

Ceramic High Voltage Disc Capacitors, Class 2

DESIGN:

Disc capacitor with epoxy coating

RATED VOLTAGE U_R :

HAZ, HAE, HAX	1kV _{DC}
HBZ, HBE, HBX	2kV _{DC}
HCZ, HCE, HCX	3kV _{DC}
HDE	4kV _{DC}
HEE	5kV _{DC}
HFZ, HFE	6kV _{DC}
HGZ	8kV _{DC}
HHZ	10kV _{DC}
HIZ	15kV _{DC}

DIELECTRIC STRENGTH BETWEEN LEADS:

Component test

HAZ, HAE, HAX	1750V _{DC} , 2s
HBZ, HBE, HBX	3000V _{DC} , 2s
HCZ, HCE, HCX	5000V _{DC} , 2s
HDE	6000V _{DC} , 2s
HEE	7500V _{DC} , 2s
HFZ, HFE	9000V _{DC} , 2s
HGZ	12000V _{DC} , 2s
HHZ	15000V _{DC} , 2s
HIZ	22500V _{DC} , 2s

DISSIPATION FACTOR $\tan \delta$:

HA., HB., HC., HD., HE	$\leq 25 \cdot 10^{-3}$
HF., HG., HH., HI.	$\leq 20 \cdot 10^{-3}$

INSULATION RESISTANCE R_{IS} :

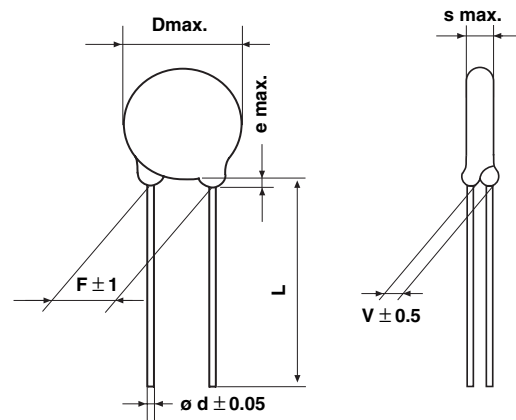
$\geq 1 \cdot 10^{10} \Omega$

CATEGORY TEMPERATURE RANGE θ_A :

(- 40 to + 85 °C)

CLIMATIC CATEGORY ACC. TO EN 60068-1:

40 / 085 / 21



• Dimensions in mm

	Coating Extension e	Standard Lead Length L
HA., HB., HC.	3 max.	30 - 3
HD., HE., HF.,		or
HGZ, HHZ, HIZ	5 max.	10 ± 1

COATING:

Epoxy dipped, insulating,
Flame retarding acc. to UL 94V-0

TEMPERATURE CHARACTERISTIC OF CAPACITANCE:

See General Information

TAPING AND SPECIAL LEAD CONFIGURATIONS:

See General Information

MARKING:

Capacitance value	- Clear text
Capacitance tolerance	- Where $D \geq 9\text{mm}$ only
Rated voltage	- Clear text
Ceramic dielectric	- With Letter code
Manufacturers logo	- Where $D \geq 13\text{mm}$ only

