

U36L Series



- Large Can
- Screw Terminals
- Longest Life U36 Grade
- High Ripple
- 350 to 500VDC Ratings
- RoHS Compliant
- +85°C Maximum Temperature



The U36L series is the longest life version of the industry standard U36D specifically designed to provide the ripple current capability and long life required for high reliability inverter applications. The U36L has an endurance rating of 10,000 hours at +85°C with the rated ripple current applied. These capacitors are available with a variety of high current English or Metric thread terminals. Mounting options include a three-footed clamp or a bottom stud. Custom designs are available upon request.

Summary of Specifications

- Screw terminals: high and low post, English and Metric thread.
- Capacitance range: 1,500 to 15,000µF.
- 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 = 79mm (3.125") to 220mm (8.625").
- Rated lifetime: 10,000 hours at +85°C with rated ripple current applied.

U36L
LARGE CAN 85°C

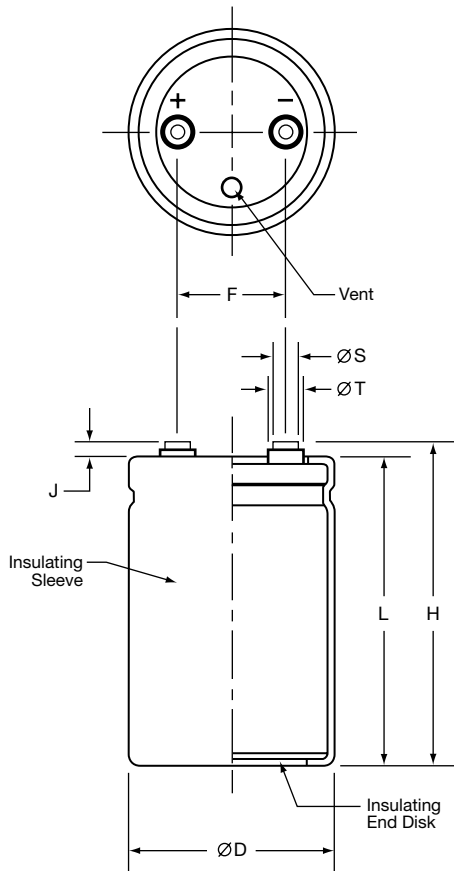
U36L Specifications - Screw Terminals

| Item | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---------------|---------------|-------------------|------|-------------------|------|-------|-----|-------|-----|----|-------------|------|-----|------|-----|----|-----------|------|-----|------|-----|----|-----------|------|-----|------|-----|----|--------------|------|-----|------|-----|----|--------------|------|-----|------|-----|----|---------|------|-----|------|-----|----|---------|------|-----|------|-----|
| Category Temperature Range | - 40 to +85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 350 to 500VDC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Range | 1,500 to 15,000µF 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. Where I = Max. leakage current (µA), C = Nominal capacitance (µF) and V = Rated voltage (V) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Ripple Current Multipliers | Ambient Temperature (°C) <table border="1"> <thead> <tr> <th>+45°C</th> <th>+65°C</th> <th>+85°C</th> </tr> </thead> <tbody> <tr> <td>2.82</td> <td>1.73</td> <td>1.00</td> </tr> </tbody> </table> | +45°C | +65°C | +85°C | 2.82 | 1.73 | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| +45°C | +65°C | +85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.82 | 1.73 | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance (Load Life) | 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. Capacitance change: ≤ 20% from initial measurement ESR change : ≤ 200% of initial specified limit Leakage current : ≤ initial specified limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life | 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. Capacitance change: ≤ 20% from initial measurement ESR change : ≤ 200% of initial specified limit Leakage current : ≤ initial specified limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration Rating | 10-55Hz, 10g sinusoidal in three axis, 2 hours per axis. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Tightening Torque | <table border="1"> <thead> <tr> <th rowspan="2">Terminal Code</th> <th rowspan="2">Thread Size</th> <th colspan="2">3 Threads Engaged</th> <th colspan="2">6 Threads Engaged</th> </tr> <tr> <th>in-lb</th> <th>N·m</th> <th>in-lb</th> <th>N·m</th> </tr> </thead> <tbody> <tr> <td>HP</td> <td>10-32 NF-2B</td> <td>18.0</td> <td>2.0</td> <td>25.0</td> <td>2.8</td> </tr> <tr> <td>HL</td> <td>M5x0.8-6H</td> <td>18.0</td> <td>2.0</td> <td>25.0</td> <td>2.8</td> </tr> <tr> <td>CD</td> <td>M5x0.8-6H</td> <td>18.0</td> <td>2.0</td> <td>25.0</td> <td>2.8</td> </tr> <tr> <td>CP</td> <td>1/4-28 