

# KHT Series

- Higher capacitance than KHR series
- Suitable for AI server power supplies and solar power generation applications
- Endurance with ripple current : 105°C 3,000 hours
- Rated voltage range : 450, 475Vdc, Capacitance range : 480 to 2,690μF
- Non solvent resistant type
- RoHS2 Compliant
- Halogen Free
- The logo mark printed on the sleeve will be changed.

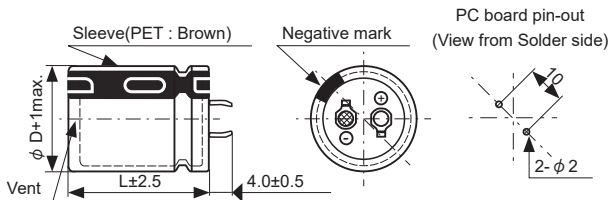
## ◆ SPECIFICATION

| Items  | Characteristics   |                                       |
|--|---|---------------------------------------|
| Category   |   |                                       |
| Temperature Range                                      | -40 to +105°C   |                                       |
| Rated Voltage Range                                    | 450, 475V <sub>dc</sub>   |                                       |
| Capacitance Tolerance                                  | ±20% (M) (at 20°C, 120Hz)   |                                       |
| Leakage Current  | I ≤ 3√CV<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V <sub>dc</sub> ) (at 20°C after 5 minutes)  |                                       |
| Dissipation Factor (tan δ)                             | Rated voltage (V <sub>dc</sub> )  | 450, 475V                             |
|  | tanδ (Max.)   | 0.40 (at 20°C, 120Hz)                 |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )  | 450, 475V                             |
|  | Z(-25°C)/Z(+20°C)   | 20 (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         |

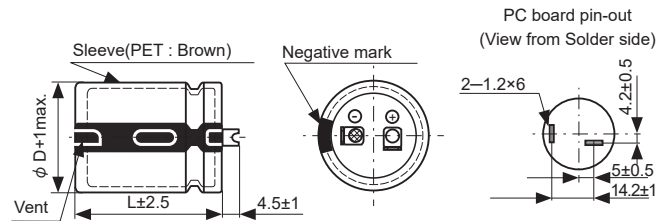
## ◆ DIMENSIONS[mm]

● Terminal Code : VS ( φ 25.4 to φ 35 ) : Standard

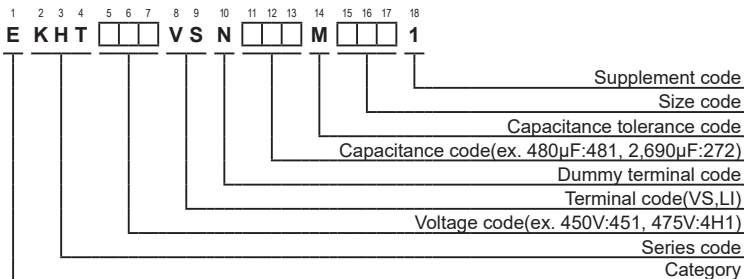
● Terminal Code : LI ( φ 30 、 φ 35 )



The standard design has no plastic disc.



## ◆ PART NUMBERING SYSTEM



## KHT Series

### ◆ STANDARD RATINGS

| WV (V <sub>dc</sub> ) | Cap (μF) | Case size φ D×L(mm) | tanδ | Rated ripple current (Arms/ 105°C ,120Hz) | Part No.           | WV (V <sub>dc</sub> ) | Cap (μF) | Case size φ D×L(mm) | tanδ | Rated ripple current (Arms/ 105°C ,120Hz) | Part No.           |
|-----------------------|----------|---------------------|------|---|--------------------|-----------------------|----------|---------------------|------|---|--------------------|
| 450                   | 620      | 25.4×50             | 0.40 | 2.32                                      | EKHT451VSN621MQ501 | 475                   | 480      | 25.4×50             | 0.40 | 1.99                                      | EKHT4H1VSN481MQ501 |
|                       | 770      | 25.4×60             | 0.40 | 2.69                                      | EKHT451VSN771MQ601 |                       | 600      | 25.4×60             | 0.40 | 2.32                                      | EKHT4H1VSN601MQ601 |
|                       | 940      | 30×50               | 0.40 | 2.68                                      | EKHT451VSN941MR501 |                       | 720      | 30×50               | 0.40 | 2.33                                      | EKHT4H1VSN721MR501 |
|                       | 1,170    | 30×60               | 0.40 | 3.11                                      | EKHT451VSN1B2MR601 |                       | 900      | 30×60               | 0.40 | 2.71                                      | EKHT4H1VSN901MR601 |
|                       | 1,270    | 35×50               | 0.40 | 2.97                                      | EKHT451VSN1C2MA501 |                       | 970      | 35×50               | 0.40 | 2.54                                      | EKHT4H1VSN971MA501 |
|                       | 1,400    | 30×70               | 0.40 | 3.52                                      | EKHT451VSN142MR701 |                       | 1,070    | 30×70               | 0.40 | 3.06                                      | EKHT4H1VSN1A2MR701 |
|                       | 1,550    | 30×80               | 0.40 | 3.83                                      | EKHT451VSN1F2MR801 |                       | 1,210    | 35×60               | 0.40 | 2.95                                      | EKHT4H1VSN122MA601 |
|                       | 1,590    | 35×60               | 0.40 | 3.46                                      | EKHT451VSN162MA601 |                       | 1,250    | 30×80               | 0.40 | 3.42                                      | EKHT4H1VSN1C2MR801 |
|                       | 1,760    | 30×90               | 0.40 | 4.21                                      | EKHT451VSN1H2MR901 |                       | 1,430    | 30×90               | 0.40 | 3.77                                      | EKHT4H1VSN1E2MR901 |
|                       | 1,800    | 35×70               | 0.40 | 3.82                                      | EKHT451VSN182MA701 |                       | 1,450    | 35×70               | 0.40 | 3.35                                      | EKHT4H1VSN1E2MA701 |
|                       | 1,980    | 30×100              | 0.40 | 4.60                                      | EKHT451VSN202MRA01 |                       | 1,600    | 30×100              | 0.40 | 4.11                                      | EKHT4H1VSN162MRA01 |
|                       | 2,100    | 35×80               | 0.40 | 4.28                                      | EKHT451VSN212MA801 |                       | 1,680    | 35×80               | 0.40 | 3.73                                      | EKHT4H1VSN172MA801 |
|                       | 2,390    | 35×90               | 0.40 | 4.71                                      | EKHT451VSN242MA901 |                       | 1,950    | 35×90               | 0.40 | 4.15                                      | EKHT4H1VSN1K2MA901 |
|                       | 2,690    | 35×100              | 0.40 | 5.15                                      | EKHT451VSN272MAA01 |                       | 2,200    | 35×100              | 0.40 | 4.55                                      | EKHT4H1VSN222MAA01 |

### ◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Frequency(Hz)           | 50   | 120  | 300  | 1k   | 10k  | 50k  |
|-------------------------|------|------|------|------|------|------|
| 450, 475V <sub>dc</sub> | 0.74 | 1.00 | 1.13 | 1.21 | 1.25 | 1.25 |

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current.