

# AC Harmonic Filter Capacitor

## C73



### Characteristics

- Aluminum square case package, perfused with epoxy resin
- Lead by tinned copper nut or copper screw, located plastic cover, easy installation
- High withstand voltage, self-healing
- High ripple current, high dv/dt withstand capability
- Large capacitance, small size

### Application

- Widely used in power electronic equipment used for the AC filter.
- Acting as AC filter, harmonic control and power factor Improvement in high power UPS, switching power Supply, frequency converter and other equipment

### Tecahnical Data

• Reference Standards	GB/T 17702 IEC 61071
• Operating Temperature Range	-40°C ~ +55°C Tmax+85°C (the highest temp.+85°C)
• Capacitance Range	3×40μF ~ 3×500μF
• Rated Voltage	400VAC/50Hz ~ 1140VAC/50Hz
• Capacity Tolerance	±5%(J); ±10%(K)
• Test Voltage Between Electrodes	2.15UN (AC) 10S 20°C
• Test Voltage Between Electrode And Case	1000+2×UN (VAC) 50Hz 60S (min 3000VAC)
• Dissipation Factor	tgδ ≤ 2×10⁻³ at 20°C, 100Hz
• Insulation Resistance	C·R ≥ 10000S, at 100VDC, 20°C, 60S
• Maximum Altitude	2000m
	For altitudes between 2000m and 5000m, consideration should be given to the use of deductions (10% reduction in voltage and current per 1000m increase)
• Life Expectancy	100000hrs (Un θhotspot ≤ 55°C)

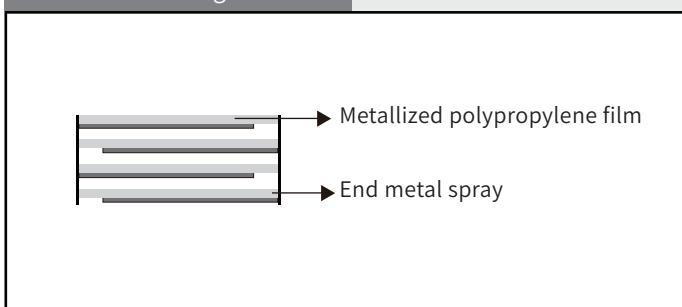
### Overvoltage Operation

1.1×UN	30% of on-load-dur.
1.15×UN	30 min/day
1.2×UN	5 min/day
1.3×UN	1min/day
1.5×UN	100ms each time, no more than 1000 times during the lifetime

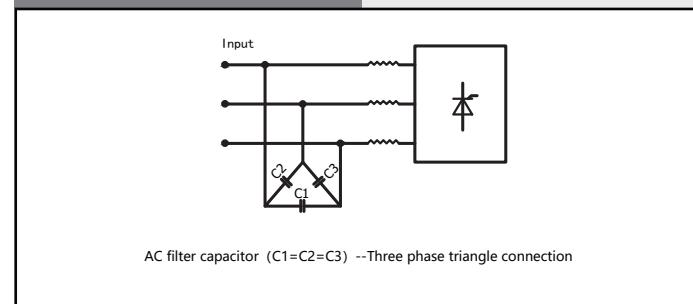
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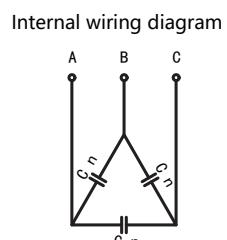
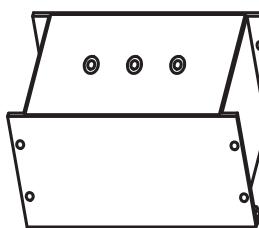
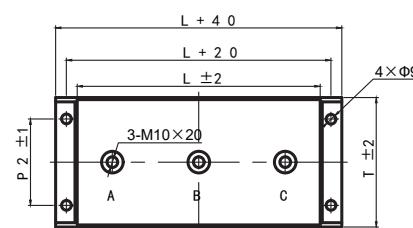
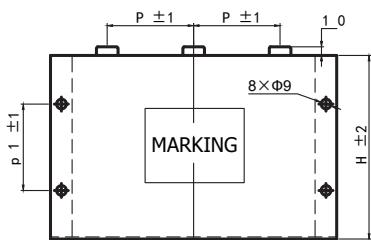
## Construction Diagram



## Typical Circuit



## Product Shape



C73 series AC three phase filter capacitor

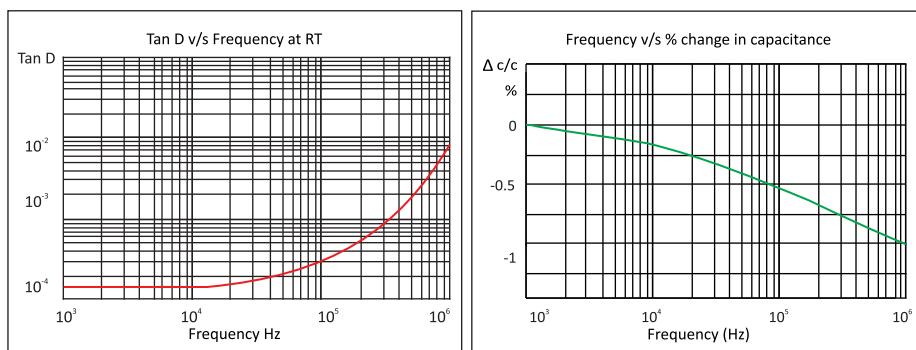
## Product Coding

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
C	7	3	X	X	N	N	X	X	X	N						-		
Product model	Rated voltage										Extraction electrode					Serial number		
$XX \times 10^n$ (V)											F-Nut					01, 02...		
Multiple capacity extraction											Capacity deviation					Lead wire type		
NX											J	±5%						
											K	±10%						

