

## RF Power Plate Capacitors with Flat Rim, Class 1 Ceramic



### FEATURES

- Low losses
- High reliability
- Small dimensions

### APPLICATIONS

- Industrial high frequency appliances
- Medical RF equipment
- Filter, bypass, and coupling circuits

### CAPACITANCE RANGE

100 pF to 1.0 nF

### CAPACITANCE TOLERANCE

± 10 %

### CERAMIC DIELECTRICS

- R42 (TCC - 250 ppm/K)
- R85 (TCC - 750 ppm/K)

### RATED VOLTAGE

- 3.5 kV<sub>p</sub>
- 6.0 kV<sub>p</sub>
- 7.0 kV<sub>p</sub>
- 10 kV<sub>p</sub>
- 12 kV<sub>p</sub>

### DIELECTRIC STRENGTH TEST

200 % of rated voltage (50 Hz)

### DISSIPATION FACTOR

Max. 0.05 %

Measuring frequencies:

1 MHz (< 1 nF); 300 kHz or 100 kHz (≥ 1 nF)

### 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        | R42, R85       | R85    |        | R85  |         |
| Type                      | FPS 60         |        | FPS 80 |      | FPS 110 |
| Voltage (V <sub>p</sub> ) | 10 000         | 12 000 | 3500   | 7000 | 6000    |
| Min. Capacitance (pF)     | 500            | 100    | 1000   | 500  | 1000    |
| Max. Capacitance (pF)     | 500            | 300    | 1000   | 500  | 1000    |
| Mounting                  | Screw terminal |        |        |      |         |

### MATERIAL

Capacitor elements made from class 1 ceramic dielectric with noble metal electrodes.

Connection terminals:

made from copper / brass, silver plated

### FINISH

Capacitor body completely protective lacquered.

### MARKING

Type designator, capacitance value and tolerance, rated peak voltage, production date code, ceramic material code, manufacturer logo

