

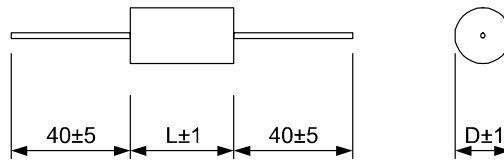
Polycarbonate film capacitor KC - High pulse - Precision



Main applications: Blocking, bypassing, timing, high frequency coupling and decoupling, high temperature application in electronics, high pulse operation.

Dielectric	Polycarbonate	
Electrodes	Metal foils	
Coating	UL 510 / CSA TIL I-26 polyester tape wrapping; UL 94 V-0 resin end fill (flame retardant execution)	
Construction	Extended foil (refer to general technical information)	
Leads	Tinned copper wire	
Reference standard	IEC 60384/12, IEC 60068, CECC 30000, CECC 31700	
Climatic category	55/125/56 (IEC 60068/1), FKD (DIN40040)	
Operating temperature range	-55°...+125°C	
Rated capacitance (Cr)	100pF to 0,01µF, in compliance with IEC60063, E6 series. Refer to article table	
Capacitance tolerance (at 1kHz)	±10% (code=K), ±5% (code=J) and ±20% (code=M). Other tolerances up to ±1% (code=F) upon request	
Capacitance temperature coefficient	Refer to graphs in general technical informatio. +150 (±50) p.p.m./°C (typical value)	
Long term stability (at 1kHz)	Capacitance variation ≤ ±1% after a period of 2 years at standard environmental conditions	
Rated voltage (Ur)	400 Vdc (Permissible AC voltage at 60Hz: 160 Vac)	
Category voltage (Uc)	Uc=Ur at +85°C; Uc=0,5xUr at +125°C	
Temperature derated voltage	For +85°C < T ≤ +125°C, Ur must be decreased 1,25% for every °C exceeding +85°C	
Self inductance	≤ 1nH/mm of capacitor and leads length used for connection	
Maximum pulse rise time	Refer to article table. The pulse characteristic Ko depends on the voltage waveform. In any case the value given in the article table must not be overcome	
Dissipation factor (DF), max.	(tgδ x10 ⁻⁴ , measured at 25±5°C)	
	Freq.	DF
	1kHz	20
	10kHz	40
	100kHz	80
Insulation resistance (IR)	When measured between terminals, at 25±°C, after 1 minute of electrification at 100Vdc: IR ≥ 50GΩ .	
Test voltage between terminals (Ut)	2.0xUr (DC) applied for 2s at 25±5°C (1 minute for type test)	
Damp heat test (steady state)	Test conditions: Temperature= +40±2°C Relative humidity= 93±2% Test Duration= 56 days	Performance: Capacitance change ≤ ±3% DF change ≤ 1,2 times the initial values or ≤ the limit value, whichever is greater IR ≥ 50% of initial limit value
Endurance test	Test conditions: Temperature= +85±2°C Test duration= 1000h Voltage applied= 1,5 x Ur(DC)	Performance: Capacitance change ≤ ±3% DF change ≤ 1,2 times the initial values or ≤ the limit value, whichever is greater IR ≥ 50% of initial limit value
Resistance to soldering heat test	Test conditions: Solder bath temperature= +260±5°C Dipping time (with heat screen)= 10±1s	Performance: Capacitance change ≤ ±1% DF change ≤ limit value IR ≥ limit value

CW (Not for new design)

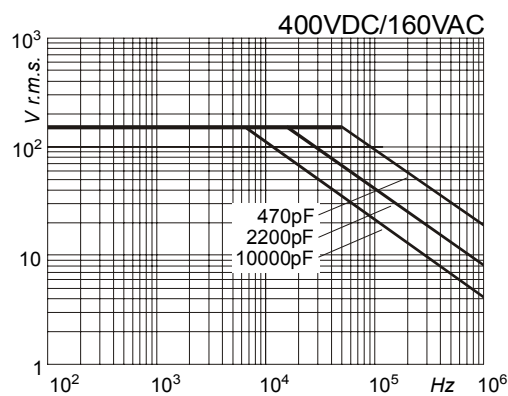


CW article table (different values available upon request)

Rated voltage		Cap. value (μF)	Dimension in mm			du/dt V/μs	Ko V ² /μs	ICEL ordering code ⁽¹⁾
Vdc	Vac		D	L	d			
400	160	0,0001	4,5	10,5	0,6	3000	240E04	CW_1400100*A
400	160	0,00015	4,5	10,5	0,6	3000	240E04	CW_1400150*A
400	160	0,00022	4,5	10,5	0,6	3000	240E04	CW_1400220*A
400	160	0,00033	4,5	10,5	0,6	3000	240E04	CW_1400330*A
400	160	0,00047	4,5	10,5	0,6	3000	240E04	CW_1400470*A
400	160	0,00068	4,5	10,5	0,6	3000	240E04	CW_1400680*A
400	160	0,001	4,5	10,5	0,6	3000	240E04	CW_1401100*A
400	160	0,0015	4,5	10,5	0,6	3000	240E04	CW_1401150*A
400	160	0,0022	4,5	10,5	0,6	3000	240E04	CW_1401220*A
400	160	0,0033	4,5	10,5	0,6	3000	240E04	CW_1401330*A
400	160	0,0047	5	10,5	0,6	3000	240E04	CW_1401470*A
400	160	0,0068	5,5	10,5	0,6	3000	240E04	CW_1401680*A
400	160	0,01	6	10,5	0,6	3000	240E04	CW_1402100*A

(1)Change the * symbol with the needed capacitance tolerance code: F=±1%; G=±2%; H=±2.5%; J=±5%, K=±10%, M=±20%

Permissible AC voltage versus frequency (sinusoidal waveform) for ΔT= +10°C



Warning

This specification must be completed with the data given in the "General technical information" chapter