NF-2B</td> <td>35.0</td> <td>4.0</td> <td>55.0</td> <td>6.2</td> </tr> <tr> <td>CH</td> <td>1/4-28 NF-2B</td> <td>35.0</td> <td>4.0</td> <td>55.0</td> <td>6.2</td> </tr> <tr> <td>CA</td> <td>M6x1-6H</td> <td>35.0</td> <td>4.0</td> <td>55.0</td> <td>6.2</td> </tr> <tr> <td>CS</td> <td>M6x1-6H</td> <td>35.0</td> <td>4.0</td> <td>55.0</td> <td>6.2</td> </tr> </tbody> </table> | Terminal Code | Thread Size | 3 Threads Engaged | | 6 Threads Engaged | | in-lb | N·m | in-lb | N·m | HP | 10-32 NF-2B | 18.0 | 2.0 | 25.0 | 2.8 | HL | M5x0.8-6H | 18.0 | 2.0 | 25.0 | 2.8 | CD | M5x0.8-6H | 18.0 | 2.0 | 25.0 | 2.8 | CP | 1/4-28 NF-2B | 35.0 | 4.0 | 55.0 | 6.2 | CH | 1/4-28 NF-2B | 35.0 | 4.0 | 55.0 | 6.2 | CA | M6x1-6H | 35.0 | 4.0 | 55.0 | 6.2 | CS | M6x1-6H | 35.0 | 4.0 | 55.0 | 6.2 |
| Terminal Code | Thread Size | | | 3 Threads Engaged | | 6 Threads Engaged | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | in-lb | N·m | in-lb | N·m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HP | 10-32 NF-2B | 18.0 | 2.0 | 25.0 | 2.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HL | M5x0.8-6H | 18.0 | 2.0 | 25.0 | 2.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CD | M5x0.8-6H | 18.0 | 2.0 | 25.0 | 2.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | 1/4-28 NF-2B | 35.0 | 4.0 | 55.0 | 6.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CH | 1/4-28 NF-2B | 35.0 | 4.0 | 55.0 | 6.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CA | M6x1-6H | 35.0 | 4.0 | 55.0 | 6.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CS | M6x1-6H | 35.0 | 4.0 | 55.0 | 6.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typical Inductance (nH) at 1MHz | <table border="1"> <thead> <tr> <th rowspan="2">Terminal Code</th> <th colspan="4">Case Diameter</th> </tr> <tr> <th>Ø50</th> <th>Ø63.5</th> <th>Ø76</th> <th>Ø89</th> </tr> </thead> <tbody> <tr> <td>HP</td> <td>20</td> <td>22</td> <td>25</td> <td>NA</td> </tr> <tr> <td>HL</td> <td>20</td> <td>22</td> <td>25</td> <td>NA</td> </tr> <tr> <td>CD</td> <td>NA</td> <td>18</td> <td>22</td> <td>NA</td> </tr> <tr> <td>CP</td> <td>NA</td> <td>14</td> <td>18</td> <td>18</td> </tr> <tr> <td>CH</td> <td>NA</td> <td>16</td> <td>20</td> <td>20</td> </tr> <tr> <td>CA</td> <td>NA</td> <td>14</td> <td>18</td> <td>18</td> </tr> <tr> <td>CS</td> <td>NA</td> <td>16</td> <td>20</td> <td>20</td> </tr> </tbody> </table> | Terminal Code | Case Diameter | | | | Ø50 | Ø63.5 | Ø76 | Ø89 | HP | 20 | 22 | 25 | NA | HL | 20 | 22 | 25 | NA | CD | NA | 18 | 22 | NA | CP | NA | 14 | 18 | 18 | CH | NA | 16 | 20 | 20 | CA | NA | 14 | 18 | 18 | CS | NA | 16 | 20 | 20 | | | | | | | | |
| Terminal Code | Case Diameter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ø50 | Ø63.5 | Ø76 | Ø89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HP | 20 | 22 | 25 | NA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HL | 20 | 22 | 25 | NA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CD | NA | 18 | 22 | NA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | NA | 14 | 18 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CH | NA | 16 | 20 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CA | NA | 14 | 18 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CS | NA | 16 | 20 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Custom Designs | Custom CV values per case size and termination type may be available upon request. Contact appropriate representative with specific requirements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Diagram of Dimensions - Screw Terminals

Large Can/Screw Terminals

Unit: mm (inches)



