

## ZLJ series

105℃ 6000～10000時間品 高リプル 長寿命 低インピーダンス品  
105℃ 6000～10000 hours. High Ripple Current, Long Life, Low Impedance



### ◆規格表／SPECIFICATIONS

| 項目 Item                                                                  | 特性 Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                  |                                                                           |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------|---------------------|--------------------|------|------|------|------------------------------|----------------------------------------------------------|----------|------|-----------------|------|------|-------------------------|---------------------------------------------|--------|------|------|------|------|------|-----------------|---------|------|------|------|---|---|---|------------|------|-------|------|------|--|--|----------------------------------|-------|--|--|--|
| カテゴリ温度範囲<br>Category Temperature Range                                   | -40~+105℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |                                                                           |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 定格電圧範囲<br>Rated Voltage Range                                            | 6.3~120Vdc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |                                                                           |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 静電容量許容差<br>Capacitance Tolerance                                         | ±20% (20℃, 120Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                  |                                                                           |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 漏れ電流<br>Leakage Current (MAX)                                            | I=0.01CV又は3μAのいずれか大なる値以下 (定格電圧印加2分後)<br>I=0.01CV or 3μA whichever is greater. (After 2 minutes)<br>I=漏れ電流 (μA) C=静電容量 (μF) V=定格電圧 (Vdc)<br>Leakage Current Capacitance Rated Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                  |                                                                           |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 損失角の正接 (tan δ)<br>Dissipation Factor (MAX)                               | <table><tr><td>定格電圧 (Vdc)<br/>Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>120</td></tr><tr><td>tan δ</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.08</td><td>0.08</td></tr></table> <p>(20℃, 120Hz)</p> <p>1000uFを超えるものは1000uF増す毎に上記の表に0.02を加えた値とする。</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 定格電圧 (Vdc)<br>Rated Voltage      | 6.3                                                                       | 10                  | 16                 | 25   | 35   | 50   | 63                           | 80                                                       | 100      | 120  | tan δ           | 0.22 | 0.19 | 0.16                    | 0.14                                        | 0.12   | 0.10 | 0.09 | 0.08 | 0.08 | 0.08 |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 定格電圧 (Vdc)<br>Rated Voltage                                              | 6.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10                               | 16                                                                        | 25                  | 35                 | 50   | 63   | 80   | 100                          | 120                                                      |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| tan δ                                                                    | 0.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.19                             | 0.16                                                                      | 0.14                | 0.12               | 0.10 | 0.09 | 0.08 | 0.08                         | 0.08                                                     |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 耐久性<br>Endurance                                                         | <p>105℃中で右表の時間定格電圧 (リプル重畳) 印加後、下記規格を満足すること。<br/>After applying rated voltage with rated ripple current for specified time at 105℃, the capacitors shall meet the following requirements.</p> <table><tr><td>静電容量変化率<br/>Capacitance Change</td><td>初期値の ±25%以内<br/>(6.3Vdc, 10Vdc: ±30%)<br/>Within ±25% of the initial value.</td><td>ケースサイズ<br/>Case Size</td><td colspan="4">時間 (hrs) Life Time</td></tr><tr><td>損失角の正接<br/>Dissipation Factor</td><td>規格値の200%以下<br/>Not more than 200% of the specified value.</td><td>φD ≤ 6.3</td><td>6000</td><td>7000</td><td>6000</td><td>-</td></tr><tr><td>漏れ電流<br/>Leakage Current</td><td>規格値以下<br/>Not more than the specified value.</td><td>8X11.5</td><td>8000</td><td>9000</td><td>8000</td><td>-</td></tr><tr><td></td><td></td><td>10X12.5</td><td>9000</td><td>9000</td><td>9000</td><td>-</td></tr><tr><td></td><td></td><td>8X16, 8X20</td><td>9000</td><td>10000</td><td>9000</td><td>9000</td></tr><tr><td></td><td></td><td>10X16, 10X20, 10X25<br/>φD ≥ 12.5</td><td colspan="4">10000</td></tr></table> | 静電容量変化率<br>Capacitance Change    | 初期値の ±25%以内<br>(6.3Vdc, 10Vdc: ±30%)<br>Within ±25% of the initial value. | ケースサイズ<br>Case Size | 時間 (hrs) Life Time |      |      |      | 損失角の正接<br>Dissipation Factor | 規格値の200%以下<br>Not more than 200% of the specified value. | φD ≤ 6.3 | 6000 | 7000            | 6000 | -    | 漏れ電流<br>Leakage Current | 規格値以下<br>Not more than the specified value. | 8X11.5 | 8000 | 9000 | 8000 | -    |      |                 | 10X12.5 | 9000 | 9000 | 9000 | - |   |   | 8X16, 8X20 | 9000 | 10000 | 9000 | 9000 |  |  | 10X16, 10X20, 10X25<br>φD ≥ 12.5 | 10000 |  |  |  |
