



SPECIFICATION FOR APPROVAL

File No.: Q/FRK 0.GS.E.C3K-F05

Product Name	Snubber capacitor for high voltage, high current pulses (Axial type)
Product Type:	C3K
Product Code	
Customer	
Customer Code	
Issue Date	2015-8



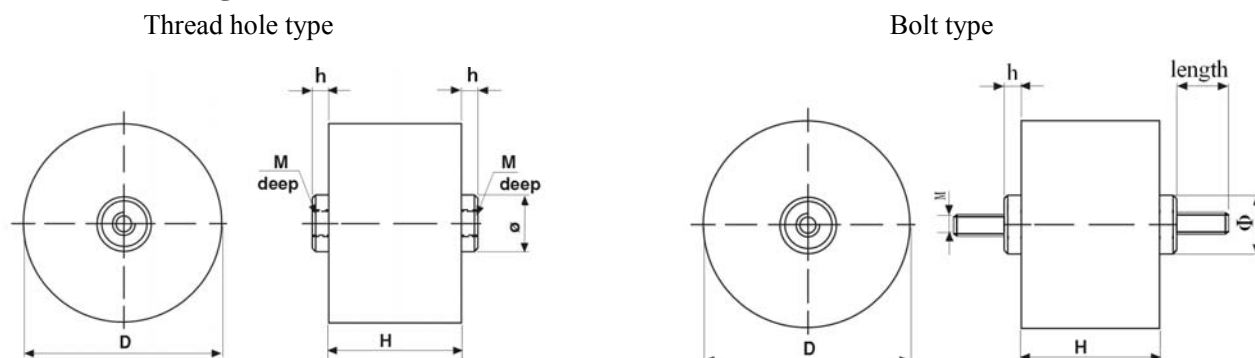
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Snubber capacitor for high voltage, high current pulses (Axial type)

■ Outline Drawing



■ Features

- Low loss and small inherent temperature rise
- Low ESR, Low ESL, can withstand high r.m.s current
- Self-healing property
- Inflamming plastic case, Filled with resin.

■ Applications

- Damping of voltage spikes on GTO-Thyristors
- High ripple current D.C. filtering
- For high pulse and high frequency application

■ Safety Approvals

●		UL	UL 810 (construction only), Max. 7200Vdc, 90°C File No.: E256238, CCN: CZDS2
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■ Specifications

Reference Standard	IEC 61071, GB/T17702	
Climatic Category	40/85/56	
Operating temperature range(case)	-40°C~85°C	
Capacitance Tolerance	J(±5%), K(±10%), M(±20%)	
Test voltage between terminals (U_{T-T})	1.5 U_N (10s)	
Test voltage between case and terminal (U_{T-C})	$U_N < 1\ 500\text{Vdc}$, 3 000Vac(60s, 50Hz, 20°C±5°C) $U_N \geq 1\ 500\text{Vdc}$, ($\sqrt{2} U_N + 1\ 000$)Vac(60s, 50Hz, 20°C±5)	
Dissipation Factor	≤0.0005 (1kHz, 20°C)	
Insulation Resistance($IR \times C_N$)	≥10 000s (20°C, 100V, 1min)	
Max. Torque of terminals	M6: 5Nm	M8: 6Nm
Mounting	Any position	
Life expectancy	≥100,000 hours at U_N , $\Theta_{hs} = 70^\circ\text{C}$	

■ Part number system

The 18 digits part number is formed as follow:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

C	3	K															
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Digit 1 to 3 Series code

Digit 4 to 5 D.C. rated voltage

1V=700V 2M=1300V 7M=1 700V 3D=2 000V 3E=2 500V 3G=4 000V

6S=4 500V 7U =6 500V 4V=7 000V 5V=7500V 3K=8 000V 2X=9 000V

Digit 6 to 8 Rated capacitance value

For example: 105=10×10⁵ pF= 1.0μF

Digit 9 Capacitance tolerance

J=±5%, K=±10%, M=±20%, N=0~10%

Digit10 Dimension code

Code	D	H	Code	D	H	Code	D	H
1	40	45	9	90	48	K	60	115
2	90	56	A	90	55	L	90	52
3	90	116	D	90	71	M	90	67
4	90	149	E	90	180	N	90	129
5	75	60	F	30	98	P	40	39
6	50	45	G	30	37	Q	57	218
7	70	45	H	50	57	R	90	216
8	80	48	J	90	170			

