

## RF Power Pot Capacitors for Dielectric Heating Equipment, R16 HQ Ceramic Dielectric



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	
Ceramic Dielectric	R16 HQ	
Type	TDFZ 125213 TDFZ 125236	TDFZ 125260
Voltage (V <sub>p</sub> )	18 000	12 000
Min. Capacitance (pF)	500	1500
Max. Capacitance (pF)	1000	2000
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.

These capacitors feature umbrella-shaped insulation rims made from silicone elastomer to minimize the adverse effects of moisture, dust and other impurities in the working environment and to improve the characteristics of the electrical field.

### MARKING

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

### FEATURES

These capacitors feature a Q-factor of greater than 10 000 which makes them ideal in operating frequency range from 0.1 MHz up to 30 MHz where high voltages and currents are present. The TDZ model can be used as replacements for fixed vacuum capacitors. The construction gives these capacitors an advantage over fixed vacuum capacitors because there is no possibility of vacuum deterioration.

### APPLICATIONS

Dielectric heating equipments in industrial segment.

### CAPACITANCE RANGE

500 pF to 2000 pF

### CAPACITANCE TOLERANCE

± 10 %

### CERAMIC DIELECTRICS

R16 High Q (TCC + 100 ppm/K)

### RATED VOLTAGE

- 12 kV<sub>p</sub>
- 18 kV<sub>p</sub>

### DIELECTRIC STRENGTH TEST

170 % of rated AC voltage (50 Hz, 5 minutes)

### RF POWER TEST

110 % to 150 % of rated power, for 2.5 minutes in a test generator circuit.

### DISSIPATION FACTOR

Max. 0.025 %

Measuring frequencies:

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

### INSULATION RESISTANCE

Min. 100 000 MΩ (at 25 °C)

