

## 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 kV<sub>p</sub> (= RF peak voltage + DC voltage)

### DIELECTRIC STRENGTH TEST

50 000 V<sub>DC</sub>, 5 minutes

30 000 V<sub>AC</sub>, 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

| DESCRIPTION               | VALUE          |         |
|---------------------------|----------------|---------|
| Ceramic Class             | 1              |         |
| Ceramic Dielectric        | R85            |         |
| Type                      | FPE 200        | FPE 210 |
| Voltage (V <sub>p</sub> ) | 30 000         |         |
| Min. Capacitance (pF)     | 1000           | 1500    |
| Max. Capacitance (pF)     | 1000           | 1500    |
| Mounting                  | Screw terminal |         |

### 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**

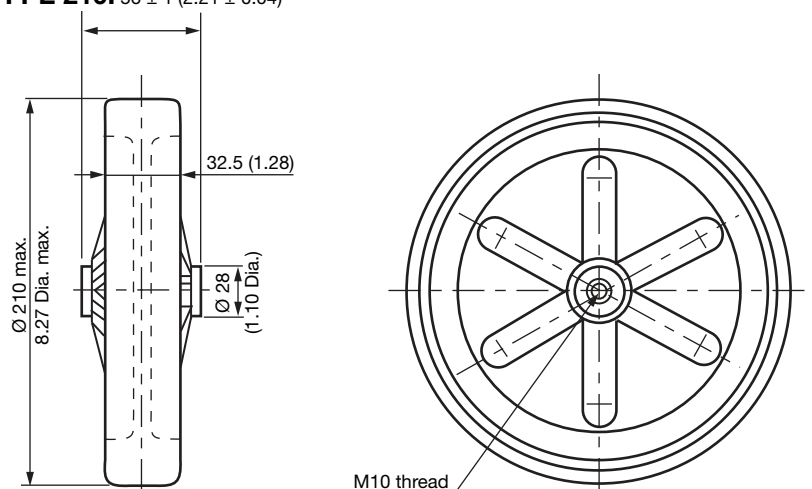
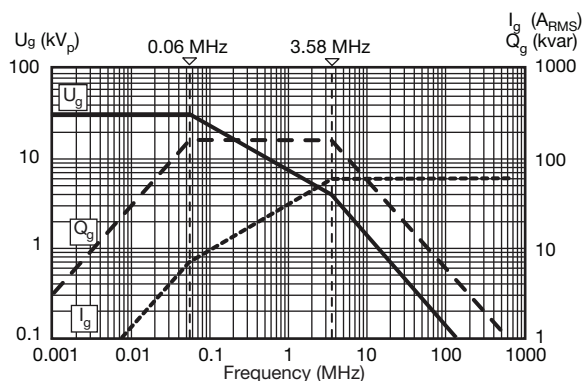
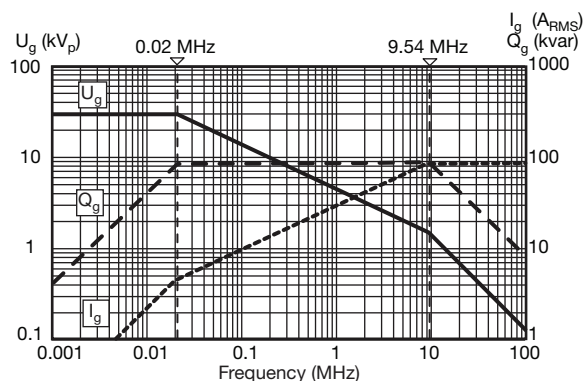
| PART NUMBER      | CERAMIC | CAP. VALUE (pF) | RATED VOLTAGE (1) (kV <sub>p</sub> ) | RATED POWER (2) (kvar) | RATED CURRENT (A <sub>RMS</sub> ) |
|------------------|---------|-----------------|--------------------------------------|------------------------|-----------------------------------|
| FPE200WV102##BJ1 | R85     | 1000            | 30                                   | 160                    | 60                                |
| FPE210WV152##BJ1 |         | 1500            |                                      | 90                     | 90                                |

**Notes**

- ## 14<sup>th</sup> to 15<sup>th</sup> digit: capacitance tolerance code  $\pm 20\% = 38$ ,  $\pm 10\% = 36$
- (1) Rated voltage = RF peak value + DC voltage when min. 80 % U<sub>DC</sub>
- (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**

**FPE210WV152##BJ1**

**RELATED DOCUMENTS**

General Information

[www.vishay.com/doc?22071](http://www.vishay.com/doc?22071)



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