

C41

Water Cooled Resonant Capacitor

Water Cooled Resonant Capacitor C41-TC2



Characteristics

- Conduction water-cooled
- Polypropylene dielectric
- Low dissipation factor($\text{tg}\delta$), low ESL and low ESR
- High voltage, high frequency and high dv/dt
- High current resistance, excellent heat dissipation

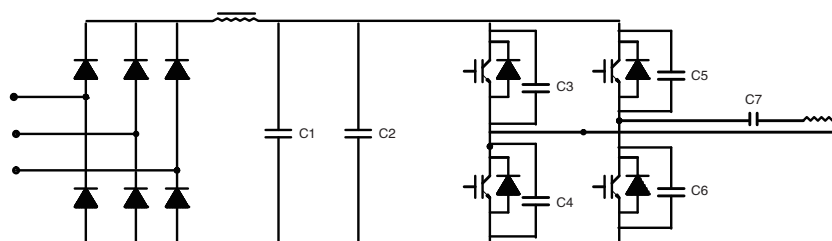
Application

- Widely used in high power and high frequency resonant devices

Technical Data

● Reference standards	GB/T 3984-2004 IEC 60110.1
● Operating temperature range	-40°C~+85°C
● Capacitance range	0.1 μF ~85 μF
● Rated capacitance	100kVar-1500 kVar
● Rated voltage	400VAC-1100VAC
● Tolerance	$\pm 5\%$ $\pm 10\%$
● Test voltage between terminals	1.5 U_{NAC} 10s
	3.5 U_{NDC} 10s at 25°C $\pm 5^\circ\text{C}$
● Dissipation factor	$\text{tg}\delta \leq 5 \times 10^{-4}$ at 25°C $\pm 5^\circ\text{C}$, 1kHz
● Insulation resistance	$R \cdot C \geq 3000\text{s}$, at 100VDC, 25°C $\pm 5^\circ\text{C}$, 60s
● Life expectancy	100000h at U_{N} and 70°C, 30000h at U_{rms}

