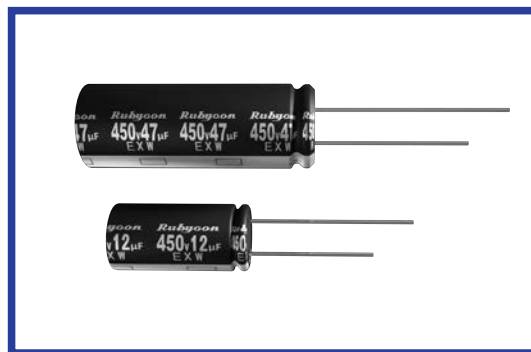


EXW series

125°C 長寿命 (3000~5000 時間) 小形化品
Load Life : 125°C Long Life (3000~5000 hours) , Miniaturized



◆規格表 / SPECIFICATIONS

| 項目 Item | 特性 Characteristics | | | | | | | | | | | | | |
|--|--|-------------------------------|---|------------------------------|--|-------------------------|---|--|---------------------|----------------------|------|------|------------|------|
| カテゴリ温度範囲 Category Temperature Range | -40~+125°C | -25~+125°C | | | | | | | | | | | | |
| 定格電圧範囲 Rated Voltage Range | 400~450Vdc | 500Vdc | | | | | | | | | | | | |
| 静電容量許容差 Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | |
| 漏れ電流 Leakage Current (MAX) | $I=3\sqrt{CV}$ (定格電圧印加5分後) $I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I=漏れ電流 (μA) C=静電容量 (μF) V=定格電圧 (Vdc) Leakage Current Capacitance Rated Voltage | | | | | | | | | | | | | |
| 損失角の正接 (tan δ) Dissipation Factor (MAX) | <table border="1"> <tr> <td>定格電圧 (Vdc) Rated Voltage</td> <td>400~450</td> <td>500</td> <td rowspan="2">(20°C, 120Hz)</td> </tr> <tr> <td>tan δ</td> <td>0.25</td> <td>0.28</td> </tr> </table> | | 定格電圧 (Vdc) Rated Voltage | 400~450 | 500 | (20°C, 120Hz) | tan δ | 0.25 | 0.28 | | | | | |
| 定格電圧 (Vdc) Rated Voltage | 400~450 | 500 | (20°C, 120Hz) | | | | | | | | | | | |
| tan δ | 0.25 | 0.28 | | | | | | | | | | | | |
| 耐久性 Endurance | 125°C中で右表の時間定格電圧(リップル重畳)印加後、下記項目を満足すること。 After applying rated voltage with rated ripple current for specified time at 125°C, the capacitors shall meet the following requirements. | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>静電容量変化率 Capacitance Change</td> <td>初期値の ±30% 以内 Within ±30% of the initial value.</td> </tr> <tr> <td>損失角の正接 Dissipation Factor</td> <td>規格値の 300% 以下 Not more than 300% of the specified value.</td> </tr> <tr> <td>漏れ電流 Leakage Current</td> <td>規格値以下 Not more than the specified value.</td> </tr> </table> | 静電容量変化率 Capacitance Change | 初期値の ±30% 以内 Within ±30% of the initial value. | 損失角の正接 Dissipation Factor | 規格値の 300% 以下 Not more than 300% of the specified value. | 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | <table border="1"> <tr> <td>ケースサイズ Case Size</td> <td>時間(hrs) Time(hrs)</td> </tr> <tr> <td>φ 10</td> <td>3000</td> </tr> <tr> <td>φ D ≥ 12.5</td> <td>5000</td> </tr> </table> ※但し、500Vdc 品は3000 時間 500Vdc:3000hrs | ケースサイズ Case Size | 時間(hrs) Time(hrs) | φ 10 | 3000 | φ D ≥ 12.5 | 5000 |
| 静電容量変化率 Capacitance Change | 初期値の ±30% 以内 Within ±30% of the initial value. | | | | | | | | | | | | | |
| 損失角の正接 Dissipation Factor | 規格値の 300% 以下 Not more than 300% of the specified value. | | | | | | | | | | | | | |
| 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | | | | | | | | | | | | | |
| ケースサイズ Case Size | 時間(hrs) Time(hrs) | | | | | | | | | | | | | |
| φ 10 | 3000 | | | | | | | | | | | | | |
| φ D ≥ 12.5 | 5000 | | | | | | | | | | | | | |
| 低温特性 Low Temperature Stability (インピーダンス比) Impedance Ratio (MAX) | <table border="1"> <tr> <td>定格電圧 (Vdc) Rated Voltage</td> <td>400~450</td> <td>500</td> <td rowspan="3">(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>6</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>10</td> <td>-</td> </tr> </table> | | 定格電圧 (Vdc) Rated Voltage | 400~450 | 500 | (120Hz) | Z(-25°C)/Z(+20°C) | 6 | 8 | Z(-40°C)/Z(+20°C) | 10 | - | | |
| 定格電圧 (Vdc) Rated Voltage | 400~450 | 500 | (120Hz) | | | | | | | | | | | |
| Z(-25°C)/Z(+20°C) | 6 | 8 | | | | | | | | | | | | |
| Z(-40°C)/Z(+20°C) | 10 | - | | | | | | | | | | | | |

