

RF Power Plate Capacitors with Contoured Rim, Class 1 Ceramic



FEATURES

- Small size
- High reliability
- Wide range of capacitance values

APPLICATIONS

- Induction and dielectric heating
- Antenna units
- Filter, bypass and coupling circuits

CAPACITANCE RANGE

5.6 pF to 2.0 nF

CAPACITANCE TOLERANCE

< 10 pF: ± 2 pF, ± 1 pF, ± 0.5 pF
 ≥ 10 pF: ± 20 %, ± 10 %, ± 5 %

CERAMIC DIELECTRIC

- R7 (TCC + 100 ppm/K)
- R16 (TCC + 100 ppm/K)
- R42 (TCC - 250 ppm/K)
- R85 (TCC - 750 ppm/K)
- N2200 (TCC - 2200 ppm/K)

RATED VOLTAGE

- 5.0 kV_p
- 7.5 kV_p

DIELECTRIC STRENGTH TEST

200 % of rated voltage, 50 Hz

DISSIPATION FACTOR

R7: max. 0.07 %
R16: max. 0.04 %
R42, R85: max. 0.05 %
N2200: max. 0.10 %
Measuring frequencies:
1 MHz (< 1 nF); 300 kHz or 100 kHz (≥ 1 nF)

INSULATION RESISTANCE

Min. 10 000 M Ω (at 25 °C)

OPERATING TEMPERATURE RANGE

-55 °C to +100 °C

QUICK REFERENCE DATA

DESCRIPTION	VALUE				
Ceramic Class	1				
Ceramic Dielectric	R7, R16, R42, R85, N2200				
Type	PS 20	PS 30	PS 40	PS 55	
Voltage (V _p)	5000	5000	7500	5000	5000
Min. Capacitance (pF)	5.6	10	120	22	22
Max. Capacitance (pF)	270	560	120	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.

MARKING

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

ACCESSORIES ADDED

Two screws and washers.



SAP PART NUMBER AND ELECTRICAL DATA								
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _p)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RMS})			
TYPE PS 20								
PS0020BE956##BF1	R7	5.6	5.0	5.0	5.0			
PS0020BE968##BF1		6.8						
PS0020BE982##BG1	R16	8.2		10				
PS0020BE100##BG1		10						
PS0020BE120##BG1		12						
PS0020BE150##BG1		15						
PS0020BE180##BH1	R42	18		15				
PS0020BE200##BH1		20						
PS0020BE220##BH1		22						
PS0020BE270##BH1		27						
PS0020BE330##BH1		33						
PS0020BE390##BJ1	R85	39		25				
PS0020BE470##BJ1		47						
PS0020BE560##BJ1		56						
PS0020BE680##BJ1		68						
PS0020BE820##BJ1		82						
PS0020BE101##BJ1		100						
PS0020BE121##AP1	N2200	120		10				
PS0020BE151##AP1		150						
PS0020BE181##AP1		180						
PS0020BE221##AP1		220						
PS0020BE271##AP1		270						
TYPE PS 30								
PS0030BE100##BF1	R7	10	5.0	8.0	10			
PS0030BE120##BF1		12						
PS0030BE150##BF1		15						
PS0030BE180##BF1		18						
PS0030BE200##BG1	R16	20		15				
PS0030BE220##BG1		22						
PS0030BE270##BG1		27						
PS0030BE300##BG1		30						
PS0030BE330##BG1		33						
PS0030BE390##BG1		39						
PS0030BE470##BH1	R42	47		20				
PS0030BE560##BH1		56						
PS0030BE680##BH1		68						
PS0030BE820##BH1		82						
PS0030BE101##BJ1	R85	100		30				
PS0030VZ121##BJ1		120	7.5					
PS0030BE151##BJ1		150	5.0					
PS0030BE181##BJ1		180						
PS0030BE201##BJ1		200						
PS0030BE221##BJ1		220						
PS0030BE271##AP1	N2200	270	15					
PS0030BE331##AP1		330						
PS0030BE391##AP1		390						
PS0030BE471##AP1		470						
PS0030BE561##AP1		560						

Notes

- # 14th to 15th digit: capacitance tolerance code < 10 pF: ± 2 pF = 15; ± 1 pF = 14; ± 0.5 pF = 13; ≥ 10 pF: $\pm 20\%$ = 38; $\pm 10\%$ = 36; $\pm 5\%$ = 33

