

### VXR 系列 SERIES

基板自立型105℃、7000小时品  
105℃ 7000 hours, Snap-in Terminal Type.

#### ◆特 长 / FEATURES

- 105℃、7000小时品。  
Load Life : 105℃ 7000 hours.
- RoHS指令对应品。  
RoHS compliance.



#### ◆规格表 / SPECIFICATIONS

| 项 目                                                                    | 特 性                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |  | Characteristics           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--|---------------------------|-------------------------------------|-------------------------------------------------|-------------------|------|-----------------------------------|----------------------------------------------------------|--|--|--------------------------|---------------------------------------------|--|--|
| 工 作 温 度 范 围<br>Category Temperature Range                              | - 25 ~ + 105℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 额 定 电 压 范 围<br>Rated Voltage Range                                     | 160 ~ 450V.DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 静 电 容 量 允 许 差<br>Capacitance Tolerance                                 | ± 20% (20℃ , 120Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 漏 电 流<br>Leakage Current(MAX)                                          | I=3√CV (施加额定电压5分钟后)<br>I=3√CV (After 5 minutes application of rated voltage)<br>I=漏电流 (μA)                      C=静电容量 (μF)                      V=额定电压 (V)<br>Leakage Current                      Capacitance                      Rated Voltage                                                                                                                                                                                                                                                                                                                                  |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 损 失 角 正 切 值 (tan δ )<br>Dissipation Factor(MAX)                        | <table><tr><td>额定电压 (V)<br/>Rated Voltage</td><td>160 ~ 250</td><td>315 ~ 450</td></tr><tr><td>tan δ</td><td>0.15</td><td>0.20</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |  | 额定电压 (V)<br>Rated Voltage | 160 ~ 250                           | 315 ~ 450                                       | tan δ             | 0.15 | 0.20                              | (20℃ , 120Hz)                                            |  |  |                          |                                             |  |  |
| 额定电压 (V)<br>Rated Voltage                                              | 160 ~ 250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 315 ~ 450 |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| tan δ                                                                  | 0.15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.20      |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 耐 久 性<br>Endurance                                                     | 在105℃环境中，不超过额定电压的范围内叠加额定纹波电流，连续加载7000小时后，满足以下各项要求。<br>After applying rated voltage with rated ripple current for 7000 hours at 105℃, the capacitors shall meet the following requirements. <table><tr><td>静 电 容 量 变 化 率<br/>Capacitance Change</td><td colspan="3">初期值的±20%以内<br/>Within ±20% of the initial value.</td></tr><tr><td>损 失 角 正 切 值<br/>Dissipation Factor</td><td colspan="3">规格值的200%以下<br/>Not more than 200% of the specified value.</td></tr><tr><td>漏 电 流<br/>Leakage Current</td><td colspan="3">规格值以下<br/>Not more than the specified value.</td></tr></table> |           |  |                           | 静 电 容 量 变 化 率<br>Capacitance Change | 初期值的±20%以内<br>Within ±20% of the initial value. |                   |      | 损 失 角 正 切 值<br>Dissipation Factor | 规格值的200%以下<br>Not more than 200% of the specified value. |  |  | 漏 电 流<br>Leakage Current | 规格值以下<br>Not more than the specified value. |  |  |
| 静 电 容 量 变 化 率<br>Capacitance Change                                    | 初期值的±20%以内<br>Within ±20% of the initial value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 损 失 角 正 切 值<br>Dissipation Factor                                      | 规格值的200%以下<br>Not more than 200% of the specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 漏 电 流<br>Leakage Current                                               | 规格值以下<br>Not more than the specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| 低 温 特 性<br>Low Temperature Stability<br>(阻抗比)<br>Impedance Ratio (MAX) | <table><tr><td>额定电压 (V)<br/>Rated Voltage</td><td>160 ~ 250</td><td>315 ~ 450</td></tr><tr><td>Z( - 25℃ )/Z(20℃)</td><td>3</td><td>8</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                              |           |  | 额定电压 (V)<br>Rated Voltage | 160 ~ 250                           | 315 ~ 450                                       | Z( - 25℃ )/Z(20℃) | 3    | 8                                 | (120Hz)                                                  |  |  |                          |                                             |  |  |
| 额定电压 (V)<br>Rated Voltage                                              | 160 ~ 250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 315 ~ 450 |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |
| Z( - 25℃ )/Z(20℃)                                                      | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8         |  |                           |                                     |                                                 |                   |      |                                   |                                                          |  |  |                          |                                             |  |  |

#### ◆纹波电流补正系数 / MULTIPLIER FOR RIPPLE CURRENT

频率系数 Frequency Coefficient

| 频率 (Hz)<br>Frequency | 60(50)            | 120  | 500  | 1k   | 10k≤ |
|----------------------|-------------------|------|------|------|------|
| 系 数<br>Coefficient   | 160~250VV<br>0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
|                      | 315~450VV<br>0.80 | 1.00 | 1.20 | 1.25 | 1.40 |

