RF Power Plate Capacitors for Higher Voltages
Class 1 Ceramic

FEATURES
- Low losses
- High reliability
- High voltage ratings

APPLICATIONS
These high technology are designed for usage in high frequency heating and welding equipment where high voltage ratings are required.

CAPACITANCE RANGE
1000 pF to 1500 pF

CAPACITANCE TOLERANCE
± 20 %, ± 10 %

CERAMIC DIELECTRIC
R85 (TCC - 750 ppm/K)

RATED VOLTAGE
30 kVp (= RF peak voltage + DC voltage)

DIELECTRIC STRENGTH TEST
50 000 VDC, 5 minutes
30 000 VAC, 50 Hz, 5 minutes

DISSIPATION FACTOR
Max. 0.05 %
Measuring frequencies:
300 kHz or 100 kHz

INSULATION RESISTANCE
Min. 10 000 MΩ (at 25 °C)

OPERATING TEMPERATURE RANGE
-55 °C to +100 °C

QUICK REFERENCE DATA

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Class</td>
<td>1</td>
</tr>
<tr>
<td>Ceramic Dielectric</td>
<td>R85</td>
</tr>
<tr>
<td>Type</td>
<td>FPE 200  FPE 210</td>
</tr>
<tr>
<td>Voltage (Vp)</td>
<td>30 000</td>
</tr>
<tr>
<td>Min. Capacitance (pF)</td>
<td>1000  1500</td>
</tr>
<tr>
<td>Max. Capacitance (pF)</td>
<td>1000  1500</td>
</tr>
<tr>
<td>Mounting</td>
<td>Screw terminal</td>
</tr>
</tbody>
</table>

MATERIAL
Capacitor elements made from class 1 ceramic dielectric with noble metal electrodes.
Flexible connection terminals copper / brass, silver plated, to allow for series and parallel interconnection.

MARKING
Type designator, capacitance value and tolerance, rated RF voltage (peak value), ceramic material code, production date code, manufacturer logo.

FINISH
Noble metal electrodes and terminals protective lacquered. The contoured insulating rim is additionally glazed.
### SAP PART NUMBER AND ELECTRICAL DATA

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CERAMIC</th>
<th>CAP. VALUE (pF)</th>
<th>RATED VOLTAGE (1) (kVp)</th>
<th>RATED POWER (2) (kvar)</th>
<th>RATED CURRENT (A_{RMS})</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPE200WV102##BJ1</td>
<td>R85</td>
<td>1000</td>
<td>30</td>
<td>160</td>
<td>60</td>
</tr>
<tr>
<td>FPE210WV152##BJ1</td>
<td>1500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

- # 14th to 15th digit: capacitance tolerance code ± 20 % = 38, ± 10 % = 36
- (1) Rated voltage = RF peak value + DC voltage when min. 80 % U_{DC}
- (2) The surface temperature during operation must not exceed +100 °C

### DIMENSIONS in millimeters (inches)

**FPE 200:** 73 ± 2 (2.87 ± 0.08)

**FPE 210:** 56 ± 1 (2.21 ± 0.04)

### DERATING DIAGRAMS

#### FPE200WV102##BJ1 and FPE210WV152##BJ1

- **U_{0} (kVp)**
  - 0.06 MHz
  - 3.58 MHz
  - 9.54 MHz
- **I_{0} (A_{RMS})**
  - Q_{0} (kvar)
  - Frequency (MHz)

### RELATED DOCUMENTS

- General Information

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