        | 27.1                               | 16.1                                 | 3 x 5 1/8                      |
| 6800                           | 520C682T350FC2D        | 31.4                               | 15.3                                 | 3 1/2 x 4 1/8                  |
| 7500                           | 520C752T350DF2B        | 24.1                               | 17.5                                 | 3 x 5 5/8                      |

# Type 520C 85 °C Long Life, Inverter Grade, Aluminum

## High Ripple, Long Life Screw Terminal Type

Additional Smaller Sizes available at [www.cde.com/catalogs/520C.pdf](http://www.cde.com/catalogs/520C.pdf)

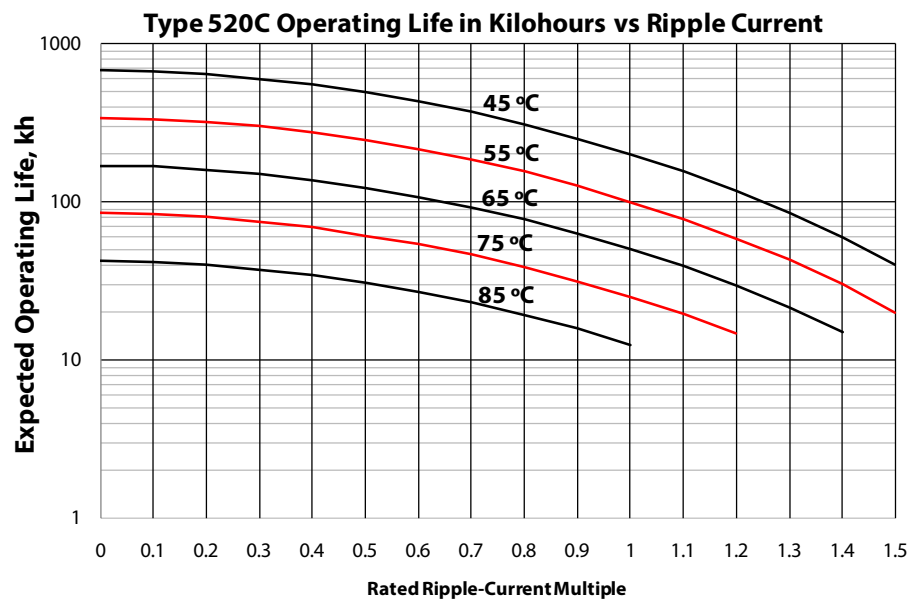
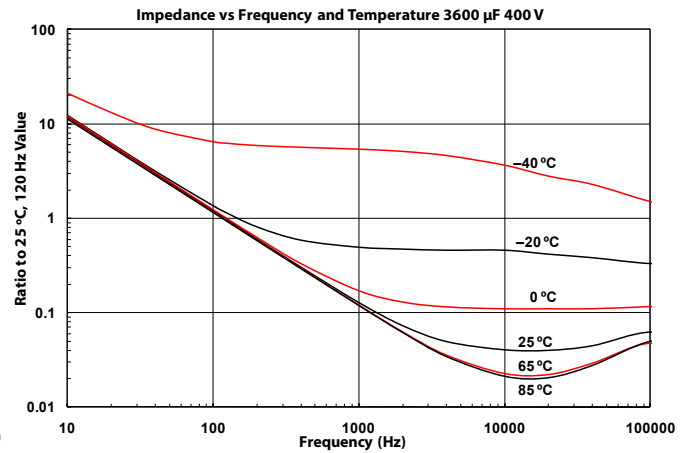
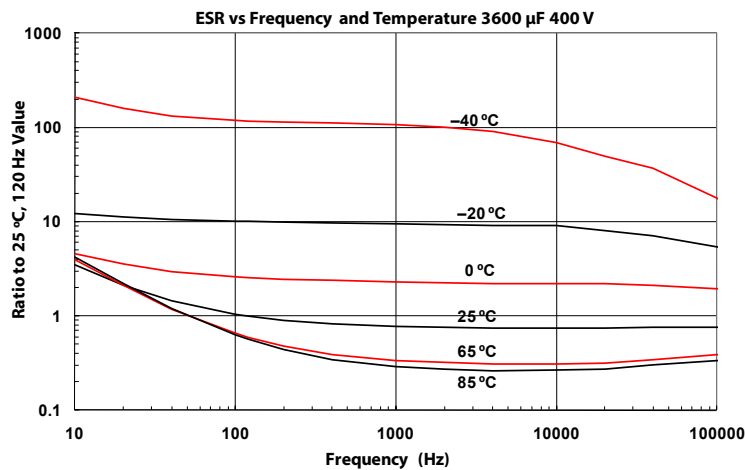
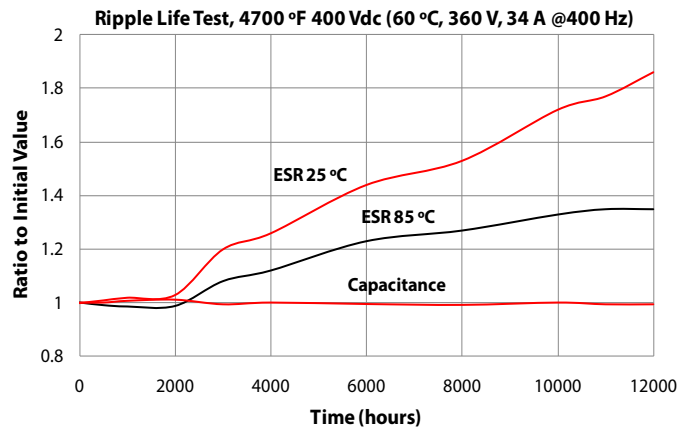
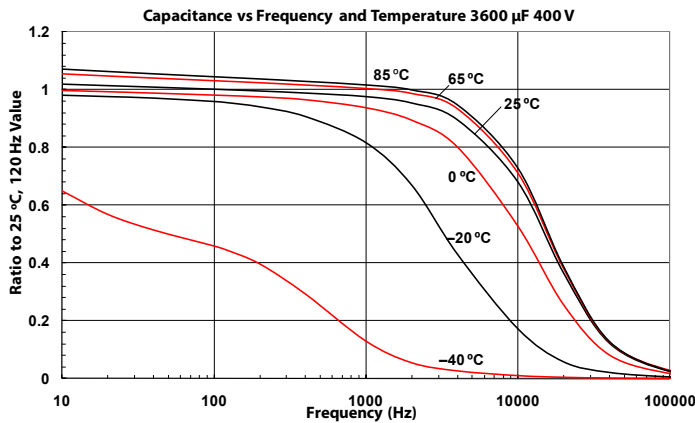
| Cap.<br>(µF)                   | Catalog<br>Part Number | ESR Max.<br>@ 25 °C 120 Hz<br>(mΩ) | Ripple Max.<br>@ 85 °C 120<br>Hz (A) | Nominal Size<br>D x L (inches) |
|--------------------------------|------------------------|------------------------------------|--------------------------------------|--------------------------------|
| <b>350 Vdc (400 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 7900                           | 520C792T350DP2B        | 22.8                               | 18.3                                 | 3 x 5 7/8                      |
| 8000                           | 520C802T350FD2D        | 27.0                               | 17.1                                 | 3 1/2 x 4 5/8                  |
| 9200                           | 520C922T350FE2D        | 23.6                               | 18.9                                 | 3 1/2 x 5 1/8                  |
| 10000                          | 520C103T350FF2D        | 21.0                               | 20.6                                 | 3 1/2 x 5 5/8                  |
| 10000                          | 520C103T350FF2D        | 21.0                               | 20.6                                 | 3 1/2 x 5 5/8                  |
| 11000                          | 520C113T350FP2D        | 19.9                               | 21.4                                 | 3 1/2 x 5 7/8                  |
| 13000                          | 520C133T350DG2B        | 14.9                               | 25.5                                 | 3 x 8 5/8                      |
| 15000                          | 520C153T350FN2D        | 15.7                               | 26.7                                 | 3 1/2 x 7 5/8                  |