Case Dimensions

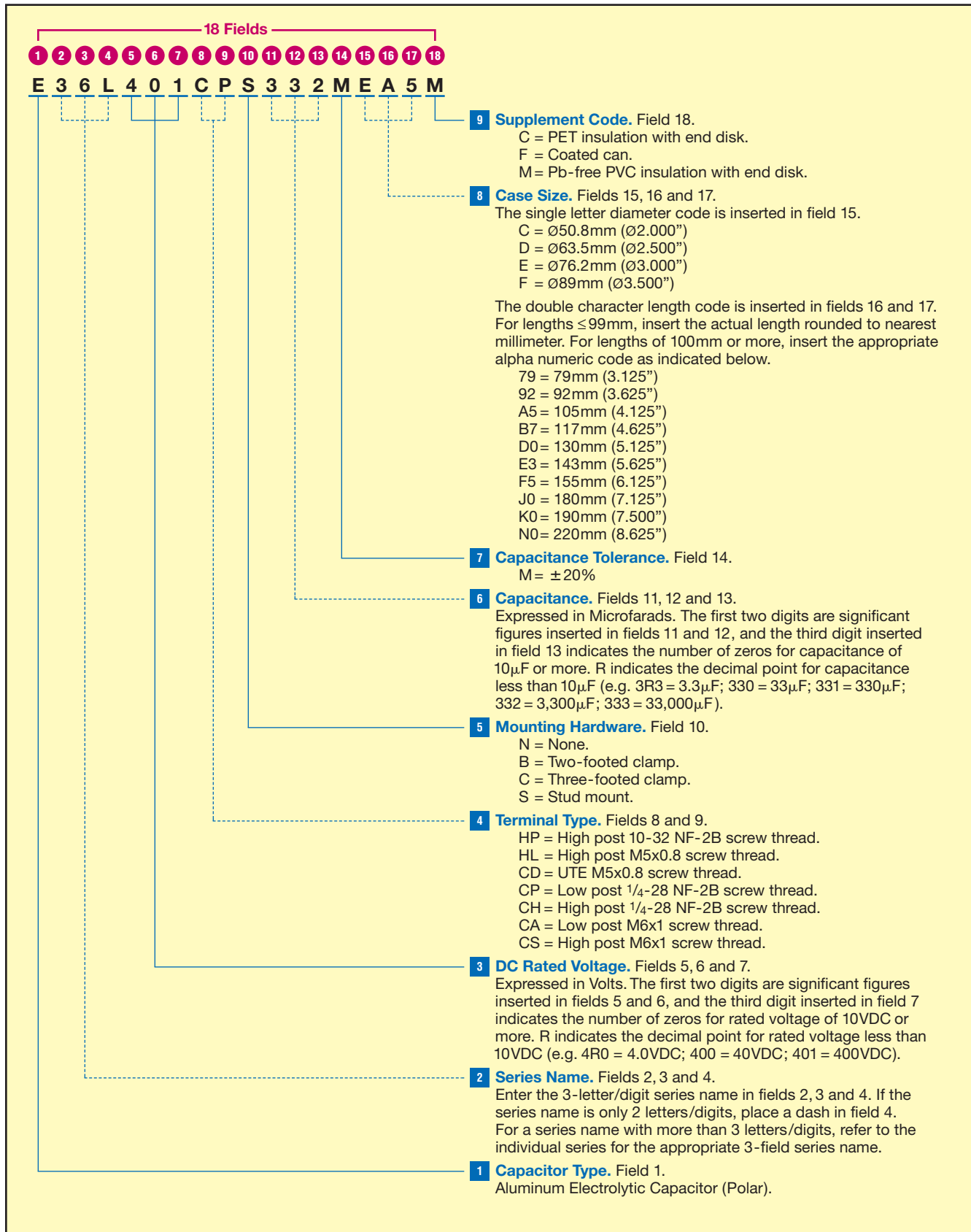
| Case Size Code | ØD +2.0 (0.080) | L ±1.0 (0.040) | F ±0.25 (0.010) |
|--|--------------------|---|--------------------|
| CA5 CB7 CD0 CE3 | 50.8 (2.000) | 105 (4.125) 117 (4.625) 130 (5.125) 143 (5.625) | 22.2 (0.875) |
| D92 DA5 DB7 DD0 DE3 DN0 | 63.5 (2.500) | 92 (3.625) 105 (4.125) 117 (4.625) 130 (5.125) 143 (5.625) 220 (8.625) | 28.6 (1.125) |
| E79 E92 EA5 EB7 ED0 EE3 EJ0 EN0 | 76.2 (3.000) | 79 (3.125) 92 (3.625) 105 (4.125) 117 (4.625) 130 (5.125) 143 (5.625) 180 (7.125) 220 (8.625) | 31.8 (1.250) |
| F92 FA5 FB7 FD0 FE3 FF5 FK0 FN0 | 89.0 (3.500) | 92 (3.625) 105 (4.125) 117 (4.625) 130 (5.125) 143 (5.625) 155 (6.125) 190 (7.500) 220 (8.625) | 31.8 (1.250) |

Terminal Specifications

| Terminal Code | Available Case Diameter | | Thread Size | Minimum Thread Depth | J ±0.5 (0.020) | H ±2.0 (0.080) | ØS ±0.25 (0.010) | ØT ±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) | — |

Part Numbering System for U36L Series

When ordering, always specify complete 18-field global part number.



