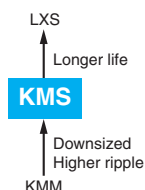


# KMS Series

- For solar power generation
- Endurance with ripple current : 105°C 3,000 hours
- Rated voltage range : 160 to 500V
- Capacitance range : 47 to 3,300μF
- Non solvent resistant type
- RoHS Compliant



500V  
Lineup!

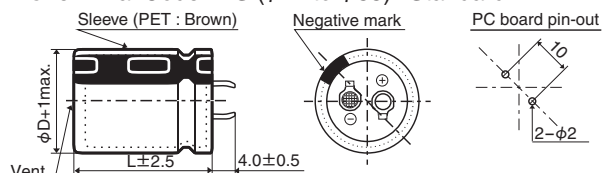


## SPECIFICATIONS

| Items                                                  | Characteristics                                                                                                                                                                                                                                                                         |                                      |                       |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------|
| Category                                               | -25 to +105°C                                                                                                                                                                                                                                                                           |                                      |                       |
| Temperature Range                                      |                                                                                                                                                                                                                                                                                         |                                      |                       |
| Rated Voltage Range                                    | 160 to 500V <sub>dc</sub>                                                                                                                                                                                                                                                               |                                      |                       |
| Capacitance Tolerance                                  | ±20% (M) (at 20°C, 120Hz)                                                                                                                                                                                                                                                               |                                      |                       |
| Leakage Current                                        | $I \leq 3\sqrt{CV}$<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)                                                                                                                                              |                                      |                       |
| Dissipation Factor (tanδ)                              | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                        | 160 to 400V                          | 420 to 500V           |
|                                                        | tanδ (Max.)                                                                                                                                                                                                                                                                             | 0.15                                 | 0.20 (at 20°C, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                        | 160 to 400V                          | 420 to 500V           |
|                                                        | Z(−25°C)/Z(+20°C)                                                                                                                                                                                                                                                                       | 4                                    | 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. (tanδ)                                                                                                                                                                                                                                                                             | ≤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. (tanδ)                                                                                                                                                                                                                                                                             | ≤150% of the initial specified value |                       |
|                                                        | Leakage current                                                                                                                                                                                                                                                                         | ≤The initial specified value         |                       |

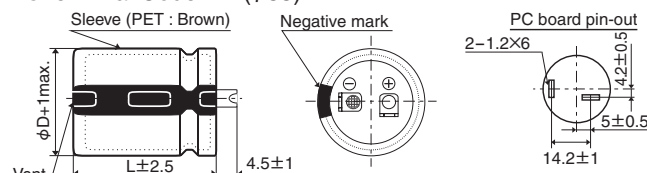
## DIMENSIONS [mm]

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

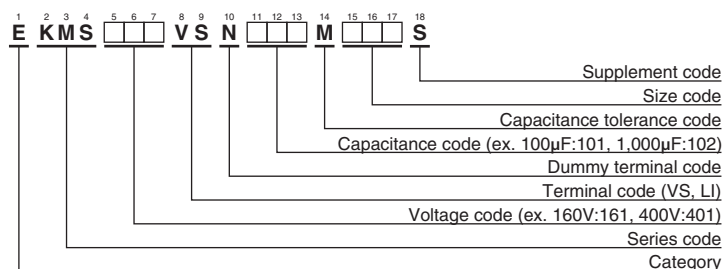


The standard design has no plastic disc.

- Terminal Code : LI (φ35)