#### ◆副记号 / OPTION

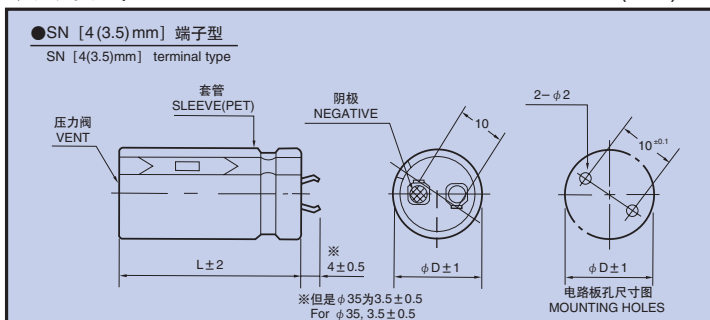
|                                     | 记号 Code |
|-------------------------------------|---------|
| PET套管, 无底板 PET Sleeve without plate | EFC     |

#### ◆产品型号体系 / PART NUMBER

|                       |                |                     |                                  |               |                       |                   |
|-----------------------|----------------|---------------------|----------------------------------|---------------|-----------------------|-------------------|
| □□□                   | VXR            | □□□□□               | M                                | □□□           | SN                    | D×L               |
| 额定电压<br>Rated Voltage | 系列名称<br>Series | 静电容量<br>Capacitance | 静电容量允许差<br>Capacitance Tolerance | 副记号<br>Option | 端子记号<br>Terminal Code | 铝壳尺寸<br>Case Size |

#### ◆尺寸图 / DIMENSIONS

(mm)



#### ◆标准品一览表/STANDARD SIZE

| Cap (μF) | WV<br>φD   | 160        |            |            |      | 180        |            |            |            |
|----------|------------|------------|------------|------------|------|------------|------------|------------|------------|
|          |            | φ 22       | φ 25       | φ 30       | φ 35 | φ 22       | φ 25       | φ 30       | φ 35       |
| 220      |            |            |            |            |      | 22×25 1.00 |            |            |            |
| 270      | 22×25 1.10 |            |            |            |      | 22×25 1.10 |            |            |            |
| 330      | 22×25 1.20 |            |            |            |      | 22×30 1.20 | 25×25 1.20 |            |            |
| 390      | 22×30 1.30 | 25×25 1.30 |            |            |      | 22×30 1.30 | 25×25 1.30 |            |            |
| 470      | 22×35 1.40 | 25×30 1.40 |            |            |      | 22×35 1.40 | 25×30 1.40 | 30×25 1.40 |            |
| 560      | 22×40 1.50 | 25×30 1.50 | 30×25 1.50 |            |      | 22×40 1.50 | 25×35 1.50 | 30×25 1.50 |            |
| 680      | 22×45 1.70 | 25×35 1.70 | 30×30 1.70 |            |      | 22×45 1.70 | 25×35 1.70 | 30×30 1.70 |            |
| 820      | 22×50 2.00 | 25×40 2.00 | 30×30 2.00 |            |      |            | 25×40 2.00 | 30×35 2.00 | 35×30 2.00 |
| 1000     |            | 25×45 2.20 | 30×35 2.20 | 35×30 2.20 |      |            | 25×50 2.20 | 30×35 2.20 | 35×30 2.20 |
| 1200     |            | 25×50 2.30 | 30×40 2.30 | 35×35 2.30 |      |            |            | 30×40 2.30 | 35×35 2.30 |
| 1500     |            |            | 30×45 2.50 | 35×35 2.50 |      |            |            | 30×50 2.50 | 35×40 2.50 |
| 1800     |            |            | 30×50 2.70 | 35×40 2.70 |      |            |            |            | 35×45 2.70 |
| 2200     |            |            |            | 35×45 2.90 |      |            |            |            | 35×50 2.90 |

| Cap (μF) | WV<br>φD   | 200        |            |            |      | 250        |            |            |            |
|----------|------------|------------|------------|------------|------|------------|------------|------------|------------|
|          |            | φ 22       | φ 25       | φ 30       | φ 35 | φ 22       | φ 25       | φ 30       | φ 35       |
| 180      |            |            |            |            |      | 22×25 0.90 | 25×25 0.90 |            |            |
| 220      | 22×25 1.00 |            |            |            |      | 22×30 1.00 | 25×25 1.00 |            |            |
| 270      | 22×30 1.10 | 25×25 1.10 |            |            |      | 22×35 1.10 | 25×30 1.10 | 30×25 1.10 |            |
| 330      | 22×30 1.20 | 25×25 1.20 |            |            |      | 22×40 1.20 | 25×30 1.20 | 30×25 1.20 |            |
| 390      | 22×35 1.30 | 25×30 1.30 | 30×25 1.30 |            |      | 22×45 1.30 | 25×35 1.30 | 30×30 1.30 |            |
| 470      | 22×40 1.40 | 25×35 1.40 | 30×25 1.40 |            |      | 22×50 1.40 | 25×40 1.40 | 30×30 1.40 | 35×30 1.40 |
| 560      | 22×45 1.50 | 25×35 1.50 | 30×30 1.50 |            |      |            | 25×45 1.50 | 30×35 1.50 | 35×30 1.50 |
| 680      | 22×50 1.70 | 25×40 1.70 | 30×30 1.70 |            |      |            | 25×50 1.70 | 30×40 1.70 | 35×35 1.70 |
| 820      |            | 25×45 2.00 | 30×35 2.00 | 35×30 2.00 |      |            |            | 30×45 2.00 | 35×35 2.00 |
| 1000     |            |            | 30×40 2.20 | 35×35 2.20 |      |            |            | 30×50 2.20 | 35×40 2.20 |
| 1200     |            |            | 30×45 2.30 | 35×40 2.30 |      |            |            |            | 35×45 2.30 |
| 1500     |            |            |            | 35×50 2.50 |      |            |            |            |            |