### OPERATING TEMPERATURE RANGE

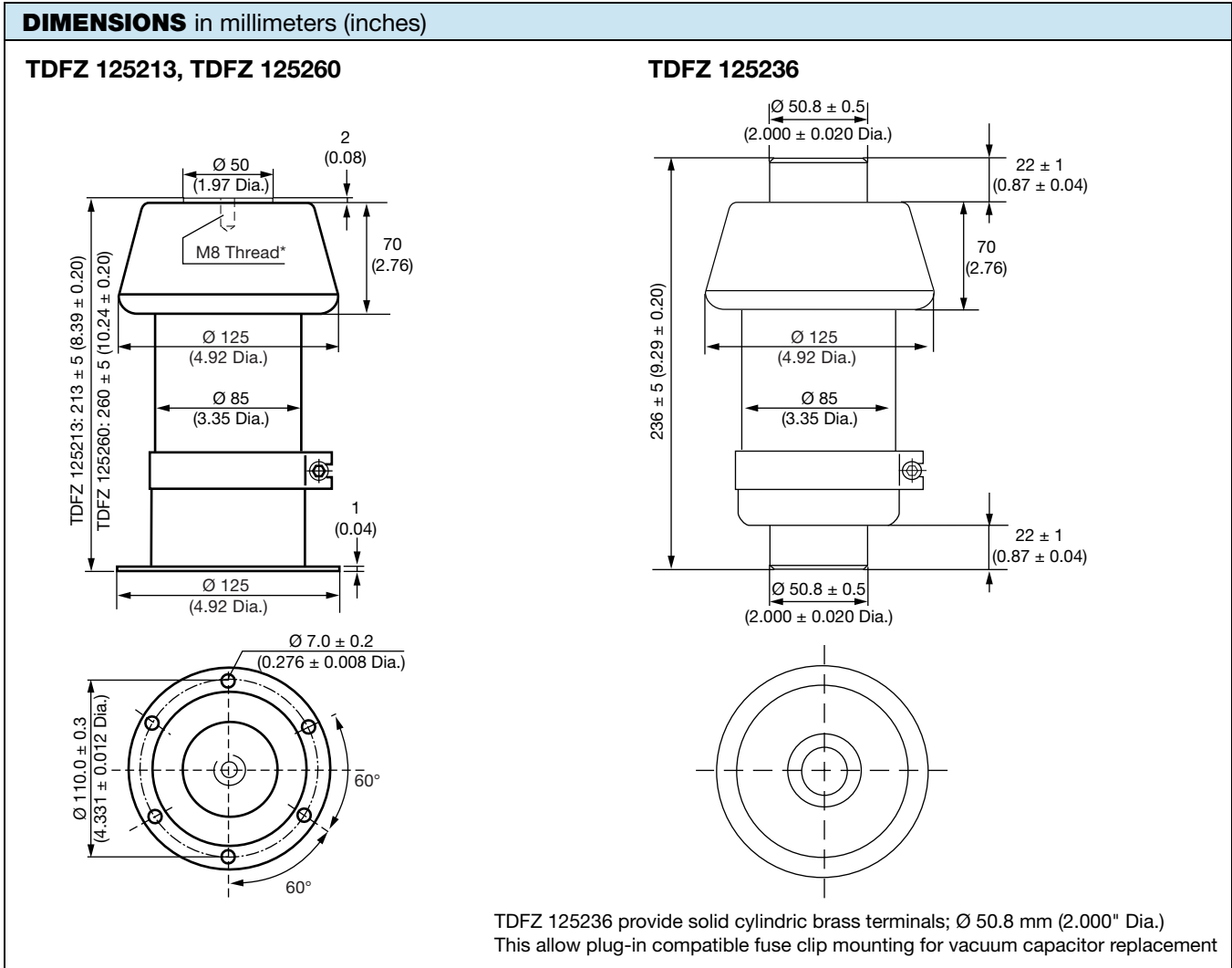
-55 °C to +100 °C



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> )
<b>TYPE TDFZ 125213</b>					
TF125213WN50136CB1	R16 HQ	500	18	Max. 2035	Max. 160
TF125213WN75136CB1		750		Max. 2300	Max. 180
TF125213WN10236CB1		1000		Max. 2540	Max. 200
<b>TYPE TDFZ 125236</b>					
TF125236WN50136CB1	R16 HQ	500	18	Max. 2035	Max. 160
TF125236WN75136CB1		750		Max. 2300	Max. 180
TF125236WN10236CB1		1000		Max. 2540	Max. 200
<b>TYPE TDFZ 125260</b>					
TF125260WF15236CB1	R16 HQ	1500	12	Max. 2000	Max. 250
TF125260WF20236CB1		2000		Max. 2450	Max. 290

**Note**

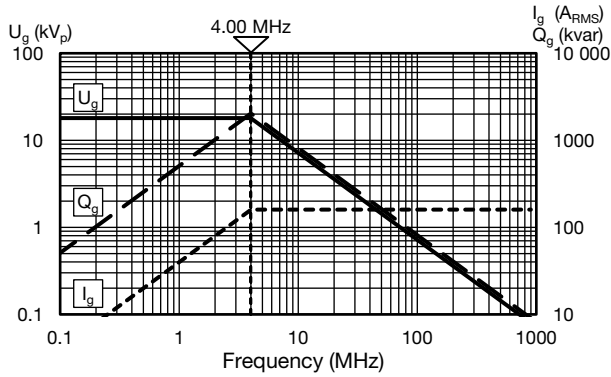
(1) The surface temperature during operation must not exceed +100 °C



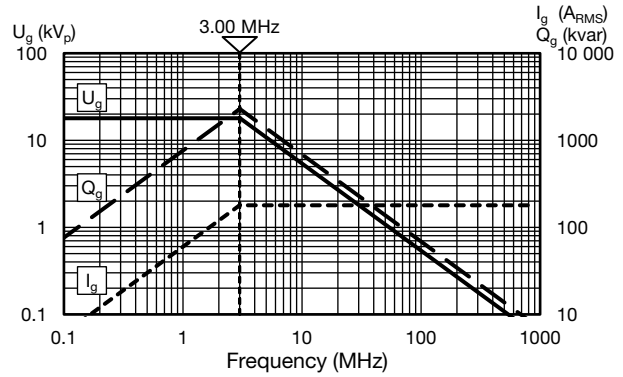


DERATING DIAGRAMS

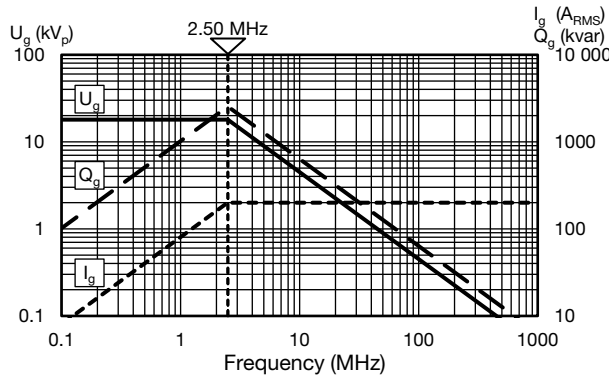
TF125213WN50136CB1, TF125236WN50136CB1



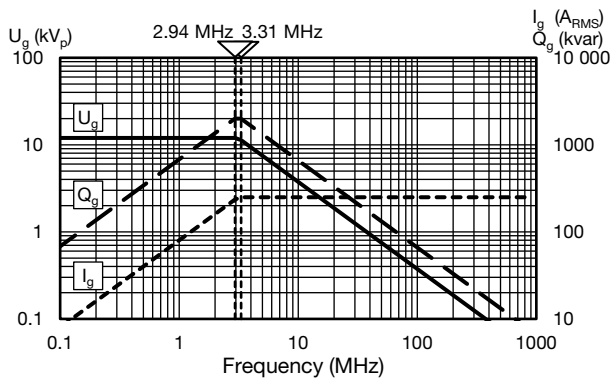
TF125213WN75136CB1, TF125236WN75136CB1



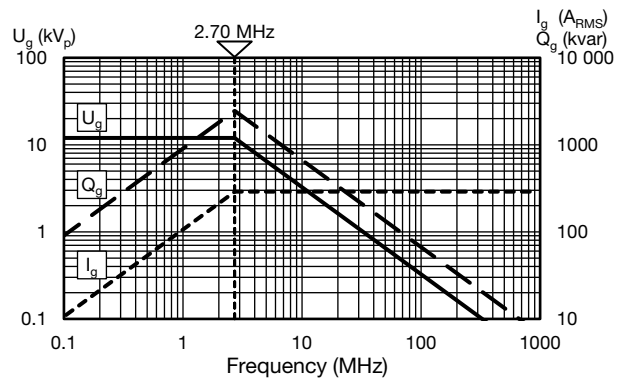
TF125213WN10236CB1, TF125236WN10236CB1



TF125260WF15236CB1



TF125260WF20236CB1



RELATED DOCUMENTS

General Information

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



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