

Manufacturer : Anshan Keifat Electronic Ceramic Technical Co., Ltd.

No:

## Approval Sheet for Product Specification

**Customer:**

**Product: Screw Type UHV Ceramic Capacitor**

**PART No.:**

**Mfr. P/N:**

**Date:**        年    月    日

Manufacturer		Customer Confirm	
Prepared by	张颖	合格 OK <input type="checkbox"/>	
		不合格 NG <input type="checkbox"/>	
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**Revision History**

Edition	Date	Contents of formulation / modification / repeal	Formulation	Approval
A		New edition released	张颖	于金龙



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■ Trait

- Excellent temperature characteristics
- Low dissipation
- High insulation resistance
- High breakdown strength
- Fully symmetric full copper electrode
- Epoxy coating
- Screw terminal mounting

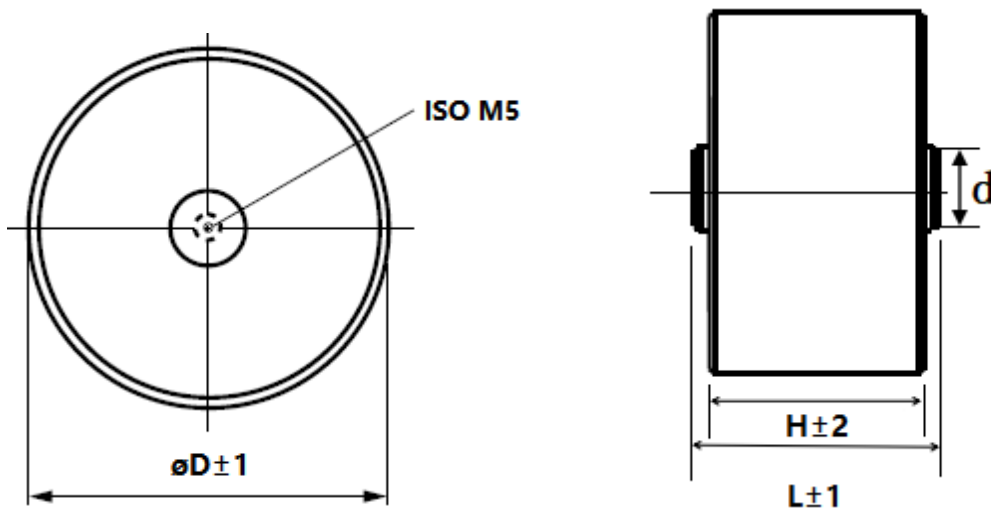
■ Application

- Smart grid
- High voltage power supplies
- CO<sub>2</sub> lasers
- X-ray equipment
- Welding equipment

■ Range Of Capacity

10 pF to 10,000pF

■ Dimensional Drawing





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■ **Specification**

Type	Rated Voltage kVdc	Test Voltage kVdc	Corona Inception Voltage (kVrms) ( $<10\text{pc}$ )	Capacitance (pF)	Dimensions millimeters (mm)				Terminal Type
					D $\pm$ 1	L $\pm$ 1	H $\pm$ 2	d	
AECT8G-30KV-N4700-701K	30	45	12	700	30			12	ISO M5
AECT8G-30KV-N4700-102K				1000	30			12	
AECT8G-30KV-N4700-122K				1200	40	22	17	14.5	
AECT8G-30KV-N4700-152K				1500	40			14.5	
AECT8G-30KV-N4700-472K				4700	55			14.5	
AECT8G-30KV-N4700-781K				780	30			12	
AECT8G-30KV-N4700-102K				1000	40			12	
AECT8G-30KV-N4700-112K				1100	40			14.5	
AECT8G-30KV-N4700-172K				1700	45			14.5	
AECT8G-30KV-N4700-182K				1800	45	25	20	14.5	
AECT8G-30KV-N4700-202K				2000	50			14.5	
AECT8G-30KV-N4700-252K				2500	55			14.5	
AECT8G-30KV-N4700-272K				2700	55			14.5	
AECT8G-30KV-N4700-302K				3000	55			14.5	
AECT8G-30KV-N4700-332K				3300	55			14.5	
AECT8G-30KV-N4700-362K				3600	60			14.5	
AECT8G-30KV-N4700-103K				10000	90			14.5	
AECT8G-30KV-N4700-591K				590	30			12	
AECT8G-30KV-N4700-941K				940	40	28	23	14.5	
AECT8G-30KV-N4700-172K				1700	50			14.5	
AECT8G-40KV-N4700-401K	40	60	16	400	30	35	30	12	ISO M5
AECT8G-40KV-N4700-202K				2000	60			14.5	
AECT8G-40KV-N4700-441K				440	30			12	
AECT8G-40KV-N4700-571K				570	30			12	
AECT8G-40KV-N4700-751K				750	40			14.5	
AECT8G-40KV-N4700-102K				1000	50			14.5	
AECT8G-40KV-N4700-122K				1200	45	30	25	14.5	
AECT8G-40KV-N4700-142K				1400	50			14.5	
AECT8G-40KV-N4700-172K				1700	55			14.5	
AECT8G-40KV-N4700-202K				2000	55			14.5	
AECT8G-40KV-N4700-242K				2400	60			14.5	
AECT8G-40KV-N4700-272K				2700	60			14.5	
AECT8G-40KV-N4700-332K				3300	70			14.5	



