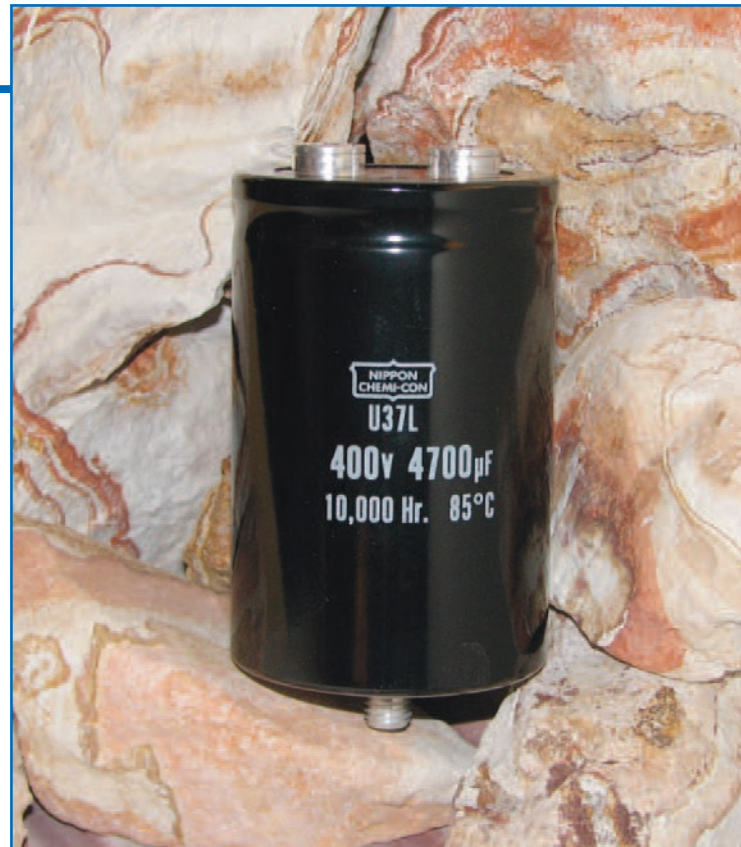


# U37L Series



- Large Can
- Screw Terminals
- General Purpose U37 Grade
- High Ripple
- 350 to 500VDC Ratings
- RoHS Compliant
- 10,000 Hours Lifetime at +85°C
- Up to 175,000 Hours Useful Life



The U37L series is a longer life version of the U37 grade series and is specifically designed to provide the ripple current capability and long life required for high reliability inverter applications. The U37L has an endurance rating of 10,000 hours at +85°C with the rated ripple current applied. The useful life can exceed 175,000 hours at +40°C and 2x the ripple current. These capacitors are available in a variety of high current English or Metric thread terminals. Mounting options include a three-footed clamp or bottom threaded stud. Custom designs are also available.

## Summary of Specifications

- Screw terminals: high and low post, English and Metric thread.
- Capacitance range: 1,500 to 18,000µF.
- Voltage range: 350 to 500VDC.
- Category temperature range: -40°C to +85°C.
- Leakage current: 0.02CV(µA) or 5mA, whichever is smaller, after 5 minutes at +25°C.
- Standard capacitance tolerance: ±20%
- Nominal case size (D×L): D = 50mm (2.000") to 89mm (3.500"); L = 92mm (3.625") to 219mm (8.625").
- Rated lifetime: 10,000 hours at +85°C with rated ripple current applied.