Standard Voltage Ratings - Screw Terminals

| Rated Voltage (VWDC) | 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 |

| | | | | | | | | |
|--------------------------------------|--------------------|--------------------|------------|-----|------|------|------|------|
| 350 Volts 400 Volts Surge | 2,200 | E36L351HPN222MCA5M | 50 × 105 | CA5 | 45 | 8.8 | 10.6 | 12.3 |
| | 2,700 | E36L351HPN272MCB7M | 50 × 117 | CB7 | 37 | 9.6 | 11.5 | 13.4 |
| | 3,300 | E36L351HPN332MCE3M | 50 × 143 | CE3 | 30 | 11.6 | 13.9 | 16.2 |
| | 2,200 | E36L351CPN222MD92M | 63.5 × 92 | D92 | 45 | 8.8 | 10.6 | 12.3 |
| | 2,200 | E36L351CPN222MDA5M | 63.5 × 105 | DA5 | 39 | 10.0 | 13.0 | 15.1 |
| | 2,700 | E36L351CPN272MDA5M | 63.5 × 105 | DA5 | 37 | 9.6 | 11.5 | 13.4 |
| | 2,700 | E36L351CPN272MDD0M | 63.5 × 130 | DD0 | 32 | 11.8 | 15.4 | 17.7 |
| | 3,300 | E36L351CPN332MDB7M | 63.5 × 117 | DB7 | 30 | 11.6 | 13.9 | 16.2 |
| | 3,300 | E36L351CPN332MDE3M | 63.5 × 143 | DE3 | 26 | 13.8 | 17.9 | 20.7 |
| | 3,900 | E36L351CPN392MDD0M | 63.5 × 130 | DD0 | 26 | 13.0 | 16.4 | 19.1 |
| | 4,700 | E36L351CPN472MDE3M | 63.5 × 143 | DE3 | 21 | 15.1 | 18.1 | 21.2 |
| | 5,600 | E36L351CPN562MDN0M | 63.5 × 220 | DN0 | 15 | 21.5 | 28.0 | 32.3 |
| | 6,800 | E36L351CPN682MDN0M | 63.5 × 220 | DN0 | 15 | 20.8 | 24.9 | 29.1 |
| | 2,200 | E36L351CPN222ME79M | 76 × 79 | E79 | 39 | 10.0 | 13.0 | 15.1 |
| | 2,700 | E36L351CPN272ME92M | 76 × 92 | E92 | 32 | 11.8 | 15.4 | 17.7 |
| | 3,300 | E36L351CPN332MEA5M | 76 × 105 | EA5 | 26 | 13.8 | 17.9 | 20.7 |
| | 3,900 | E36L351CPN392ME92M | 76 × 92 | E92 | 26 | 13.0 | 16.4 | 19.1 |
| | 3,900 | E36L351CPN392MEB7M | 76 × 117 | EB7 | 22 | 15.6 | 20.2 | 23.3 |
| | 4,700 | E36L351CPN472MEA5M | 76 × 105 | EA5 | 21 | 15.1 | 18.1 | 21.2 |
| | 4,700 | E36L351CPN472MEE3M | 76 × 143 | EE3 | 18 | 18.0 | 23.4 | 27.0 |
| | 5,600 | E36L351CPN562MEB7M | 76 × 117 | EB7 | 18 | 17.3 | 20.8 | 24.3 |
| | 6,800 | E36L351CPN682MEE3M | 76 × 143 | EE3 | 15 | 20.8 | 24.9 | 29.1 |
| | 6,800 | E36L351CPN682MEJ0M | 76 × 180 | EJ0 | 13 | 24.7 | 32.1 | 37.0 |
| | 8,200 | E36L351CPN822MEJ0M | 76 × 180 | EJ0 | 12 | 23.9 | 28.7 | 33.5 |
| | 8,200 | E36L351CPN822MEN0M | 76 × 220 | EN0 | 11 | 28.1 | 36.6 | 42.2 |
| | 10,000 | E36L351CPN103MEN0M | 76 × 220 | EN0 | 10 | 28.5 | 34.2 | 39.9 |
| | 3,900 | E36L351CPN392MF92M | 89 × 92 | F92 | 22 | 15.6 | 20.2 | 23.3 |
| | 4,700 | E36L351CPN472MFA5M | 89 × 105 | FA5 | 18 | 18.0 | 23.4 | 27.0 |
| | 5,600 | E36L351CPN562MFA5M | 89 × 105 | FA5 | 18 | 17.3 | 20.8 | 24.3 |
| | 5,600 | E36L351CPN562MFD0M | 89 × 130 | FD0 | 15 | 21.5 | 28.0 | 32.3 |
| | 6,800 | E36L351CPN682MFE3M | 89 × 143 | FE3 | 13 | 24.7 | 32.1 | 37.0 |
| | 8,200 | E36L351CPN822MFD0M | 89 × 130 | FD0 | 12 | 23.9 | 28.7 | 33.5 |
| 8,200 | E36L351CPN822MFF5M | 89 × 155 | FF5 | 11 | 28.1 | 36.6 | 42.2 | |
| 10,000 | E36L351CPN103MFF5M | 89 × 155 | FF5 | 10 | 28.5 | 34.2 | 39.9 | |
| 10,000 | E36L351CPN103MFK0M | 89 × 190 | FK0 | 9 | 34.0 | 44.2 | 51.0 | |
| 12,000 | E36L351CPN123MFK0M | 89 × 190 | FK0 | 8 | 34.2 | 41.0 | 47.9 | |
| 15,000 | E36L351CPN153MFN0M | 89 × 220 | FN0 | 7 | 40.7 | 48.9 | 57.0 | |