| 静電容量変化率<br>Capacitance Change                                            | 初期値の ±25%以内<br>(6.3Vdc, 10Vdc: ±30%)<br>Within ±25% of the initial value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ケースサイズ<br>Case Size              | 時間 (hrs) Life Time                                                        |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 損失角の正接<br>Dissipation Factor                                             | 規格値の200%以下<br>Not more than 200% of the specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | φD ≤ 6.3                         | 6000                                                                      | 7000                | 6000               | -    |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 漏れ電流<br>Leakage Current                                                  | 規格値以下<br>Not more than the specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8X11.5                           | 8000                                                                      | 9000                | 8000               | -    |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10X12.5                          | 9000                                                                      | 9000                | 9000               | -    |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8X16, 8X20                       | 9000                                                                      | 10000               | 9000               | 9000 |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10X16, 10X20, 10X25<br>φD ≥ 12.5 | 10000                                                                     |                     |                    |      |      |      |                              |                                                          |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| 低温特性<br>Low Temperature Stability<br>(インピーダンス比)<br>Impedance Ratio (MAX) | <table><tr><td>定格電圧 (Vdc)<br/>Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>120</td></tr><tr><td>Z(-25℃)/Z(+20℃)</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td></tr><tr><td>Z(-40℃)/Z(+20℃)</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>4</td></tr></table> <p>(120Hz)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 定格電圧 (Vdc)<br>Rated Voltage      | 6.3                                                                       | 10                  | 16                 | 25   | 35   | 50   | 63                           | 80                                                       | 100      | 120  | Z(-25℃)/Z(+20℃) | 2    | 2    | 2                       | 2                                           | 2      | 2    | 2    | 2    | 2    | 3    | Z(-40℃)/Z(+20℃) | 3       | 3    | 3    | 3    | 3 | 3 | 3 | 3          | 3    | 4     |      |      |  |  |                                  |       |  |  |  |
| 定格電圧 (Vdc)<br>Rated Voltage                                              | 6.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10                               | 16                                                                        | 25                  | 35                 | 50   | 63   | 80   | 100                          | 120                                                      |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| Z(-25℃)/Z(+20℃)                                                          | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2                                | 2                                                                         | 2                   | 2                  | 2    | 2    | 2    | 2                            | 3                                                        |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |
| Z(-40℃)/Z(+20℃)                                                          | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3                                | 3                                                                         | 3                   | 3                  | 3    | 3    | 3    | 3                            | 4                                                        |          |      |                 |      |      |                         |                                             |        |      |      |      |      |      |                 |         |      |      |      |   |   |   |            |      |       |      |      |  |  |                                  |       |  |  |  |