# U37L Series

## U37L Specifications - Screw Terminals

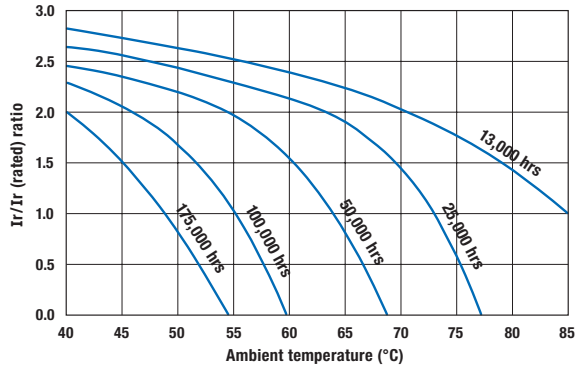
| Item                             | Characteristics   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
|----------------------------------|---|--------------------|-------------------|----------------------|-------------------|---------|--------------------|------------------|------|-------------|-------------|-----------|------|--------------|----------|---------|-------|-------------------|----------------------|------|------|----------------------|----|----|-------|-------------------|----------------------|---|---|----------------------|---|---|-------|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|
| Category Temperature Range       | - 40 to +85°C   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Rated Voltage Range              | 350 to 500VDC   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Capacitance Range                | 1,500 to 18,000µF at +25°C, 120Hz   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Capacitance Tolerance            | ±20% (M) at +25°C, 120Hz  |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Leakage Current                  | I = 0.02CV (µA) or 5mA, whichever is smaller, after 5 minutes at +25°C.<br>Where I = Max. leakage current (µA), C = Nominal capacitance (µF) and V = Rated voltage (V)  |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Rated Ripple Current Multipliers | <p>Ambient Temperature (°C)</p> <table border="1"> <tr> <td>+45°C</td> <td>+65°C</td> <td>+85°C</td> </tr> <tr> <td>2.82</td> <td>1.73</td> <td>1.00</td> </tr> </table> <p>Frequency (Hz)</p> <table border="1"> <tr> <td>DC Rated Voltage</td> <td>50Hz</td> <td>120Hz</td> <td>300Hz</td> <td>1kHz</td> <td>3kHz</td> <td>10kHz</td> </tr> <tr> <td>350-500V</td> <td>0.80</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.40</td> <td>1.41</td> </tr> </table> <p>To determine maximum ripple current at a specified temperature and frequency, use the appropriate multiplier shown.</p>  | +45°C              | +65°C             | +85°C                | 2.82              | 1.73    | 1.00               | DC Rated Voltage | 50Hz | 120Hz       | 300Hz       | 1kHz      | 3kHz | 10kHz        | 350-500V | 0.80    | 1.00  | 1.20              | 1.30                 | 1.40 | 1.41 |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| +45°C                            | +65°C   | +85°C              |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| 2.82                             | 1.73  | 1.00               |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| DC Rated Voltage                 | 50Hz  | 120Hz              | 300Hz             | 1kHz                 | 3kHz              | 10kHz   |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| 350-500V                         | 0.80  | 1.00               | 1.20              | 1.30                 | 1.40              | 1.41    |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Endurance (Load Life)            | <p>The following specifications shall be satisfied when the capacitors are restored to +25°C after subjecting them to DC voltage for 10,000 hours at +85°C with the rated ripple current applied. The sum of the DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors.</p> <p>Capacitance change: ≤ 20% from initial measurement<br/>           ESR change : ≤ 200% of initial specified limit<br/>           Leakage current : ≤ initial specified limit</p>  |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Useful Life                      | <p>With specified standard voltage and ripple current applied, typical life as function of ambient temperature is listed below.</p> <table border="1"> <tr> <td>+85°C</td> <td>13,000 hours max.</td> </tr> <tr> <td>+65°C</td> <td>47,700 hours max.</td> </tr> <tr> <td>+45°C</td> <td>175,000 hours max.</td> </tr> </table> <p>Capacitance change: ≤ 30% from initial measurement<br/>           ESR change : ≤ 300% of initial specified limit<br/>           Leakage current : ≤ initial specified limit</p>  | +85°C              | 13,000 hours max. | +65°C                | 47,700 hours max. | +45°C   | 175,000 hours max. |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| +85°C                            | 13,000 hours max.   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| +65°C                            | 47,700 hours max.   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| +45°C                            | 175,000 hours max.  |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Shelf Life                       | <p>The following specifications shall be satisfied when the capacitors are restored to +25°C after exposing them for 500 hours at +85°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.</p> <p>Capacitance change: ≤ 20% from initial measurement<br/>           ESR change : ≤ 200% of initial specified limit<br/>           Leakage current : ≤ initial specified limit</p>   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Vibration Rating                 | 10-55Hz, 10g sinusoidal in three axes, 2 hours per axis.  |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Maximum Tightening Torque        | <table border="1"> <tr> <td>Terminal Code</td> <td>HP</td> <td>HL</td> <td>CD</td> <td>CP</td> <td>CH</td> <td>CA</td> <td>CS</td> </tr> <tr> <td>Thread Size</td> <td>10-32 NF-2B</td> <td>M5x0.8-6H</td> <td></td> <td>1/4-28 NF-2B</td> <td></td> <td>M6x1-6H</td> <td></td> </tr> <tr> <td>3 Threads Engaged</td> <td colspan="3">2.0 N·m (18.0 in·lb)</td> <td colspan="4">4.0 N·m (35.0 in·lb)</td> </tr> <tr> <td>6 Threads Engaged</td> <td colspan="3">2.8 N·m (25.0 in·lb)</td> <td colspan="4">6.2 N·m (55.0 in·lb)</td> </tr> </table>  | Terminal Code      | HP                | HL                   | CD                | CP      | CH                 | CA               | CS   | Thread Size | 10-32 NF-2B | M5x0.8-6H |      | 1/4-28 NF-2B |          | M6x1-6H |       | 3 Threads Engaged | 2.0 N·m (18.0 in·lb) |      |      | 4.0 N·m (35.0 in·lb) |    |    |       | 6 Threads Engaged | 2.8 N·m (25.0 in·lb) |   |   | 6.2 N·m (55.0 in·lb) |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Terminal Code                    | HP  | HL                 | CD                | CP                   | CH                | CA      | CS                 |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Thread Size                      | 10-32 NF-2B   | M5x0.8-6H          |                   | 1/4-28 NF-2B         |                   | M6x1-6H |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| 3 Threads Engaged                | 2.0 N·m (18.0 in·lb)  |                    |                   | 4.0 N·m (35.0 in·lb) |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| 6 Threads Engaged                | 2.8 N·m (25.0 in·lb)  |                    |                   | 6.2 N·m (55.0 in·lb) |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Typical Inductance (nH) at 1MHz  | <table border="1"> <tr> <td rowspan="2">Case Diameter (mm)</td> <td colspan="7">Terminal Code</td> </tr> <tr> <td>HP</td> <td>HL</td> <td>CD</td> <td>CP</td> <td>CH</td> <td>CA</td> <td>CS</td> </tr> <tr> <td>∅50.8</td> <td>—</td> <td>—</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>∅63.5</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>∅76.2</td> <td>30</td> <td>30</td> <td>25</td> <td>20</td> <td>25</td> <td>20</td> <td>25</td> </tr> <tr> <td>∅89.0</td> <td>30</td> <td>30</td> <td>25</td> <td>20</td> <td>25</td> <td>20</td> <td>25</td> </tr> </table> | Case Diameter (mm) | Terminal Code     |                      |                   |         |                    |                  |      | HP          | HL          | CD        | CP   | CH           | CA       | CS      | ∅50.8 | —                 | —                    | NA   | NA   | NA                   | NA | NA | ∅63.5 | —                 | —                    | — | — | —                    | — | — | ∅76.2 | 30 | 30 | 25 | 20 | 25 | 20 | 25 | ∅89.0 | 30 | 30 | 25 | 20 | 25 | 20 | 25 |
| Case Diameter (mm)               | Terminal Code   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
|                                  | HP  | HL                 | CD                | CP                   | CH                | CA      | CS                 |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| ∅50.8                            | —   | —                  | NA                | NA                   | NA                | NA      | NA                 |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| ∅63.5                            | —   | —                  | —                 | —                    | —                 | —       | —                  |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| ∅76.2                            | 30  | 30                 | 25                | 20                   | 25                | 20      | 25                 |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| ∅89.0                            | 30  | 30                 | 25                | 20                   | 25                | 20      | 25                 |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |
| Custom Designs                   | Custom CV values per case size and termination type may be available upon request. Contact appropriate representative with specific requirements.   |                    |                   |                      |                   |         |                    |                  |      |             |             |           |      |              |          |         |       |                   |                      |      |      |                      |    |    |       |                   |                      |   |   |                      |   |   |       |    |    |    |    |    |    |    |       |    |    |    |    |    |    |    |

