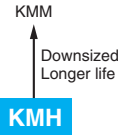


KMH Series

- Endurance with ripple current : 2,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

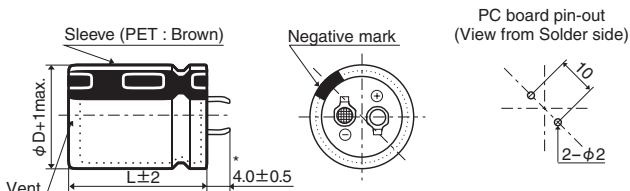


◆ SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | |
|--|---|---------------------------------------|------|------|------|------|------|------|------|------|------------------|
| Category | -40 to +105°C | | | | | | | | | | |
| Temperature Range | -40 to +105°C | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 100V _{dc} | | | | | | | | | | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | | | | | | | | | | |
| Leakage Current | I=0.02CV or 3mA, whichever is smaller 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}) | 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 80V | 100V | |
| | tan δ (Max.) | 0.60 | 0.50 | 0.40 | 0.30 | 0.25 | 0.20 | 0.15 | 0.15 | 0.15 | (at 20°C, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 80V | 100V | |
| | Z(-25°C)/Z(+20°C) | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | |
| | Z(-45°C)/Z(+20°C) | 15 | 15 | 15 | 10 | 8 | 6 | 6 | 5 | 5 | (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 | ≤ ±20% of the initial value | | | | | | | | | |
| | D.F. (tan δ) | ≤ 150% of the initial specified value | | | | | | | | | |
| | Leakage current | ≤ The initial specified value | | | | | | | | | |

◆ DIMENSIONS [mm]

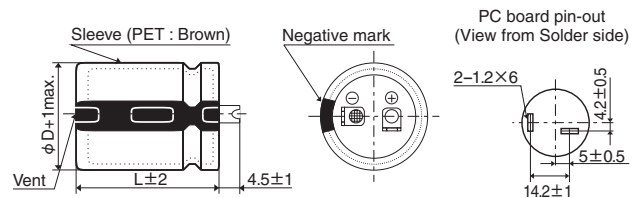
● Terminal Code : VS (φ22 to φ35) : Standard



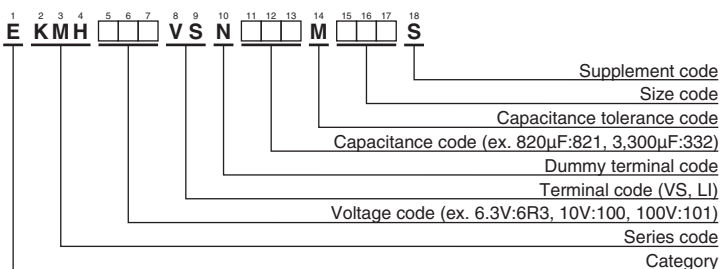
*φD=35mm : 3.5±0.5mm

The standard design has no plastic disc.

● Terminal Code : LI (φ35)



