

**MXH series**

105°C 2000 時間 小形化品  
Load Life : 105°C 2000 hours , Miniaturized



◆規格表 / SPECIFICATIONS

| 項目 Item  | 特性 Characteristics   |                               |   |                              |  |                         |   |      |    |    |  |
|--|--|-------------------------------|---|------------------------------|--|-------------------------|---|------|----|----|--|
| カテゴリ温度範囲<br>Category Temperature Range                                   | -25~+105°C   |                               |   |                              |  |                         |   |      |    |    |  |
| 定格電圧範囲<br>Rated Voltage Range  | 400~550Vdc   |                               |   |                              |  |                         |   |      |    |    |  |
| 静電容量許容差<br>Capacitance Tolerance   | ±20% (20°C, 120Hz)   |                               |   |                              |  |                         |   |      |    |    |  |
| 漏れ電流<br>Leakage Current (MAX)  | $I=3\sqrt{CV}$ (定格電圧印加5分後)<br>$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage)<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 border="1"> <tr> <td>定格電圧 (Vdc)<br/>Rated Voltage</td> <td>400~450</td> <td>475~550</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tan δ</td> <td>0.20</td> <td>0.25</td> <td></td> </tr> </table>  | 定格電圧 (Vdc)<br>Rated Voltage   | 400~450   | 475~550                      | (20°C, 120Hz)  | tan δ                   | 0.20  | 0.25 |    |    |  |
| 定格電圧 (Vdc)<br>Rated Voltage  | 400~450  | 475~550                       | (20°C, 120Hz)                                     |                              |  |                         |   |      |    |    |  |
| tan δ  | 0.20   | 0.25                          |   |                              |  |                         |   |      |    |    |  |
| 耐久性<br>Endurance   | 105°C 中で2000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。<br>After applying rated voltage with rated ripple current for 2000 hours at 105°C, the capacitors shall meet the following requirements.  |                               |   |                              |  |                         |   |      |    |    |  |
|  | <table border="1"> <tr> <td>静電容量変化率<br/>Capacitance Change</td> <td>初期値の ±20% 以内<br/>Within ±20% of the initial value.</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> </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> </tr> </table> | 静電容量変化率<br>Capacitance Change | 初期値の ±20% 以内<br>Within ±20% of the initial value. | 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. | 漏れ電流<br>Leakage Current | 規格値以下<br>Not more than the specified value. |      |    |    |  |
| 静電容量変化率<br>Capacitance Change  | 初期値の ±20% 以内<br>Within ±20% of the initial value.  |                               |   |                              |  |                         |   |      |    |    |  |
| 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.   |                               |   |                              |  |                         |   |      |    |    |  |
| 漏れ電流<br>Leakage Current  | 規格値以下<br>Not more than the specified value.  |                               |   |                              |  |                         |   |      |    |    |  |
| 低温特性<br>Low Temperature Stability<br>(インピーダンス比)<br>Impedance Ratio (MAX) | <table border="1"> <tr> <td>定格電圧 (Vdc)<br/>Rated Voltage</td> <td>400~450</td> <td>475, 500</td> <td>550</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>8</td> <td>10</td> <td>12</td> <td></td> </tr> </table>   | 定格電圧 (Vdc)<br>Rated Voltage   | 400~450   | 475, 500                     | 550  | (120Hz)                 | Z(-25°C)/Z(+20°C)                           | 8    | 10 | 12 |  |
| 定格電圧 (Vdc)<br>Rated Voltage  | 400~450  | 475, 500                      | 550   | (120Hz)                      |  |                         |   |      |    |    |  |
| Z(-25°C)/Z(+20°C)  | 8  | 10                            | 12  |                              |  |                         |   |      |    |    |  |

◆呼称方法 / PART NUMBER

MXH  M  SN 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 端子記号 ケースサイズ  
 Rated Voltage Series Capacitance Capacitance Tolerance Option Terminal Code Case Size