# U37L Series

## U37L Useful Life

### Useful Life: 13,000 Hours at +85°C

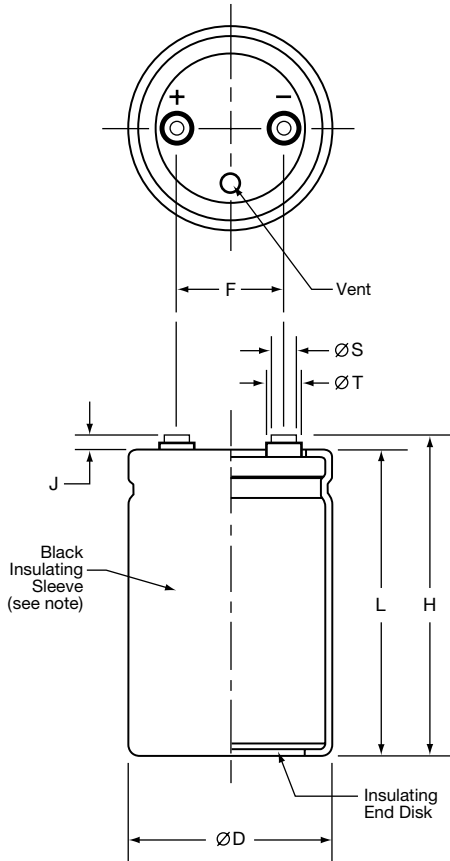
The life expectancy of a capacitor is shown as a function of ambient temperature and ripple current load.



## Diagram of Dimensions - Screw Terminals

### Large Can/Screw Terminals

Unit: mm (inches)



### Case Dimensions and Standard Box Quantities

| Case Size Code                                | ØD<br>+2.0 (0.080) | L<br>±1.0 (0.040)  | F<br>±0.25 (0.010) | Standard Box Quantity |
|---|--------------------|--|--------------------|-----------------------|
| CB7<br>CD0                                    | 50.8 (2.000)       | 117 (4.625)<br>130 (5.125)   | 22.2 (0.875)       | 49                    |
| D92<br>DA5<br>DB7<br>DD0<br>DE3               | 63.5 (2.500)       | 92 (3.625)<br>105 (4.125)<br>117 (4.625)<br>130 (5.125)<br>143 (5.625)                               | 28.6 (1.125)       | 20                    |
| E92<br>EA5<br>EB7<br>EE3<br>EJ1<br>EM9        | 76.2 (3.000)       | 92 (3.625)<br>105 (4.125)<br>117 (4.625)<br>143 (5.625)<br>181 (7.125)<br>219 (8.625)                | 31.8 (1.250)       | 16<br>9               |
| F92<br>FA5<br>FB7<br>FE3<br>FF5<br>FK0<br>FM9 | 89.0 (3.500)       | 92 (3.625)<br>105 (4.125)<br>117 (4.625)<br>143 (5.625)<br>155 (6.125)<br>190 (7.500)<br>219 (8.625) | 31.8 (1.250)       | 5                     |

Note:

In some cases, the color of the sleeve may change slightly due to the operating conditions, however, the discoloration will not impair capacitor function.