ORDERING INFORMATION

HIZ	101	M	BJ	EJ0	K
MODEL	CAPACITANCE VALUE	TOLERANCE	RATED VOLTAGE	LEAD CONFIGURATION	INTERNAL CODE



		CERAMIC DIELECTRIC: K 2000 CERAMIC CODE: Z CAPACITANCE TOLERANCE: ±10%, ±20%			CERAMIC DIELECTRIC: K 6000 CERAMIC CODE: E CAPACITANCE TOLERANCE: ±20%			CERAMIC DIELECTRIC: K 10000 CERAMIC CODE: X CAPACITANCE TOLERANCE: +50 -20%, (±20%)**														
		RATED VOLTAGE = 1kV _{DC}			RATED VOLTAGE = 1kV _{DC}			RATED VOLTAGE = 1kV _{DC}														
CAP. VALUE (pF)	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE							
47	7 x 3	5	0.6	1.2	HAZ470□BA□□□K																	
56	7 x 3				HAZ560□BA□□□K																	
68	7 x 3				HAZ680□BA□□□K																	
82	7 x 3				HAZ820□BA□□□K																	
100	7 x 3				HAZ101□BA□□□K																	
150	7 x 3				HAZ151□BA□□□K																	
220	7 x 3				HAZ221□BA□□□K																	
330	7 x 3				HAZ331□BA□□□K																	
470	7 x 3				HAZ471□BA□□□K																	
680	7 x 3				HAZ681□BA□□□K																	
1000	9 x 3				HAZ102□BA□□□K											7 x 3	5	0.6	1.2	HAE102MBA□□□K		
1500	9 x 3				HAZ152□BA□□□K											9 x 3				HAE152MBA□□□K		
2200	11 x 3				HAZ222□BA□□□K											9 x 3	HAE222MBA□□□K	7 x 3	5	0.6	1.2	HAX222SBA□□□K
3300	13 x 3				HAZ332□BA□□□K											11 x 3	HAE332MBA□□□K	9 x 3				HAX332SBA□□□K
4700	15 x 3	HAZ472□BA□□□K	11 x 3	HAE472MBA□□□K	9 x 3	HAX472SBA□□□K																
6800																						
0.010μF						13 x 3	7.5				13 x 3	7.5	0.6	1.2	HAX682SBA□□□K							
0.015μF						15 x 3				13 x 3	HAX103SBA□□□K											
0.022μF										17 x 3	HAX153SBA□□□K											
										18 x 3	HAX223SBA□□□K											
		RATED VOLTAGE = 2kV _{DC}			RATED VOLTAGE = 2kV _{DC}			RATED VOLTAGE = 2kV _{DC}														
56	7 x 3	7.5	0.6	1.4	HBZ560□BB□□□K																	
68	7 x 3				HBZ680□BB□□□K																	
82	7 x 3				HBZ820□BB□□□K																	
100	7 x 3				HBZ101□BB□□□K																	
150	7 x 3				HBZ151□BB□□□K																	
220	7 x 3				HBZ221□BB□□□K																	
330	7 x 3				HBZ331□BB□□□K																	
470	7 x 3				HBZ471□BB□□□K																	
680	9 x 3				HBZ681□BB□□□K											7 x 3	7.5	0.6	1.4	HBE681MBB□□□K		
1000	9 x 3				HBZ102□BB□□□K											7 x 3				HBE102MBB□□□K		
1500	11 x 3				HBZ152□BB□□□K											9 x 3	HBE152MBB□□□K	7 x 3	7.5	0.6	1.2	HBX152SBB□□□K
2200	13 x 3				HBZ222□BB□□□K											9 x 3	HBE222MBB□□□K	9 x 3				HBX222SBB□□□K
3300	15 x 3				HBZ332□BB□□□K											11 x 3	HBE332MBB□□□K	9 x 3				HBX332SBB□□□K
4700	17 x 3				HBZ472□BB□□□K											13 x 3	HBE472MBB□□□K	11 x 3				HBX472SBB□□□K
6800						11 x 3	HBE682MBB□□□K	11 x 3	HBX682SBB□□□K													
0.01μF						15 x 3	HBE103MBB□□□K	15 x 3	HBX103SBB□□□K													
0.015μF											17 x 3				HBX153SBB□□□K							
0.022μF											20 x 3				HBX223SBB□□□K							

* Standard lead configuration, other lead spacing and diameter available on request

** ± 20% available on request

CERAMIC DIELECTRIC: K 2000 CERAMIC CODE: Z CAPACITANCE TOLERANCE: ± 10%, ± 20%				CERAMIC DIELECTRIC: K 6000 CERAMIC CODE: E CAPACITANCE TOLERANCE: ± 20%				CERAMIC DIELECTRIC: K 10000 CERAMIC CODE: X CAPACITANCE TOLERANCE: + 50 - 20%, (± 20 %) **									
RATED VOLTAGE = 3kV _{DC}				RATED VOLTAGE = 3kV _{DC}				RATED VOLTAGE = 3kV _{DC}									
CAP. VALUE (pF)	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE		
68	7 x 4	10	0.6	1.8	HCZ680□BC□□□K	7 x 4	10	0.6	2	HCE471MBC□□□K	7 x 4	10	0.6	1.8	HCX681SBC□□□K		
82	7 x 4				HCZ820□BC□□□K											HCE681MBC□□□K	HCX102SBC□□□K
100	7 x 4				HCZ101□BC□□□K											HCE102MBC□□□K	
120	7 x 4				HCZ121□BC□□□K												
150	7 x 4				HCZ151□BC□□□K												
180	8 x 4				HCZ181□BC□□□K												
220	8 x 4				HCZ221□BC□□□K												
330	8 x 4				HCZ331□BC□□□K												
470	10 x 4				HCZ471□BC□□□K												
680	10 x 4				HCZ681□BC□□□K												
1000	11 x 4	HCZ102□BC□□□K			9 x 4	10	0.6	2	HCE102MBC□□□K	7 x 4	10	0.6	1.8	HCX102SBC□□□K			
1200	15 x 4	HCZ122□BC□□□K			11 x 4	10	0.8	2.2	HCE152MBC□□□K	8 x 4	10	0.6	1.8	HCX152SBC□□□K			
1500	15 x 4	HCZ152□BC□□□K			11 x 4	10	0.8	2.2	HCE222MBC□□□K	9 x 4	10	0.6	1.8	HCX222SBC□□□K			
2200	17 x 4	HCZ222□BC□□□K			15 x 4	10	0.8	2.2	HCE332MBC□□□K	10 x 4	10	0.6	1.8	HCX332SBC□□□K			
3300	21 x 4	HCZ332□BC□□□K			17 x 4	10	0.8	2.2	HCE472MBC□□□K	11 x 4	10	0.6	1.8	HCX472SBC□□□K			
4700	21 x 4	HCZ472□BC□□□K			21 x 4	10	0.8	2.2	HCE682SBC□□□K	15 x 4	10	0.6	1.8	HCX682SBC□□□K			
6800	25 x 4	HCZ682□BC□□□K			25 x 4	10	0.8	2.5	HCE103MBC□□□K	17 x 4	10	0.8	2	HCX103SBC□□□K			
0.01µF											21 x 4	10	0.8	2	HCX153SBC□□□K		
0.015µF																	

