

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



QUICK REFERENCE DATA				
DESCRIPTION	VALUE			
Ceramic Class	1			
Ceramic Dielectric	R42, R85			
Type	DWB 045120			DWB 045150
Voltage (V <sub>p</sub> )	8000	10 000	13 000	16 000
Min. Capacitance (pF)	800	600	400	500
Max. Capacitance (pF)	2500	1500	1200	1200
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.  
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.

### FEATURES

- Geometry minimizes inductance
- Wide range of capacitance values
- 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

400 pF to 2.5 nF

### CAPACITANCE TOLERANCE

± 20 %; ± 10 %; ± 5 %

### CERAMIC DIELECTRICS

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

### RATED VOLTAGE

- 8 kV<sub>p</sub>
- 10 kV<sub>p</sub>
- 13 kV<sub>p</sub>
- 16 kV<sub>p</sub>

### DIELECTRIC STRENGTH TEST

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

### 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)

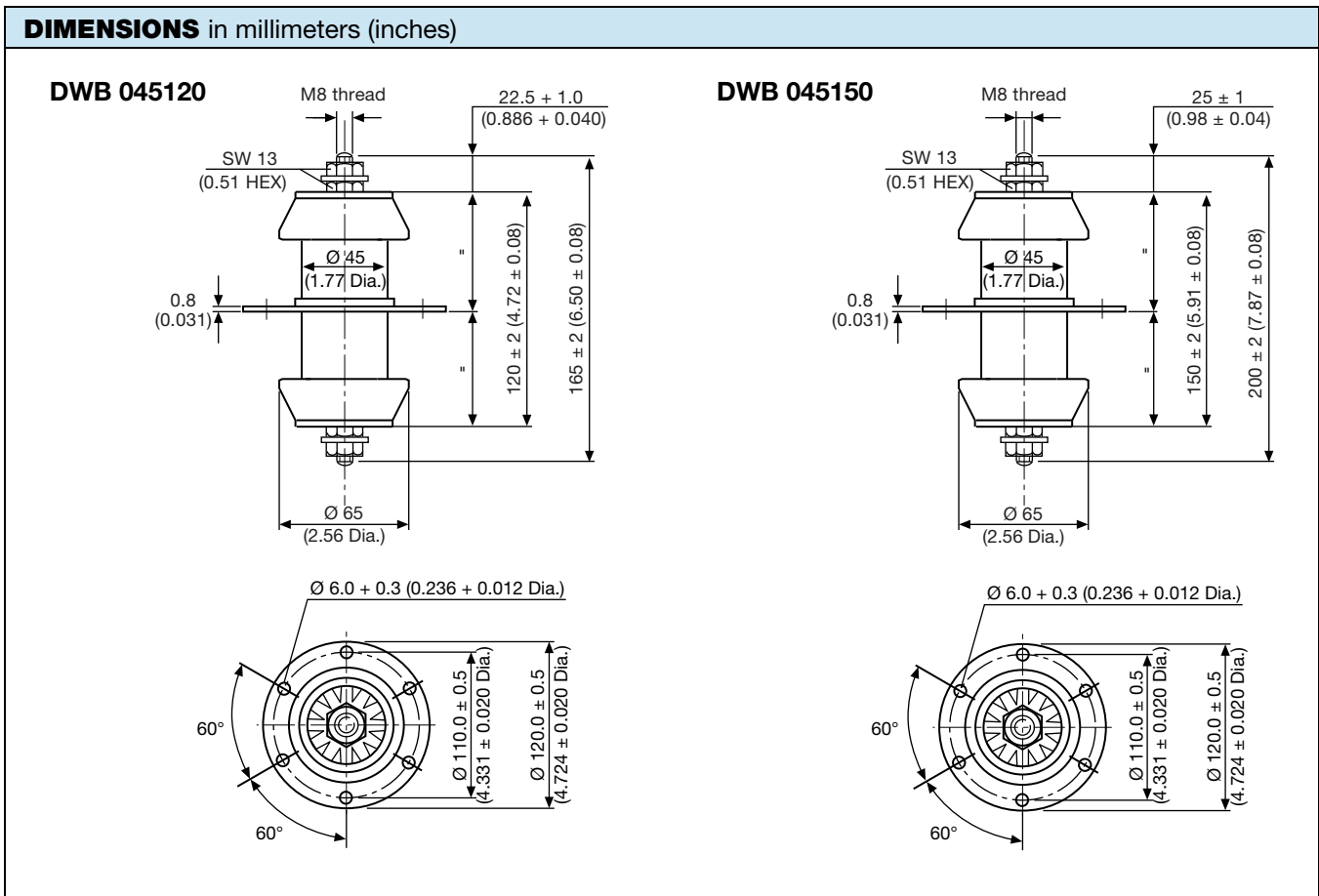