### Terminal Specifications

| Terminal Code | Available Case Diameter |                             | Thread Size  | Minimum Thread Depth | J<br>±0.5 (0.020) | H<br>±2.0 (0.080) | ØS<br>±0.25 (0.010) | ØT<br>±0.25 (0.010) |
|---------------|-------------------------|-----------------------------|--------------|----------------------|-------------------|-------------------|---------------------|---------------------|
|               | ØD Code                 | ØD mm (inches)              |              |                      |                   |                   |                     |                     |
| HP            | C                       | 50.8 (2.000)                | 10-32 NF-2B  | 9.5 (0.375)          | 6.4 (0.250)       | L+J               | 8.0 (0.313)         | 11.1 (0.438)        |
| HL            | C                       | 50.8 (2.000)                | M5x0.8-6H    | 9.5 (0.375)          | 6.4 (0.250)       | L+J               | 8.0 (0.313)         | 11.1 (0.438)        |
| CD            | D-E                     | 63.5 - 76.2 (2.500 - 3.000) | M5x0.8-6H    | 8.5 (0.335)          | 5.0 (0.200)       | L+J               | 13.0 (0.512)        | 18.8 (0.740)        |
| CP            | D-F                     | 63.5 - 89.0 (2.500 - 3.500) | 1/4-28 NF-2B | 8.7 (0.344)          | 2.4 (0.093)       | L+J               | 17.5 (0.689)        | —                   |
| CH            | D-F                     | 63.5 - 89.0 (2.500 - 3.500) | 1/4-28 NF-2B | 11.9 (0.468)         | 6.4 (0.250)       | L+J               | 17.5 (0.689)        | —                   |
| CA            | D-F                     | 63.5 - 89.0 (2.500 - 3.500) | M6x1-6H      | 8.7 (0.344)          | 2.4 (0.093)       | L+J               | 17.5 (0.689)        | —                   |
| CS            | D-F                     | 63.5 - 89.0 (2.500 - 3.500) | M6x1-6H      | 11.9 (0.468)         | 6.4 (0.250)       | L+J               | 17.5 (0.689)        | —                   |

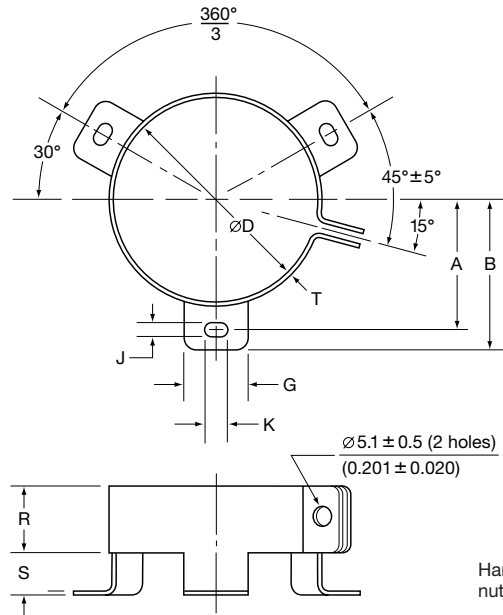
Mounting Hardware is optional. Refer to hardware specifications on the following page.

# U37L Series

## Mounting Hardware - Screw Terminals

### Type C: Three-Footed Clamp

Unit: mm (inches)



Hardware: Screw, washer and hexagon nut included with each clamp.

### Type C: Clamp Dimensions

| Mounting Code | Case $\varnothing D$ | A $\pm 1.0$ (0.040) | B $\pm 1.0$ (0.040) | G $\pm 1.0$ (0.040) | J $\pm 0.5$ (0.020) | K $\pm 0.5$ (0.020) | R $\pm 1.0$ (0.040) | S $\pm 1.0$ (0.040) | T $\pm 0.5$ (0.020) |
|---------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| C             | 50.8 (2.000)         | 31.8 (1.250)        | 36.5 (1.437)        | 13.3 (0.524)        | 4.5 (0.177)         | 7.1 (0.280)         | 19.1 (0.751)        | 9.5 (0.374)         | 0.8 (0.032)         |
| C             | 63.5 (2.500)         | 38.1 (1.500)        | 42.9 (1.689)        | 13.3 (0.524)        | 4.5 (0.177)         | 7.1 (0.280)         | 19.1 (0.751)        | 9.5 (0.374)         | 0.8 (0.032)         |
| C             | 76.2 (3.000)         | 44.5 (1.750)        | 49.2 (1.937)        | 13.3 (0.524)        | 4.5 (0.177)         | 7.1 (0.280)         | 19.1 (0.751)        | 9.5 (0.374)         | 1.0 (0.040)         |
| C             | 89.0 (3.500)         | 50.8 (2.000)        | 56.5 (2.224)        | 16.0 (0.630)        | 4.5 (0.177)         | 8.0 (0.313)         | 21.0 (0.827)        | 9.0 (0.354)         | 1.0 (0.040)         |

### Type S: Stud Mounting



#### Mounting Nut - Order Separately

The insulated plastic mounting nut is not included with stud mount capacitor orders. It must be ordered separately. See available part numbers below.