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

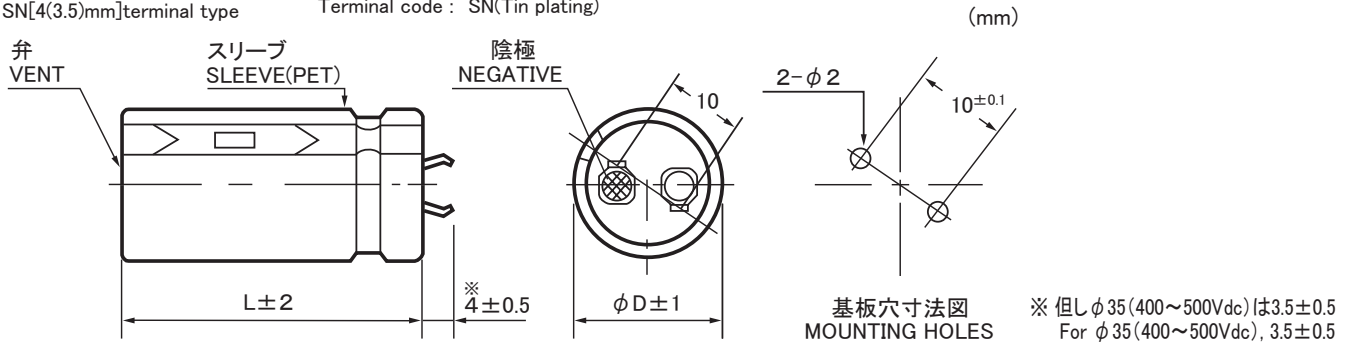
| 周波数 (Hz)<br>Frequency | 60<br>(50) | 120<br>(100) | 300  | 500  | 1k   | 10k ≤ |
|-----------------------|------------|--------------|------|------|------|-------|
| 係数 Coefficient        | 0.80       | 1.00         | 1.15 | 1.20 | 1.25 | 1.40  |

◆副記号 / OPTION

EFC : PET スリーブ、底板なし  
PET Sleeve without plate

◆寸法図/DIMENSIONS

●SN[4(3.5)mm]端子タイプ 端子記号 : SN(錫メッキ)  
SN[4(3.5)mm]terminal type Terminal code : SN(Tin plating)



◆標準品一覧表/STANDARD SIZE

| Cap.<br>(μF) | 400Vdc     |            |            |            | 420Vdc     |            |            |            |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
|              | φ22        | φ25        | φ30        | φ35        | φ22        | φ25        | φ30        | φ35        |
| 100          |            |            |            |            | 22×25 0.85 |            |            |            |
| 120          | 22×25 0.92 |            |            |            | 22×30 0.98 |            |            |            |
| 150          | 22×30 1.08 |            |            |            | 22×30 1.06 | 25×25 1.04 |            |            |
| 180          | 22×30 1.15 | 25×25 1.12 |            |            | 22×35 1.20 | 25×30 1.20 |            |            |
| 220          | 22×35 1.32 | 25×30 1.30 |            |            | 22×40 1.37 | 25×30 1.28 | 30×25 1.24 |            |
| 270          | 22×40 1.50 | 25×35 1.49 | 30×25 1.33 |            | 22×50 1.62 | 25×35 1.47 | 30×30 1.44 | 35×25 1.32 |
| 330          | 22×50 1.76 | 25×40 1.68 | 30×30 1.55 | 35×25 1.44 | 22×60 1.87 | 25×45 1.75 | 30×35 1.65 | 35×30 1.56 |
| 390          | 22×55 1.94 | 25×45 1.86 | 30×35 1.75 | 35×30 1.63 |            | 25×50 1.93 | 30×40 1.84 | 35×30 1.62 |
| 470          |            | 25×50 2.07 | 30×40 1.97 | 35×30 1.68 |            | 25×60 2.21 | 30×45 2.05 | 35×35 1.86 |
| 560          |            | 25×60 2.37 | 30×45 2.18 | 35×35 1.92 |            |            | 30×50 2.25 | 35×40 2.10 |
| 680          |            |            | 30×50 2.41 | 35×40 2.15 |            |            | 30×60 2.59 | 35×45 2.29 |
| 820          |            |            | 30×60 2.76 | 35×45 2.37 |            |            |            | 35×50 2.50 |
| 1000         |            |            |            | 35×55 2.78 |            |            |            | 35×60 2.88 |
| 1200         |            |            |            | 35×60 2.95 |            |            |            |            |