◆ PART NUMBERING SYSTEM



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

◆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. | |
|-----------------------|----------|--------------------|-------|--|--------------------|-----------------------|----------|--------------------|--------------------|--|--------------------|--------------------|
| 50 | 5,600 | 25.4 × 40 | 0.20 | 2.70 | EKMH500VSN562MQ40S | 80 | 1,800 | 25.4 × 30 | 0.15 | 1.76 | EKMH800VSN182MQ30S | |
| | 5,600 | 30 × 35 | 0.20 | 2.76 | EKMH500VSN562MR35S | | 1,800 | 30 × 25 | 0.15 | 1.65 | EKMH800VSN182MR25S | |
| | 5,600 | 35 × 25 | 0.20 | 2.70 | EKMH500VSN562MA25S | | 2,200 | 22 × 45 | 0.15 | 2.04 | EKMH800VSN222MP45S | |
| | 6,800 | 25.4 × 50 | 0.20 | 3.30 | EKMH500VSN682MQ50S | | 2,200 | 25.4 × 35 | 0.15 | 2.01 | EKMH800VSN222MQ35S | |
| | 6,800 | 30 × 40 | 0.20 | 3.30 | EKMH500VSN682MR40S | | 2,200 | 30 × 30 | 0.15 | 2.05 | EKMH800VSN222MR30S | |
| | 6,800 | 35 × 30 | 0.20 | 3.25 | EKMH500VSN682MA30S | | 2,200 | 35 × 25 | 0.15 | 2.07 | EKMH800VSN222MA25S | |
| | 8,200 | 30 × 45 | 0.20 | 3.60 | EKMH500VSN822MR45S | | 2,700 | 25.4 × 45 | 0.15 | 2.36 | EKMH800VSN272MQ45S | |
| | 8,200 | 35 × 35 | 0.20 | 3.55 | EKMH500VSN822MA35S | | 2,700 | 30 × 35 | 0.15 | 2.35 | EKMH800VSN272MR35S | |
| | 10,000 | 30 × 50 | 0.20 | 4.04 | EKMH500VSN103MR50S | | 2,700 | 35 × 25 | 0.15 | 2.29 | EKMH800VSN272MA25S | |
| | 10,000 | 35 × 40 | 0.20 | 4.03 | EKMH500VSN103MA40S | | 3,300 | 25.4 × 50 | 0.15 | 2.68 | EKMH800VSN332MQ50S | |
| 63 | 1,200 | 22 × 25 | 0.15 | 1.19 | EKMH630VSN122MP25S | 80 | 3,300 | 30 × 40 | 0.15 | 2.68 | EKMH800VSN332MP40S | |
| | 1,500 | 22 × 25 | 0.15 | 1.33 | EKMH630VSN152MP25S | | 3,300 | 35 × 30 | 0.15 | 2.45 | EKMH800VSN332MA30S | |
| | 1,800 | 22 × 30 | 0.15 | 1.51 | EKMH630VSN182MP30S | | 3,900 | 30 × 45 | 0.15 | 3.00 | EKMH800VSN392MR45S | |
| | 1,800 | 25.4 × 25 | 0.15 | 1.52 | EKMH630VSN182MQ25S | | 3,900 | 35 × 35 | 0.15 | 2.98 | EKMH800VSN392MA35S | |
| | 2,200 | 22 × 35 | 0.15 | 1.73 | EKMH630VSN222MP35S | | 4,700 | 30 × 50 | 0.15 | 3.39 | EKMH800VSN472MR50S | |
| | 2,200 | 25.4 × 30 | 0.15 | 1.74 | EKMH630VSN222MQ30S | | 4,700 | 35 × 40 | 0.15 | 3.38 | EKMH800VSN472MA40S | |
| | 2,700 | 22 × 40 | 0.15 | 1.97 | EKMH630VSN272MP40S | | 5,600 | 35 × 45 | 0.15 | 3.80 | EKMH800VSN562MA45S | |
| | 2,700 | 25.4 × 35 | 0.15 | 1.99 | EKMH630VSN272MQ35S | | 6,800 | 35 × 50 | 0.15 | 3.90 | EKMH800VSN682MA50S | |
| | 2,700 | 30 × 25 | 0.15 | 1.76 | EKMH630VSN272MR25S | | 100 | 560 | 22 × 25 | 0.15 | 1.05 | EKMH101VSN561MP25S |
| | 3,300 | 22 × 50 | 0.15 | 2.29 | EKMH630VSN332MP50S | | | 820 | 22 × 30 | 0.15 | 1.32 | EKMH101VSN821MP30S |
| | 3,300 | 25.4 × 40 | 0.15 | 2.27 | EKMH630VSN332MQ40S | 820 | | 25.4 × 25 | 0.15 | 1.33 | EKMH101VSN821MQ25S | |