### ◆呼称方法／PART NUMBER

ZLJ    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

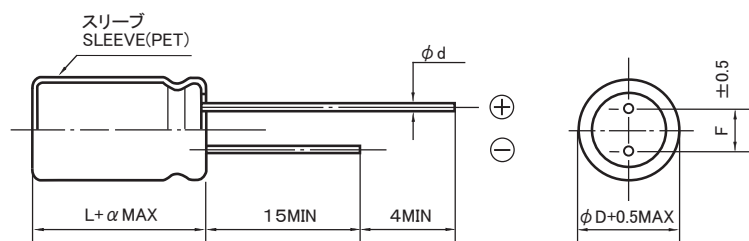
### ◆リプル電流補正係数／ MULTIPLIER FOR RIPPLE CURRENT

| 周波数 (Hz)<br>Frequency | 120  | 1k   | 10k  | 100k ≤ |
|-----------------------|------|------|------|--------|
| 8.2～33 μF             | 0.42 | 0.70 | 0.90 | 1.00   |
| 47～270 μF             | 0.50 | 0.73 | 0.92 | 1.00   |
| 330～680 μF            | 0.55 | 0.77 | 0.94 | 1.00   |
| 820～1800 μF           | 0.60 | 0.80 | 0.96 | 1.00   |
| 2200～8200 μF          | 0.70 | 0.85 | 0.98 | 1.00   |

### ◆副記号／OPTION

ブランク : 標準品  
 EFU : 低インピーダンス仕様品  
 Blank : Standard item  
 EFU : Low Impedance items

◆寸法図／DIMENSIONS



|          |                                                           |     |     |     |      |     |    |
|----------|-----------------------------------------------------------|-----|-----|-----|------|-----|----|
|          | (mm)                                                      |     |     |     |      |     |    |
| $\phi D$ | 5                                                         | 6.3 | 8   | 10  | 12.5 | 16  | 18 |
| $\phi d$ | 0.5                                                       |     | 0.6 |     |      | 0.8 |    |
| F        | 2.0                                                       | 2.5 | 3.5 | 5.0 |      | 7.5 |    |
| $\alpha$ | $L \leq 16 : \alpha = 1.5 \quad L \geq 20 : \alpha = 2.0$ |     |     |     |      |     |    |