| 18000                          | 520C183T350FG2D        | 13.0                               | 29.7                                 | 3 1/2 x 8 5/8                  |
| <b>400 Vdc (450 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 1100                           | 520C112T400CH2B        | 97.8                               | 6.1                                  | 2 1/2 x 2 5/8                  |
| 1600                           | 520C162T400CB2B        | 68.6                               | 7.7                                  | 2 1/2 x 3 1/8                  |
| 2000                           | 520C202T400CJ2B        | 54.6                               | 9.1                                  | 2 1/2 x 3 5/8                  |
| 2400                           | 520C242T400CC2B        | 44.9                               | 10.4                                 | 2 1/2 x 4 1/8                  |
| 2400                           | 520C242T400DB2B        | 60.4                               | 9.2                                  | 3 x 3 1/8                      |
| 2900                           | 520C292T400CD2B        | 47.1                               | 10.6                                 | 2 1/2 x 4 5/8                  |
| 3000                           | 520C302T400DJ2B        | 47.1                               | 10.9                                 | 3 x 3 5/8                      |
| 3300                           | 520C332T400CD2B        | 33.0                               | 13.0                                 | 2 1/2 x 5 1/8                  |
| 3700                           | 520C372T400DC2B        | 38.8                               | 12.5                                 | 3 x 4 1/8                      |
| 3800                           | 520C382T400CF2B        | 33.0                               | 13.5                                 | 2 1/2 x 5 5/8                  |
| 4400                           | 520C442T400DD2B        | 29.5                               | 14.9                                 | 3 x 4 5/8                      |
| 5000                           | 520C502T400DE2B        | 28.8                               | 15.6                                 | 3 x 5 1/8                      |
| 5200                           | 520C522T400FC2D        | 33.5                               | 14.8                                 | 3 1/2 x 4 1/8                  |
| 5700                           | 520C572T400DF2B        | 25.6                               | 17.0                                 | 3 x 5 5/8                      |
