RF Power Feed-Through Capacitors with Conductor Rod, Class 1 Ceramic

FEATURES
- Geometry minimizes inductance
- High voltage ratings
- High feed-through currents

APPLICATIONS
Filtering purposes in industrial and medical RF power equipment, where high voltages and high feed-through currents are required.

CAPACITANCE RANGE
1.0 nF to 3.0 nF

CAPACITANCE TOLERANCE
± 20 %; ± 10 %

CERAMIC DIELECTRICS
- R85 (TCC - 750 ppm/K)
- R230 (TCC - 750 ppm/K)

RATED VOLTAGE
- 15 kVp
- 20 kVp

DIELECTRIC STRENGTH TEST
200 % of rated AC voltage (50 Hz, 5 minutes)

DISSIPATION FACTOR
Max. 0.05 % (100 kHz or 300 kHz)

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

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

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.
The contoured insulating rims are additionally glazed.

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

ACCESSORIES ADDED
All feed-through capacitors are supplied with the necessary nuts and washers to make the connection to the conductor rod.
### SAP PART NUMBER AND ELECTRICAL DATA

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CERAMIC</th>
<th>CAP. VALUES (pF)</th>
<th>RATED VOLTAGE (kVp)</th>
<th>RATED POWER (kvar)</th>
<th>RATED CURRENT (A RMS)</th>
<th>FEED-THROUGH CURRENT (A)</th>
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<tr>
<td><strong>TYPE DB 050110</strong></td>
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<td>DB050110BJ202##BK1</td>
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<td>60.0</td>
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**Notes**
- ## 14th to 15th digit: capacitance tolerance code ± 20 % = 38, ± 10 % = 36
- (1) The surface temperature during operation must not exceed +100 °C
- (2) DC or low frequency RMS current (< 20 kHz)

### DIMENSIONS in millimeters (inches)

**DB 050110**

![Dimensions Diagram for DB 050110]

**DB 050180**

![Dimensions Diagram for DB 050180]
MOUNTING GUIDELINES

- The connection to one electrode must be flexible in order to prevent the generation of physical force which could damage the capacitor elements. Such forces are often generated by the dimensional differences resulting from the normal physical tolerances of these components.
- The capacitor elements must not be used as a mechanical support for other devices or components.
- Use two wrenches when tightening the nuts on both sides of the conductor rod. The outer electrode terminal flange of these feed-through capacitors components should be fixed after tightening the inner electrode’s connection.
- Make sure that not too much force applied to the solder connections between hardware and noble metal electrode. A torque less than 5 Nm is recommended.

DERATING DIAGRAMS

RELATED DOCUMENTS

| General Information | www.vishay.com/doc?222071 |
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