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



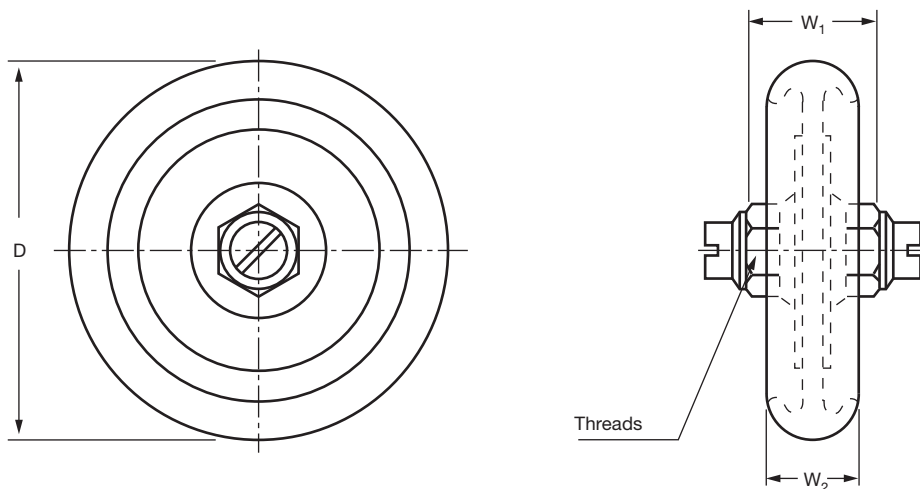
SAP PART NUMBER AND ELECTRICAL DATA						
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _p)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RM} S)	
TYPE PS 40						
PS0040BE220##BF1	R7	22	5.0	12	15	
PS0040BE270##BF1		27				
PS0040BE300##BG1	R16	30		20		
PS0040BE330##BG1		33				
PS0040BE390##BG1		39				
PS0040BE470##BG1		47				
PS0040BE560##BG1		56				
PS0040BE680##BG1		68				
PS0040BE820##BH1	R42	82		25		
PS0040BE910##BH1		91				
PS0040BE101##BH1		100				
PS0040BE121##BH1		120				
PS0040BE151##BH1		150				
PS0040BE181##BJ1	R85	180		35		
PS0040BE201##BJ1		200				
PS0040BE221##BJ1		220				
PS0040BE241##BJ1		240				
PS0040BE251##BJ1		250				
PS0040BE271##BJ1		270				
PS0040BE331##BJ1		330				
PS0040BE361##BJ1		360				
PS0040BE391##BJ1		390				
PS0040BE471##AP1	N2200	470		20		
PS0040BE561##AP1		560				
PS0040BE681##AP1		680				
PS0040BE821##AP1		820				
PS0040BE102##AP1		1000				
TYPE PS 55						
PS0055BE220##BF1	R7	22	5.0	15	18	
PS0055BE270##BF1		27				
PS0055BE330##BF1		33				
PS0055BE390##BF1		39				
PS0055BE470##BF1		47				
PS0055BE560##BG1	R16	56		40		
PS0055BE680##BG1		68				
PS0055BE820##BG1		82				
PS0055BE101##BG1		100				
PS0055BE121##BG1		120				
PS0055BE151##BH1	R42	150		55		
PS0055BE181##BH1		180				
PS0055BE221##BH1		220				
PS0055BE271##BH1		270				
PS0055BE331##BJ1		330				
PS0055BE391##BJ1	R85	390		25		
PS0055BE471##BJ1		470				
PS0055BE511##BJ1		510				
PS0055BE561##BJ1		560				
PS0055BE681##BJ1		680				
PS0055BE821##AP1		820				
PS0055BE102##AP1	N2200	1000				25
PS0055BE122##AP1		1200				
PS0055BE152##AP1		1500				
PS0055BE182##AP1		1800				
PS0055BE202##AP1		2000				

Notes

- # 14th to 15th digit: capacitance tolerance code: $\pm 20\%$ = 38; $\pm 10\%$ = 36; $\pm 5\%$ = 33

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

DIMENSIONS in millimeters (inches)



TYPE	PS 20	PS 30	PS 40	PS 55
Diameter D	24 ± 1 (0.95 ± 0.04)	34.5 ± 1.5 (1.36 ± 0.06)	44.5 ± 1.5 (1.75 ± 0.06)	56 ± 2 (2.20 ± 0.08)
Thread size	M5	M5	M6	M6
Width W ₁ max.	22 (0.87)	22 (0.87)	21 (0.82)	21 (0.82)
Width W ₂ max. ⁽¹⁾	16 (0.63)	16 (0.63)	15 (0.59)	15 (0.59)

Note

⁽¹⁾ Dimension W₂ will vary depending upon capacitance

RELATED DOCUMENTS

General Information

www.vishay.com/doc?22071



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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

[PS0020BE33033BH1](#) [PS0055BE20236AP1](#)