◆標準品一覧表／STANDARD SIZE

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>(μF) | 外形寸法<br>Size φD×L<br>(mm) | 定格リプル<br>電流<br>Rated Ripple<br>Current | インピーダンス<br>(Ω MAX)<br>Impedance |               |
|--------------------------------|-----------------------------|---------------------------|----------------------------------------|---------------------------------|---------------|
|                                |                             |                           |                                        | 20°C, 100kHz                    | -10°C, 100kHz |
| 6.3                            | 220                         | 5×11                      | 345                                    | 0.40                            | 1.2           |
|                                | 470                         | 6.3×11                    | 540                                    | 0.17                            | 0.51          |
|                                | 820                         | 8×11.5                    | 945                                    | 0.075                           | 0.23          |
|                                | 1000                        | 8×16                      | 1250                                   | 0.059                           | 0.18          |
|                                | 1200                        | 10×12.5                   | 1330                                   | 0.053                           | 0.16          |
|                                | 1500                        | 8×20                      | 1500                                   | 0.041                           | 0.13          |
|                                | 1800                        | 10×16                     | 1760                                   | 0.038                           | 0.12          |
|                                | 2700                        | 10×20                     | 1960                                   | 0.028                           | 0.084         |
|                                | 3300                        | 10×25                     | 2250                                   | 0.024                           | 0.072         |
|                                | 3900                        | 12.5×20                   | 2480                                   | 0.025                           | 0.075         |
|                                | 4700                        | 12.5×25                   | 2900                                   | 0.019                           | 0.057         |
|                                | 5600                        | 12.5×30                   | 3450                                   | 0.018                           | 0.054         |
|                                | 6800                        | 12.5×35                   | 3570                                   | 0.016                           | 0.048         |
|                                | 6800                        | 16×20                     | 3250                                   | 0.021                           | 0.063         |
|                                | 8200                        | 16×25                     | 3630                                   | 0.017                           | 0.051         |
| 10                             | 150                         | 5×11                      | 450                                    | 0.40                            | 1.2           |
|                                | 330                         | 6.3×11                    | 700                                    | 0.17                            | 0.51          |
|                                | 560                         | 8×11.5                    | 1200                                   | 0.075                           | 0.23          |
|                                | 680                         | 8×16                      | 1600                                   | 0.059                           | 0.18          |
|                                | 820                         | 10×12.5                   | 1700                                   | 0.053                           | 0.16          |
|                                | 1000                        | 8×20                      | 1960                                   | 0.041                           | 0.13          |
|                                | 1200                        | 10×16                     | 2000                                   | 0.038                           | 0.12          |
|                                | 1800                        | 10×20                     | 2500                                   | 0.028                           | 0.084         |
|                                | 2200                        | 10×25                     | 2900                                   | 0.024                           | 0.072         |
|                                | 2700                        | 12.5×20                   | 2600                                   | 0.025                           | 0.075         |
|                                | 3300                        | 12.5×25                   | 3200                                   | 0.019                           | 0.057         |
|                                | 4700                        | 12.5×30                   | 3660                                   | 0.018                           | 0.054         |
|                                | 4700                        | 16×20                     | 3330                                   | 0.021                           | 0.063         |
|                                | 5600                        | 12.5×35                   | 4120                                   | 0.016                           | 0.048         |
|                                | 5600                        | 16×25                     | 3810                                   | 0.017                           | 0.051         |
| 16                             | 120                         | 5×11                      | 450                                    | 0.40                            | 1.2           |
|                                | 270                         | 6.3×11                    | 700                                    | 0.17                            | 0.51          |
|                                | 470                         | 8×11.5                    | 1200                                   | 0.075                           | 0.23          |
|                                | 560                         | 8×16                      | 1600                                   | 0.059                           | 0.18          |
|                                | 680                         | 8×16                      | 1600                                   | 0.059                           | 0.18          |
|                                | 680                         | 10×12.5                   | 1700                                   | 0.053                           | 0.16          |
|                                | 820                         | 8×20                      | 1960                                   | 0.041                           | 0.13          |
|                                | 1000                        | 8×20                      | 1960                                   | 0.041                           | 0.13          |
|                                | 1000                        | 10×16                     | 2000                                   | 0.038                           | 0.12          |
|                                | 1500                        | 10×20                     | 2500                                   | 0.028                           | 0.084         |
|                                | 1800                        | 10×25                     | 2900                                   | 0.024                           | 0.072         |
|                                | 2200                        | 12.5×20                   | 2600                                   | 0.025                           | 0.075         |
|                                | 2700                        | 12.5×25                   | 3200                                   | 0.019                           | 0.057         |
|                                | 3300                        | 12.5×30                   | 3660                                   | 0.018                           | 0.054         |
|                                | 3300                        | 16×20                     | 3330                                   | 0.021                           | 0.063         |
|                                | 3900                        | 12.5×35                   | 4120                                   | 0.016                           | 0.048         |
|                                | 4700                        | 16×25                     | 3810                                   | 0.017                           | 0.051         |