| Cap (μF) | WV<br>φD   | 315        |            |            |      | 350        |            |            |            |
|----------|------------|------------|------------|------------|------|------------|------------|------------|------------|
|          |            | φ 22       | φ 25       | φ 30       | φ 35 | φ 22       | φ 25       | φ 30       | φ 35       |
| 82       | 22×25 0.64 |            |            |            |      | 22×25 0.64 |            |            |            |
| 100      | 22×30 0.69 |            |            |            |      | 22×30 0.69 | 25×25 0.69 |            |            |
| 120      | 22×30 0.75 | 25×25 0.75 |            |            |      | 22×35 0.75 | 25×30 0.75 |            |            |
| 150      | 22×35 0.82 | 25×30 0.82 | 30×25 0.82 |            |      | 22×40 0.82 | 25×30 0.82 | 30×25 0.82 |            |
| 180      | 22×40 0.90 | 25×30 0.90 | 30×25 0.90 |            |      | 22×45 0.90 | 25×35 0.90 | 30×30 0.90 |            |
| 220      | 22×45 1.00 | 25×35 1.00 | 30×30 1.00 |            |      | 22×50 1.00 | 25×40 1.00 | 30×30 1.00 |            |
| 270      |            | 25×40 1.10 | 30×35 1.10 | 35×30 1.10 |      |            | 25×45 1.10 | 30×35 1.10 | 35×30 1.10 |
| 330      |            | 25×50 1.20 | 30×40 1.20 | 35×30 1.20 |      |            |            | 30×40 1.20 | 35×35 1.20 |
| 390      |            |            | 30×40 1.30 | 35×35 1.30 |      |            |            | 30×45 1.30 | 35×35 1.30 |
| 470      |            |            | 30×45 1.40 | 35×40 1.40 |      |            |            | 30×50 1.40 | 35×40 1.40 |
| 560      |            |            |            | 35×45 1.50 |      |            |            |            | 35×50 1.50 |
| 680      |            |            |            | 35×50 1.70 |      |            |            |            |            |

| Cap (μF) | WV<br>φD   | 400        |            |            |      | 450        |            |            |            |
|----------|------------|------------|------------|------------|------|------------|------------|------------|------------|
|          |            | φ 22       | φ 25       | φ 30       | φ 35 | φ 22       | φ 25       | φ 30       | φ 35       |
| 39       |            |            |            |            |      | 22×25 0.37 |            |            |            |
| 47       |            |            |            |            |      | 22×30 0.40 |            |            |            |
| 56       | 22×25 0.51 |            |            |            |      | 22×35 0.47 | 25×25 0.47 |            |            |
| 68       | 22×30 0.56 | 25×25 0.56 |            |            |      | 22×40 0.53 | 25×30 0.53 |            |            |
| 82       | 22×30 0.64 | 25×25 0.64 |            |            |      | 22×45 0.56 | 25×35 0.56 | 30×25 0.56 |            |
| 100      | 22×35 0.69 | 25×30 0.69 |            |            |      | 22×50 0.64 | 25×40 0.64 | 30×30 0.64 |            |
| 120      | 22×40 0.75 | 25×30 0.75 | 30×25 0.75 |            |      |            | 25×45 0.72 | 30×30 0.72 |            |
| 150      | 22×45 0.82 | 25×35 0.82 | 30×30 0.82 |            |      |            | 25×50 0.79 | 30×40 0.79 | 35×30 0.79 |
| 180      | 22×50 0.90 | 25×40 0.90 | 30×30 0.90 | 35×25 0.90 |      |            |            | 30×45 0.87 | 35×35 0.87 |
| 220      |            | 25×45 1.00 | 30×35 1.00 | 35×30 1.00 |      |            |            | 30×50 1.00 | 35×40 1.00 |
| 270      |            |            | 30×40 1.10 | 35×35 1.10 |      |            |            |            | 35×45 1.19 |
| 330      |            |            | 30×45 1.20 | 35×40 1.20 |      |            |            |            | 35×50 1.38 |
| 390      |            |            |            | 35×45 1.30 |      |            |            |            |            |
| 470      |            |            |            | 35×50 1.40 |      |            |            |            |            |

铝壳尺寸 Case Size φ D×L(mm)

纹波电流 Ripple Current (A r.m.s./120Hz, 105°C)