◆呼称方法 / PART NUMBER

EXW M D x L
 定格電圧 シリーズ名 静電容量 静電容量許容差 副記号 リード加工記号 ケースサイズ
 Rated Voltage Series Capacitance Capacitance Tolerance Option Lead Forming Case Size

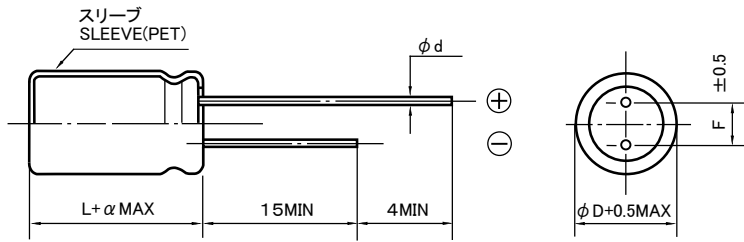
◆リップル電流補正係数 /
MULTIPLIER FOR RIPPLE CURRENT

| 周波数 (Hz) Frequency | 60(50) | 120 | 500 | 1k | 10k | 100k ≤ | |
|-----------------------|------------|------|------|------|------|--------|------|
| 係数 Coefficient | 8.2~82 μF | 0.80 | 1.00 | 1.30 | 1.50 | 2.10 | 2.50 |
| | 100~150 μF | 0.80 | 1.00 | 1.30 | 1.50 | 2.00 | 2.25 |

◆副記号 / OPTION

EFR : 400~450Vdc
EFC : 500Vdc

◆寸法図/DIMENSIONS



(mm)

| | | | | | |
|----|-----|------|------|----|----|
| φD | 10 | 12.5 | 14.5 | 16 | 18 |
| φd | 0.6 | | 0.8 | | |
| F | 5.0 | | 7.5 | | |
| α | 2.0 | | | | |

◆標準品一覧表/STANDARD SIZE

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μF) | 外形寸法 Size φD × L (mm) | 定格リプル電流 Rated Ripple Current | |
|--------------------------------|-----------------------------|-----------------------------|---------------------------------|--------|
| | | | 120Hz | 100kHz |
| 400 | 15 | 10×20 | 0.200 | 0.500 |
| | 18 | 10×25 | 0.235 | 0.588 |
| | 22 | 10×30 | 0.275 | 0.688 |
| | 22 | 12.5×20 | 0.260 | 0.650 |
| | 27 | 10×35 | 0.320 | 0.800 |
| | 27 | 12.5×25 | 0.310 | 0.775 |
| | 27 | 14.5×20 | 0.310 | 0.775 |
| | 33 | 10×40 | 0.370 | 0.925 |
| | 33 | 10×45 | 0.380 | 0.950 |
| | 33 | 16×20 | 0.355 | 0.888 |
| | 39 | 10×50 | 0.425 | 1.063 |
| | 39 | 12.5×30 | 0.395 | 0.988 |
| | 39 | 14.5×25 | 0.395 | 0.988 |
| | 47 | 12.5×35 | 0.455 | 1.138 |
| | 47 | 14.5×30 | 0.460 | 1.150 |
| | 47 | 16×25 | 0.450 | 1.125 |
| | 47 | 18×20 | 0.435 | 1.088 |
| | 56 | 12.5×40 | 0.515 | 1.288 |
| | 56 | 12.5×45 | 0.535 | 1.338 |
| | 56 | 14.5×35 | 0.525 | 1.313 |
| | 68 | 12.5×50 | 0.605 | 1.513 |
| | 68 | 14.5×40 | 0.595 | 1.488 |
| | 68 | 16×30 | 0.565 | 1.413 |
| | 68 | 18×25 | 0.550 | 1.375 |
| | 82 | 14.5×45 | 0.680 | 1.700 |
| | 82 | 16×35 | 0.645 | 1.613 |
| | 82 | 16×40 | 0.675 | 1.688 |
| | 82 | 18×30 | 0.640 | 1.600 |
| | 100 | 14.5×50 | 0.770 | 1.733 |
| | 100 | 16×45 | 0.770 | 1.733 |
| 100 | 18×35 | 0.740 | 1.665 | |
| 120 | 16×50 | 0.865 | 1.946 | |
| 120 | 18×40 | 0.835 | 1.879 | |
| 120 | 18×45 | 0.870 | 1.958 | |
| 150 | 18×50 | 0.995 | 2.239 | |