Rated Ripple Current (mA r.m.s./105°C, 100kHz)

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>(μF) | 外形寸法<br>Size φD×L<br>(mm) | 定格リプル<br>電流<br>Rated Ripple<br>Current | インピーダンス<br>(Ω MAX)<br>Impedance |               |
|--------------------------------|-----------------------------|---------------------------|----------------------------------------|---------------------------------|---------------|
|                                |                             |                           |                                        | 20°C, 100kHz                    | -10°C, 100kHz |
| 25                             | 68                          | 5×11                      | 450                                    | 0.40                            | 1.2           |
|                                | 150                         | 6.3×11                    | 700                                    | 0.17                            | 0.51          |
|                                | 330                         | 8×11.5                    | 1200                                   | 0.075                           | 0.23          |
|                                | 390                         | 8×16                      | 1600                                   | 0.059                           | 0.18          |
|                                | 470                         | 10×12.5                   | 1700                                   | 0.053                           | 0.16          |
|                                | 560                         | 8×20                      | 1960                                   | 0.041                           | 0.13          |
|                                | 680                         | 10×16                     | 2000                                   | 0.038                           | 0.12          |
|                                | 1000                        | 10×20                     | 2500                                   | 0.028                           | 0.084         |
|                                | 1200                        | 10×25                     | 2900                                   | 0.024                           | 0.072         |
|                                | 1500                        | 12.5×20                   | 2600                                   | 0.025                           | 0.075         |
|                                | 1800                        | 12.5×25                   | 3200                                   | 0.019                           | 0.057         |
|                                | 2200                        | 12.5×30                   | 3660                                   | 0.018                           | 0.054         |
|                                | 2200                        | 16×20                     | 3330                                   | 0.021                           | 0.063         |
|                                | 2700                        | 12.5×35                   | 4120                                   | 0.016                           | 0.048         |
|                                | 3300                        | 16×25                     | 3810                                   | 0.017                           | 0.051         |
| 35                             | 47                          | 5×11                      | 450                                    | 0.40                            | 1.2           |
|                                | 100                         | 6.3×11                    | 700                                    | 0.17                            | 0.51          |
|                                | 180                         | 8×11.5                    | 1200                                   | 0.075                           | 0.23          |
|                                | 220                         | 8×16                      | 1600                                   | 0.059                           | 0.18          |
|                                | 270                         | 8×16                      | 1600                                   | 0.059                           | 0.18          |
|                                | 270                         | 10×12.5                   | 1700                                   | 0.053                           | 0.16          |
|                                | 330                         | 8×20                      | 1960                                   | 0.041                           | 0.13          |
|                                | 330                         | 10×12.5                   | 1700                                   | 0.053                           | 0.16          |
|                                | 390                         | 8×20                      | 1960                                   | 0.041                           | 0.13          |
|                                | 390                         | 10×16                     | 2000                                   | 0.038                           | 0.12          |
|                                | 470                         | 10×16                     | 2000                                   | 0.038                           | 0.12          |
|                                | 560                         | 10×20                     | 2500                                   | 0.028                           | 0.084         |
|                                | 680                         | 10×25                     | 2900                                   | 0.024                           | 0.072         |
|                                | 820                         | 12.5×20                   | 2600                                   | 0.025                           | 0.075         |
|                                | 1000                        | 12.5×20                   | 2600                                   | 0.025                           | 0.075         |
|                                | 1200                        | 12.5×25                   | 3200                                   | 0.019                           | 0.057         |
|                                | 1500                        | 12.5×30                   | 3660                                   | 0.018                           | 0.054         |
|                                | 1500                        | 16×20                     | 3330                                   | 0.021                           | 0.063         |
|                                | 1800                        | 12.5×35                   | 4120                                   | 0.016                           | 0.048         |
|                                | 1800                        | 16×25                     | 3810                                   | 0.017                           | 0.051         |
| 50                             | 27                          | 5×11                      | 310                                    | 0.48                            | 1.5           |
|                                | 56                          | 6.3×11                    | 500                                    | 0.22                            | 0.66          |
|                                | 100                         | 8×11.5                    | 950                                    | 0.12                            | 0.36          |
|                                | 120                         | 8×11.5                    | 1300                                   | 0.11                            | 0.33          |
|                                | 120                         | 8×16                      | 1230                                   | 0.082                           | 0.25          |
|                                | 150                         | 10×12.5                   | 1280                                   | 0.073                           | 0.22          |
|                                | 180                         | 8×16                      | 1700                                   | 0.081                           | 0.24          |
|                                | 180                         | 8×20                      | 1580                                   | 0.058                           | 0.18          |
|                                | 220                         | 10×12.5                   | 1700                                   | 0.071                           | 0.21          |
|                                | 220                         | 10×16                     | 1650                                   | 0.053                           | 0.16          |
|                                | 270                         | 8×20                      | 2100                                   | 0.058                           | 0.17          |
|                                | 330                         | 10×16                     | 2100                                   | 0.052                           | 0.16          |