CERAMIC DIELECTRIC: K 6000 CERAMIC CODE: E CAPACITANCE TOLERANCE: ± 20%, (± 10%) **				CERAMIC DIELECTRIC: K 6000 CERAMIC CODE: E CAPACITANCE TOLERANCE: ± 20%								
RATED VOLTAGE = 4kV _{DC}				RATED VOLTAGE = 5kV _{DC}								
CAP. VALUE (pF)	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ± 1* (mm)	d ± 0.05* (mm)	V ± 0.5* (mm)	ORDERING CODE		
33	8 x 4.5	12.5	0.6	1.9	HDE330MBD□□□K	7 x 5.0	12.5	0.6	3.8	HEE221MBE□□□K		
47	8 x 5.0				HDE470MBD□□□K						HEE331MBE□□□K	
68	8 x 5.0				HDE680MBD□□□K							
100	8 x 5.0				HDE101MBD□□□K							
150	8 x 5.0				HDE151MBD□□□K							
220	8 x 5.0				HDE221MBD□□□K							
330	8 x 5.0				HDE331MBD□□□K							
470	8 x 5.0				HDE471MBD□□□K							
680	9 x 5.0				HDE681MBD□□□K							
1000	10 x 5.0				HDE102MBD□□□K							
1500	12 x 5.0	HDE152MBD□□□K			11 x 5.0	12.5	0.8	3.8	HEE102MBE□□□K			
2200	13 x 5.0	HDE222MBD□□□K			13 x 5.5	12.5	0.8	3.8	HEE152MBE□□□K			
3300	15 x 5.0	HDE332MBD□□□K			15 x 5.5	12.5	0.8	3.8	HEE222MBE□□□K			
4700	18 x 5.0	HDE472MBD□□□K										

*Standard lead configuration, other lead spacing and diameter available on request