### Type S: Stud Dimensions

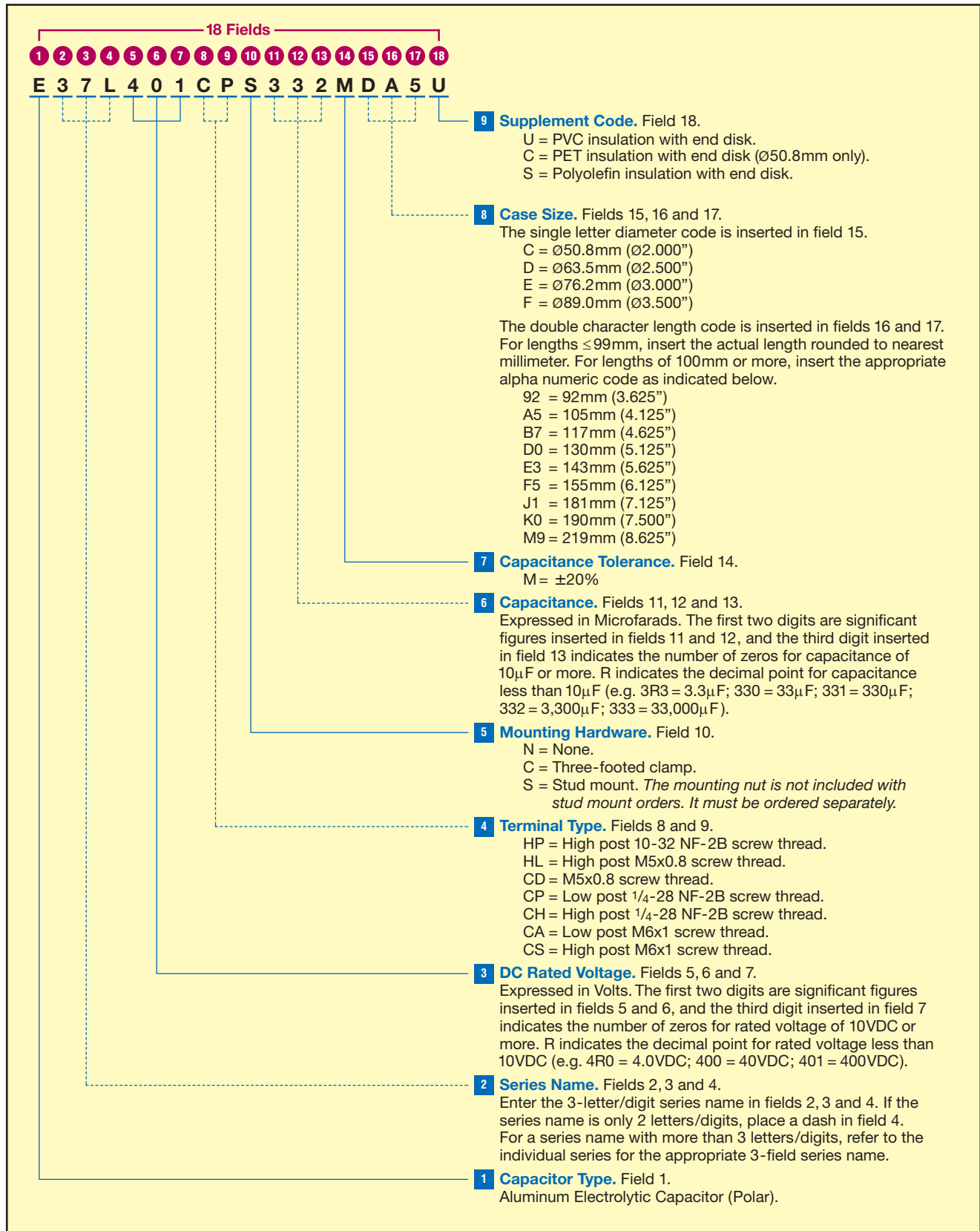
| Mounting Code | P $\pm 1.0$ (0.040) | T Thread Size |
|---------------|---------------------|---------------|
| S             | 16.0 (0.630)        | M12           |

### Mounting Nut Dimensions

| Part Number | $\varnothing K$ $\pm 2.0$ (0.080) | M $\pm 1.0$ (0.040) | N $\pm 1.0$ (0.040) | $\varnothing Q$ $\pm 1.0$ (0.040) | R $\pm 1.0$ (0.040) |
|-------------|-----------------------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 50-8D       | 30.0 (1.181)                      | 19.0 (0.748)        | 18.0 (0.709)        | 22.0 (0.866)                      | 1.40 (0.055)        |
| 50-8E       | 38.0 (1.496)                      | 19.0 (0.748)        | 18.0 (0.709)        | 30.0 (1.181)                      | 1.40 (0.055)        |

