

UPS

Miniature Sized, Low Impedance,
For Switching Power Supplies



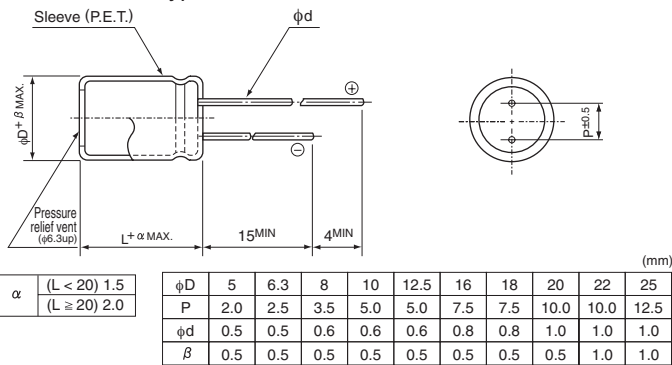
- Wide temperature range type, miniature sized.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



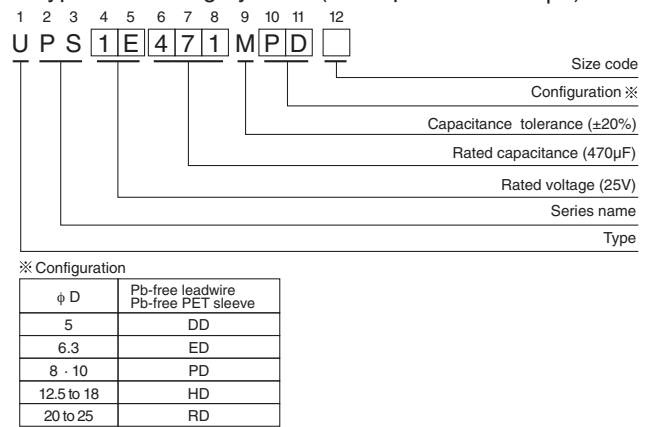
Specifications

| Item | Performance Characteristics | | | | | | | | | | | | |
|-------------------------------|--|---|------------|----|----|----|----|----|-----|------------|-----------|-----------|---|
| Category Temperature Range | -55 to +105°C (6.3 to 100V), -40 to +105°C (160 to 400V), -25 to +105°C (450V) | | | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 450V | | | | | | | | | | | | |
| Rated Capacitance Range | 0.47 to 15000μF | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | | | | | | |
| Leakage Current | Rated voltage (V) | 6.3 to 100 | 160 to 450 | | | | | | | | | | |
| | Leakage current | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater. CV ≤ 1000: I= 0.1CV+40 (μA) or less. CV > 1000: I= 0.04CV+100 (μA) or less. | | | | | | | | | | | |
| Tangent of loss angle (tan δ) | For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF | | | | | | | | | | | | |
| | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 to 250 | 315 - 350 | 400 - 450 | |
| Stability at Low Temperature | Impedance ratio (MAX.) | Measurement frequency : 120Hz | | | | | | | | | | | |
| | | Rated voltage (V) | | | | | | | | | | | |
| | | Z-25°C / Z+20°C | — | — | — | 2 | 3 | 3 | 4 | 6 | 15 | — | — |
| | | Z-40°C / Z+20°C | — | — | — | 3 | 4 | 6 | 8 | 10 | — | — | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 3000 hours (2000 hours for φD= 5 to 10) at 105°C, the peak voltage shall not exceed the rated voltage. | | | | | | | | | | | | |
| | Capacitance change | Within ±20% of the initial capacitance value | | | | | | | | | | | |
| | tan δ | 200% or less than the initial specified value | | | | | | | | | | | |
| Shelf Life | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above. | | | | | | | | | | | | |
| | Leakage current | Less than or equal to the initial specified value | | | | | | | | | | | |
| Marking | Printed with white color letter on dark brown sleeve. | | | | | | | | | | | | |

Radial Lead Type



Type numbering system (Example : 25V 470μF)



• Please refer to page 20 about the end seal configuration.