### ◆標準品一覧表／STANDARD SIZE

Rated Ripple Current (mA r.m.s./105°C, 100kHz)

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>(μF) | 外形寸法<br>Size φDxL<br>(mm) | 定格リプル電流<br>Rated Ripple Current | インピーダンス<br>(Ω MAX)<br>Impedance |               |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------------|---------------|
|                                |                             |                           |                                 | 20°C, 100kHz                    | -10°C, 100kHz |
| 50                             | 330                         | 10×20                     | 2060                            | 0.038                           | 0.12          |
|                                | 390                         | 10×25                     | 2420                            | 0.032                           | 0.10          |
|                                | 470                         | 10×20                     | 2500                            | 0.037                           | 0.11          |
|                                | 470                         | 12.5×16                   | 2200                            | 0.040                           | 0.12          |
|                                | 470                         | 12.5×20                   | 2300                            | 0.032                           | 0.10          |
|                                | 560                         | 10×25                     | 2900                            | 0.031                           | 0.093         |
|                                | 680                         | 12.5×20                   | 2700                            | 0.029                           | 0.087         |
|                                | 680                         | 12.5×25                   | 2800                            | 0.025                           | 0.080         |
|                                | 820                         | 12.5×30                   | 3370                            | 0.023                           | 0.074         |
|                                | 820                         | 16×20                     | 3070                            | 0.026                           | 0.084         |
|                                | 1000                        | 12.5×25                   | 3000                            | 0.022                           | 0.066         |
|                                | 1000                        | 12.5×30                   | 3500                            | 0.020                           | 0.060         |
|                                | 1000                        | 12.5×35                   | 3810                            | 0.021                           | 0.067         |
|                                | 1000                        | 16×25                     | 3510                            | 0.022                           | 0.070         |
|                                | 1200                        | 12.5×35                   | 4000                            | 0.017                           | 0.051         |
|                                | 1200                        | 16×20                     | 3100                            | 0.023                           | 0.069         |
|                                | 1500                        | 12.5×40                   | 4500                            | 0.019                           | 0.057         |
|                                | 1500                        | 16×25                     | 3600                            | 0.018                           | 0.054         |
|                                | 1500                        | 18×20                     | 3200                            | 0.029                           | 0.087         |
|                                | 2200                        | 16×31.5                   | 4100                            | 0.018                           | 0.054         |
|                                | 2200                        | 18×25                     | 3700                            | 0.022                           | 0.066         |
|                                | 2700                        | 16×35.5                   | 4400                            | 0.016                           | 0.048         |
|                                | 2700                        | 16×40                     | 4800                            | 0.014                           | 0.042         |
|                                | 2700                        | 18×31.5                   | 4200                            | 0.019                           | 0.057         |
|                                | 3300                        | 18×35.5                   | 4600                            | 0.016                           | 0.048         |
|                                | 3900                        | 18×40                     | 5000                            | 0.014                           | 0.042         |
| 63                             | 18                          | 5×11                      | 240                             | 0.71                            | 3.2           |
|                                | 47                          | 6.3×11                    | 420                             | 0.28                            | 1.3           |
|                                | 82                          | 8×11.5                    | 720                             | 0.18                            | 0.79          |
|                                | 100                         | 8×11.5                    | 1000                            | 0.13                            | 0.39          |
|                                | 100                         | 8×16                      | 990                             | 0.13                            | 0.58          |
|                                | 120                         | 8×16                      | 1300                            | 0.095                           | 0.29          |
|                                | 120                         | 10×12.5                   | 990                             | 0.110                           | 0.44          |
|                                | 150                         | 8×20                      | 1200                            | 0.096                           | 0.43          |
|                                | 150                         | 10×12.5                   | 1300                            | 0.080                           | 0.24          |
|                                | 180                         | 8×20                      | 1600                            | 0.069                           | 0.21          |
|                                | 180                         | 10×16                     | 1200                            | 0.076                           | 0.31          |
|                                | 220                         | 10×16                     | 1700                            | 0.058                           | 0.17          |
|                                | 270                         | 10×20                     | 1570                            | 0.056                           | 0.23          |
|                                | 270                         | 12.5×16                   | 1570                            | 0.072                           | 0.27          |
|                                | 330                         | 10×20                     | 2000                            | 0.042                           | 0.13          |
|                                | 330                         | 10×25                     | 1990                            | 0.046                           | 0.19          |
|                                | 330                         | 12.5×16                   | 1900                            | 0.045                           | 0.14          |
|                                | 390                         | 10×25                     | 2400                            | 0.035                           | 0.11          |
|                                | 390                         | 12.5×20                   | 1990                            | 0.041                           | 0.13          |
|                                | 470                         | 12.5×20                   | 2400                            | 0.033                           | 0.099         |
|                                | 470                         | 12.5×25                   | 2460                            | 0.031                           | 0.093         |
|                                | 560                         | 12.5×30                   | 2760                            | 0.028                           | 0.084         |
|                                | 560                         | 16×20                     | 2380                            | 0.032                           | 0.096         |
|                                | 680                         | 12.5×25                   | 2800                            | 0.025                           | 0.075         |
|                                | 680                         | 12.5×35                   | 3040                            | 0.024                           | 0.072         |
|                                | 820                         | 12.5×30                   | 3200                            | 0.022                           | 0.066         |
|                                | 820                         | 16×20                     | 2900                            | 0.025                           | 0.075         |
|                                | 820                         | 16×25                     | 2890                            | 0.025                           | 0.075         |
|                                | 1000                        | 12.5×35                   | 3500                            | 0.018                           | 0.054         |
|                                | 1000                        | 16×25                     | 3200                            | 0.020                           | 0.060         |
|                                | 1200                        | 12.5×40                   | 3800                            | 0.021                           | 0.063         |
|                                | 1200                        | 18×20                     | 3000                            | 0.032                           | 0.096         |
|                                | 1500                        | 16×31.5                   | 3500                            | 0.020                           | 0.060         |

