

KMZ Upgrade!
Series

- The lower temperature range of the category temperature range has been expanded.
- Downsized from KMW series
- Endurance with ripple current : 2,000 hours at 105°C
- Rated voltage range : 420 & 450V_{dc}, Capacitance range : 120 to 820μF
- Non solvent resistant type
- RoHS2 Compliant

KMZ

↓
Downsized
↑
KMW

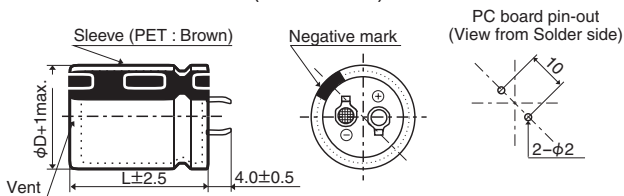


◆ SPECIFICATIONS

| Items | Characteristics | |
|--|---|---------------------------------------|
| Category Temperature Range | -40 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 2,000 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 |

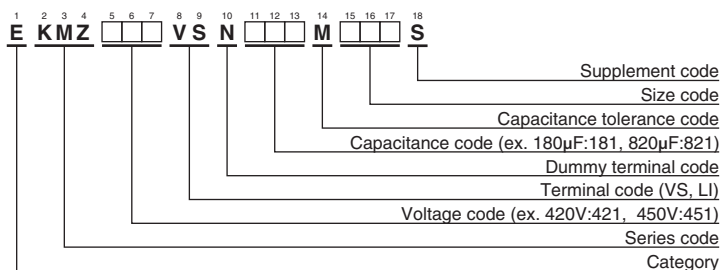
◆ DIMENSIONS [mm]

- Terminal Code : VS (φ22 to φ30) : Standard



The standard design has no plastic disc.

◆ PART NUMBERING SYSTEM



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

KMZ Series

◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/105°C, 120Hz) | Part No. |
|-----------------------|----------|--------------------|-------|--|--------------------|
| 420 | 150 | 22 × 25 | 0.20 | 0.87 | EKMZ421VSN151MP25S |
| | 180 | 22 × 30 | 0.20 | 1.00 | EKMZ421VSN181MP30S |
| | 180 | 25.4 × 25 | 0.20 | 1.02 | EKMZ421VSN181MQ25S |
| | 220 | 22 × 35 | 0.20 | 1.13 | EKMZ421VSN221MP35S |
| | 270 | 22 × 40 | 0.20 | 1.27 | EKMZ421VSN271MP40S |
| | 270 | 25.4 × 30 | 0.20 | 1.28 | EKMZ421VSN271MQ30S |
| | 270 | 30 × 25 | 0.20 | 1.28 | EKMZ421VSN271MR25S |
| | 330 | 22 × 45 | 0.20 | 1.44 | EKMZ421VSN331MP45S |
| | 330 | 25.4 × 35 | 0.20 | 1.48 | EKMZ421VSN331MQ35S |
| | 390 | 22 × 55 | 0.20 | 1.63 | EKMZ421VSN391MP55S |
| | 390 | 25.4 × 40 | 0.20 | 1.64 | EKMZ421VSN391MQ40S |
| | 390 | 30 × 30 | 0.20 | 1.55 | EKMZ421VSN391MR30S |
| | 470 | 25.4 × 50 | 0.20 | 1.86 | EKMZ421VSN471MQ50S |
| | 470 | 30 × 35 | 0.20 | 1.74 | EKMZ421VSN471MR35S |
| | 560 | 25.4 × 55 | 0.20 | 2.09 | EKMZ421VSN561MQ55S |
| | 560 | 30 × 40 | 0.20 | 1.96 | EKMZ421VSN561MR40S |
| 680 | 30 × 50 | 0.20 | 2.25 | EKMZ421VSN681MR50S | |
| 820 | 30 × 55 | 0.20 | 2.52 | EKMZ421VSN821MR55S | |

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (Arms/105°C, 120Hz) | Part No. |
|-----------------------|----------|--------------------|-------|--|--------------------|
| 450 | 120 | 22 × 25 | 0.20 | 0.78 | EKMZ451VSN121MP25S |
| | 180 | 22 × 30 | 0.20 | 1.00 | EKMZ451VSN181MP30S |
| | 180 | 25.4 × 25 | 0.20 | 1.02 | EKMZ451VSN181MQ25S |
| | 220 | 22 × 35 | 0.20 | 1.13 | EKMZ451VSN221MP35S |
| | 220 | 25.4 × 30 | 0.20 | 1.16 | EKMZ451VSN221MQ30S |
| | 270 | 22 × 45 | 0.20 | 1.30 | EKMZ451VSN271MP45S |
| | 270 | 25.4 × 35 | 0.20 | 1.34 | EKMZ451VSN271MQ35S |
| | 270 | 30 × 25 | 0.20 | 1.28 | EKMZ451VSN271MR25S |
| | 330 | 22 × 50 | 0.20 | 1.47 | EKMZ451VSN331MP50S |
| | 330 | 25.4 × 40 | 0.20 | 1.51 | EKMZ451VSN331MQ40S |
| | 330 | 30 × 30 | 0.20 | 1.43 | EKMZ451VSN331MR30S |
| | 390 | 22 × 55 | 0.20 | 1.63 | EKMZ451VSN391MP55S |
| | 390 | 25.4 × 45 | 0.20 | 1.67 | EKMZ451VSN391MQ45S |
| | 390 | 30 × 35 | 0.20 | 1.59 | EKMZ451VSN391MR35S |
| | 470 | 25.4 × 55 | 0.20 | 1.91 | EKMZ451VSN471MQ55S |
| | 470 | 30 × 40 | 0.20 | 1.79 | EKMZ451VSN471MR40S |
| | 560 | 25.4 × 60 | 0.20 | 2.13 | EKMZ451VSN561MQ60S |
| | 560 | 30 × 45 | 0.20 | 2.01 | EKMZ451VSN561MR45S |
| | 680 | 30 × 50 | 0.20 | 2.25 | EKMZ451VSN681MR50S |
| | 820 | 30 × 60 | 0.20 | 2.56 | EKMZ451VSN821MR60S |

◆RATED RIPPLE CURRENT MULTIPLIERS

⊙ Frequency Multipliers

| Frequency(Hz) | 50 | 120 | 300 | 1k | 10k | 50k |
|---------------|------|------|------|------|------|------|
| Multipliers | 0.77 | 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.