# U37L Series

**Part Numbering System for U37L Series** When ordering, always specify complete 18-field global part number.





# U37L Series

## Standard Voltage Ratings - Screw Terminals

| Rated Voltage (WVDC)                 | Capacitance (μF)   | Global Part Number† | Nominal Case Size* D × L (mm) | Case Size Code | Maximum ESR (mΩ) at +25°C, 120Hz | Rated Ripple Current (A rms) at +85°C |       |       |
|--------------------------------------|--------------------|---------------------|-------------------------------|----------------|----------------------------------|---------------------------------------|-------|-------|
|                                      |                    |                     |                               |                |                                  | 120Hz                                 | 300Hz | >3kHz |
| <b>350 Volts<br/>400 Volts Surge</b> | 3,300              | E37L351HPN332MCB7U  | 50 × 117                      | CB7            | 29                               | 10.6                                  | 12.7  | 14.8  |
|                                      | 3,300              | E37L351HPN332MCD0U  | 50 × 130                      | CD0            | 29                               | 11.0                                  | 13.1  | 15.3  |
|                                      | 3,300              | E37L351CPN332MD92U  | 63.5 × 92                     | D92            | 30                               | 10.7                                  | 12.8  | 15.0  |
|                                      | 3,900              | E37L351CPN392MDA5U  | 63.5 × 105                    | DA5            | 26                               | 12.2                                  | 14.6  | 17.0  |
|                                      | 3,900              | E37L351CPN392MDB7U  | 63.5 × 117                    | DB7            | 26                               | 12.6                                  | 15.2  | 17.7  |
|                                      | 4,700              | E37L351CPN472MDD0U  | 63.5 × 130                    | DD0            | 21                               | 14.4                                  | 17.3  | 20.2  |
|                                      | 5,600              | E37L351CPN562MDE3U  | 63.5 × 143                    | DE3            | 18                               | 16.3                                  | 19.5  | 22.8  |
|                                      | 4,700              | E37L351CPN472ME92U  | 76.2 × 92                     | E92            | 22                               | 13.9                                  | 16.7  | 19.5  |
|                                      | 5,600              | E37L351CPN562MEA5U  | 76.2 × 105                    | EA5            | 18                               | 15.8                                  | 19.0  | 22.1  |
|                                      | 6,800              | E37L351CPN682MEB7U  | 76.2 × 117                    | EB7            | 15                               | 18.1                                  | 21.7  | 25.4  |
|                                      | 8,200              | E37L351CPN822MEE3U  | 76.2 × 143                    | EE3            | 13                               | 21.3                                  | 25.6  | 29.9  |
|                                      | 12,000             | E37L351CPN123MEJ1U  | 76.2 × 181                    | EJ1            | 9                                | 28.2                                  | 33.9  | 39.5  |
|                                      | 15,000             | E37L351CPN153MEM9U  | 76.2 × 219                    | EM9            | 7                                | 34.0                                  | 40.8  | 47.6  |
|                                      | 6,800              | E37L351CPN682MF92U  | 89 × 92                       | F92            | 15                               | 18.3                                  | 22.0  | 25.6  |
|                                      | 8,200              | E37L351CPN822MFA5U  | 89 × 105                      | FA5            | 13                               | 21.0                                  | 25.2  | 29.3  |
|                                      | 8,200              | E37L351CPN822MFB7U  | 89 × 117                      | FB7            | 13                               | 21.8                                  | 26.1  | 30.5  |
|                                      | 12,000             | E37L351CPN123MFE3U  | 89 × 143                      | FE3            | 9                                | 28.2                                  | 33.8  | 39.5  |
|                                      | 12,000             | E37L351CPN123MFF5U  | 89 × 155                      | FF5            | 9                                | 29.0                                  | 34.8  | 40.6  |
| 15,000                               | E37L351CPN153MFK0U | 89 × 190            | FK0                           | 7              | 35.0                             | 42.0                                  | 49.1  |       |
| 18,000                               | E37L351CPN183MFM9U | 89 × 219            | FM9                           | 6              | 41.1                             | 49.4                                  | 57.6  |       |
| <b>400 Volts<br/>450 Volts Surge</b> | 2,700              | E37L401HPN272MCB7U  | 50 × 117                      | CB7            | 35                               | 9.5                                   | 11.5  | 13.4  |
|                                      | 3,300              | E37L401HPN332MCD0U  | 50 × 130                      | CD0            | 29                               | 11.0                                  | 13.1  | 15.3  |
|                                      | 2,700              | E37L401CPN272MD92U  | 63.5 × 92                     | D92            | 37                               | 9.7                                   | 11.6  | 13.6  |
|                                      | 3,300              | E37L401CPN332MDA5U  | 63.5 × 105                    | DA5            | 30                               | 11.2                                  | 13.4  | 15.7  |
|                                      | 3,900              | E37L401CPN392MDB7U  | 63.5 × 117                    | DB7            | 26                               | 12.6                                  | 15.2  | 17.7  |
|                                      | 3,900              | E37L401CPN392MDD0U  | 63.5 × 130                    | DD0            | 26                               | 13.1                                  | 15.7  | 18.4  |