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>(μF) | 外形寸法<br>Size φDxL<br>(mm) | 定格リプル電流<br>Rated Ripple Current | インピーダンス<br>(Ω MAX)<br>Impedance |               |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------------|---------------|
|                                |                             |                           |                                 | 20°C, 100kHz                    | -10°C, 100kHz |
| 63                             | 1500                        | 18×25                     | 3200                            | 0.024                           | 0.072         |
|                                | 1800                        | 16×35.5                   | 3800                            | 0.017                           | 0.051         |
|                                | 1800                        | 18×31.5                   | 3700                            | 0.020                           | 0.060         |
|                                | 2200                        | 16×40                     | 4100                            | 0.015                           | 0.045         |
|                                | 2200                        | 18×35.5                   | 3900                            | 0.017                           | 0.051         |
|                                | 2700                        | 18×40                     | 4300                            | 0.015                           | 0.045         |
|                                | 2700                        | 18×40                     | 4300                            | 0.015                           | 0.045         |
| 80                             | 12                          | 5×11                      | 235                             | 0.72                            | 3.2           |
|                                | 12                          | 5×11                      | 220                             | 1.20                            | 5.4           |
|                                | 27                          | 6.3×11                    | 390                             | 0.34                            | 1.5           |
|                                | 27                          | 6.3×11                    | 370                             | 0.46                            | 2.1           |
|                                | 47                          | 8×11.5                    | 650                             | 0.20                            | 0.9           |
|                                | 47                          | 8×11.5                    | 620                             | 0.29                            | 1.3           |
|                                | 56                          | 8×16                      | 780                             | 0.20                            | 0.9           |
|                                | 68                          | 10×12.5                   | 780                             | 0.17                            | 0.66          |
|                                | 82                          | 8×16                      | 820                             | 0.14                            | 0.63          |
|                                | 82                          | 8×20                      | 1040                            | 0.16                            | 0.66          |
|                                | 100                         | 10×12.5                   | 860                             | 0.14                            | 0.56          |
|                                | 100                         | 10×16                     | 1040                            | 0.11                            | 0.47          |
|                                | 120                         | 8×20                      | 1090                            | 0.12                            | 0.54          |
|                                | 150                         | 10×16                     | 1150                            | 0.09                            | 0.36          |
|                                | 150                         | 10×20                     | 1430                            | 0.084                           | 0.34          |
|                                | 150                         | 12.5×16                   | 1430                            | 0.110                           | 0.34          |
|                                | 180                         | 10×25                     | 1620                            | 0.069                           | 0.28          |
|                                | 220                         | 10×20                     | 1570                            | 0.068                           | 0.28          |
|                                | 220                         | 12.5×16                   | 1430                            | 0.090                           | 0.27          |
|                                | 220                         | 12.5×20                   | 1750                            | 0.062                           | 0.18          |
|                                | 270                         | 10×25                     | 1780                            | 0.055                           | 0.22          |
|                                | 270                         | 12.5×25                   | 2210                            | 0.047                           | 0.14          |
|                                | 330                         | 12.5×20                   | 1800                            | 0.048                           | 0.15          |
|                                | 330                         | 12.5×30                   | 2400                            | 0.042                           | 0.13          |
|                                | 330                         | 16×20                     | 1950                            | 0.048                           | 0.15          |
|                                | 390                         | 12.5×25                   | 2210                            | 0.038                           | 0.12          |
|                                | 390                         | 12.5×35                   | 2600                            | 0.036                           | 0.11          |
|                                | 470                         | 12.5×30                   | 2520                            | 0.033                           | 0.11          |
|                                | 470                         | 12.5×40                   | 2860                            | 0.032                           | 0.095         |
|                                | 470                         | 16×20                     | 2150                            | 0.036                           | 0.120         |
|                                | 470                         | 16×25                     | 2430                            | 0.038                           | 0.120         |
|                                | 470                         | 18×20                     | 2270                            | 0.045                           | 0.140         |
|                                | 560                         | 12.5×35                   | 2860                            | 0.026                           | 0.078         |
|                                | 560                         | 16×31.5                   | 2640                            | 0.032                           | 0.095         |
|                                | 680                         | 16×25                     | 2620                            | 0.028                           | 0.084         |
|                                | 680                         | 18×20                     | 2280                            | 0.032                           | 0.096         |
|                                | 680                         | 16×35.5                   | 2860                            | 0.029                           | 0.086         |
|                                | 680                         | 18×25                     | 2500                            | 0.036                           | 0.110         |
|                                | 820                         | 16×31.5                   | 2900                            | 0.022                           | 0.066         |
|                                | 820                         | 16×40                     | 3510                            | 0.027                           | 0.081         |
|                                | 820                         | 18×31.5                   | 2860                            | 0.030                           | 0.090         |
|                                | 1000                        | 16×35.5                   | 3150                            | 0.020                           | 0.060         |
|                                | 1000                        | 18×25                     | 2750                            | 0.027                           | 0.081         |
|                                | 1000                        | 18×35.5                   | 3510                            | 0.027                           | 0.081         |
|                                | 1200                        | 16×40                     | 3710                            | 0.018                           | 0.054         |
|                                | 1200                        | 18×31.5                   | 3150                            | 0.020                           | 0.060         |
|                                | 1200                        | 18×40                     | 3860                            | 0.026                           | 0.076         |
|                                | 1500                        | 18×35.5                   | 3710                            | 0.018                           | 0.054         |
|                                | 1800                        | 18×40                     | 4060                            | 0.017                           | 0.051         |