Frequency coefficient of rated ripple current

| V | Cap.(μF) | Frequency | | | | |
|------------|---------------|-----------|-------|-------|------|---------------|
| | | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz or more |
| 6.3 to 100 | 2.2 to 47 | — | 0.17 | 0.40 | 0.65 | 1.00 |
| | 100 to 220 | 0.30 | 0.50 | 0.65 | 0.80 | 1.00 |
| | 330 to 680 | 0.57 | 0.71 | 0.82 | 0.90 | 1.00 |
| | 1000 to 15000 | 0.75 | 0.87 | 0.96 | 0.98 | 1.00 |
| 160 to 450 | 0.47 to 220 | 0.80 | 1.00 | 1.25 | 1.40 | 1.60 |
| | 330 to 470 | 0.90 | 1.00 | 1.10 | 1.13 | 1.15 |

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

- Dimension table in next pages.

UPS

■ Dimensions

| Cap. (μF) | V (Code) | Item Code | 6.3 (0J) | | | 10 (1A) | | | 16 (1C) | | | 25 (1E) | | |
|-----------|----------|-----------|-----------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|---|
| | | | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz |
| 4.7 | 4R7 | | | | | | | | | | | 5 × 11 | 1.50 | 160 |
| 10 | 100 | | | | | | | | | | | 5 × 11 | 1.50 | 160 |
| 22 | 220 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 |
| 33 | 330 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 |
| 47 | 470 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 |
| 100 | 101 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.50 | 160 | 6.3 × 11 | 0.50 | 250 | 6.3 × 11 | 0.50 | 250 |
| 150 | 151 | | 6.3 × 11 | 0.50 | 250 | 6.3 × 11 | 0.50 | 250 | 6.3 × 11 | 0.50 | 250 | 8 × 11.5 | 0.28 | 410 |
| 220 | 221 | | 6.3 × 11 | 0.50 | 250 | 6.3 × 11 | 0.50 | 250 | 8 × 11.5 | 0.28 | 410 | 8 × 11.5 | 0.28 | 410 |
| 330 | 331 | | 6.3 × 11 | 0.50 | 250 | 8 × 11.5 | 0.28 | 410 | 8 × 11.5 | 0.28 | 410 | 10 × 12.5 | 0.19 | 600 |
| 470 | 471 | | 8 × 11.5 | 0.28 | 410 | 8 × 11.5 | 0.28 | 410 | 10 × 12.5 | 0.19 | 600 | 10 × 16 | 0.14 | 800 |
| 680 | 681 | | 10 × 12.5 | 0.19 | 600 | 10 × 12.5 | 0.19 | 600 | 10 × 16 | 0.14 | 800 | 10 × 20 | 0.11 | 1000 |
| 1000 | 102 | | 10 × 12.5 | 0.19 | 600 | 10 × 16 | 0.14 | 800 | 10 × 20 | 0.11 | 1000 | 12.5 × 20 | 0.075 | 1250 |
| 1500 | 152 | | 10 × 20 | 0.11 | 1000 | 10 × 20 | 0.11 | 1000 | 12.5 × 20 | 0.075 | 1250 | 16 × 25 | 0.038 | 1900 |
| 2200 | 222 | | 12.5 × 20 | 0.075 | 1250 | 12.5 × 20 | 0.075 | 1250 | 12.5 × 25 | 0.057 | 1550 | 16 × 25 | 0.038 | 1900 |
| 3300 | 332 | | 12.5 × 20 | 0.075 | 1250 | 12.5 × 25 | 0.057 | 1550 | 16 × 25 | 0.038 | 1900 | 16 × 31.5 | 0.033 | 2350 |
| 4700 | 472 | | 16 × 25 | 0.038 | 1900 | 16 × 25 | 0.038 | 1900 | 16 × 31.5 | 0.033 | 2350 | 18 × 35.5 | 0.030 | 2700 |
| 6800 | 682 | | 16 × 25 | 0.038 | 1900 | 16 × 31.5 | 0.033 | 2350 | 18 × 35.5 | 0.030 | 2700 | 18 × 40 | 0.027 | 3300 |
| 10000 | 103 | | 16 × 31.5 | 0.033 | 2350 | 18 × 35.5 | 0.030 | 2700 | 18 × 40 | 0.027 | 3300 | | | |
| 15000 | 153 | | 18 × 35.5 | 0.030 | 2700 | 18 × 40 | 0.027 | 3300 | | | | | | |