Rated Ripple Current (A r.m.s./125°C)

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μF) | 外形寸法 Size φD × L (mm) | 定格リプル電流 Rated Ripple Current | |
|--------------------------------|-----------------------------|-----------------------------|---------------------------------|--------|
| | | | 120Hz | 100kHz |
| 420 | 12 | 10×20 | 0.175 | 0.438 |
| | 15 | 10×25 | 0.210 | 0.525 |
| | 18 | 10×30 | 0.240 | 0.600 |
| | 18 | 12.5×20 | 0.230 | 0.575 |
| | 22 | 10×35 | 0.280 | 0.700 |
| | 22 | 14.5×20 | 0.275 | 0.688 |
| | 27 | 10×40 | 0.310 | 0.775 |
| | 27 | 10×45 | 0.335 | 0.838 |
| | 27 | 12.5×25 | 0.300 | 0.750 |
| | 27 | 16×20 | 0.310 | 0.775 |
| | 33 | 10×50 | 0.385 | 0.963 |
| | 33 | 12.5×30 | 0.355 | 0.888 |
| | 33 | 14.5×25 | 0.355 | 0.888 |
| | 39 | 12.5×35 | 0.405 | 1.013 |
| | 39 | 16×25 | 0.400 | 1.000 |
| | 39 | 18×20 | 0.390 | 0.975 |
| | 47 | 12.5×40 | 0.460 | 1.150 |
| | 47 | 12.5×45 | 0.480 | 1.200 |
| | 47 | 14.5×30 | 0.445 | 1.113 |
| | 56 | 12.5×50 | 0.535 | 1.338 |
| | 56 | 14.5×35 | 0.510 | 1.275 |
| | 56 | 16×30 | 0.500 | 1.250 |
| | 56 | 18×25 | 0.495 | 1.238 |
| | 68 | 14.5×40 | 0.580 | 1.450 |
| | 68 | 14.5×45 | 0.600 | 1.500 |
| | 68 | 16×35 | 0.580 | 1.450 |
| | 68 | 18×30 | 0.575 | 1.438 |
| | 82 | 14.5×50 | 0.680 | 1.700 |
| | 82 | 16×40 | 0.660 | 1.650 |
| | 82 | 16×45 | 0.685 | 1.713 |
| 82 | 18×35 | 0.655 | 1.638 | |
| 100 | 16×50 | 0.775 | 1.744 | |
| 100 | 18×40 | 0.750 | 1.688 | |
| 120 | 18×45 | 0.840 | 1.890 | |
| 120 | 18×50 | 0.875 | 1.969 | |

◆標準品一覧表 / STANDARD SIZE

Rated Ripple Current (A r.m.s./125°C)