### OPERATING TEMPERATURE RANGE

-55 °C to +100 °C

SAP PART NUMBER AND ELECTRICAL DATA						
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV <sub>P</sub> )	RATED POWER <sup>(1)</sup> (kvar)	RATED CURRENT (A <sub>RMS</sub> )	FEED-THROUGH CURRENT <sup>(2)</sup> (A)
<b>TYPE DWB 045120</b>						
DWB45120WH401##BH1	R42	400	13.0	56.0	25.0	50.0
DWB45120WH501##BH1		500				
DWB45120BH601##BH1		600	10.0			
DWB45120BP801##BH1		800	8.0			
DWB45120WH102##BJ1	R85	1000	13.0			
DWB45120WH122##BJ1		1200	10.0			
DWB45120BH152##BJ1		1500				
DWB45120BP202##BJ1		2000	8.0			
DWB45120BP252##BJ1		2500				
<b>TYPE DWB 045150</b>						
DWB45150WL501##BH1	R42	500	16.0	30.0	10.0	50.0
DWB45150WL122##BJ1	R85	1200				

**Notes**

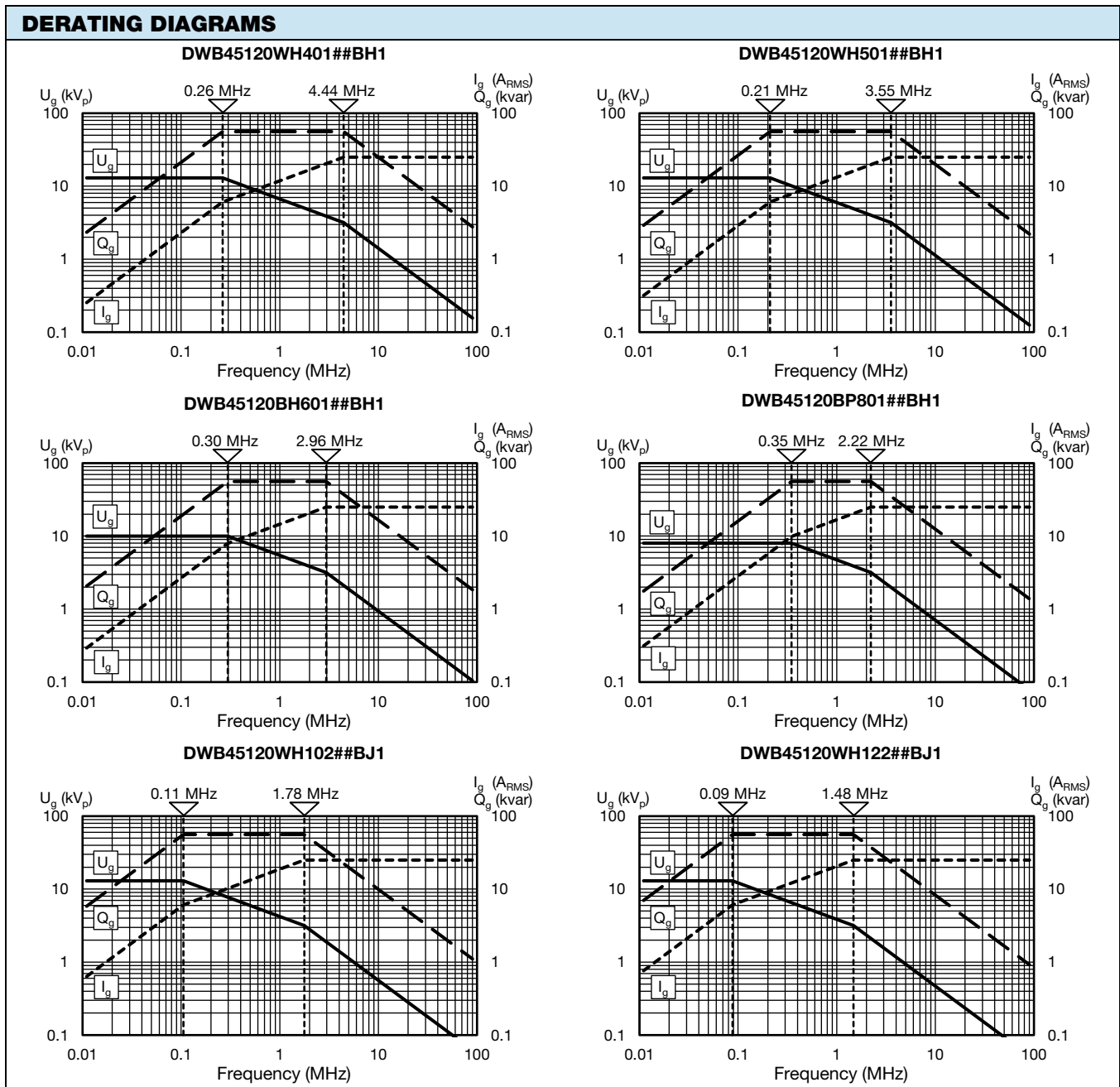
- ## 14<sup>th</sup> to 15<sup>th</sup> digit: capacitance tolerance code  $\pm 20\% = 38$ ,  $\pm 10\% = 36$ ,  $\pm 5\% = 33$
- <sup>(1)</sup> The surface temperature during operation must not exceed +100 °C
- <sup>(2)</sup> DC or low frequency RMS current (< 20 kHz)