| Cap. (μF) | V (Code) | Item Code | 35 (1V) | | | 50 (1H) | | | 63 (1J) | | | 100 (2A) | | |
|-----------|----------|-----------|-----------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|---|
| | | | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz | Case size φD × L (mm) | Impedance (Ω) MAX. 20°C/100kHz | Rated ripple (mArms) 105°C/100kHz |
| 2.2 | 2R2 | | | | | 5 × 11 | 4.50 | 55 | | | | 5 × 11 | 9.80 | 44 |
| 3.3 | 3R3 | | | | | 5 × 11 | 3.90 | 65 | | | | 5 × 11 | 6.60 | 58 |
| 4.7 | 4R7 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 3.50 | 90 | 5 × 11 | 4.70 | 68 | 5 × 11 | 4.60 | 74 |
| 10 | 100 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 2.10 | 120 | 5 × 11 | 2.10 | 110 | 6.3 × 11 | 1.80 | 130 |
| 22 | 220 | | 5 × 11 | 1.50 | 160 | 5 × 11 | 1.80 | 150 | 6.3 × 11 | 0.98 | 180 | 8 × 11.5 | 0.68 | 230 |
| 33 | 330 | | 5 × 11 | 1.50 | 160 | 6.3 × 11 | 0.65 | 250 | 6.3 × 11 | 0.71 | 220 | 10 × 12.5 | 0.46 | 320 |
| 47 | 470 | | 6.3 × 11 | 0.50 | 250 | 6.3 × 11 | 0.65 | 250 | 8 × 11.5 | 0.65 | 310 | 10 × 16 | 0.37 | 420 |
| 100 | 101 | | 8 × 11.5 | 0.28 | 410 | 8 × 11.5 | 0.36 | 340 | 10 × 12.5 | 0.31 | 390 | 12.5 × 20 | 0.18 | 580 |
| 150 | 151 | | 8 × 11.5 | 0.28 | 410 | 10 × 12.5 | 0.26 | 490 | 10 × 16 | 0.25 | 440 | 12.5 × 25 | 0.13 | 710 |
| 220 | 221 | | 10 × 12.5 | 0.19 | 600 | 10 × 16 | 0.18 | 650 | 10 × 20 | 0.20 | 700 | 16 × 25 | 0.10 | 890 |
| 330 | 331 | | 10 × 16 | 0.14 | 800 | 10 × 20 | 0.15 | 810 | 12.5 × 20 | 0.12 | 980 | 16 × 25 | 0.090 | 1080 |
| 470 | 471 | | 10 × 20 | 0.11 | 1000 | 12.5 × 20 | 0.13 | 1100 | 12.5 × 25 | 0.081 | 1200 | 16 × 31.5 | 0.076 | 1310 |
| 680 | 681 | | 12.5 × 20 | 0.075 | 1250 | 12.5 × 25 | 0.10 | 1200 | 16 × 25 | 0.058 | 1300 | 16 × 35.5 | 0.064 | 1410 |
| 1000 | 102 | | 12.5 × 25 | 0.057 | 1550 | 16 × 25 | 0.058 | 1600 | 16 × 31.5 | 0.049 | 1380 | 18 × 40 | 0.047 | 1520 |
| 1500 | 152 | | 16 × 25 | 0.038 | 1900 | 16 × 31.5 | 0.040 | 2000 | 18 × 35.5 | 0.038 | 1750 | | | |
| 2200 | 222 | | 16 × 31.5 | 0.033 | 2350 | 18 × 35.5 | 0.035 | 2300 | 18 × 40 | 0.032 | 2120 | | | |
| 3300 | 332 | | 18 × 35.5 | 0.030 | 2700 | | | | | | | | | |
| 4700 | 472 | | 18 × 40 | 0.027 | 3300 | | | | | | | | | |