## PART NUMBERING SYSTEM



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

### ◆STANDARD RATINGS

| WV<br>(Vdc) | Cap<br>(μF) | Case size<br>φD×L(mm) | tanδ | Rated ripple<br>current<br>(Arms/<br>105°C, 120Hz) | Part No.           | WV<br>(Vdc) | Cap<br>(μF) | Case size<br>φD×L(mm) | tanδ | Rated ripple<br>current<br>(Arms/<br>105°C, 120Hz) | Part No.           |
|-------------|-------------|-----------------------|------|----------------------------------------------------|--------------------|-------------|-------------|-----------------------|------|----------------------------------------------------|--------------------|
| 160         | 470         | 22×25                 | 0.15 | 1.47                                               | EKMS161VSN471MP25S | 200         | 1,800       | 30×45                 | 0.15 | 3.66                                               | EKMS201VSN182MR45S |
|             | 680         | 22×30                 | 0.15 | 1.86                                               | EKMS161VSN681MP30S |             | 1,800       | 30×50                 | 0.15 | 3.72                                               | EKMS201VSN182MR50S |
|             | 680         | 25.4×25               | 0.15 | 1.84                                               | EKMS161VSN681MQ25S |             | 1,800       | 35×40                 | 0.15 | 3.81                                               | EKMS201VSN182MA40S |
|             | 820         | 22×35                 | 0.15 | 2.09                                               | EKMS161VSN821MP35S |             | 2,200       | 35×45                 | 0.15 | 4.32                                               | EKMS201VSN222MA45S |
|             | 820         | 25.4×30               | 0.15 | 2.08                                               | EKMS161VSN821MQ30S |             | 2,700       | 35×50                 | 0.15 | 4.88                                               | EKMS201VSN272MA50S |
|             | 1,000       | 22×40                 | 0.15 | 2.35                                               | EKMS161VSN102MP40S | 250         | 270         | 22×25                 | 0.15 | 1.11                                               | EKMS251VSN271MP25S |
|             | 1,000       | 22×45                 | 0.15 | 2.40                                               | EKMS161VSN102MP45S |             | 330         | 22×30                 | 0.15 | 1.29                                               | EKMS251VSN331MP30S |
|             | 1,000       | 25.4×35               | 0.15 | 2.40                                               | EKMS161VSN102MQ35S |             | 390         | 22×35                 | 0.15 | 1.44                                               | EKMS251VSN391MP35S |
|             | 1,000       | 30×25                 | 0.15 | 2.50                                               | EKMS161VSN102MR25S |             | 390         | 25.4×25               | 0.15 | 1.40                                               | EKMS251VSN391MQ25S |
|             | 1,200       | 22×50                 | 0.15 | 2.69                                               | EKMS161VSN122MP50S |             | 470         | 22×40                 | 0.15 | 1.61                                               | EKMS251VSN471MP40S |
|             | 1,200       | 25.4×40               | 0.15 | 2.68                                               | EKMS161VSN122MQ40S |             | 470         | 25.4×30               | 0.15 | 1.57                                               | EKMS251VSN471MQ30S |
|             | 1,200       | 30×30                 | 0.15 | 2.77                                               | EKMS161VSN122MR30S |             | 560         | 22×45                 | 0.15 | 1.79                                               | EKMS251VSN561MP45S |
|             | 1,200       | 35×25                 | 0.15 | 2.91                                               | EKMS161VSN122MA25S |             | 560         | 25.4×35               | 0.15 | 1.79                                               | EKMS251VSN561MQ35S |
|             | 1,500       | 25.4×45               | 0.15 | 3.05                                               | EKMS161VSN152MQ45S |             | 560         | 30×25                 | 0.15 | 1.87                                               | EKMS251VSN561MR25S |
|             | 1,500       | 30×35                 | 0.15 | 3.17                                               | EKMS161VSN152MR35S |             | 680         | 22×50                 | 0.15 | 2.02                                               | EKMS251VSN681MP50S |