Digit 11 Internal use

Digit 12 to 15 Terminals code

Digit 12		Digit 13	
Code	Terminal form	Code	Depth of thread hole
H	Thread hole type	1	8
		2	10
		3	12
		4	6
		0	Through hole

Digit 14	
Code	Height for h
1	5.0
2	3.0
3	6.5
4	7.0
5	7.5
6	6.0

Digit 15	
Code	Specifications of terminal
1	Φ 17.0×M8
2	Φ 22.5×M8
3	Φ 20.0×M8
4	Φ 28.0×M8
6	Φ 12.0×M6
7	Φ 17.0×M6

Digit 12		Digit 13	
Code	Terminal form	Code	Length of thread
2	螺栓式 Bolt type	0	20
		2	16
		4	15
		5	13

Digit 14	
Code	Height for h
1	5.0

Digit 15	
Code	Specifications of terminal
7	Φ 17.0×M6

Digit 16~18 Internal use

■ Technical data(mm)

C _N (μF)	U _N (Vdc)	U _{rms} (Vac)	dV/dt (V/μs)	İ (A)	İ _s (A)	I _{max} 100kHz@70°C (A)	ESR @100kHz (mΩ)	L _s (nH)	D±1.0	H±1.0	h±1.0	Part number
10	700	500	360	3 600	10 800	38	1.5	25	50	57	5	C3K1V106+H02417***
4.0	1 300	700	500	2 000	6 000	70	1.5	20	90	52	5	C3K2M405+L0H112***
0.5	1 700	650	750	375	1 125	14	3.2	18	40	45	3	C3K7M504+10H421***
1.0	1 700	650	750	750	2 250	23	1.6	18	50	45	3	C3K7M105+60H421***
2.0	1 700	650	750	1 500	4 500	36	1.0	18	70	45	3	C3K7M205+70H421***
3.0	1 700	650	750	2 250	6 750	48	0.7	18	80	48	3	C3K7M305+80H421***
2.0	3 000	280	300	600	1 800	35	1.8	50	90	67	6	C3K4Q205NM0H262***
0.01	4 000	800	8 000	80	240	3	39	25	30	37	7.5	C3K3G103+G0H456***
5.0	4 500	500	200	1 000	3 500	36	2.7	100	90	216	5	C3K6S505+R0H312***
0.5	4 500	1 500	500	250	750	42	1.2	50	90	56	3	C3K6S504+20H121***
0.015	7 000	3 550	2 000	30	90	6	30	100	30	98	5	C3K4V153NF0H416***
0.55	7 000	2 500	400	270	710	41	1.8	50	90	116	7	C3K4V554+30H241***
0.25	7 000	4 000	1 000	250	750	31	2.9	100	90	180	5	C3K4V254+E0H313***
0.35	7 000	4 000	1 000	350	1 050	38	2.1	100	90	180	5	C3K4V354+E0H313***
0.5	7 000	4 000	500	250	750	45	1.9	100	90	180	5	C3K4V504+E0H313***
0.5	7 000	3 000	200	100	300	19	5.6	100	60	115	5	C3K4V504+K0H212***
0.01	7 500	2 500	2 000	20	60	4	50	100	30	98	3	C3K5V103+F0H426***
0.33	8 000	5 000	1 000	330	990	39	2.0	50	90	129	6.5	C3K3K334+N0H332***
0.1	9 000	4 500	1 500	150	450	26	5.0	100	90	149	6.5	C3K2X104+40H232***

Note: 1. "+"=capacitance tolerance code M=±20%,K=±10%, J=±5%, N=0~10%

2. "***"= Internal use

3. "I_{max}"at 100kHz, Θ_{amb}=70°C, Θ_{case}=85°C.

4. "ESR" , "L_s"are typical values.

5. Other values and dimenisons is available on request.