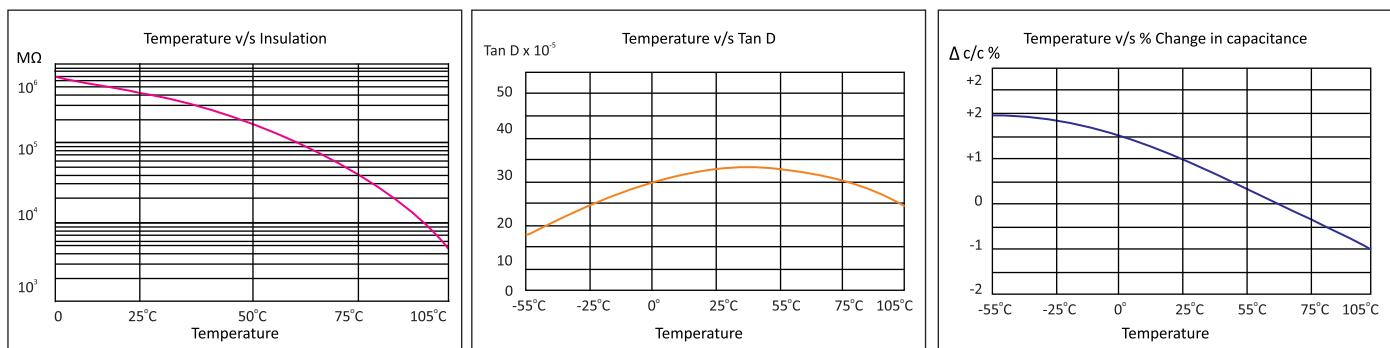
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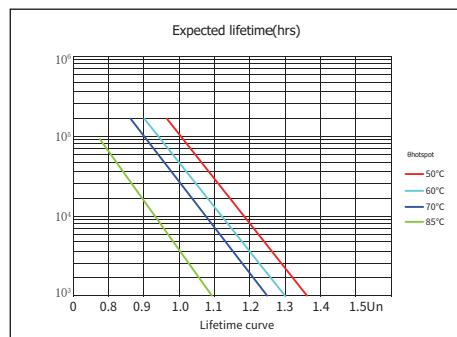
## Temperature Characteristics



## Frequency Characteristics



## Life Expectancy



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## Article Table

Part Number	CAP μF	Dimension (mm)			dV/dt (V/μS)	Ip (kA)	Is (kA)	Irms @ 50°C (A)	Rth (K/W)	ESL (nH)	ESR @1kHz (mΩ)
		D	H	H							
$U_N = 400\text{VAC}/50\text{Hz}$											
C724013×207J.....	3×200	225	120	170	50	10.0	30.0	3×70	1.1	≤100	3×0.95
C724013×307J.....	3×300	225	120	235	40	12.0	36.0	3×90	0.8	≤100	3×0.85
C724013×407J.....	3×400	295	120	235	35	14.0	42.0	3×120	0.7	≤100	3×0.80
C724013×507J.....	3×500	365	120	235	30	15.0	45.0	3×160	0.6	≤100	3×0.78
$U_N = 500\text{VAC}/50\text{Hz}$											
C725013×127J.....	3×120	225	120	170	60	7.2	21.6	3×50	1.1	≤100	3×1.2
C725013×187J.....	3×180	225	120	235	50	9.0	27.0	3×70	0.8	≤100	3×1.05
C725013×247J.....	3×247	295	120	235	45	10.8	32.4	3×100	0.7	≤100	3×1.0
C725013×307J.....	3×307	365	120	235	40	12.0	36.0	3×120	0.6	≤100	3×0.9
$U_N = 690\text{VAC}/50\text{Hz}$											
C726913×506J.....	3×50	225	120	170	100	5.0	15.0	3×50	1.1	≤100	3×2.3
C726913×756J.....	3×75	225	120	235	90	6.8	20.4	3×70	0.8	≤100	3×2.1
C726913×107J.....	3×100	295	120	235	80	8.0	24.0	3×100	0.7	≤100	3×1.6
C726913×127J.....	3×125	365	120	235	80	10.0	30.0	3×120	0.6	≤100	3×1.3
$U_N = 1140\text{VAC}/50\text{Hz}$											
C721123×426J.....	3×42	340	175	200	120	5.0	15.0	3×80	0.6	≤100	3×3.3
C721123×606J.....	3×60	420	175	250	100	6.0	18.0	3×100	0.5	≤100	3×2.8

The above table / graphics are for reference only, subject to the actual product (unit: mm)