| | 3,300 | 30 × 30 | 0.15 | 2.24 | EKMH630VSN332MR30S | 1,000 | | 22 × 35 | 0.15 | 1.50 | EKMH101VSN102MP35S | |
| | 3,300 | 35 × 25 | 0.15 | 2.06 | EKMH630VSN332MA25S | 1,000 | | 25.4 × 30 | 0.15 | 1.51 | EKMH101VSN102MQ30S | |
| | 3,900 | 25.4 × 45 | 0.15 | 2.54 | EKMH630VSN392MQ45S | 1,200 | | 22 × 40 | 0.15 | 1.69 | EKMH101VSN122MP40S | |
| | 3,900 | 30 × 35 | 0.15 | 2.55 | EKMH630VSN392MR35S | 1,200 | | 25.4 × 35 | 0.15 | 1.71 | EKMH101VSN122MQ35S | |
| | 3,900 | 35 × 25 | 0.15 | 2.24 | EKMH630VSN392MA25S | 1,200 | | 30 × 25 | 0.15 | 1.68 | EKMH101VSN122MR25S | |
| | 4,700 | 25.4 × 50 | 0.15 | 2.86 | EKMH630VSN472MQ50S | 1,500 | | 22 × 45 | 0.15 | 1.94 | EKMH101VSN152MP45S | |
| | 4,700 | 30 × 40 | 0.15 | 2.86 | EKMH630VSN472MR40S | 1,500 | | 25.4 × 40 | 0.15 | 1.98 | EKMH101VSN152MQ40S | |
| | 4,700 | 35 × 30 | 0.15 | 2.79 | EKMH630VSN472MA30S | 1,500 | 30 × 30 | 0.15 | 1.95 | EKMH101VSN152MR30S | | |
| | 5,600 | 30 × 45 | 0.15 | 3.22 | EKMH630VSN562MR45S | 1,500 | 35 × 25 | 0.15 | 1.98 | EKMH101VSN152MA25S | | |
| 5,600 | 35 × 35 | 0.15 | 3.19 | EKMH630VSN562MA35S | 1,800 | 25.4 × 45 | 0.15 | 2.23 | EKMH101VSN182MQ45S | | | |
| 6,800 | 30 × 50 | 0.15 | 3.65 | EKMH630VSN682MR50S | 1,800 | 30 × 35 | 0.15 | 2.50 | EKMH101VSN182MR35S | | | |
| 6,800 | 35 × 40 | 0.15 | 3.64 | EKMH630VSN682MA40S | 1,800 | 35 × 25 | 0.15 | 2.17 | EKMH101VSN182MA25S | | | |
| 8,200 | 35 × 45 | 0.15 | 3.90 | EKMH630VSN822MA45S | 2,200 | 25.4 × 50 | 0.15 | 2.53 | EKMH101VSN222MQ50S | | | |
| 10,000 | 35 × 50 | 0.15 | 4.40 | EKMH630VSN103MA50S | 2,200 | 30 × 40 | 0.15 | 2.70 | EKMH101VSN222MR40S | | | |
| 80 | 820 | 22 × 25 | 0.15 | 1.11 | EKMH800VSN821MP25S | 2,200 | 35 × 30 | 0.15 | 2.50 | EKMH101VSN222MA30S | | |
| | 1,000 | 22 × 25 | 0.15 | 1.22 | EKMH800VSN102MP25S | 2,700 | 30 × 45 | 0.15 | 2.88 | EKMH101VSN272MR45S | | |
| | 1,200 | 22 × 30 | 0.15 | 1.38 | EKMH800VSN122MP30S | 2,700 | 35 × 35 | 0.15 | 2.86 | EKMH101VSN272MA35S | | |
| | 1,200 | 25.4 × 25 | 0.15 | 1.39 | EKMH800VSN122MQ25S | 3,300 | 30 × 50 | 0.15 | 3.28 | EKMH101VSN332MR50S | | |
| | 1,500 | 22 × 35 | 0.15 | 1.59 | EKMH800VSN152MP35S | 3,300 | 35 × 40 | 0.15 | 3.27 | EKMH101VSN332MA40S | | |
| | 1,500 | 25.4 × 30 | 0.15 | 1.61 | EKMH800VSN152MQ30S | 3,900 | 35 × 45 | 0.15 | 3.67 | EKMH101VSN392MA45S | | |
| | 1,800 | 22 × 40 | 0.15 | 1.80 | EKMH800VSN182MP40S | 4,700 | 35 × 50 | 0.15 | 3.80 | EKMH101VSN472MA50S | | |

*For the rated voltage ≥ 160V_{dc}, please use KMR and KMQ series.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

| Frequency(Hz) | 50 | 120 | 300 | 1k | 10k | 50k |
|--------------------------|------|------|------|------|------|------|
| 6.3 to 50V _{dc} | 0.95 | 1.00 | 1.03 | 1.05 | 1.08 | 1.08 |
| 63 to 100V _{dc} | 0.92 | 1.00 | 1.07 | 1.13 | 1.19 | 1.20 |

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.