| | | | | | | | | |
|--------------------------------------|-------|--------------------|------------|-----|----|------|------|------|
| 400 Volts 450 Volts Surge | 1,800 | E36L401HPN182MCA5M | 50 × 105 | CA5 | 56 | 7.4 | 8.9 | 10.4 |
| | 1,800 | E36L401HPN182MCE3M | 50 × 143 | CE3 | 48 | 8.9 | 10.7 | 12.5 |
| | 2,200 | E36L401HPN222MCD0M | 50 × 130 | CD0 | 39 | 10.7 | 12.8 | 14.9 |
| | 1,800 | E36L401CPN182MD92M | 63.5 × 92 | D92 | 56 | 7.4 | 8.9 | 10.4 |
| | 1,800 | E36L401CPN182MDB7M | 63.5 × 117 | DB7 | 48 | 8.9 | 10.7 | 12.5 |
| | 2,200 | E36L401CPN222MDA5M | 63.5 × 105 | DA5 | 45 | 9.1 | 10.3 | 12.7 |
| | 2,200 | E36L401CPN222MDD0M | 63.5 × 130 | DD0 | 39 | 10.7 | 12.8 | 14.9 |
| | 2,700 | E36L401CPN272MDB7M | 63.5 × 117 | DB7 | 37 | 10.9 | 13.0 | 15.2 |
| | 2,700 | E36L401CPN272MDE3M | 63.5 × 143 | DE3 | 32 | 12.5 | 15.0 | 17.5 |
| | 3,300 | E36L401CPN332MDD0M | 63.5 × 130 | DD0 | 30 | 12.6 | 15.1 | 17.6 |
| | 2,200 | E36L401CPN222ME92M | 76 × 92 | E92 | 39 | 10.7 | 12.8 | 14.9 |
| | 2,700 | E36L401CPN272ME92M | 76 × 92 | E92 | 37 | 10.9 | 13.0 | 15.2 |
| | 2,700 | E36L401CPN272MEA5M | 76 × 105 | EA5 | 32 | 12.5 | 15.0 | 17.5 |
| | 3,300 | E36L401CPN332MEA5M | 76 × 105 | EA5 | 30 | 12.6 | 15.1 | 17.6 |
| | 3,300 | E36L401CPN332MEB7M | 76 × 117 | EB7 | 26 | 14.5 | 17.4 | 20.3 |
| | 3,900 | E36L401CPN392MEB7M | 76 × 117 | EB7 | 26 | 14.3 | 17.1 | 20.0 |
| | 3,900 | E36L401CPN392MED0M | 76 × 130 | ED0 | 22 | 16.4 | 19.7 | 23.0 |
| | 4,700 | E36L401CPN472MED0M | 76 × 130 | ED0 | 21 | 16.5 | 19.8 | 23.1 |
| | 4,700 | E36L401CPN472MEE3M | 76 × 143 | EE3 | 18 | 18.8 | 22.6 | 26.3 |
| | 5,600 | E36L401CPN562MEE3M | 76 × 143 | EE3 | 18 | 18.9 | 22.6 | 26.4 |
| | 5,600 | E36L401CPN562MEJ0M | 76 × 180 | EJ0 | 15 | 22.8 | 27.4 | 32.0 |

† 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.

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 |

| | | | | | | | | |
|--------------------------------------|--------------------|--------------------|----------|-----|------|------|------|------|
| 400 Volts 450 Volts Surge | 6,800 | E36L401CPN682MEJ0M | 76 × 180 | EJ0 | 15 | 21.8 | 26.1 | 30.5 |
| | 6,800 | E36L401CPN682MEN0M | 76 × 220 | EN0 | 13 | 24.7 | 29.6 | 34.6 |
| | 8,200 | E36L401CPN822MEN0M | 76 × 220 | EN0 | 12 | 24.9 | 29.9 | 34.9 |
| | 3,300 | E36L401CPN332MF92M | 89 × 92 | F92 | 26 | 14.5 | 17.4 | 20.3 |
| | 3,900 | E36L401CPN392MF92M | 89 × 92 | F92 | 26 | 14.3 | 17.1 | 20.0 |
| | 3,900 | E36L401CPN392MFA5M | 89 × 105 | FA5 | 22 | 16.4 | 19.7 | 23.0 |
| | 4,700 | E36L401CPN472MFA5M | 89 × 105 | FA5 | 21 | 16.5 | 19.8 | 23.1 |
| | 4,700 | E36L401CPN472MFD0M | 89 × 130 | FD0 | 18 | 18.8 | 22.6 | 26.3 |
| | 5,600 | E36L401CPN562MFB7M | 89 × 117 | FB7 | 18 | 18.9 | 22.6 | 26.4 |
| | 6,800 | E36L401CPN682MFD0M | 89 × 130 | FD0 | 15 | 21.8 | 26.1 | 30.5 |
| | 6,800 | E36L401CPN682MFE3M | 89 × 143 | FE3 | 13 | 24.7 | 29.6 | 34.6 |
| | 8,200 | E36L401CPN822MFE3M | 89 × 143 | FE3 | 12 | 24.9 | 29.9 | 34.9 |
| | 8,200 | E36L401CPN822MFK0M | 89 × 190 | FK0 | 11 | 30.8 | 36.9 | 43.1 |
| | 10,000 | E36L401CPN103MFK0M | 89 × 190 | FK0 | 10 | 31.2 | 37.5 | 43.7 |
| 10,000 | E36L401CPN103MFN0M | 89 × 220 | FN0 | 9 | 36.2 | 43.4 | 50.7 | |
| 12,000 | E36L401CPN123MFN0M | 89 × 220 | FN0 | 8 | 36.4 | 43.7 | 51.0 | |

