

VXK SERIES

UPGRADE

105°C 5000 hours, Ultra Miniaturized

• Load Life : 105°C 5000 hours.

RoHS compliance



◆SPECIFICATIONS

| Items | Characteristics | | | | | | | | |
|--|--|---------------------|-----------------------------------|--------------------|--|------------------|------------------------------------|------|--|
| Category Temperature Range | -25~+105°C | | | | | | | | |
| Rated Voltage Range | 400~500Vdc | | | | | | | | |
| Capacitance Tolerance | ±20%(20°C,120Hz) | | | | | | | | |
| Leakage Current(MAX) | $I = 3\sqrt{CV}$ (After 5 minutes application of rated voltage) I =Leakage Current(μ A) C =Capacitance(μ F) V =Rated Voltage(Vdc) | | | | | | | | |
| Dissipation Factor(MAX) | <table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>400~450</td> <td>475, 500</td> <td>(20°C,120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.20</td> <td>0.25</td> <td></td> </tr> </table> | Rated Voltage (Vdc) | 400~450 | 475, 500 | (20°C,120Hz) | tan δ | 0.20 | 0.25 | |
| Rated Voltage (Vdc) | 400~450 | 475, 500 | (20°C,120Hz) | | | | | | |
| tan δ | 0.20 | 0.25 | | | | | | | |
| Endurance | After applying rated voltage with rated ripple current for 5000 hours at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table> | Capacitance Change | Within ±20% of the initial value. | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. | | |
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| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | |
| Leakage Current | Not more than the specified value. | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>400~450</td> <td>475, 500</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>8</td> <td>12</td> <td></td> </tr> </table> | Rated Voltage (Vdc) | 400~450 | 475, 500 | (120Hz) | Z(-25°C)/Z(20°C) | 8 | 12 | |
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| Z(-25°C)/Z(20°C) | 8 | 12 | | | | | | | |

◆MULTIPLIER FOR RIPPLE CURRENT

| Frequency (Hz) | 60(50) | 120(100) | 300 | 500 | 1k | 10k \leq |
|----------------|--------|----------|------|------|------|------------|
| Coefficient | 0.80 | 1.00 | 1.15 | 1.20 | 1.25 | 1.40 |

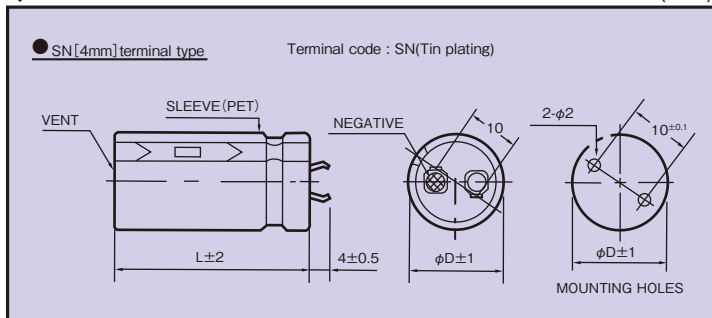
◆OPTION

| | Code |
|--------------------------|------|
| PET Sleeve without plate | EFC |

◆PART NUMBER

 VXK M SN D×L
 Rated Voltage Series Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆DIMENSIONS



◆ STANDARD SIZE

| Vdc Cap(μF) φD | 400 | | | | | | | | 420 | | | | | | | |
|----------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|-------|-------|------|
| | φ22 | | φ25 | | φ30 | | φ35 | | φ22 | | φ25 | | φ30 | | φ35 | |
| 120 | | | | | | | | | 22×25 | 0.92 | | | | | | |
| 150 | 22×25 | 1.01 | | | | | | | 22×30 | 1.08 | | | | | | |
| 180 | 22×30 | 1.17 | 25×25 | 1.13 | | | | | 22×30 | 1.16 | 25×25 | 1.12 | | | | |
| | | | | | | | | | 22×35 | 1.23 | | | | | | |
| 220 | 22×35 | 1.33 | 25×30 | 1.31 | | | | | 22×35 | 1.33 | 25×30 | 1.30 | | | | |
| | | | | | | | | | 22×40 | 1.40 | | | | | | |
| 270 | 22×40 | 1.52 | 25×30 | 1.40 | 30×25 | 1.33 | | | 22×40 | 1.51 | 25×35 | 1.49 | 30×25 | 1.32 | | |
| | | | 25×35 | 1.50 | | | | | 22×45 | 1.58 | | | | | | |
| 330 | 22×45 | 1.71 | 25×35 | 1.61 | | | | | 22×50 | 1.78 | 25×40 | 1.69 | 30×30 | 1.54 | 35×25 | 1.40 |
| | 22×50 | 1.78 | 25×40 | 1.70 | 30×30 | 1.55 | | | | | | | | | | |
| 390 | 22×50 | 1.90 | 25×40 | 1.80 | 30×30 | 1.60 | 35×25 | 1.43 | 22×55 | 1.96 | 25×45 | 1.88 | 30×35 | 1.75 | 35×30 | 1.64 |
| | 22×55 | 1.97 | 25×45 | 1.89 | | | | | 22×60 | 2.02 | | | | | | |
| 470 | 22×60 | 2.18 | 25×50 | 2.10 | 30×35 | 1.82 | 35×30 | 1.68 | | | 25×50 | 2.10 | 30×40 | 1.96 | 35×30 | 1.70 |
| | | | | | | | | | | | 25×55 | 2.17 | | 35×35 | 1.85 | |
| 560 | | | 25×55 | 2.31 | 30×40 | 2.04 | 35×35 | 1.92 | | | 25×60 | 2.40 | 30×45 | 2.20 | 35×35 | 1.94 |
| | | | | | | | | | | | | | 30×50 | 2.29 | 35×40 | 2.07 |
| 680 | | | | | 30×45 | 2.31 | 35×35 | 2.00 | | | | | 30×50 | 2.43 | 35×40 | 2.17 |
| | | | | | 30×50 | 2.42 | 35×40 | 2.15 | | | | | 30×55 | 2.51 | 35×45 | 2.29 |
| 820 | | | | | 30×55 | 2.64 | 35×45 | 2.37 | | | | | | | 35×45 | 2.41 |
| | | | | | | | | | | | | | | | 35×50 | 2.50 |
| 1000 | | | | | | | 35×50 | 2.58 | | | | | | | 35×60 | 2.89 |
| 1200 | | | | | | | 35×60 | 2.95 | | | | | | | | |