| 6100                           | 520C612T400DP2B        | 24.3                               | 17.7                                 | 3 x 5 7/8                      |
| 6100                           | 520C612T400FD2D        | 28.8                               | 16.6                                 | 3 1/2 x 4 5/8                  |
| 7000                           | 520C702T400FE2D        | 25.1                               | 18.3                                 | 3 1/2 x 5 1/8                  |
| 8000                           | 520C802T400FF2D        | 22.3                               | 20.0                                 | 3 1/2 x 5 5/8                  |
| 8400                           | 520C842T400DN2B        | 19.1                               | 22.2                                 | 3 x 7 5/8                      |
| 8500                           | 520C852T400FP2D        | 21.1                               | 20.8                                 | 3 1/2 x 5 7/8                  |
| 9800                           | 520C982T400DG2B        | 15.8                               | 24.8                                 | 3 x 8 5/8                      |
| 12000                          | 520C123T400FN2D        | 16.6                               | 25.9                                 | 3 1/2 x 7 5/8                  |
| 14000                          | 520C143T400FG2D        | 13.8                               | 28.8                                 | 3 1/2 x 8 5/8                  |
| <b>450 Vdc (500 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 920                            | 520C921T450CH2B        | 114.0                              | 5.6                                  | 2 1/2 x 2 5/8                  |
| 1300                           | 520C132T450CB2B        | 81.9                               | 7.0                                  | 2 1/2 x 3 1/8                  |
| 1600                           | 520C162T450CJ2B        | 63.5                               | 8.4                                  | 2 1/2 x 3 5/8                  |
| 1900                           | 520C192T450DB2B        | 52.6                               | 9.8                                  | 3 x 3 1/8                      |
| 2000                           | 520C202T450CC2B        | 49.8                               | 9.9                                  | 2 1/2 x 4 1/8                  |
| 2400                           | 520C242T450CD2B        | 42.3                               | 11.1                                 | 2 1/2 x 4 5/8                  |