**Narrow tolerance available on request



CAP. VALUE (pF)	CERAMIC DIELECTRIC: K 2000 CERAMIC CODE: Z CAPACITANCE TOLERANCE: ±20%, (±10%)				CERAMIC DIELECTRIC: K 6000 CERAMIC CODE: E CAPACITANCE TOLERANCE: ± 20%				CERAMIC DIELECTRIC : K 2000 CERAMIC CODE : X CAPACITANCE TOLERANCE: ± 20% (± 10%)						
	RATED VOLTAGE = 6kV _{DC}				RATED VOLTAGE = 6kV _{DC}				RATED VOLTAGE = 8kV _{DC}						
	D x s (MAX) (mm)	F ±1* (mm)	d ±0.05* (mm)	V ±0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ±1* (mm)	d ±0.05* (mm)	V ±0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ±1* (mm)	d ±0.05* (mm)	V ±0.5* (mm)	ORDERING CODE
56	7 x 5				HFZ560□BF□□□K										
68	7 x 5				HFZ680□BF□□□K										
82	7 x 5				HFZ820□BF□□□K										
100	8 x 5				HFZ101□BF□□□K										
120	8 x 5				HFZ121□BF□□□K						9x8.3				HGZ101MBP□□□K
150	8 x 5				HFZ151□BF□□□K	7x5				HFE151MBF□□□K	9x8.3				HGZ121MBP□□□K
180	10 x 5		0.6		HFZ181□BF□□□K						11x8.3				HGZ151MBP□□□K
220	10 x 5				HFZ221□BF□□□K	7x5				HFE221MBF□□□K	11x8.3				HGZ181MBP□□□K
270	10 x 5				HFZ271□BF□□□K						11x8.3				HGZ221MBP□□□K
330	10 x 5				HFZ331□BF□□□K	9x5				HFE 331MBF□□□K	13x8.3				HGZ271MBP□□□K
390	12 x 5	12.5		3.5	HFZ391□BF□□□K						13x8.3				HGZ331MBP□□□K
470	12 x 5				HFZ471□BF□□□K	9x5				HFE471MBF□□□K	14x8.3	12.5	0.8	4	HGZ391MBP□□□K
560	13 x 5				HFZ561□BF□□□K						16x8.3				HGZ471MBP□□□K
680	15 x 5				HFZ681□BF□□□K	9x5	12.5	0.6	3.5	HFE681MBF□□□K	16x8.3				HGZ561MBP□□□K
820	15 x 5				HFZ821□BF□□□K						18x8.3				HGZ681MBP□□□K
1000	17 x 5				HFZ102□BF□□□K	11x5.5				HFE102MBF□□□K	18x8.3				HGZ821MBP□□□K
1200	19 x 5				HFZ122□BF□□□K						21x8.3				HGZ102MBP□□□K
1500	21 x 5		0.8		HFZ152□BF□□□K	13x5.5				HFE152MBF□□□K	21x8.3				HGZ122MBP□□□K
1800	21 x 5				HFZ182□BF□□□K						24x8.3				HGZ152MBP□□□K
2200	25 x 5				HFZ222□BF□□□K	15x5.5				HFE222MBF□□□K	24x8.3				HGZ182MBP□□□K
2700	25 x 5				HFZ272□BF□□□K										HGZ222MBP□□□K
3300						21x5.5				HFE332MBF□□□K					
4700						21x5.5			0.8	HFE472MBF□□□K					
6800						23x5.5				HFE682MBF□□□K					

CAP. VALUE (pF)	CERAMIC DIELECTRIC: K 2000 CERAMIC CODE: Z CAPACITANCE TOLERANCE: ± 20%, (± 10%)				CERAMIC DIELECTRIC: K 2000 CERAMIC CODE: Z CAPACITANCE TOLERANCE: ± 20%, (± 10%)					
	RATED VOLTAGE = 10kV _{DC}				RATED VOLTAGE = 15kV _{DC}					
	D x s (MAX) (mm)	F ±1* (mm)	d ±0.05* (mm)	V ±0.5* (mm)	ORDERING CODE	D x s (MAX) (mm)	F ±1* (mm)	d ±0.05* (mm)	V ±0.5* (mm)	ORDERING CODE
100	11 x 6				HHZ101MBH□□□K	18 x 8				HIZ101MBJ□□□K
120	11 x 6				HHZ121MBH□□□K	18 x 8			4	HIZ121MBJ□□□K
150	11 x 9				HHZ151MBH□□□K	12 x 11				HIZ151MBJ□□□K
180	11 x 9				HHZ181MBH□□□K	13 x 11				HIZ181MBJ□□□K
220	11 x 9				HHZ221MBH□□□K	13 x 11				HIZ221MBJ□□□K
270	13 x 9				HHZ271MBH□□□K	14 x 11	12.5	0.8	7	HIZ271MBJ□□□K
330	13 x 9				HHZ331MBH□□□K	15 x 11				HIZ331MBJ□□□K
390	14 x 9	12.5	0.8	5	HHZ391MBH□□□K	16 x 11				HIZ391MBJ□□□K
470	16 x 9				HHZ471MBH□□□K	18 x 11				HIZ471MBJ□□□K
560	16 x 9				HHZ561MBH□□□K	21 x 11				HIZ561MBJ□□□K
680	18 x 9				HHZ681MBH□□□K	21 x 11				HIZ681MBJ□□□K
820	18 x 9				HHZ821MBH□□□K	21 x 11				HIZ821MBJ□□□K
1000	21 x 9				HHZ102MBH□□□K					
1200	21 x 5				HHZ122MBH□□□K					

NOT FOR NEW DESIGNS
REPLACEMENT
HIK... SERIES

*Standard lead configuration, other lead spacing and diameter available on request

ORDERING CODE			
Ordering code	□ 7th digit	Capacitance tolerance	± 10% = K ± 20% = M
	□□□ 10th / 11th / 12th digit	Lead configuration (See General Info.)	+ 50 - 20% = S



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