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μ F) | 外形寸法 Size ϕ D × L (mm) | 定格リプル電流 Rated Ripple Current | |
|--------------------------------|-----------------------------------|-----------------------------------|---------------------------------|--------|
| | | | 120Hz | 100kHz |
| 450 | 12 | 10×20 | 0.175 | 0.438 |
| | 15 | 10×25 | 0.210 | 0.525 |
| | 18 | 10×30 | 0.240 | 0.600 |
| | 18 | 12.5×20 | 0.235 | 0.588 |
| | 22 | 10×35 | 0.280 | 0.700 |
| | 22 | 12.5×25 | 0.275 | 0.688 |
| | 22 | 14.5×20 | 0.275 | 0.688 |
| | 27 | 10×40 | 0.325 | 0.813 |
| | 27 | 10×45 | 0.335 | 0.838 |
| | 27 | 12.5×30 | 0.325 | 0.813 |
| | 27 | 16×20 | 0.315 | 0.788 |
| | 33 | 10×50 | 0.385 | 0.963 |
| | 33 | 12.5×35 | 0.375 | 0.938 |
| | 33 | 14.5×25 | 0.355 | 0.888 |
| | 39 | 12.5×40 | 0.425 | 1.063 |
| | 39 | 14.5×30 | 0.410 | 1.025 |
| | 39 | 16×25 | 0.400 | 1.000 |
| | 39 | 18×20 | 0.390 | 0.975 |
| | 47 | 12.5×45 | 0.480 | 1.200 |
| | 47 | 14.5×35 | 0.470 | 1.175 |
| | 47 | 16×30 | 0.465 | 1.163 |
| | 47 | 18×25 | 0.460 | 1.150 |
| | 56 | 12.5×50 | 0.540 | 1.350 |
| | 56 | 14.5×40 | 0.530 | 1.325 |
| | 56 | 16×35 | 0.530 | 1.325 |
| | 68 | 14.5×45 | 0.580 | 1.450 |
| | 68 | 14.5×50 | 0.625 | 1.563 |
| | 68 | 16×40 | 0.605 | 1.513 |
| | 68 | 18×30 | 0.575 | 1.438 |
| | 82 | 16×45 | 0.685 | 1.713 |
| 82 | 18×35 | 0.660 | 1.650 | |
| 100 | 16×50 | 0.775 | 1.744 | |
| 100 | 18×40 | 0.740 | 1.665 | |
| 100 | 18×45 | 0.785 | 1.766 | |
| 120 | 18×50 | 0.880 | 1.980 | |

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μ F) | 外形寸法 Size ϕ D × L (mm) | 定格リプル電流 Rated Ripple Current | |
|--------------------------------|-----------------------------------|-----------------------------------|---------------------------------|--------|
| | | | 120Hz | 100kHz |
| 500 | 8.2 | 10×20 | 0.135 | 0.338 |
| | 12 | 10×25 | 0.180 | 0.450 |
| | 12 | 12.5×20 | 0.180 | 0.450 |
| | 15 | 10×30 | 0.210 | 0.525 |
| | 18 | 10×35 | 0.245 | 0.613 |
| | 18 | 10×40 | 0.255 | 0.638 |
| | 18 | 12.5×25 | 0.235 | 0.588 |
| | 18 | 14.5×20 | 0.235 | 0.588 |
| | 22 | 10×45 | 0.280 | 0.700 |
| | 22 | 12.5×30 | 0.280 | 0.700 |
| | 22 | 14.5×25 | 0.280 | 0.700 |
| | 22 | 16×20 | 0.270 | 0.675 |
| | 27 | 10×50 | 0.330 | 0.825 |
| | 27 | 12.5×35 | 0.320 | 0.800 |
| | 27 | 14.5×30 | 0.325 | 0.813 |
| | 27 | 16×25 | 0.320 | 0.800 |
| | 27 | 18×20 | 0.315 | 0.788 |
| | 33 | 12.5×40 | 0.370 | 0.925 |
| | 33 | 12.5×45 | 0.385 | 0.963 |
| | 39 | 12.5×50 | 0.430 | 1.075 |
| | 39 | 14.5×35 | 0.410 | 1.025 |
| | 39 | 14.5×40 | 0.425 | 1.063 |
| | 39 | 16×30 | 0.405 | 1.013 |
| | 39 | 18×25 | 0.400 | 1.000 |
| | 47 | 14.5×45 | 0.485 | 1.213 |
| | 47 | 16×35 | 0.460 | 1.150 |
| | 47 | 18×30 | 0.460 | 1.150 |
| | 56 | 14.5×50 | 0.545 | 1.363 |
| | 56 | 16×40 | 0.525 | 1.313 |
| | 56 | 16×45 | 0.545 | 1.363 |
| 56 | 18×35 | 0.525 | 1.313 | |
| 68 | 16×50 | 0.615 | 1.538 | |
| 68 | 18×40 | 0.600 | 1.500 | |
| 82 | 18×45 | 0.680 | 1.700 | |
| 82 | 18×50 | 0.700 | 1.750 | |