| | | | | | | | | |
|--------------------------------------|--------------------|--------------------|------------|-----|------|------|------|------|
| 420 Volts 470 Volts Surge | 1,800 | E36L421HPN182MCB7M | 50 × 117 | CB7 | 74 | 7.7 | 9.3 | 10.8 |
| | 1,800 | E36L421HPN182MCE3M | 50 × 143 | CE3 | 63 | 9.2 | 11.0 | 12.8 |
| | 2,200 | E36L421HPN222MCE3M | 50 × 143 | CE3 | 61 | 9.2 | 11.0 | 12.8 |
| | 1,800 | E36L421CPN182MDA5M | 63.5 × 105 | DA5 | 74 | 7.7 | 9.3 | 10.8 |
| | 2,200 | E36L421CPN222MDA5M | 63.5 × 105 | DA5 | 61 | 9.2 | 11.0 | 12.8 |
| | 2,200 | E36L421CPN222MDE3M | 63.5 × 143 | DE3 | 52 | 11.1 | 13.3 | 15.5 |
| | 2,700 | E36L421CPN272MD0M | 63.5 × 130 | DD0 | 49 | 10.7 | 12.8 | 15.0 |
| | 3,300 | E36L421CPN332MDE3M | 63.5 × 143 | DE3 | 40 | 12.5 | 15.0 | 17.5 |
| | 5,600 | E36L421CPN562MDN0M | 63.5 × 220 | DN0 | 24 | 19.5 | 23.4 | 27.3 |
| | 1,800 | E36L421CPN182ME92M | 76 × 92 | E92 | 63 | 9.2 | 11.0 | 12.8 |
| | 2,200 | E36L421CPN222MEA5M | 76 × 105 | EA5 | 52 | 11.1 | 13.3 | 15.5 |
| | 2,700 | E36L421CPN272ME92M | 76 × 92 | E92 | 49 | 10.7 | 12.8 | 15.0 |
| | 2,700 | E36L421CPN272MEB7M | 76 × 117 | EB7 | 42 | 12.7 | 15.3 | 17.8 |
| | 3,300 | E36L421CPN332MEA5M | 76 × 105 | EA5 | 40 | 12.5 | 15.0 | 17.5 |
| | 3,300 | E36L421CPN332MED0M | 76 × 130 | ED0 | 34 | 14.8 | 17.8 | 20.7 |
| | 3,900 | E36L421CPN392MEB7M | 76 × 117 | EB7 | 34 | 14.1 | 16.9 | 19.7 |
| | 3,900 | E36L421CPN392MEE3M | 76 × 143 | EE3 | 29 | 16.8 | 20.2 | 23.6 |
| | 4,700 | E36L421CPN472MEE3M | 76 × 143 | EE3 | 28 | 16.3 | 19.5 | 22.8 |
| | 4,700 | E36L421CPN472MEJ0M | 76 × 180 | EJ0 | 24 | 20.2 | 24.2 | 28.2 |
| | 5,600 | E36L421CPN562MEN0M | 76 × 220 | EN0 | 20 | 22.8 | 27.4 | 32.0 |
| | 6,800 | E36L421CPN682MEJ0M | 76 × 180 | EJ0 | 20 | 22.3 | 26.8 | 31.3 |
| | 8,200 | E36L421CPN822MEN0M | 76 × 220 | EN0 | 16 | 25.4 | 30.5 | 35.6 |
| | 2,700 | E36L421CPN272MF92M | 89 × 92 | F92 | 42 | 12.7 | 15.3 | 17.8 |
| | 3,300 | E36L421CPN332MFA5M | 89 × 105 | FA5 | 34 | 14.8 | 17.8 | 20.7 |
| | 3,900 | E36L421CPN392MF92M | 89 × 92 | F92 | 34 | 14.1 | 16.9 | 19.7 |
| | 3,900 | E36L421CPN392MFB7M | 89 × 117 | FB7 | 29 | 16.8 | 20.2 | 23.6 |
| | 4,700 | E36L421CPN472MFA5M | 89 × 105 | FA5 | 28 | 16.3 | 19.5 | 22.8 |
| | 4,700 | E36L421CPN472MFE3M | 89 × 143 | FE3 | 24 | 20.2 | 24.2 | 28.2 |
| | 5,600 | E36L421CPN562MFD0M | 89 × 130 | FD0 | 24 | 19.5 | 23.4 | 27.3 |
| | 5,600 | E36L421CPN562MFF5M | 89 × 155 | FF5 | 20 | 22.8 | 27.4 | 32.0 |
| | 6,800 | E36L421CPN682MFE3M | 89 × 143 | FE3 | 20 | 22.3 | 26.8 | 31.3 |
| | 6,800 | E36L421CPN682MFK0M | 89 × 190 | FK0 | 17 | 27.5 | 33.0 | 38.5 |
| | 8,200 | E36L421CPN822MFF5M | 89 × 155 | FF5 | 16 | 25.4 | 30.5 | 35.6 |
| | 8,200 | E36L421CPN822MFN0M | 89 × 220 | FN0 | 14 | 32.2 | 38.6 | 45.1 |
| 10,000 | E36L421CPN103MFK0M | 89 × 190 | FK0 | 13 | 30.7 | 36.9 | 43.0 | |
| 12,000 | E36L421CPN123MFN0M | 89 × 220 | FN0 | 11 | 35.9 | 43.0 | 50.2 | |