### ACCESSORIES ADDED

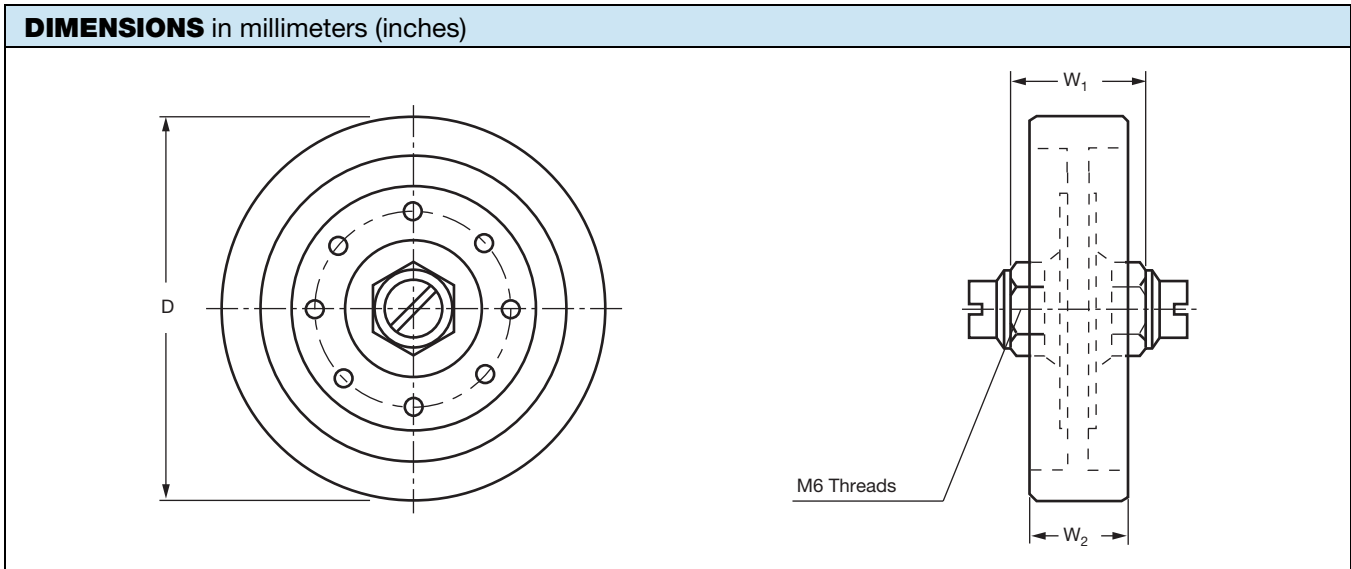
Two screws and washers



| SAP PART NUMBER, ELECTRICAL AND DIMENSIONAL DATA |         |                 |                                  |                                   |                                   |                                    |                                  |                                  |
|--|---------|-----------------|----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|----------------------------------|----------------------------------|
| PART NUMBER                                      | CERAMIC | CAP. VALUE (pF) | RATED VOLTAGE (kV <sub>p</sub> ) | RATED POWER (kvar) <sup>(1)</sup> | RATED CURRENT (A <sub>RMS</sub> ) | DIA. D <sub>MAX.</sub> mm (inches) | WIDTH W <sub>1</sub> mm (inches) | WIDTH W <sub>2</sub> mm (inches) |
| <b>TYPE FPS 60</b>                               |         |                 |                                  |                                   |                                   |                                    |                                  |                                  |
| FPS060WF10136BH1                                 | R42     | 100             | 12                               | 10                                | 13                                | 62<br>(2.44)                       | 29 ± 1<br>(1.14 ± 0.04)          | 20 ± 1<br>(0.79 ± 0.04)          |
| FPS060WF20136BJ1                                 | R85     | 200             |                                  |                                   |                                   |                                    | 30 ± 1<br>(1.18 ± 0.04)          | 21 ± 1<br>(0.83 ± 0.04)          |
| FPS060WF25136BJ1                                 |         | 250             |                                  |                                   |                                   |                                    | 29 ± 1<br>(1.14 ± 0.04)          | 20 ± 1<br>(0.79 ± 0.04)          |
| FPS060WF30136BJ1                                 |         | 300             |                                  |                                   |                                   |                                    | 27 ± 1<br>(1.06 ± 0.04)          | 18 ± 1<br>(0.71 ± 0.04)          |
| FPS060BH50136BJ1                                 | 500     | 10              | 25 ± 1<br>(0.98 ± 0.04)          | 16 ± 1<br>(0.63 ± 0.04)           |                                   |                                    |                                  |                                  |
| <b>TYPE FPS 80</b>                               |         |                 |                                  |                                   |                                   |                                    |                                  |                                  |
| FPS080VY50136BJ1                                 | R85     | 500             | 7.0                              | 15                                | 13                                | 86<br>(3.39)                       | 29 ± 3<br>(1.14 ± 0.12)          | 15 ± 3<br>(0.59 ± 0.12)          |
| FPS080VT10236BJ1                                 |         | 1000            | 3.5                              | 15                                | 16                                |                                    | 27 ± 3<br>(1.06 ± 0.12)          | 11 ± 3<br>(0.43 ± 0.12)          |
| <b>TYPE FPS 110</b>                              |         |                 |                                  |                                   |                                   |                                    |                                  |                                  |
| FPS110BF10236BJ1                                 | R85     | 1000            | 6                                | 30                                | 13                                | 116<br>(4.57)                      | 30 ± 3<br>(1.18 ± 0.12)          | 16 ± 3<br>(0.63 ± 0.12)          |

**Note**

<sup>(1)</sup> The surface temperature during operation must not exceed +100 °C



**Note**

- Dimensions W<sub>2</sub> will vary depending upon capacitance value

| RELATED DOCUMENTS   |  |
|---------------------|--|
| General Information | <a href="http://www.vishay.com/doc?22071">www.vishay.com/doc?22071</a> |



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