|             | 1,800       | 25.4×50               | 0.15 | 3.40                                               | EKMS161VSN182MQ50S |             | 680         | 25.4×40               | 0.15 | 2.02                                               | EKMS251VSN681MQ40S |
|             | 1,800       | 30×40                 | 0.15 | 3.57                                               | EKMS161VSN182MR40S |             | 680         | 30×30                 | 0.15 | 2.08                                               | EKMS251VSN681MR30S |
|             | 1,800       | 35×30                 | 0.15 | 3.62                                               | EKMS161VSN182MA30S |             | 680         | 35×25                 | 0.15 | 2.19                                               | EKMS251VSN681MA25S |
|             | 2,200       | 30×45                 | 0.15 | 4.05                                               | EKMS161VSN222MR45S |             | 820         | 25.4×45               | 0.15 | 2.26                                               | EKMS251VSN821MQ45S |
|             | 2,200       | 35×35                 | 0.15 | 4.07                                               | EKMS161VSN222MA35S |             | 820         | 30×35                 | 0.15 | 2.34                                               | EKMS251VSN821MR35S |
|             | 2,700       | 30×50                 | 0.15 | 4.56                                               | EKMS161VSN272MR50S |             | 1,000       | 25.4×50               | 0.15 | 2.53                                               | EKMS251VSN102MQ50S |
|             | 2,700       | 35×40                 | 0.15 | 4.67                                               | EKMS161VSN272MA40S |             | 1,000       | 30×40                 | 0.15 | 2.66                                               | EKMS251VSN102MR40S |
|             | 2,700       | 35×45                 | 0.15 | 4.78                                               | EKMS161VSN272MA45S |             | 1,000       | 35×30                 | 0.15 | 2.70                                               | EKMS251VSN102MA30S |
|             | 3,300       | 35×50                 | 0.15 | 5.40                                               | EKMS161VSN332MA50S |             | 1,200       | 30×45                 | 0.15 | 2.99                                               | EKMS251VSN122MR45S |
| 180         | 390         | 22×25                 | 0.15 | 1.34                                               | EKMS181VSN391MP25S | 315         | 1,200       | 30×50                 | 0.15 | 3.04                                               | EKMS251VSN122MR50S |
|             | 560         | 22×30                 | 0.15 | 1.68                                               | EKMS181VSN561MP30S |             | 1,200       | 35×35                 | 0.15 | 3.00                                               | EKMS251VSN122MA35S |
|             | 560         | 25.4×25               | 0.15 | 1.67                                               | EKMS181VSN561MQ25S |             | 1,500       | 35×40                 | 0.15 | 3.48                                               | EKMS251VSN152MA40S |
|             | 680         | 22×35                 | 0.15 | 1.90                                               | EKMS181VSN681MP35S |             | 1,500       | 35×45                 | 0.15 | 3.56                                               | EKMS251VSN152MA45S |
|             | 820         | 22×40                 | 0.15 | 2.13                                               | EKMS181VSN821MP40S |             | 1,800       | 35×50                 | 0.15 | 3.98                                               | EKMS251VSN182MA50S |
|             | 820         | 25.4×30               | 0.15 | 2.08                                               | EKMS181VSN821MQ30S | 400         | 180         | 22×25                 | 0.15 | 0.95                                               | EKMS3B1VSN181MP25S |
|             | 820         | 30×25                 | 0.15 | 2.26                                               | EKMS181VSN821MR25S |             | 220         | 22×30                 | 0.15 | 1.10                                               | EKMS3B1VSN221MP30S |
|             | 1,000       | 22×45                 | 0.15 | 2.40                                               | EKMS181VSN102MP45S |             | 220         | 25.4×25               | 0.15 | 1.10                                               | EKMS3B1VSN221MQ25S |