MOUNTING GUIDELINES

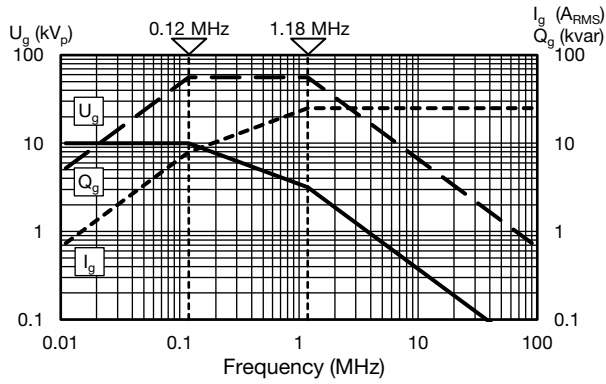
- The connection to one electrode must be flexible in order to prevent the generation of physical force which could damage the capacitor elements. Such forces are often generated by the dimensional differences resulting from the normal physical tolerances of these components.
- The capacitor elements 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.



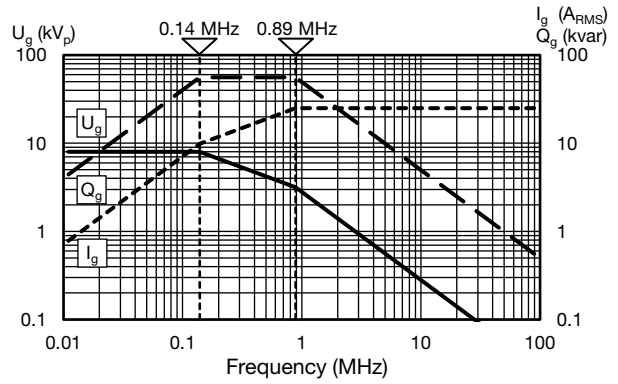


DERATING DIAGRAMS

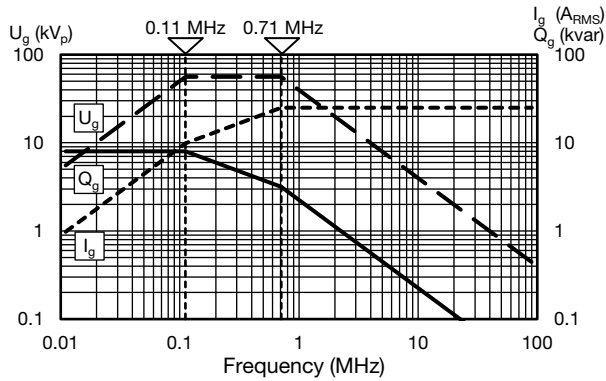
DWB45120BH152##BJ1



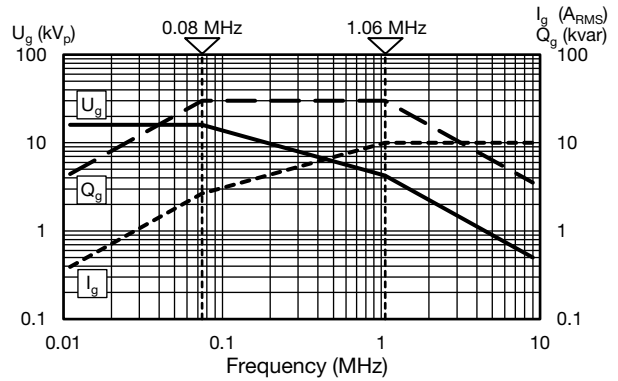
DWB45120BP202##BJ1



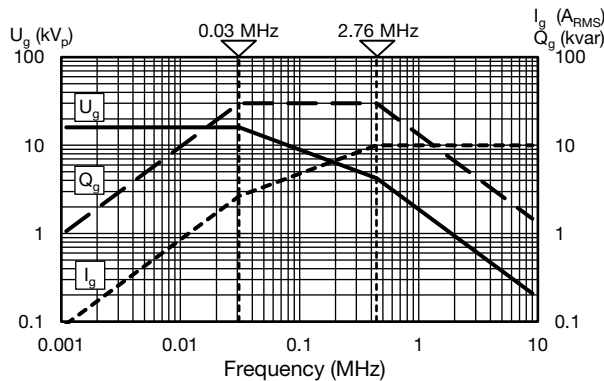
DWB45120BP252##BJ1



DWB45150WL501##BH1



DWB45150WL122##BJ1



RELATED DOCUMENTS

General Information

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



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