| Vdc Cap(μF) φD | 450 | | | | | | | | 475 | | | | | | | |
|----------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | φ22 | | φ25 | | φ30 | | φ35 | | φ22 | | φ25 | | φ30 | | φ35 | |
| 82 | | | | | | | | | 22×25 | 0.74 | | | | | | |
| 100 | | | | | | | | | 22×30 | 0.84 | 25×25 | 0.85 | | | | |
| 120 | 22×25 | 0.93 | | | | | | | 22×30 | 0.91 | 25×30 | 0.95 | | | | |
| 150 | 22×30 | 1.09 | 25×25 | 1.06 | | | | | 22×35 | 1.05 | 25×30 | 1.04 | 30×25 | 1.05 | | |
| 180 | 22×35 | 1.24 | 25×30 | 1.22 | | | | | 22×40 | 1.19 | 25×35 | 1.19 | 30×30 | 1.19 | | |
| 220 | 22×40 | 1.41 | 25×30 | 1.31 | 30×25 | 1.26 | | | 22×45 | 1.34 | 25×40 | 1.35 | 30×30 | 1.28 | 35×25 | 1.22 |
| | | | 25×35 | 1.39 | | | | | | | | | | | | |
| 270 | 22×45 | 1.59 | 25×35 | 1.50 | 30×30 | 1.46 | 35×25 | 1.35 | 22×55 | 1.56 | 25×45 | 1.52 | 30×35 | 1.47 | 35×30 | 1.43 |
| | 22×50 | 1.65 | 25×40 | 1.58 | | | | | | | | | | | | |
| 330 | 22×55 | 1.85 | 25×45 | 1.78 | 30×30 | 1.55 | 35×25 | 1.41 | | | 25×50 | 1.71 | 30×40 | 1.66 | 35×30 | 1.50 |
| | | | | | 30×35 | 1.67 | 35×30 | 1.58 | | | | | | | | |
| 390 | 22×60 | 2.03 | 25×50 | 1.97 | 30×35 | 1.75 | 35×30 | 1.61 | | | 25×60 | 1.95 | 30×40 | 1.75 | 35×35 | 1.70 |
| | | | | | 30×40 | 1.87 | | | | | | | | | | |
| 470 | | | 25×55 | 2.18 | 30×40 | 1.97 | 35×35 | 1.84 | | | | | 30×50 | 2.04 | 35×40 | 1.90 |
| | | | 25×60 | 2.26 | 30×45 | 2.08 | | | | | | | | | | |
| 560 | | | | | 30×50 | 2.29 | 35×40 | 2.06 | | | | | 30×60 | 2.33 | 35×45 | 2.11 |
| 680 | | | | | 30×55 | 2.54 | 35×45 | 2.28 | | | | | | | 35×55 | 2.45 |
| | | | | | 30×60 | 2.63 | | | | | | | | | | |
| 820 | | | | | | | 35×50 | 2.55 | | | | | | | | |
| | | | | | | | 35×55 | 2.66 | | | | | | | | |
| 1000 | | | | | | | 35×60 | 2.93 | | | | | | | | |

| Vdc Cap(μF) φD | 500 | | | | | | | |
|----------------------|-------|------|-------|------|-------|------|-------|------|
| | φ22 | | φ25 | | φ30 | | φ35 | |
| 68 | 22×25 | 0.69 | | | | | | |
| 82 | 22×30 | 0.77 | | | | | | |
| 100 | 22×30 | 0.85 | | | | | | |
| 120 | 22×35 | 0.96 | 25×30 | 0.96 | | | | |
| 150 | 22×40 | 1.11 | 25×30 | 1.06 | | | | |
| 180 | 22×45 | 1.25 | 25×35 | 1.20 | 30×30 | 1.20 | 35×25 | 1.16 |
| 220 | 22×50 | 1.40 | 25×40 | 1.36 | 30×30 | 1.29 | 35×30 | 1.35 |
| 270 | 22×60 | 1.62 | 25×50 | 1.60 | 30×35 | 1.48 | 35×30 | 1.43 |
| 330 | | | 25×55 | 1.78 | 30×40 | 1.67 | 35×35 | 1.63 |
| 390 | | | | | 30×45 | 1.85 | 35×40 | 1.82 |
| 470 | | | | | 30×55 | 2.14 | 35×45 | 2.02 |
| 560 | | | | | 30v60 | 2.34 | 35×50 | 2.23 |
| 680 | | | | | | | 35×55 | 2.44 |

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size φD×L(mm)