|             | 1,000       | 22×50                 | 0.15 | 2.45                                               | EKMS181VSN102MP50S |             | 270         | 22×35                 | 0.15 | 1.24                                               | EKMS3B1VSN271MP35S |
|             | 1,000       | 25.4×35               | 0.15 | 2.40                                               | EKMS181VSN102MQ35S |             | 330         | 22×40                 | 0.15 | 1.40                                               | EKMS3B1VSN331MP40S |
|             | 1,000       | 25.4×40               | 0.15 | 2.45                                               | EKMS181VSN102MQ40S |             | 330         | 25.4×30               | 0.15 | 1.38                                               | EKMS3B1VSN331MQ30S |
|             | 1,000       | 30×30                 | 0.15 | 2.52                                               | EKMS181VSN102MR30S |             | 330         | 30×25                 | 0.15 | 1.43                                               | EKMS3B1VSN331MR25S |
|             | 1,200       | 25.4×45               | 0.15 | 2.73                                               | EKMS181VSN122MQ45S |             | 390         | 22×45                 | 0.15 | 1.56                                               | EKMS3B1VSN391MP45S |
|             | 1,200       | 30×35                 | 0.15 | 2.83                                               | EKMS181VSN122MR35S |             | 390         | 22×50                 | 0.15 | 1.59                                               | EKMS3B1VSN391MP50S |
|             | 1,200       | 35×25                 | 0.15 | 2.91                                               | EKMS181VSN122MA25S |             | 390         | 25.4×35               | 0.15 | 1.57                                               | EKMS3B1VSN391MQ35S |
|             | 1,500       | 25.4×50               | 0.15 | 3.10                                               | EKMS181VSN152MQ50S |             | 470         | 25.4×40               | 0.15 | 1.76                                               | EKMS3B1VSN471MQ40S |
|             | 1,500       | 30×40                 | 0.15 | 3.26                                               | EKMS181VSN152MR40S |             | 470         | 30×30                 | 0.15 | 1.73                                               | EKMS3B1VSN471MR30S |
|             | 1,500       | 35×30                 | 0.15 | 3.31                                               | EKMS181VSN152MA30S |             | 470         | 35×25                 | 0.15 | 1.82                                               | EKMS3B1VSN471MA25S |
|             | 1,800       | 30×45                 | 0.15 | 3.66                                               | EKMS181VSN182MR45S |             | 560         | 25.4×45               | 0.15 | 1.96                                               | EKMS3B1VSN561MQ45S |
|             | 1,800       | 35×35                 | 0.15 | 3.68                                               | EKMS181VSN182MA35S |             | 560         | 25.4×50               | 0.15 | 1.99                                               | EKMS3B1VSN561MQ50S |
|             | 2,200       | 30×50                 | 0.15 | 4.11                                               | EKMS181VSN222MR50S |             | 560         | 30×35                 | 0.15 | 1.93                                               | EKMS3B1VSN561MR35S |
|             | 2,200       | 35×40                 | 0.15 | 4.22                                               | EKMS181VSN222MA40S |             | 560         | 35×30                 | 0.15 | 2.02                                               | EKMS3B1VSN561MA30S |
|             | 2,700       | 35×45                 | 0.15 | 4.78                                               | EKMS181VSN272MA45S |             | 680         | 30×40                 | 0.15 | 2.19                                               | EKMS3B1VSN681MR40S |
|             | 2,700       | 35×50                 | 0.15 | 4.88                                               | EKMS181VSN272MA50S |             | 680         | 35×35                 | 0.15 | 2.26                                               | EKMS3B1VSN681MA35S |
| 200         | 390         | 22×25                 | 0.15 | 1.34                                               | EKMS201VSN391MP25S | 400         | 820         | 30×45                 | 0.15 | 2.47                                               | EKMS3B1VSN821MR45S |
|             | 470         | 22×30                 | 0.15 | 1.54                                               | EKMS201VSN471MP30S |             | 820         | 30×50                 | 0.15 | 2.51                                               | EKMS3B1VSN821MR50S |
