

KMT Series

- Higher ripple current from KMS series
- Endurance with ripple current : 3,000 hours at 105°C
- Rated voltage range : 420, 450V_{dc}, Capacitance range : 82 to 680μF
- For inverter control, switching power supplies
- Non solvent resistant type
- RoHS2 Compliant

KMT

Higher ripple
KMS

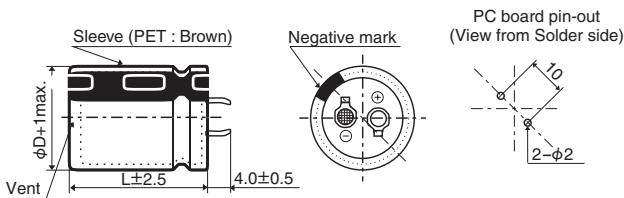


SPECIFICATIONS

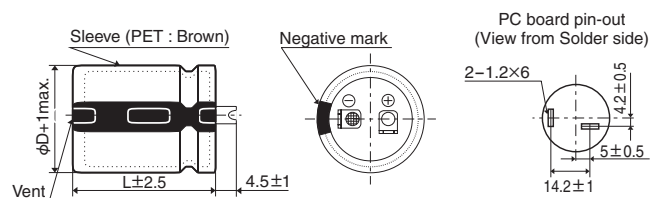
| Items | Characteristics | |
|---|---|---------------------------------------|
| Category Temperature Range | -25 to +105°C | |
| Rated Voltage Range | 420, 450V _{dc} | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | |
| Leakage Current | I ≤ 3/CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes) | |
| Dissipation Factor (tan δ) | Rated voltage (V _{dc}) | 420 & 450V |
| | tan δ (Max.) | 0.20 (at 20°C, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 420 & 450V |
| | Z(-25°C)/Z(+20°C) | 8 (at 120Hz) |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 3,000 hours at 105°C. | |
| | Capacitance change | ≤ ±20% of the initial value |
| | D.F. (tan δ) | ≤ 200% of the initial specified value |
| | Leakage current | ≤ The initial specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. | |
| | Capacitance change | ≤ ±15% of the initial value |
| | D.F. (tan δ) | ≤ 150% of the initial specified value |
| | Leakage current | ≤ The initial specified value |

DIMENSIONS [mm]

Terminal Code : VS (φ22 to φ35) : Standard

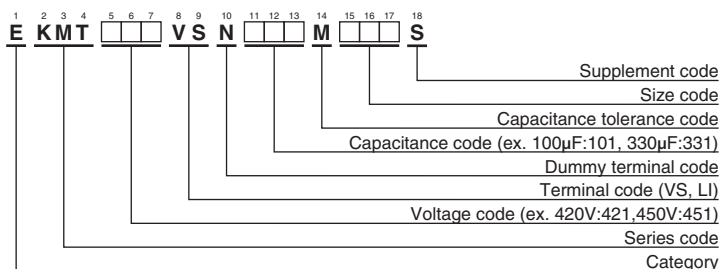


Terminal Code : LI (φ35)



The standard design has no plastic disc.

PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"