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Type	Rated Voltage kVdc	Test Voltage kVdc	Corona Inception Voltage (kVrms) ( $<10\text{pc}$ )	Capacitance (pF)	Dimensions millimeters (mm)				Terminal Type
					D $\pm$ 1	L $\pm$ 1	H $\pm$ 2	d	
AECT8G-50KV-N4700-281K	50	75	20	280	30	37	32	12	ISO M5
AECT8G-50KV-N4700-341K				340	30			12	
AECT8G-50KV-N4700-561K				560	40			14.5	
AECT8G-50KV-N4700-851K				850	40	33	28	14.5	
AECT8G-50KV-N4700-102K				1000	45			14.5	
AECT8G-50KV-N4700-212K				2100	60			14.5	
AECT8G-50KV-N4700-222K	50	75	20	2200	60	33	28	14.5	ISO M5
AECT8G-50KV-N4700-302K				3000	70			14.5	
AECT8G-50KV-N4700-602K				6000	80	80	75	14.5	
AECT8G-60KV-N4700-501K	60	90	24	500	40			14.5	ISO M5
AECT8G-60KV-N4700-701K				700	45			14.5	
AECT8G-60KV-N4700-851K				850	50	40	35	14.5	
AECT8G-60KV-N4700-102K				1000	45			14.5	
AECT8G-60KV-N4700-122K				1200	55			14.5	
AECT8G-70KV-N4700-202K	70	100	28	2000	60	40	35	14.5	ISO M5
AECT8G-100KV-N4700-751K	100	150	40	750	60	46	41	14.5	ISO M5
AECT8G-100KV-N4700-102K				1000	60			14.5	
AECT8G-120KV-N4700-102K	120	180	48	1000	60	53	48	14.5	ISO M5
AECT8G-150KV-N4700-251K	150	220	60	250	30	53	48	12	ISO M5
AECT8G-150KV-N4700-801K				800	60			14.5	

■ **Marking**

	① Manufacturer Marking
	② Temperature Characteristic
	③ Rated Capacitance
	④ Tolerance of Capacitance
	⑤ Rated Voltage



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■ **Specification and Test Method**

Item		Specifications	Testing Method					
Appearance	1 Appearance and Dimensions	No marked defect	Shall be visually examined or Venire calipers.					
	2 Marking	To be easily legible	Shall be visually examined.					
	3 Material	Capacitor elements made from N4700 ceramic in a molded epoxy case. Screw terminals: Terminals silver-plated.						
	4 Thread	ISO M5	Check with ISO M5 bolts					
Electrical performance	5 Capacitance	Within the specified tolerance	The capacitance shall be measured at 20° C with 1 ±0.2kHz and AC5V(r.m.s) max..					
	6 Dissipation Factor (D.F)	0.2%Max.	The capacitance shall be measured at 20° C with 1 ±0.2kHz and AC5V(r.m.s) max.					
	7 Insulation Resistance (I.R)	200,000MΩ.min.	The insulation resistance shall be measured with DC 500V within 60±2 s. of charging.					
	8 Power frequency withstand voltage	Between terminal	150% of rated voltage (In oil) ,1min.					
	9 Temperature Characteristics	-4700±1000ppm/°C	The capacitance should be measured at each step as below table.					
			<b>Step</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
		20±2°C	-40±2°C	20±2°C	70±2°C	20±2°C		
10 Corona limit	<10pC	at 40% rated AC voltage (In oil) .						



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Item		Specifications		Testing Method		
Climatic Tests	11 Humidity (under Steady State)	Capacitance	$\leq 10\%$	Set the capacitor for 100h at $40 \pm 2^\circ \text{C}$ in 90 to 95% humidity.		
		D.F	$< 1\%$			
		I.R	$> 10^9 \Omega$			
Climatic Tests	12 Temperature cycle test	The Capacitor should be normal, the requirement in item 5 to 10 of the table shall be met.		Pass through the atmosphere $-40^\circ \text{C}$ , 1h $\rightarrow$ RT, 0.5h $\rightarrow$ $+80^\circ \text{C}$ , 1h; 10 cycles.		
		13 Life Test	Capacitance change	$\pm 5\%$	Apply a DC voltage of 125% of the rated voltage for 100+24/-0 h in oil at $85 \pm 2^\circ \text{C}$ . Post-treatment : capacitor shall be stored for $24 \pm 2$ h at room condition. (charge/discharge current: 50mA max.)	
			D.F	1.0%max.		
I.R	1,000M					
Mechanical Performance Test	14 Strength of Terminal	Torque strength	Capacitor shall not be broken.	When mounting the capacitors on equipment, be sure to mount them within the torque strength values shown in the table below.		
				size	torque (N · m)	
		pull	No unusual	Fix the body of capacitor apply a tensile weight gradually to each terminal in the radial direction of capacitor up to table below.		
				size	pull (N)	
M5	1.5	M5	5.0			

Operating temperature range:  $-30^\circ \text{C} \sim +85^\circ \text{C}$





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**Announcements:**

(1) Handling and storage

Please avoid handling and storage in high temperature, humidity and rain.

Collision avoidance.

Do not expose to H<sub>2</sub>SO<sub>4</sub>, HCL, HNO<sub>3</sub> and other toxic gases.

(2) Operating

Collision avoidance.

Please do not get sweat and other electrolytes. Please do not operate with bare hands.

Do not weld on the screw terminals.

Do not rework the terminals.

(3) Using

Avoid as much as possible the transfer of radioactive heat from mechanical piping, etc., to the capacitor.