|             | 560         | 22×35                 | 0.15 | 1.72                                               | EKMS201VSN561MP35S |             | 820         | 35×40                 | 0.15 | 2.57                                               | EKMS3B1VSN821MA40S |
|             | 560         | 25.4×25               | 0.15 | 1.67                                               | EKMS201VSN561MQ25S |             | 1,000       | 35×45                 | 0.15 | 2.91                                               | EKMS3B1VSN102MA45S |
|             | 680         | 22×40                 | 0.15 | 1.94                                               | EKMS201VSN681MP40S |             | 1,200       | 35×50                 | 0.15 | 3.25                                               | EKMS3B1VSN122MA50S |
|             | 680         | 25.4×30               | 0.15 | 1.89                                               | EKMS201VSN681MQ30S | 400         | 120         | 22×25                 | 0.15 | 0.77                                               | EKMS401VSN121MP25S |
|             | 820         | 22×45                 | 0.15 | 2.17                                               | EKMS201VSN821MP45S |             | 150         | 22×30                 | 0.15 | 0.90                                               | EKMS401VSN151MP30S |
|             | 820         | 25.4×35               | 0.15 | 2.17                                               | EKMS201VSN821MQ35S |             | 180         | 22×35                 | 0.15 | 1.02                                               | EKMS401VSN181MP35S |
|             | 820         | 30×25                 | 0.15 | 2.26                                               | EKMS201VSN821MR25S |             | 180         | 25.4×25               | 0.15 | 0.99                                               | EKMS401VSN181MQ25S |
|             | 1,000       | 22×50                 | 0.15 | 2.45                                               | EKMS201VSN102MP50S |             | 220         | 22×40                 | 0.15 | 1.15                                               | EKMS401VSN221MP40S |
|             | 1,000       | 25.4×40               | 0.15 | 2.45                                               | EKMS201VSN102MQ40S |             | 220         | 25.4×30               | 0.15 | 1.13                                               | EKMS401VSN221MQ30S |
|             | 1,000       | 30×30                 | 0.15 | 2.52                                               | EKMS201VSN102MR30S |             | 270         | 22×45                 | 0.15 | 1.29                                               | EKMS401VSN271MP45S |
|             | 1,000       | 35×25                 | 0.15 | 2.66                                               | EKMS201VSN102MA25S |             | 270         | 25.4×35               | 0.15 | 1.30                                               | EKMS401VSN271MQ35S |
|             | 1,200       | 25.4×45               | 0.15 | 2.73                                               | EKMS201VSN122MQ45S |             | 270         | 30×25                 | 0.15 | 1.29                                               | EKMS401VSN271MR25S |
|             | 1,200       | 25.4×50               | 0.15 | 2.78                                               | EKMS201VSN122MQ50S |             | 330         | 22×50                 | 0.15 | 1.47                                               | EKMS401VSN331MP50S |
|             | 1,200       | 30×35                 | 0.15 | 2.83                                               | EKMS201VSN122MR35S |             | 330         | 25.4×40               | 0.15 | 1.47                                               | EKMS401VSN331MQ40S |
|             | 1,200       | 35×30                 | 0.15 | 2.96                                               | EKMS201VSN122MA30S |             | 330         | 30×30                 | 0.15 | 1.45                                               | EKMS401VSN331MR30S |
|             | 1,500       | 30×40                 | 0.15 | 3.26                                               | EKMS201VSN152MR40S |             | 330         | 35×25                 | 0.15 | 1.52                                               | EKMS401VSN331MA25S |
|             | 1,500       | 35×35                 | 0.15 | 3.36                                               | EKMS201VSN152MA35S |             | 390         | 25.4×45               | 0.15 | 1.63                                               | EKMS401VSN391MQ45S |