|                                      | 4,700              | E37L401CPN472MDE3U  | 63.5 × 143                    | DE3            | 21                               | 14.9                                  | 17.9  | 20.9  |
|                                      | 3,900              | E37L401CPN392ME92U  | 76.2 × 92                     | E92            | 27                               | 12.7                                  | 15.2  | 17.7  |
|                                      | 4,700              | E37L401CPN472MEA5U  | 76.2 × 105                    | EA5            | 22                               | 14.5                                  | 17.4  | 20.3  |
|                                      | 5,600              | E37L401CPN562MEB7U  | 76.2 × 117                    | EB7            | 18                               | 16.4                                  | 19.7  | 23.0  |
|                                      | 6,800              | E37L401CPN682MEE3U  | 76.2 × 143                    | EE3            | 15                               | 19.4                                  | 23.3  | 27.2  |
|                                      | 10,000             | E37L401CPN103MEJ1U  | 76.2 × 181                    | EJ1            | 10                               | 25.8                                  | 30.9  | 36.1  |
|                                      | 12,000             | E37L401CPN123MEM9U  | 76.2 × 219                    | EM9            | 9                                | 30.4                                  | 36.5  | 42.6  |
|                                      | 5,600              | E37L401CPN562MF92U  | 89 × 92                       | F92            | 18                               | 16.6                                  | 20.0  | 23.3  |
|                                      | 6,800              | E37L401CPN682MFA5U  | 89 × 105                      | FA5            | 15                               | 19.1                                  | 22.9  | 26.7  |
|                                      | 8,200              | E37L401CPN822MFB7U  | 89 × 117                      | FB7            | 13                               | 21.8                                  | 26.1  | 30.5  |
|                                      | 10,000             | E37L401CPN103MFE3U  | 89 × 143                      | FE3            | 10                               | 25.7                                  | 30.9  | 36.0  |
|                                      | 12,000             | E37L401CPN123MFF5U  | 89 × 155                      | FF5            | 9                                | 29.0                                  | 34.8  | 40.6  |
| 15,000                               | E37L401CPN153MFK0U | 89 × 190            | FK0                           | 7              | 35.0                             | 42.0                                  | 49.1  |       |
| 18,000                               | E37L401CPN183MFM9U | 89 × 219            | FM9                           | 6              | 40.6                             | 48.7                                  | 56.8  |       |
| <b>420 Volts<br/>470 Volts Surge</b> | 2,700              | E37L421HPN272MCB7U  | 50 × 117                      | CB7            | 35                               | 9.5                                   | 11.5  | 13.4  |
|                                      | 2,900              | E37L421HPN292MCD0U  | 50 × 130                      | CD0            | 33                               | 10.3                                  | 12.3  | 14.4  |
|                                      | 2,200              | E37L421CPN222MD92U  | 63.5 × 92                     | D92            | 45                               | 8.7                                   | 10.5  | 12.2  |
|                                      | 2,700              | E37L421CPN272MDA5U  | 63.5 × 105                    | DA5            | 37                               | 10.1                                  | 12.1  | 14.2  |
|                                      | 3,300              | E37L421CPN332MDB7U  | 63.5 × 117                    | DB7            | 30                               | 11.6                                  | 14.0  | 16.3  |
|                                      | 3,900              | E37L421CPN392MDD0U  | 63.5 × 130                    | DD0            | 26                               | 13.1                                  | 15.7  | 18.4  |
|                                      | 4,700              | E37L421CPN472MDE3U  | 63.5 × 143                    | DE3            | 21                               | 14.9                                  | 17.9  | 20.9  |
|                                      | 3,900              | E37L421CPN392ME92U  | 76.2 × 92                     | E92            | 27                               | 12.7                                  | 15.2  | 17.7  |
|                                      | 4,700              | E37L421CPN472MEA5U  | 76.2 × 105                    | EA5            | 22                               | 14.5                                  | 17.4  | 20.3  |
|                                      | 5,600              | E37L421CPN562MEB7U  | 76.2 × 117                    | EB7            | 18                               | 16.4                                  | 19.7  | 23.0  |
|                                      | 6,800              | E37L421CPN682MEE3U  | 76.2 × 143                    | EE3            | 15                               | 19.4                                  | 23.3  | 27.2  |
|                                      | 8,200              | E37L421CPN822MEJ1U  | 76.2 × 181                    | EJ1            | 13                               | 23.3                                  | 28.0  | 32.7  |
|                                      | 12,000             | E37L421CPN123MEM9U  | 76.2 × 219                    | EM9            | 9                                | 30.4                                  | 36.5  | 42.6  |
|                                      | 5,600              | E37L421CPN562MF92U  | 89 × 92                       | F92            | 18                               | 16.6                                  | 20.0  | 23.3  |
|                                      | 6,800              | E37L421CPN682MFA5U  | 89 × 105                      | FA5            | 15                               | 19.1                                  | 22.9  | 26.7  |