| Cap.<br>(µF)                   | Catalog<br>Part Number | ESR Max.<br>@ 25 °C 120 Hz<br>(mΩ) | Ripple Max. @<br>85 °C 120 Hz<br>(A) | Nominal Size<br>D x L (inches) |
|--------------------------------|------------------------|------------------------------------|--------------------------------------|--------------------------------|
| <b>450 Vdc (500 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 2500                           | 520C252T450DJ2B        | 40.3                               | 11.8                                 | 3 x 3 5/8                      |
| 2700                           | 520C272T450CE2B        | 38.9                               | 12.0                                 | 2 1/2 x 5 1/8                  |
| 3100                           | 520C312T450CF2B        | 32.7                               | 13.5                                 | 2 1/2 x 5 5/8                  |
| 3100                           | 520C312T450DC2B        | 33.0                               | 13.6                                 | 3 x 4 1/8                      |
| 3600                           | 520C362T450DD2B        | 27.8                               | 15.3                                 | 3 x 4 5/8                      |
| 4200                           | 520C422T450DE2B        | 23.9                               | 17.1                                 | 3 x 5 1/8                      |
| 4300                           | 520C432T450FC2D        | 23.9                               | 17.5                                 | 3 1/2 x 4 1/8                  |
| 4700                           | 520C472T450DF2B        | 21.3                               | 18.7                                 | 3 x 5 5/8                      |
| 5000                           | 520C502T450DP2B        | 20.0                               | 19.5                                 | 3 x 5 7/8                      |
| 5000                           | 520C502T450FD2D        | 20.0                               | 19.9                                 | 3 1/2 x 4 5/8                  |
| 5800                           | 520C582T450FE2D        | 17.6                               | 21.8                                 | 3 1/2 x 5 1/8                  |
| 6600                           | 520C662T450FF2D        | 15.1                               | 24.2                                 | 3 1/2 x 5 5/8                  |
| 7000                           | 520C702T450FP2D        | 14.3                               | 25.2                                 | 3 1/2 x 5 7/8                  |
| 7000                           | 520C702T450DN2B        | 15.0                               | 25.0                                 | 3 x 7 5/8                      |
| 8100                           | 520C812T450DG2B        | 12.5                               | 27.9                                 | 3 x 8 5/8                      |
| 9500                           | 520C952T450FN2D        | 11.0                               | 32.0                                 | 3 1/2 x 7 5/8                  |
| 11000                          | 520C113T450FG2D        | 9.1                                | 35.5                                 | 3 1/2 x 8 5/8                  |
| <b>500 Vdc (550 Vdc Surge)</b> |                        |                                    |                                      |                                |
| 630                            | 520C631T500CH2B        | 165.0                              | 4.7                                  | 2 1/2 x 2 5/8                  |
| 890                            | 520C891T500CB2B        | 118.0                              | 5.9                                  | 2 1/2 x 3 1/8                  |
| 1100                           | 520C112T500CJ2B        | 91.9                               | 7.0                                  | 2 1/2 x 3 5/8                  |
| 1300                           | 520C132T500DB2B        | 77.1                               | 8.1                                  | 3 x 3 1/8                      |
| 1400                           | 520C142T500CC2B        | 73.1                               | 8.2                                  | 2 1/2 x 4 1/8                  |
| 1600                           | 520C162T500CD2B        | 63.2                               | 9.1                                  | 2 1/2 x 4 5/8                  |
| 1700                           | 520C172T500DJ2B        | 60.1                               | 9.7                                  | 3 x 3 5/8                      |
| 1900                           | 520C192T500CD2B        | 54.9                               | 10.1                                 | 2 1/2 x 5 1/8                  |
| 2100                           | 520C212T500DC2B        | 49.4                               | 11.1                                 | 3 x 4 1/8                      |
| 2200                           | 520C222T500CF2B        | 46.2                               | 11.4                                 | 2 1/2 x 5 5/8                  |
| 2500                           | 520C252T500DD2B        | 42.0                               | 12.5                                 | 3 x 4 5/8                      |
| 2900                           | 520C292T500DE2B        | 36.5                               | 13.8                                 | 3 x 5 1/8                      |
| 3000                           | 520C302T500FC2D        | 35.7                               | 14.4                                 | 3 1/2 x 4 1/8                  |
| 3300                           | 520C332T500DF2B        | 32.4                               | 15.1                                 | 3 x 5 5/8                      |
| 3500                           | 520C352T500DP2B        | 30.6                               | 15.8                                 | 3 x 5 7/8                      |
| 3500                           | 520C352T500FD2D        | 30.3                               | 16.1                                 | 3 1/2 x 4 5/8                  |
| 4000                           | 520C402T500FE2D        | 26.4                               | 17.8                                 | 3 1/2 x 5 1/8                  |
| 4600                           | 520C462T500FF2D        | 23.4                               | 19.5                                 | 3 1/2 x 5 5/8                  |
| 4800                           | 520C482T500FP2D        | 22.2                               | 20.3                                 | 3 1/2 x 5 7/8                  |
| 4800                           | 520C482T500DN2B        | 23.9                               | 19.8                                 | 3 x 7 5/8                      |
| 5600                           | 520C562T500DG2B        | 19.7                               | 22.2                                 | 3 x 8 5/8                      |
| 6700                           | 520C672T500FN2D        | 17.3                               | 25.4                                 | 3 1/2 x 7 5/8                  |

# Type 520C 85 °C Long Life, Inverter Grade, Aluminum

## High Ripple, Long Life Screw Terminal Type

### Typical Performance Curves



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