RF Power Plate Capacitors for Higher Voltages
Class 1 Ceramic



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	
Ceramic Dielectric	R85	
Type	FPE 200	FPE 210
Voltage (V_p)	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.

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_p (= RF peak voltage + DC voltage)

DIELECTRIC STRENGTH TEST

50 000 V_{DC}, 5 minutes
30 000 V_{AC}, 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

For technical questions, contact: powcap@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

SAP PART NUMBER AND ELECTRICAL DATA

PART NUMBER	CERAMIC	CAP. VALUE (pF)	RATED VOLTAGE (1) (kV_p)	RATED POWER (2) (kvar)	RATED CURRENT (A_{RMS})
FPE200WV102##BJ1	R85	1000	30	160	60
FPE210WV152##BJ1		1500		90	90

Notes

- ## 14th to 15th digit: capacitance tolerance code ± 20 % = 38, ± 10 % = 36

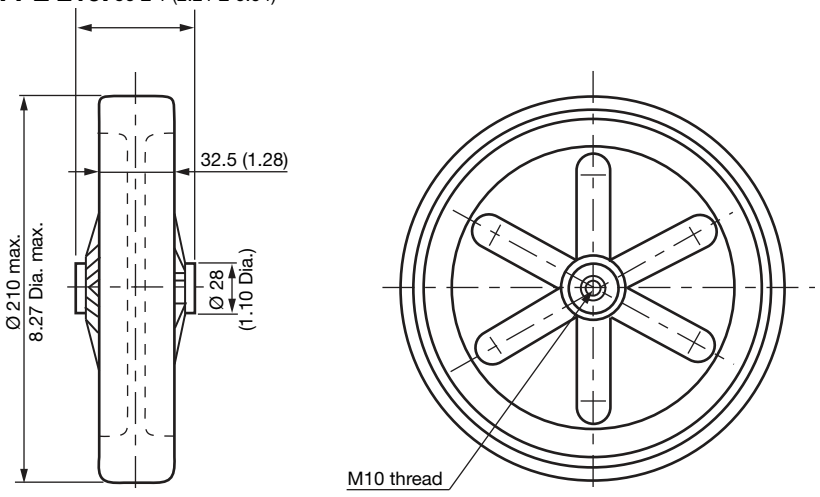
(1) Rated voltage = RF peak value + DC voltage when min. 80 % U_{DC}

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

DIMENSIONS in millimeters (inches)

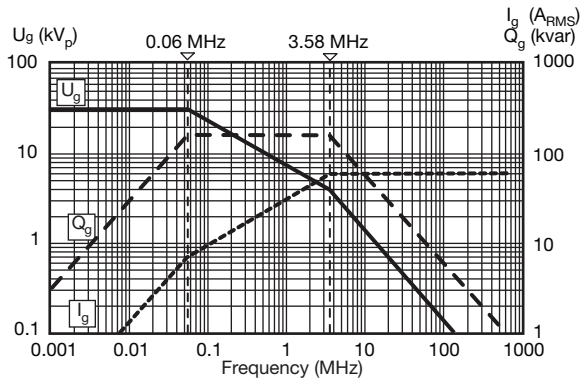
FPE 200: 73 ± 2 (2.87 ± 0.08)

FPE 210: 56 ± 1 (2.21 ± 0.04)

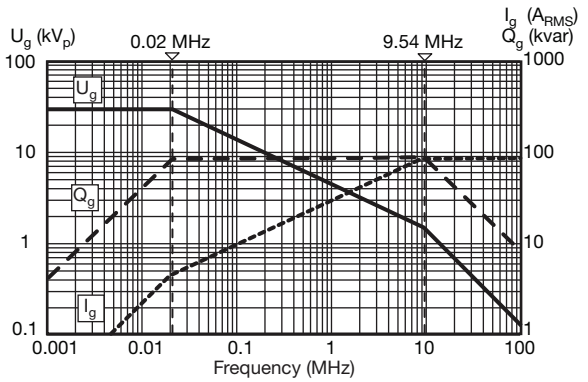


DERATING DIAGRAMS

FPE200WV102##BJ1



FPE210WV152##BJ1



RELATED DOCUMENTS

General Information	www.vishay.com/doc?22071

For technical questions, contact: powcap@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

© 2017 VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED