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Vishay Draloric

RF Power Plate Capacitors with Contoured Rim, Class 1 Ceramic



FEATURES

- Low losses
- · High reliability
- · Wide range of capacitance values

APPLICATIONS

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

QUICK REFERENCE DATA																	
DESCRIPTION	VALUE																
Ceramic Class		1															
Ceramic Dielectric		R7, R16, R42, R85, R230															
Туре	PA	70, PC	70, PD	70	PA1	00, PC 1 PE	00, PD ⁻ 100	100,	PA140, PC140, PD140, PE140			PA 2	200, PC 200, PD 200, PE 200				
Voltage (V _p)	11 000	12 000	13 000	14 000	11 000	13 000	15 000	16 000	12 000	13 000	14 000	15 000	16 000	12 000	13 000	14 000	15 000
Min. Capacitance (pF)	800	80	120	25	1600	160	250	50	3000	600	300	100	3000	400	4000	300	160
Max. Capacitance (pF)	800	600	500	300	1600	1200	800	200	3000	2500	1600	400	3000	6000	5000	3000	800
Mounting		Screw terminal/band terminal															

MATERIAL

Capacitor elements made from Class 1 ceramic dielectric with noble metal electrodes.

Flexible connection terminals made from copper/brass, silver plated, to allow for series and parallel interconnection

FINISH

Noble metal electrodes and terminals are protective lacquered. The contoured insulating rim is additionally glazed

MARKING

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

ACCESSORIES ADDED

Two screws and washers (PD, PE)

CAPACITANCE RANGE

25 pF to 6.0 nF

CAPACITANCE TOLERANCE

 $< 10 \text{ pF: } \pm 2 \text{ pF; } \pm 1 \text{ pF; } \pm 0.5 \text{ pF}$ $\geq 10 \text{ pF: } \pm 20 \text{ %; } \pm 10 \text{ %; } \pm 5 \text{ %}$

CERAMIC DIELECTRIC

- R7 (TCC + 100 ppm/K)
- R16 (TCC + 100 ppm/K)
- R42 (TCC 250 ppm/K)
- R85 (TCC 750 ppm/K)
- R230 (TCC 750 ppm/K)

RATED VOLTAGE

- 11 kV_p
- 12 kV_p
- 13 kV_p
- 14 kV_p
- 15 kV_p
- 16 kV_p

DIELECTRIC STRENGTH TEST

200 % of rated voltage, 50 Hz

DISSIPATION FACTOR

R7: Max. 0.07 %

R16: Max. 0.04 %

R42, R85, R230: Max. 0.05 %

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



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SAP PART NUMBER AND ELECTRICAL DATA									
PART NUMBER	CERAMIC	CAP. VALUES	RATED VOLTAGE	RATED POWER (1)	RATED CURRENT (A _{RMS})				
		(pF)	(kV _P)	(kvar)	PD	PA, PC			
TYPE P. 70									
P#0070WJ250##BF1	R7	25	14	15	16				
P#0070WJ300##BF1		30	14	15					
P#0070WJ400##BG1	R16	40		20					
P#0070WJ500##BG1		50	14						
P#0070WJ600##BG1		60							
P#0070WF800##BG1		80	12						
P#0070WJ101##BH1		100	14	20					
P#0070WH121##BH1	R42	120	13			10			
P#0070WH161##BH1		160	13			10			
P#0070WJ201##BJ1		200							
P#0070WJ251##BJ1		250	14						
P#0070WJ301##BJ1		300							
P#0070WH401##BJ1	R85	400	10	20					
P#0070WH501##BJ1		500	13						
P#0070WF601##BJ1		600	12						
P#0070WE801##BJ1		800	11	1					

SAP PART NUMBER AND ELECTRICAL DATA									
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _P)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RMS})				
		(ρε)		(KVai)	PE	PD	PA, PC		
TYPE P. 100									
P#0100BJ500##BF1	R7	50	15	30	35	25	15		
P#0100BJ600##BF1	n/	60	15						
P#0100BJ800##BG1		80		40					
P#0100BJ101##BG1	R16	100	15						
P#0100BJ121##BG1		120							
P#0100WH161##BG1		160	13						
P#0100BJ201##BH1		200	15	40					
P#0100WJ251##BH1	R42	250	14						
P#0100WH301##BH1		300	13						
P#0100WJ401##BJ1		400							
P#0100WJ501##BJ1		500	1.4						
P#0100WJ601##BJ1		600	14						
P#0100WJ801##BJ1	R85	800		40					
P#0100WH102##BJ1		1000	10						
P#0100WH122##BJ1		1200	13						
P#0100WE162##BJ1		1600	11						

Notes

- # 2nd digit: Code letter of terminal version A, C, D, E
- ## 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 $^{\circ}$ C

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SAP PART NUMBER AND ELECTRICAL DATA									
PART NUMBER	CERAMIC	CAP. VALUES	RATED VOLTAGE	RATED POWER (1)	RATED CURRENT (A _{RMS})				
		(pF)	(kV _P)	(kvar)	PE	PD	PA, PC		
TYPE P. 140									
P#0140BJ101##BF1	D7	100	15	67.5					
P#0140BJ121##BF1	n/	R7 120 15 67.5	07.5						
P#0140BJ161##BG1		160			45	30			
P#0140BJ201##BG1	R16	200	15	90					
P#0140BJ251##BG1	KIO	250							
P#0140WJ301##BG1		300	14				20		
P#0140BJ401##BH1		400	15	90					
P#0140WJ501##BH1	R42	500	14						
P#0140WH601##BH1	N42	600	13						
P#0140WH801##BH1		800	13						
P#0140WJ102##BJ1		1000							
P#0140WJ122##BJ1		1200	14						
P#0140WJ162##BJ1	R85	1600		00					
P#0140WH202##BJ1	H85	2000	13	90					
P#0140WH252##BJ1		2500	13						
P#0140WF302##BJ1		3000	12						
P#0140WL302##BK1	R230	3000	16	90	45	(2)	(2)		

SAP PART NUMBER AND ELECTRICAL DATA								
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _P)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RMS})			
		(pr)		(KVai)	PE	PD	PA, PC	
TYPE P. 200								
P#0200BJ161##BF1		160			60	40	25	
P#0200BJ201##BF1		200	15					
P#0200BJ251##BF1	R7	250		112				
P#0200WJ301##BF1		300	14	1				
P#0200WF401##BF1		400	12					
P#0200BJ501##BG1	R16	500	15	150				
P#0200BJ601##BG1	NIO	600	15	150				
P#0200BJ801##BH1		800	15	150				
P#0200WJ102##BH1	R42	1000						
P#0200WJ122##BH1	N42	1200	14					
P#0200WJ162##BH1		1600						
P#0200WJ202##BJ1		2000						
P#0200WJ252##BJ1	R85	2500	14					
P#0200WJ302##BJ1		3000		150				
P#0200WH402##BJ1		4000	13	100				
P#0200WH502##BJ1		5000	13					
P#0200WF602##BJ1		6000	12					

Notes

- # 2nd digit: Code letter of terminal version A, C, D, E
- ## 14^{th} to 15^{th} digit: Capacitance tolerance code \pm 20 % = 38; \pm 10 % = 36; \pm 5 % = 33
- (1) The surface temperature during operation must not exceed + 100 °C

⁽²⁾ Only PE type available



DIMENSIONS in millimeters (inches) PD PΕ Thread size Thread size 6 finger terminals 3 finger terminals W_1 W_1 not available as PE 70 Band terminals and ceramic base PA PC 50 66 ± 2 (2.60 ± 0.08) 0.3 (0.012) Band terminals 10 (0.39) 30 ± 1 (1.18 ± 0.04) 13 (0.51) 6.4 + 0.4(0.25 + 0.02)PA 70 PA 100 PA 140 PA 200

TYPE	PC 70 PD 70 (2)	PC 100 PD 100 PE 100	PC 140 PD 140 PE 140	PC 200 PD 200 PE 200
Diameter D _{max.}	70 (2.76)	100 (3.52)	140 (5.51)	200 (7.87)
Thread size	M6	M8	M8	M10
Width W ₁	35 ± 1 (1.38 ± 0.04)	40 ± 1 (1.58 ± 0.04)	40 ± 1 (1.58 ± 0.04)	45 ± 1 (1.77 ± 0.04)
Width W ₂ ⁽¹⁾	30 (1.81)	30 (1.81)	30 (1.81)	32 (1.26)
Height H	116 (4.57)	146 (5.75)	186 (7.32)	246 (9.69)
Length L ₁	100 (3.94)	140 (5.51)	140 (5.51)	200 (7.87)
Length L ₂	15 (0.59)	30 (1.18)	30 (1.18)	30 (1.18)

Notes

- (1) Dimension W₂ will vary depending upon capacitance
- (2) Type PE 70 is not available



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