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### ◆標準品一覧表／STANDARD SIZE

Rated Ripple Current (mA r.m.s./105°C, 100kHz)

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>(μF) | 外形寸法<br>Size φDxL<br>(mm) | 定格リプル電流<br>Rated Ripple Current | インピーダンス<br>(Ω MAX)<br>Impedance |               |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------------|---------------|
|                                |                             |                           |                                 | 20°C, 100kHz                    | -10°C, 100kHz |
| 100                            | 8.2 ●                       | 5×11                      | 235                             | 0.72                            | 3.2           |
|                                | 8.2                         | 5×11                      | 220                             | 1.2                             | 5.4           |
|                                | 18 ●                        | 6.3×11                    | 390                             | 0.34                            | 1.5           |
|                                | 18                          | 6.3×11                    | 370                             | 0.46                            | 2.1           |
|                                | 33 ●                        | 8×11.5                    | 650                             | 0.2                             | 0.9           |
|                                | 33                          | 8×11.5                    | 620                             | 0.29                            | 1.3           |
|                                | 47 ●                        | 8×16                      | 820                             | 0.14                            | 0.63          |
|                                | 47                          | 8×16                      | 780                             | 0.20                            | 0.90          |
|                                | 56 ●                        | 10×12.5                   | 860                             | 0.14                            | 0.56          |
|                                | 56                          | 10×12.5                   | 780                             | 0.17                            | 0.66          |
|                                | 68 ●                        | 8×20                      | 1090                            | 0.12                            | 0.54          |
|                                | 68                          | 8×20                      | 1040                            | 0.16                            | 0.66          |
|                                | 82 ●                        | 10×16                     | 1150                            | 0.09                            | 0.36          |
|                                | 82                          | 10×16                     | 1040                            | 0.11                            | 0.47          |
|                                | 100                         | 10×20                     | 1430                            | 0.084                           | 0.34          |
|                                | 100                         | 12.5×16                   | 1430                            | 0.11                            | 0.34          |
|                                | 120                         | 10×20                     | 1570                            | 0.068                           | 0.28          |
|                                | 120                         | 10×25                     | 1620                            | 0.069                           | 0.28          |
|                                | 120                         | 12.5×16                   | 1430                            | 0.090                           | 0.27          |
|                                | 150                         | 10×25                     | 1780                            | 0.055                           | 0.22          |
|                                | 150                         | 12.5×20                   | 1750                            | 0.062                           | 0.18          |
|                                | 180                         | 12.5×20                   | 1800                            | 0.048                           | 0.15          |
|                                | 220 ●                       | 12.5×25                   | 2210                            | 0.038                           | 0.12          |
|                                | 220                         | 12.5×25                   | 2210                            | 0.047                           | 0.14          |
|                                | 270 ●                       | 12.5×30                   | 2520                            | 0.033                           | 0.11          |
|                                | 270                         | 12.5×30                   | 2400                            | 0.042                           | 0.13          |
|                                | 270                         | 16×20                     | 1950                            | 0.048                           | 0.15          |
|                                | 330                         | 12.5×35                   | 2600                            | 0.036                           | 0.11          |
|                                | 330                         | 16×20                     | 2150                            | 0.036                           | 0.12          |
|                                | 390                         | 12.5×35                   | 2860                            | 0.026                           | 0.078         |
|                                | 390                         | 12.5×40                   | 2860                            | 0.032                           | 0.095         |
|                                | 390 ●                       | 16×25                     | 2620                            | 0.028                           | 0.084         |
|                                | 390                         | 16×25                     | 2430                            | 0.038                           | 0.120         |
|                                | 390 ●                       | 18×20                     | 2280                            | 0.032                           | 0.096         |
|                                | 390                         | 18×20                     | 2270                            | 0.045                           | 0.140         |
|                                | 470                         | 16×31.5                   | 2640                            | 0.032                           | 0.095         |
|                                | 470                         | 18×25                     | 2500                            | 0.036                           | 0.110         |
|                                | 560                         | 16×31.5                   | 2900                            | 0.022                           | 0.066         |
|                                | 560                         | 16×35.5                   | 2860                            | 0.029                           | 0.086         |
|                                | 560                         | 18×25                     | 2750                            | 0.027                           | 0.081         |
|                                | 560                         | 18×31.5                   | 2860                            | 0.030                           | 0.090         |
|                                | 680                         | 16×35.5                   | 3150                            | 0.020                           | 0.060         |
|                                | 680                         | 16×40                     | 3510                            | 0.027                           | 0.081         |
|                                | 680                         | 18×31.5                   | 3150                            | 0.020                           | 0.060         |
|                                | 680                         | 18×35.5                   | 3510                            | 0.027                           | 0.081         |
|                                | 820                         | 16×40                     | 3710                            | 0.018                           | 0.054         |
|                                | 820                         | 18×35.5                   | 3710                            | 0.018                           | 0.054         |
|                                | 820                         | 18×40                     | 3860                            | 0.026                           | 0.076         |
|                                | 1000                        | 18×40                     | 4060                            | 0.017                           | 0.051         |

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>(μF) | 外形寸法<br>Size φDxL<br>(mm) | 定格リプル電流<br>Rated Ripple Current | インピーダンス<br>(Ω MAX)<br>Impedance |               |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------------|---------------|
|                                |                             |                           |                                 | 20°C, 100kHz                    | -10°C, 100kHz |
| 120                            | 33                          | 8×16                      | 585                             | 0.25                            | 1.00          |
|                                | 47                          | 8×20                      | 735                             | 0.19                            | 0.76          |
|                                | 56                          | 10×16                     | 780                             | 0.17                            | 0.72          |
|                                | 82                          | 10×20                     | 1040                            | 0.12                            | 0.52          |
|                                | 100                         | 10×25                     | 1250                            | 0.10                            | 0.43          |
|                                | 120                         | 10×28                     | 1400                            | 0.09                            | 0.38          |
|                                | 120                         | 12.5×20                   | 1430                            | 0.085                           | 0.31          |
|                                | 150                         | 12.5×25                   | 1620                            | 0.21                            | 0.84          |
|                                | 180                         | 12.5×30                   | 1880                            | 0.18                            | 0.72          |
|                                | 180                         | 16×20                     | 1700                            | 0.17                            | 0.65          |
|                                | 220                         | 12.5×35                   | 2140                            | 0.15                            | 0.60          |
|                                | 270                         | 12.5×40                   | 2340                            | 0.12                            | 0.48          |
|                                | 270                         | 16×25                     | 2100                            | 0.13                            | 0.49          |
|                                | 270                         | 18×20                     | 1850                            | 0.14                            | 0.52          |
|                                | 330                         | 16×31.5                   | 2400                            | 0.10                            | 0.38          |
|                                | 390                         | 16×35.5                   | 2600                            | 0.085                           | 0.32          |
|                                | 390                         | 18×25                     | 2270                            | 0.10                            | 0.37          |
|                                | 470                         | 16×40                     | 2860                            | 0.075                           | 0.29          |
|                                | 470                         | 18×31.5                   | 2470                            | 0.08                            | 0.30          |
|                                | 560                         | 18×35.5                   | 2860                            | 0.07                            | 0.26          |
|                                | 680                         | 18×40                     | 3510                            | 0.06                            | 0.22          |

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