† For terminal, mounting and construction options, refer to the part numbering system for descriptions and codes.

\* Refer to diagram of dimensions for detailed case size specifications.



# U37L Series

## Standard Voltage Ratings - Screw Terminals

| Rated Voltage (WVDC)                | Capacitance (µF)   | Global Part Number† | Nominal Case Size* D × L (mm) | Case Size Code | Maximum ESR (mΩ) at +25°C, 120Hz | Rated Ripple Current (A rms) at +85°C |       |       |
|-------------------------------------|--------------------|---------------------|-------------------------------|----------------|----------------------------------|---------------------------------------|-------|-------|
|                                     |                    |                     |                               |                |                                  | 120Hz                                 | 300Hz | >3kHz |
| <b>420 Volts</b><br>470 Volts Surge | 6,800              | E37L421CPN682MFB7U  | 89 × 117                      | FB7            | 15                               | 19.8                                  | 23.8  | 27.8  |
|                                     | 10,000             | E37L421CPN103MFE3U  | 89 × 143                      | FE3            | 10                               | 25.7                                  | 30.9  | 36.0  |
|                                     | 10,000             | E37L421CPN103MFF5U  | 89 × 155                      | FF5            | 10                               | 26.5                                  | 31.8  | 37.1  |
|                                     | 12,000             | E37L421CPN123MFK0U  | 89 × 190                      | FK0            | 9                                | 31.3                                  | 37.6  | 43.9  |
|                                     | 15,000             | E37L421CPN153MFM9U  | 89 × 219                      | FM9            | 7                                | 37.0                                  | 44.5  | 51.9  |
| <b>450 Volts</b><br>500 Volts Surge | 2,200              | E37L451HPN222MCB7U  | 50 × 117                      | CB7            | 43                               | 8.6                                   | 10.3  | 12.1  |
|                                     | 2,200              | E37L451HPN222MCD0U  | 50 × 130                      | CD0            | 43                               | 8.9                                   | 10.7  | 12.5  |
|                                     | 2,200              | E37L451CPN222MD92U  | 63.5 × 92                     | D92            | 45                               | 8.7                                   | 10.5  | 12.2  |
|                                     | 2,200              | E37L451CPN222MDA5U  | 63.5 × 105                    | DA5            | 45                               | 9.1                                   | 11.0  | 12.8  |
|                                     | 2,700              | E37L451CPN272MDB7U  | 63.5 × 117                    | DB7            | 37                               | 10.5                                  | 12.6  | 14.7  |
|                                     | 3,300              | E37L451CPN332MDD0U  | 63.5 × 130                    | DD0            | 30                               | 12.1                                  | 14.5  | 16.9  |
|                                     | 3,900              | E37L451CPN392MDE3U  | 63.5 × 143                    | DE3            | 26                               | 13.6                                  | 16.3  | 19.0  |
|                                     | 3,300              | E37L451CPN332ME92U  | 76.2 × 92                     | E92            | 31                               | 11.6                                  | 14.0  | 16.3  |
|                                     | 3,900              | E37L451CPN392MEA5U  | 76.2 × 105                    | EA5            | 27                               | 13.2                                  | 15.8  | 18.5  |
|                                     | 4,700              | E37L451CPN472MEB7U  | 76.2 × 117                    | EB7            | 22                               | 15.1                                  | 18.1  | 21.1  |
|                                     | 5,600              | E37L451CPN562MEE3U  | 76.2 × 143                    | EE3            | 18                               | 17.6                                  | 21.2  | 24.7  |
|                                     | 6,800              | E37L451CPN682MEJ1U  | 76.2 × 181                    | EJ1            | 15                               | 21.2                                  | 25.5  | 29.7  |
|                                     | 10,000             | E37L451CPN103MEM9U  | 76.2 × 219                    | EM9            | 10                               | 27.8                                  | 33.3  | 38.9  |
|                                     | 4,700              | E37L451CPN472MF92U  | 89 × 92                       | F92            | 22                               | 15.2                                  | 18.3  | 21.3  |
|                                     | 5,600              | E37L451CPN562MFA5U  | 89 × 105                      | FA5            | 18                               | 17.3                                  | 20.8  | 24.2  |
|                                     | 5,600              | E37L451CPN562MFB7U  | 89 × 117                      | FB7            | 18                               | 18.0                                  | 21.6  | 25.2  |
|                                     | 8,200              | E37L451CPN822MFE3U  | 89 × 143                      | FE3            | 13                               | 23.3                                  | 28.0  | 32.6  |
|                                     | 8,200              | E37L451CPN822MFF5U  | 89 × 155                      | FF5            | 13                               | 24.0                                  | 28.8  | 33.6  |
| 12,000                              | E37L451CPN123MFK0U | 89 × 190            | FK0                           | 9              | 31.3                             | 37.6                                  | 43.9  |       |
| 12,000                              | E37L451CPN123MFM9U | 89 × 219            | FM9                           | 9              | 33.1                             | 39.8                                  | 46.4  |       |
| <b>500 Volts</b><br>550 Volts Surge | 1,500              | E37L501HPN152MCB7U  | 50 × 117                      | CB7            | 64                               | 7.1                                   | 8.5   | 10.0  |
|                                     | 1,500              | E37L501HPN152MCD0U  | 50 × 130                      | CD0            | 64                               | 7.4                                   | 8.9   | 10.3  |
|                                     | 1,800              | E37L501CPN182MD92U  | 63.5 × 92                     | D92            | 55                               | 7.9                                   | 9.5   | 11.1  |
|                                     | 2,200              | E37L501CPN222MDA5U  | 63.5 × 105                    | DA5            | 45                               | 9.1                                   | 11.0  | 12.8  |
|                                     | 2,200              | E37L501CPN222MDB7U  | 63.5 × 117                    | DB7            | 45                               | 9.5                                   | 11.4  | 13.3  |
|                                     | 2,700              | E37L501CPN272MDD0U  | 63.5 × 130                    | DD0            | 37                               | 10.9                                  | 13.1  | 15.3  |
|                                     | 2,700              | E37L501CPN272MDE3U  | 63.5 × 143                    | DE3            | 37                               | 11.3                                  | 13.6  | 15.8  |
|                                     | 2,700              | E37L501CPN272ME92U  | 76.2 × 92                     | E92            | 38                               | 10.5                                  | 12.6  | 14.7  |
|                                     | 3,300              | E37L501CPN332MEA5U  | 76.2 × 105                    | EA5            | 31                               | 12.1                                  | 14.6  | 17.0  |
|                                     | 3,300              | E37L501CPN332MEB7U  | 76.2 × 117                    | EB7            | 31                               | 12.6                                  | 15.2  | 17.7  |
|                                     | 4,700              | E37L501CPN472MEE3U  | 76.2 × 143                    | EE3            | 22                               | 16.2                                  | 19.4  | 22.6  |
|                                     | 5,600              | E37L501CPN562MEJ1U  | 76.2 × 181                    | EJ1            | 18                               | 19.3                                  | 23.1  | 27.0  |
|                                     | 8,200              | E37L501CPN822MEM9U  | 76.2 × 219                    | EM9            | 13                               | 25.2                                  | 30.2  | 35.2  |
|                                     | 3,900              | E37L501CPN392MF92U  | 89 × 92                       | F92            | 27                               | 13.9                                  | 16.6  | 19.4  |
|                                     | 3,900              | E37L501CPN392MFA5U  | 89 × 105                      | FA5            | 27                               | 14.5                                  | 17.3  | 20.2  |
|                                     | 4,700              | E37L501CPN472MFB7U  | 89 × 117                      | FB7            | 22                               | 16.5                                  | 19.8  | 23.1  |
|                                     | 6,800              | E37L501CPN682MFE3U  | 89 × 143                      | FE3            | 15                               | 21.2                                  | 25.5  | 29.7  |
|                                     | 6,800              | E37L501CPN682MFF5U  | 89 × 155                      | FF5            | 15                               | 21.9                                  | 26.2  | 30.6  |
| 8,200                               | E37L501CPN822MFK0U | 89 × 190            | FK0                           | 12             | 26.7                             | 32.0                                  | 37.4  |       |
| 10,000                              | E37L501CPN103MFM9U | 89 × 219            | FM9                           | 9              | 33.1                             | 39.8                                  | 46.4  |       |

† For terminal, mounting and construction options, refer to the part numbering system for descriptions and codes.

\* Refer to diagram of dimensions for detailed case size specifications.