### ◆STANDARD RATINGS

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tanδ | Rated ripple<br>current<br>(Arms/<br>105°C, 120Hz) | Part No.           |
|--------------------------|-------------|-----------------------|------|----------------------------------------------------|--------------------|
| 400                      | 390         | 25.4×50               | 0.15 | 1.66                                               | EKMS401VSN391MQ50S |
|                          | 390         | 30×35                 | 0.15 | 1.61                                               | EKMS401VSN391MR35S |
|                          | 470         | 30×40                 | 0.15 | 1.82                                               | EKMS401VSN471MR40S |
|                          | 470         | 35×30                 | 0.15 | 1.85                                               | EKMS401VSN471MA30S |
|                          | 560         | 30×45                 | 0.15 | 2.04                                               | EKMS401VSN561MR45S |
|                          | 560         | 30×50                 | 0.15 | 2.07                                               | EKMS401VSN561MR50S |
|                          | 560         | 35×35                 | 0.15 | 2.05                                               | EKMS401VSN561MA35S |
|                          | 680         | 35×40                 | 0.15 | 2.34                                               | EKMS401VSN681MA40S |
|                          | 680         | 35×45                 | 0.15 | 2.40                                               | EKMS401VSN681MA45S |
|                          | 820         | 35×50                 | 0.15 | 2.69                                               | EKMS401VSN821MA50S |
| 420                      | 100         | 22×25                 | 0.20 | 0.70                                               | EKMS421VSN101MP25S |
|                          | 120         | 22×30                 | 0.20 | 0.81                                               | EKMS421VSN121MP30S |
|                          | 120         | 25.4×25               | 0.20 | 0.81                                               | EKMS421VSN121MQ25S |
|                          | 150         | 22×35                 | 0.20 | 0.93                                               | EKMS421VSN151MP35S |
|                          | 180         | 22×40                 | 0.20 | 1.04                                               | EKMS421VSN181MP40S |
|                          | 180         | 25.4×30               | 0.20 | 1.02                                               | EKMS421VSN181MQ30S |
|                          | 180         | 30×25                 | 0.20 | 1.06                                               | EKMS421VSN181MR25S |
|                          | 220         | 22×45                 | 0.20 | 1.17                                               | EKMS421VSN221MP45S |
|                          | 220         | 22×50                 | 0.20 | 1.20                                               | EKMS421VSN221MP50S |
|                          | 220         | 25.4×35               | 0.20 | 1.18                                               | EKMS421VSN221MQ35S |
|                          | 220         | 30×30                 | 0.20 | 1.18                                               | EKMS421VSN221MR30S |
|                          | 270         | 25.4×40               | 0.20 | 1.33                                               | EKMS421VSN271MQ40S |
|                          | 270         | 25.4×45               | 0.20 | 1.36                                               | EKMS421VSN271MQ45S |
|                          | 270         | 35×25                 | 0.20 | 1.38                                               | EKMS421VSN271MA25S |
|                          | 330         | 25.4×50               | 0.20 | 1.52                                               | EKMS421VSN331MQ50S |
|                          | 330         | 30×35                 | 0.20 | 1.48                                               | EKMS421VSN331MR35S |
|                          | 330         | 30×40                 | 0.20 | 1.52                                               | EKMS421VSN331MR40S |
|                          | 330         | 35×30                 | 0.20 | 1.55                                               | EKMS421VSN331MA30S |
|                          | 390         | 30×45                 | 0.20 | 1.70                                               | EKMS421VSN391MR45S |
|                          | 390         | 35×35                 | 0.20 | 1.71                                               | EKMS421VSN391MA35S |
| 450                      | 470         | 30×50                 | 0.20 | 1.90                                               | EKMS421VSN471MR50S |
|                          | 470         | 35×40                 | 0.20 | 1.95                                               | EKMS421VSN471MA40S |
|                          | 560         | 35×45                 | 0.20 | 2.17                                               | EKMS421VSN561MA45S |
|                          | 680         | 35×50                 | 0.20 | 2.45                                               | EKMS421VSN681MA50S |
|                          | 82          | 22×25                 | 0.20 | 0.64                                               | EKMS451VSN820MP25S |
|                          | 120         | 22×30                 | 0.20 | 0.81                                               | EKMS451VSN121MP30S |
|                          | 120         | 22×35                 | 0.20 | 0.83                                               | EKMS451VSN121MP35S |
|                          | 120         | 25.4×25               | 0.20 | 0.81                                               | EKMS451VSN121MQ25S |
|                          | 150         | 22×40                 | 0.20 | 0.94                                               | EKMS451VSN151MP40S |
|                          | 150         | 25.4×30               | 0.20 | 0.93                                               | EKMS451VSN151MQ30S |
| 450                      | 180         | 22×45                 | 0.20 | 1.06                                               | EKMS451VSN181MP45S |