| | | | | | | | | |
|--------------------------------------|-------|--------------------|------------|-----|----|-----|------|------|
| 450 Volts 500 Volts Surge | 1,500 | E36L451HPN152MCB7M | 50 × 117 | CB7 | 89 | 7.0 | 8.4 | 9.9 |
| | 1,500 | E36L451HPN152MCE3M | 50 × 143 | CE3 | 76 | 8.4 | 10.0 | 11.7 |
| | 1,800 | E36L451HPN182MCD0M | 50 × 130 | CD0 | 74 | 8.1 | 9.7 | 11.3 |
| | 1,500 | E36L451CPN152MD92M | 63.5 × 92 | D92 | 89 | 7.0 | 8.4 | 9.9 |
| | 1,500 | E36L451CPN152MDB7M | 63.5 × 117 | DB7 | 76 | 8.4 | 10.0 | 11.7 |

† 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.

Standard Voltage Ratings - Screw Terminals

| Rated Voltage (VWDC) | 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 |
| 450 Volts 500 Volts Surge | 1,800 | E36L451CPN182MDA5M | 63.5 × 105 | DA5 | 74 | 8.1 | 9.7 | 11.3 |
| | 1,800 | E36L451CPN182MD0M | 63.5 × 130 | DD0 | 63 | 9.5 | 11.4 | 13.3 |
| | 2,200 | E36L451CPN222MDB7M | 63.5 × 117 | DB7 | 61 | 9.6 | 11.6 | 13.5 |
| | 2,200 | E36L451CPN222MDE3M | 63.5 × 143 | DE3 | 52 | 11.1 | 13.3 | 15.5 |
| | 2,700 | E36L451CPN272MDE3M | 63.5 × 143 | DE3 | 49 | 11.3 | 13.5 | 15.8 |
| | 1,800 | E36L451CPN182ME92M | 76 × 92 | E92 | 63 | 9.5 | 11.4 | 13.3 |
| | 2,200 | E36L451CPN222ME92M | 76 × 92 | E92 | 61 | 9.6 | 11.6 | 13.5 |
| | 2,200 | E36L451CPN222MEA5M | 76 × 105 | EA5 | 52 | 11.1 | 13.3 | 15.5 |
| | 2,700 | E36L451CPN272MEA5M | 76 × 105 | EA5 | 49 | 11.3 | 13.5 | 15.8 |
| | 2,700 | E36L451CPN272MED0M | 76 × 130 | ED0 | 42 | 13.4 | 16.1 | 18.8 |
| | 3,300 | E36L451CPN332MEB7M | 76 × 117 | EB7 | 40 | 13.1 | 15.7 | 18.3 |
| | 3,300 | E36L451CPN332MEE3M | 76 × 143 | EE3 | 34 | 15.5 | 18.6 | 21.7 |
| | 3,900 | E36L451CPN392MED0M | 76 × 130 | ED0 | 34 | 14.8 | 17.8 | 20.8 |
| | 3,900 | E36L451CPN392MEJ0M | 76 × 180 | EJ0 | 29 | 17.6 | 21.2 | 24.7 |
| | 4,700 | E36L451CPN472MEE3M | 76 × 143 | EE3 | 28 | 17.0 | 20.4 | 23.8 |
| | 4,700 | E36L451CPN472MEN0M | 76 × 220 | EN0 | 24 | 20.9 | 25.1 | 29.3 |
| | 5,600 | E36L451CPN562MEJ0M | 76 × 180 | EJ0 | 24 | 19.5 | 23.4 | 27.3 |
| | 6,800 | E36L451CPN682MEN0M | 76 × 220 | EN0 | 20 | 23.2 | 27.8 | 32.4 |
| | 2,700 | E36L451CPN272MFA5M | 89 × 105 | FA5 | 42 | 13.4 | 16.1 | 18.8 |
| | 3,300 | E36L451CPN332MF92M | 89 × 92 | F92 | 40 | 13.1 | 15.7 | 18.3 |
| | 3,300 | E36L451CPN332MFB7M | 89 × 117 | FB7 | 34 | 15.5 | 18.6 | 21.7 |
| | 3,900 | E36L451CPN392MFA5M | 89 × 105 | FA5 | 34 | 14.8 | 17.8 | 20.8 |
| | 3,900 | E36L451CPN392MFD0M | 89 × 130 | FD0 | 29 | 17.6 | 21.2 | 24.7 |
| | 4,700 | E36L451CPN472MFB7M | 89 × 117 | FB7 | 28 | 17.0 | 20.4 | 23.8 |
| | 4,700 | E36L451CPN472MFF5M | 89 × 155 | FF5 | 24 | 20.9 | 25.1 | 29.3 |
| | 5,600 | E36L451CPN562MFD0M | 89 × 130 | FD0 | 24 | 19.5 | 23.4 | 27.3 |
| | 5,600 | E36L451CPN562MFK0M | 89 × 190 | FK0 | 20 | 25.0 | 30.0 | 35.0 |
| | 6,800 | E36L451CPN682MFF5M | 89 × 155 | FF5 | 20 | 23.2 | 27.8 | 32.4 |