| Cap.<br>(μF) | 450Vdc     |            |            |            | 475Vdc     |            |            |            |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
|              | φ22        | φ25        | φ30        | φ35        | φ22        | φ25        | φ30        | φ35        |
| 68           |            |            |            |            | 22×25 0.67 |            |            |            |
| 82           |            |            |            |            | 22×30 0.77 |            |            |            |
| 100          | 22×25 0.85 |            |            |            | 22×35 0.88 | 25×25 0.83 |            |            |
| 120          | 22×30 0.98 | 25×25 0.96 |            |            | 22×40 0.99 | 25×30 0.96 |            |            |
| 150          | 22×35 1.13 | 25×30 1.12 |            |            | 22×45 1.14 | 25×35 1.10 | 30×25 1.04 |            |
| 180          | 22×40 1.28 | 25×30 1.20 | 30×25 1.18 |            | 22×50 1.27 | 25×40 1.24 | 30×30 1.19 | 35×25 1.15 |
| 220          | 22×45 1.44 | 25×35 1.37 | 30×30 1.36 |            | 22×60 1.47 | 25×45 1.40 | 30×35 1.36 | 35×30 1.33 |
| 270          | 22×50 1.61 | 25×40 1.56 | 30×30 1.44 | 35×25 1.33 |            | 25×55 1.62 | 30×40 1.54 | 35×35 1.52 |
| 330          | 22×60 1.86 | 25×50 1.82 | 30×35 1.64 | 35×30 1.54 |            |            | 30×45 1.73 | 35×40 1.71 |
| 390          |            | 25×55 2.01 | 30×40 1.83 | 35×35 1.76 |            |            | 30×55 1.98 | 35×40 1.79 |
| 470          |            | 25×60 2.21 | 30×45 2.05 | 35×40 1.97 |            |            | 30×60 2.18 | 35×50 2.09 |
| 560          |            |            | 30×50 2.26 | 35×45 2.18 |            |            |            | 35×55 2.29 |
| 680          |            |            | 30×60 2.59 | 35×50 2.38 |            |            |            |            |
| 820          |            |            |            | 35×60 2.74 |            |            |            |            |

| Cap.<br>(μF) | 500Vdc     |            |            |            | 550Vdc     |            |
|--------------|------------|------------|------------|------------|------------|------------|
|              | φ22        | φ25        | φ30        | φ35        | φ30        | φ35        |
| 56           | 22×25 0.63 |            |            |            |            |            |
| 68           | 22×30 0.72 |            |            |            |            |            |
| 82           | 22×30 0.80 | 25×25 0.78 |            |            |            |            |
| 100          | 22×35 0.92 | 25×30 0.90 |            |            | 30×25 0.80 |            |
| 120          | 22×40 1.03 | 25×35 1.02 | 30×25 0.97 |            | 30×30 0.93 | 35×25 0.92 |
| 150          | 22×50 1.20 | 25×40 1.17 | 30×30 1.13 | 35×25 1.09 | 30×35 1.07 | 35×30 1.05 |
| 180          | 22×60 1.37 | 25×45 1.31 | 30×35 1.28 | 35×30 1.26 | 30×40 1.21 | 35×30 1.14 |
| 220          |            | 25×50 1.46 | 30×40 1.45 | 35×35 1.44 | 30×45 1.36 | 35×35 1.30 |
| 270          |            | 25×60 1.70 | 30×45 1.63 | 35×35 1.52 | 30×55 1.57 | 35×40 1.47 |
| 330          |            |            | 30×50 1.81 | 35×40 1.71 |            | 35×50 1.72 |
| 390          |            |            | 30×60 2.06 | 35×50 1.99 |            | 35×55 1.88 |
| 470          |            |            |            | 35×55 2.19 |            |            |

ケースサイズ Case Size φD×L(mm) ↑  
リップル電流 Ripple Current (A.r.m.s./120Hz,105°C) →