|                          | 180         | 25.4×35               | 0.20 | 1.06                                               | EKMS451VSN181MR25S |
|                          | 220         | 22×50                 | 0.20 | 1.20                                               | EKMS451VSN221MP50S |
|                          | 220         | 25.4×40               | 0.20 | 1.20                                               | EKMS451VSN221MQ40S |
|                          | 220         | 30×30                 | 0.20 | 1.18                                               | EKMS451VSN221MR30S |
|                          | 220         | 35×25                 | 0.20 | 1.24                                               | EKMS451VSN221MA25S |
|                          | 270         | 25.4×45               | 0.20 | 1.36                                               | EKMS451VSN271MQ45S |
|                          | 270         | 25.4×50               | 0.20 | 1.38                                               | EKMS451VSN271MQ50S |
|                          | 270         | 30×35                 | 0.20 | 1.34                                               | EKMS451VSN271MR35S |
|                          | 270         | 35×30                 | 0.20 | 1.40                                               | EKMS451VSN271MA30S |
| 450                      | 330         | 30×40                 | 0.20 | 1.52                                               | EKMS451VSN331MR40S |
|                          | 390         | 30×45                 | 0.20 | 1.70                                               | EKMS451VSN391MR45S |
|                          | 390         | 30×50                 | 0.20 | 1.73                                               | EKMS451VSN391MR50S |
|                          | 390         | 35×35                 | 0.20 | 1.71                                               | EKMS451VSN391MA35S |
|                          | 470         | 35×40                 | 0.20 | 1.95                                               | EKMS451VSN471MA40S |
|                          | 470         | 35×45                 | 0.20 | 1.99                                               | EKMS451VSN471MA45S |
|                          | 560         | 35×50                 | 0.20 | 2.22                                               | EKMS451VSN561MA50S |
|                          | 47          | 22×25                 | 0.20 | 0.51                                               | EKMS501VSN470MP25S |
|                          | 56          | 22×30                 | 0.20 | 0.58                                               | EKMS501VSN560MP30S |
|                          | 68          | 25.4×25               | 0.20 | 0.65                                               | EKMS501VSN680MQ25S |
| 500                      | 82          | 22×35                 | 0.20 | 0.72                                               | EKMS501VSN820MP35S |
|                          | 82          | 25.4×30               | 0.20 | 0.74                                               | EKMS501VSN820MQ30S |
|                          | 100         | 22×45                 | 0.20 | 0.83                                               | EKMS501VSN101MP45S |
|                          | 100         | 30×25                 | 0.20 | 0.82                                               | EKMS501VSN101MR25S |
|                          | 120         | 22×50                 | 0.20 | 0.93                                               | EKMS501VSN121MP50S |
|                          | 120         | 25.4×35               | 0.20 | 0.93                                               | EKMS501VSN121MQ35S |
|                          | 120         | 30×30                 | 0.20 | 0.91                                               | EKMS501VSN121MR30S |
|                          | 150         | 25.4×45               | 0.20 | 1.08                                               | EKMS501VSN151MQ45S |
|                          | 150         | 30×35                 | 0.20 | 1.04                                               | EKMS501VSN151MR35S |
|                          | 150         | 35×25                 | 0.20 | 0.99                                               | EKMS501VSN151MA25S |
| 500                      | 180         | 25.4×50               | 0.20 | 1.20                                               | EKMS501VSN181MQ50S |
|                          | 180         | 30×40                 | 0.20 | 1.17                                               | EKMS501VSN181MR40S |
|                          | 180         | 35×30                 | 0.20 | 1.10                                               | EKMS501VSN181MA30S |
|                          | 220         | 30×45                 | 0.20 | 1.33                                               | EKMS501VSN221MR45S |
|                          | 220         | 35×35                 | 0.20 | 1.23                                               | EKMS501VSN221MA35S |
|                          | 270         | 30×50                 | 0.20 | 1.50                                               | EKMS501VSN271MR50S |
|                          | 270         | 35×40                 | 0.20 | 1.42                                               | EKMS501VSN271MA40S |
|                          | 330         | 35×45                 | 0.20 | 1.60                                               | EKMS501VSN331MA45S |
|                          | 390         | 35×50                 | 0.20 | 1.78                                               | EKMS501VSN391MA50S |
|                          | 470         | 35×60                 | 0.20 | 2.03                                               | EKMS501VSN471MA60S |

### ◆RATED RIPPLE CURRENT MULTIPLIERS

#### ●Frequency Multipliers

| Frequency(Hz)             | 50   | 120  | 300  | 1k   | 10k  | 50k  |
|---------------------------|------|------|------|------|------|------|
| 160 to 250V <sub>dc</sub> | 0.81 | 1.00 | 1.17 | 1.32 | 1.45 | 1.50 |
| 315 to 450V <sub>dc</sub> | 0.77 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |
| 500V <sub>dc</sub>        | 0.70 | 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.