| Cap. (μF) | V | Code | 160 | | 200 | | 250 | | 315 | | 350 | | 400 | | 450 | |
|-----------|-----|------|------------|------|-----------|------|------------|------|-----------|-----|------------|-----|------------|-----|--------------------------|-----------------|
| | | | 2C | 2D | 2E | 2F | 2V | 2G | 2W | | | | | | | |
| 0.47 | R47 | | 6.3 × 11 | 12 | 6.3 × 11 | 12 | 6.3 × 11 | 12 | 8 × 11.5 | 11 | 8 × 11.5 | 11 | | | | |
| 1 | 010 | | 6.3 × 11 | 17 | 6.3 × 11 | 17 | 6.3 × 11 | 17 | 8 × 11.5 | 16 | 10 × 12.5 | 17 | 10 × 12.5 | 16 | 10 × 12.5 | 18 |
| 2.2 | 2R2 | | 6.3 × 11 | 25 | 6.3 × 11 | 25 | 8 × 11.5 | 29 | 10 × 12.5 | 28 | 10 × 16 | 31 | 10 × 16 | 27 | 10 × 20 | 29 |
| 3.3 | 3R3 | | 8 × 11.5 | 36 | 8 × 11.5 | 36 | 10 × 12.5 | 42 | 10 × 12.5 | 34 | 10 × 16 | 38 | 10 × 20 | 36 | 12.5 × 20 | 41 |
| 4.7 | 4R7 | | 8 × 11.5 | 43 | 10 × 12.5 | 50 | 10 × 12.5 | 50 | 10 × 16 | 45 | 10 × 20 | 49 | 10 × 20 | 43 | 12.5 × 20 | 49 |
| 10 | 100 | | 10 × 12.5 | 70 | 10 × 16 | 80 | 10 × 20 | 88 | 10 × 20 | 72 | 12.5 × 20 | 82 | 12.5 × 25 | 72 | 16 × 25 | 75 |
| 22 | 220 | | 10 × 20 | 130 | 10 × 20 | 140 | 12.5 × 25 | 155 | 12.5 × 25 | 120 | 16 × 25 | 130 | 16 × 25 | 110 | 16 × 31.5 | 115 |
| 33 | 330 | | 12.5 × 20 | 180 | 12.5 × 25 | 190 | 12.5 × 25 | 190 | 16 × 25 | 155 | 16 × 31.5 | 160 | 16 × 31.5 | 140 | •18 × 35.5 | 145 |
| 47 | 470 | | 12.5 × 25 | 220 | 12.5 × 25 | 220 | 16 × 25 | 230 | 16 × 35.5 | 190 | •18 × 35.5 | 200 | •18 × 35.5 | 170 | 20 × 40 | 175 |
| 100 | 101 | | 16 × 25 | 330 | 16 × 31.5 | 335 | •18 × 35.5 | 340 | Δ18 × 40 | 285 | 20 × 40 | 290 | 22 × 50 | 350 | 25 × 50 | 350 |
| 220 | 221 | | •18 × 35.5 | 500 | Δ18 × 40 | 515 | 20 × 40 | 525 | 22 × 50 | 540 | 25 × 50 | 550 | | | | |
| 330 | 331 | | 20 × 40 | 900 | 22 × 40 | 1100 | 22 × 50 | 1150 | | | | | | | | |
| 470 | 471 | | 22 × 50 | 1200 | 22 × 50 | 1310 | 25 × 50 | 1350 | | | | | | | Case size φD × L (mm) | Rated ripple |

Rated ripple current (mArms) at 105°C 120Hz

Size φ20×31 is available for capacitors marked "•"
 Size φ20×35 is available for capacitors marked "Δ"
 In this case, [] will be put at 12th digit of type numbering system.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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