| | 6,800 | E36L451CPN682MFN0M | 89 × 220 | FN0 | 17 | 29.3 | 35.2 | 41.0 |
| | 8,200 | E36L451CPN822MFK0M | 89 × 190 | FK0 | 16 | 27.8 | 33.4 | 39.0 |
| | 10,000 | E36L451CPN103MFN0M | 89 × 220 | FN0 | 13 | 32.7 | 39.3 | 45.8 |
| | 500 Volts 550 Volts Surge | 1,500 | E36L501HPN152MCE3M | 50 × 143 | CE3 | 107 | 6.7 | 8.0 |
| 1,500 | | E36L501CPN152MD92M | 63.5 × 92 | D92 | 107 | 6.7 | 8.0 | 9.4 |
| 1,500 | | E36L501CPN152MDB7M | 63.5 × 117 | DB7 | 93 | 8.0 | 9.6 | 11.2 |
| 1,800 | | E36L501CPN182MDA5M | 63.5 × 105 | DA5 | 89 | 7.7 | 9.2 | 10.7 |
| 1,800 | | E36L501CPN182MDE3M | 63.5 × 143 | DE3 | 78 | 9.2 | 11.1 | 12.9 |
| 2,200 | | E36L501CPN222MDB7M | 63.5 × 117 | DB7 | 63 | 9.0 | 10.8 | 12.6 |
| 2,700 | | E36L501CPN272MDE3M | 63.5 × 143 | DE3 | 59 | 10.5 | 12.6 | 14.7 |
| 1,500 | | E36L501CPN152ME92M | 76 × 92 | E92 | 93 | 8.0 | 9.6 | 11.2 |
| 1,800 | | E36L501CPN182ME79M | 76 × 79 | E79 | 89 | 7.7 | 9.2 | 10.7 |
| 1,800 | | E36L501CPN182MEA5M | 76 × 105 | EA5 | 78 | 9.2 | 11.1 | 12.9 |
| 2,200 | | E36L501CPN222ME92M | 76 × 92 | E92 | 63 | 9.0 | 10.8 | 12.6 |
| 2,200 | | E36L501CPN222MEB7M | 76 × 117 | EB7 | 74 | 10.7 | 12.8 | 15.0 |
| 2,700 | | E36L501CPN272MEA5M | 76 × 105 | EA5 | 59 | 10.5 | 12.6 | 14.7 |
| 2,700 | | E36L501CPN272MEE3M | 76 × 143 | EE3 | 52 | 12.3 | 14.8 | 17.3 |
| 3,300 | | E36L501CPN332MEB7M | 76 × 117 | EB7 | 48 | 12.2 | 14.6 | 17.1 |
| 3,300 | | E36L501CPN332MEJ0M | 76 × 180 | EJ0 | 42 | 14.9 | 17.9 | 20.9 |
| 3,900 | | E36L501CPN392MEE3M | 76 × 143 | EE3 | 41 | 13.8 | 16.6 | 19.3 |
| 4,700 | | E36L501CPN472MEJ0M | 76 × 180 | EJ0 | 34 | 16.6 | 19.9 | 23.3 |
| 4,700 | | E36L501CPN472MEN0M | 76 × 220 | EN0 | 30 | 20.6 | 24.8 | 28.9 |
| 6,800 | | E36L501CPN682MEN0M | 76 × 220 | EN0 | 24 | 21.6 | 25.9 | 30.2 |
| 2,200 | | E36L501CPN222MF92M | 89 × 92 | F92 | 74 | 10.7 | 12.8 | 15.0 |
| 2,700 | | E36L501CPN272MFA5M | 89 × 105 | FA5 | 52 | 12.3 | 14.8 | 17.3 |
| 3,300 | | E36L501CPN332MF92M | 89 × 92 | F92 | 48 | 12.2 | 14.6 | 17.1 |
| 3,300 | | E36L501CPN332MFD0M | 89 × 130 | FD0 | 42 | 14.9 | 17.9 | 20.9 |
| 3,900 | | E36L501CPN392MFA5M | 89 × 105 | FA5 | 41 | 13.8 | 16.6 | 19.3 |
| 3,900 | | E36L501CPN392MFF5M | 89 × 155 | FF5 | 36 | 17.5 | 21.1 | 24.6 |
| 4,700 | | E36L501CPN472MFD0M | 89 × 130 | FD0 | 34 | 16.6 | 19.9 | 23.3 |

† 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.

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 |
| 500 Volts 550 Volts Surge | 5,600 | E36L501CPN562MFE3M | 89 × 143 | FE3 | 29 | 18.9 | 22.7 | 26.4 |
| | 5,600 | E36L501CPN562MFK0M | 89 × 190 | FK0 | 25 | 23.0 | 27.6 | 32.2 |
| | 6,800 | E36L501CPN682MFF5M | 89 × 155 | FF5 | 24 | 21.6 | 25.9 | 30.2 |
| | 6,800 | E36L501CPN682MFN0M | 89 × 220 | FN0 | 21 | 27.0 | 32.4 | 37.8 |
| | 8,200 | E36L501CPN822MFK0M | 89 × 190 | FK0 | 20 | 25.9 | 31.1 | 36.3 |
| | 10,000 | E36L501CPN103MFN0M | 89 × 220 | FN0 | 16 | 30.5 | 36.6 | 42.7 |

†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.