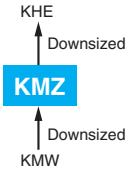
# KMZ Series



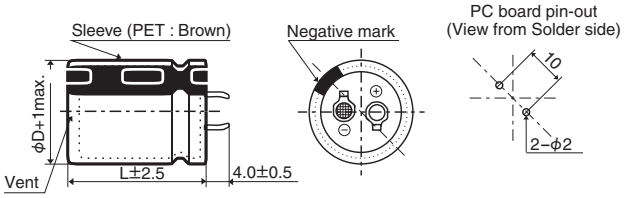

- The lower temperature range of the category temperature range has been expended.
- Downsized from KMW series
- Endurance with ripple current : 2,000 hours at 105℃
- Rated voltage range : 420 & 450Vdc, Capacitance range : 120 to 820μF
- Non solvent resistant type
- RoHS2 Compliant

## ◆SPECIFICATIONS

| Items | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -40 to +105℃ | | |
| Rated Voltage Range | 420 & 450Vdc | | |
| Capacitance Tolerance | ±20% (M) | | (at 20℃, 120Hz) |
| Leakage Current | I≦3√CV<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | | (at 20℃ after 5 minutes) |
| Dissipation Factor (tan δ ) | Rated voltage (Vdc) | 420 & 450V | |
| | tan δ (Max.) | 0.20 | (at 20℃, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (Vdc) | 420 & 450V | |
| | Z(-25℃)/Z(+20℃) | 8 | (at 120Hz) |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20℃ 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℃. | | |
| | 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℃ after exposing them for 1,000 hours at 105℃ 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 | |

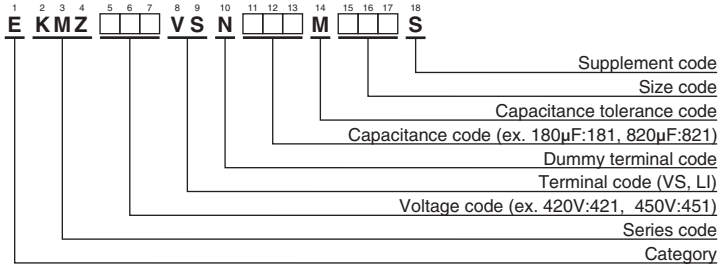
## ◆DIMENSIONS [mm]

●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℃, 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℃, 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 deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

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CAT. No. E1001Z 2025