KMT Series

◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/105°C, 120Hz) | Part No. | WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/105°C, 120Hz) | Part No. |
|-----------------------|----------|--------------------|-------|--|--------------------|-----------------------|----------|--------------------|--------------------|--|--------------------|
| 420 | 100 | 22 × 25 | 0.20 | 0.89 | EKMT421VSN101MP25S | 450 | 82 | 22 × 25 | 0.20 | 0.81 | EKMT451VSN820MP25S |
| | 120 | 22 × 30 | 0.20 | 1.06 | EKMT421VSN121MP30S | | 100 | 22 × 30 | 0.20 | 0.97 | EKMT451VSN101MP30S |
| | 120 | 25.4 × 25 | 0.20 | 1.09 | EKMT421VSN121MQ25S | | 100 | 25.4 × 25 | 0.20 | 1.04 | EKMT451VSN101MQ25S |
| | 150 | 22 × 35 | 0.20 | 1.21 | EKMT421VSN151MP35S | | 120 | 22 × 35 | 0.20 | 1.08 | EKMT451VSN121MP35S |
| | 180 | 22 × 40 | 0.20 | 1.34 | EKMT421VSN181MP40S | | 150 | 22 × 40 | 0.20 | 1.22 | EKMT451VSN151MP40S |
| | 180 | 25.4 × 30 | 0.20 | 1.28 | EKMT421VSN181MQ30S | | 150 | 25.4 × 35 | 0.20 | 1.31 | EKMT451VSN151MQ35S |
| | 180 | 30 × 25 | 0.20 | 1.42 | EKMT421VSN181MR25S | | 150 | 30 × 25 | 0.20 | 1.31 | EKMT451VSN151MR25S |
| | 220 | 22 × 45 | 0.20 | 1.47 | EKMT421VSN221MP45S | | 180 | 22 × 45 | 0.20 | 1.35 | EKMT451VSN181MP45S |
| | 220 | 22 × 50 | 0.20 | 1.60 | EKMT421VSN221MP50S | | 180 | 22 × 50 | 0.20 | 1.42 | EKMT451VSN181MP50S |
| | 220 | 25.4 × 35 | 0.20 | 1.47 | EKMT421VSN221MQ35S | | 180 | 25.4 × 40 | 0.20 | 1.35 | EKMT451VSN181MQ40S |
| | 220 | 30 × 30 | 0.20 | 1.64 | EKMT421VSN221MR30S | | 180 | 30 × 30 | 0.20 | 1.49 | EKMT451VSN181MR30S |
| | 220 | 35 × 25 | 0.20 | 1.64 | EKMT421VSN221MA25S | | 180 | 35 × 25 | 0.20 | 1.60 | EKMT451VSN181MA25S |
| | 270 | 25.4 × 40 | 0.20 | 1.63 | EKMT421VSN271MQ40S | | 220 | 25.4 × 45 | 0.20 | 1.55 | EKMT451VSN221MQ45S |
| | 270 | 25.4 × 45 | 0.20 | 1.79 | EKMT421VSN271MQ45S | | 220 | 30 × 35 | 0.20 | 1.71 | EKMT451VSN221MR35S |
| | 270 | 30 × 35 | 0.20 | 1.87 | EKMT421VSN271MR35S | | 270 | 25.4 × 50 | 0.20 | 1.74 | EKMT451VSN271MQ50S |
| | 330 | 25.4 × 50 | 0.20 | 1.93 | EKMT421VSN331MQ50S | | 270 | 30 × 40 | 0.20 | 1.90 | EKMT451VSN271MR40S |
| | 330 | 30 × 40 | 0.20 | 2.10 | EKMT421VSN331MR40S | | 270 | 35 × 30 | 0.20 | 1.90 | EKMT451VSN271MA30S |
| | 330 | 35 × 30 | 0.20 | 2.05 | EKMT421VSN331MA30S | | 330 | 30 × 45 | 0.20 | 2.20 | EKMT451VSN331MR45S |
| | 390 | 30 × 45 | 0.20 | 2.32 | EKMT421VSN391MR45S | | 330 | 35 × 35 | 0.20 | 2.20 | EKMT451VSN331MA35S |
| | 390 | 35 × 35 | 0.20 | 2.32 | EKMT421VSN391MA35S | | 390 | 30 × 50 | 0.20 | 2.40 | EKMT451VSN391MR50S |
| 470 | 30 × 50 | 0.20 | 2.51 | EKMT421VSN471MR50S | 390 | 35 × 40 | 0.20 | 2.42 | EKMT451VSN391MA40S | | |
| 470 | 35 × 40 | 0.20 | 2.62 | EKMT421VSN471MA40S | 470 | 35 × 45 | 0.20 | 2.67 | EKMT451VSN471MA45S | | |
| 560 | 35 × 45 | 0.20 | 2.88 | EKMT421VSN561MA45S | 560 | 35 × 50 | 0.20 | 2.85 | EKMT451VSN561MA50S | | |
| 680 | 35 × 50 | 0.20 | 3.10 | EKMT421VSN681MA50S | | | | | | | |

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

| Frequency(Hz) | 50 | 120 | 300 | 1k | 10k | 50k |
|-------------------------|------|------|------|------|------|------|
| 420, 450V _{dc} | 0.68 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.