Typical Circuit

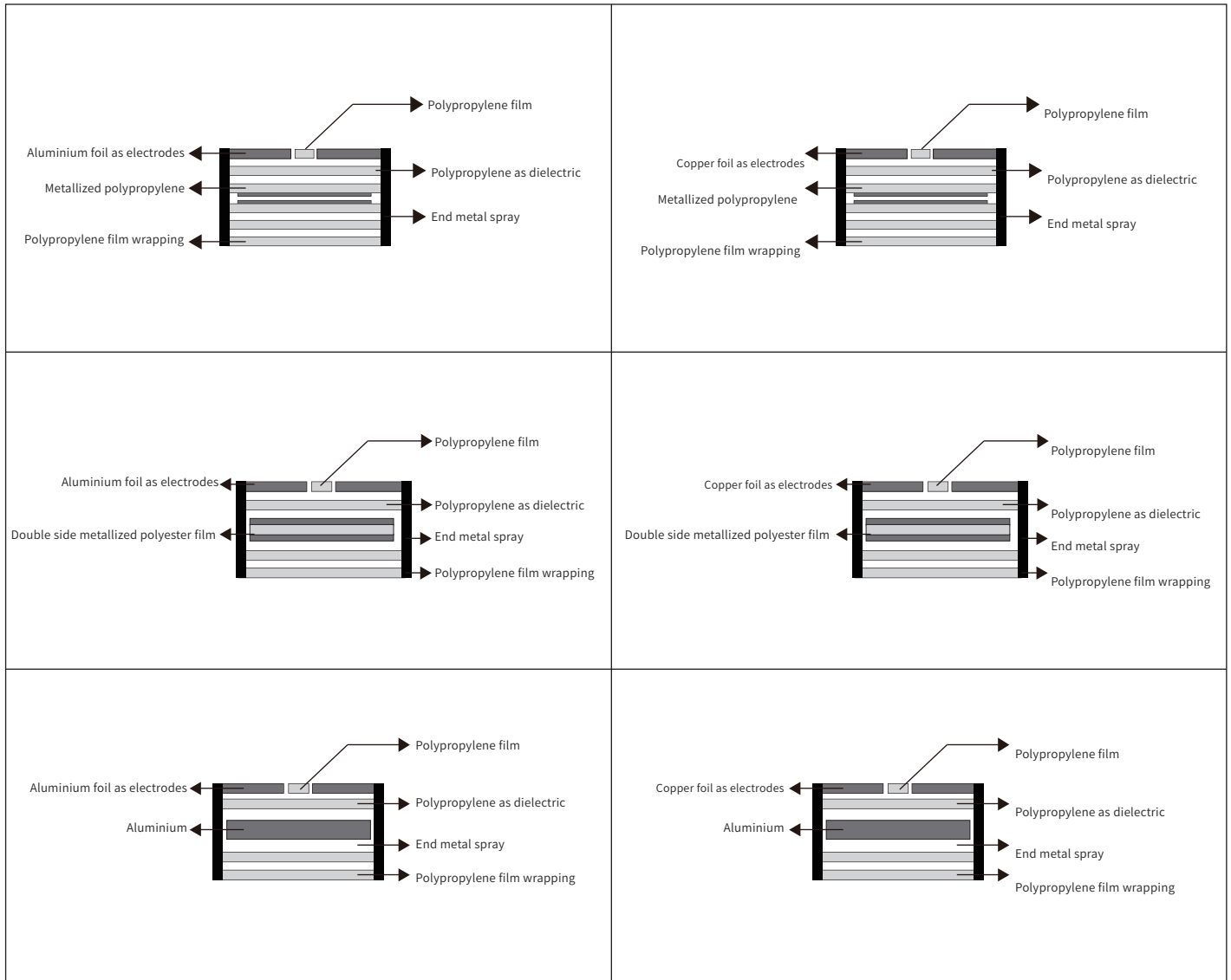


C7 is the water-cooled capacitor in the series resonant capacitor

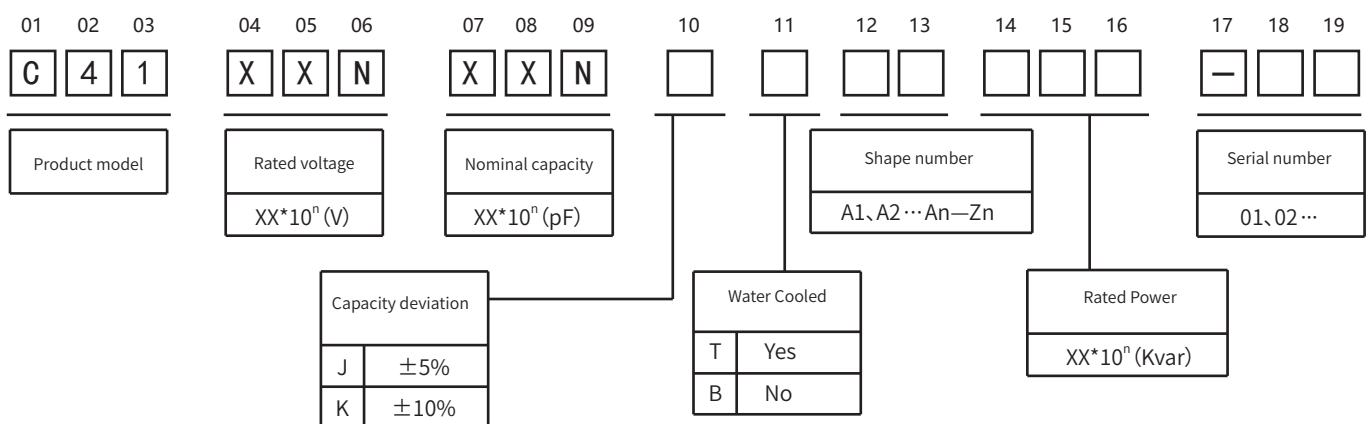
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Construction Diagram



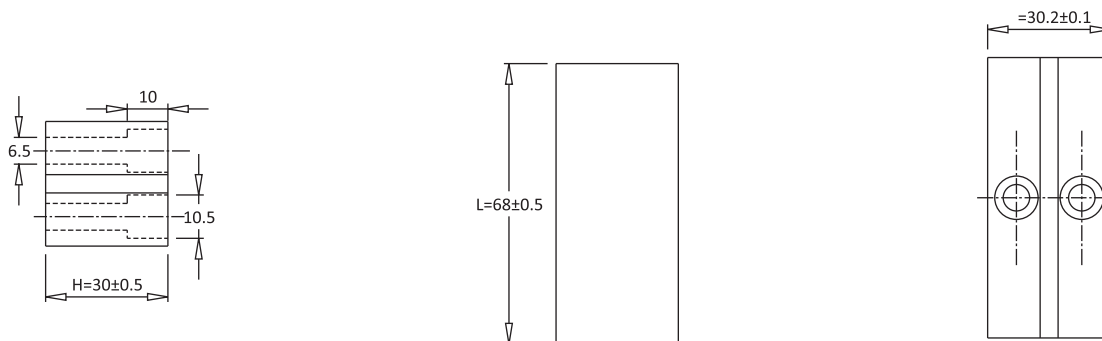
Product Coding



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Article Table

Part Number	Rated Voltage Vrms	Nominal Capacitance μF at 1Khz	Max Irms A	Max Power kVar	Freq Range @Full Power (kHz)	ESR m Ω	Dimension (mm)			Case Code
							L	H	T	
C41102503KTC2151...	1000	0.05	200	150	478-700	1.5	68	30	30.2	TC2
C41102104KTC2151...	1000	0.10	250	150	238-423	1.5	68	30	30.2	TC2
C41701174KTC2151...	700	0.17	250	150	286-389	1.2	68	30	30.2	TC2
C41701254KTC2151...	700	0.25	250	150	195-265 T	1.2	68	30	30.2	TC2
C41701334KTC2151...	700	0.33	250	150	148-200	1.0	68	30	30.2	TC2
C41701504KTC2151...	700	0.50	250	150	93-132	1.0	68	30	30.2	TC2
C41601664KTC2151...	600	0.66	300	150	100-145	0.8	68	30	30.2	TC2
C41501125KTC2151...	500	1.20	300	150	79-80	0.6	68	30	30.2	TC2
C41501135KTC2151...	500	1.30	300	150	72	0.6	68	30	30.2	TC2
C41401245KTC2151...	400	2.40	400	150	63-72	0.6	68	30	30.2	TC2
C41102104KTC2201...	1000	0.10	250	200	318-498	1.2	68	30	30.2	TC2
C41901174KTC2201...	900	0.17	300	200	232-422	1.0	68	30	30.2	TC2
C41801254KTC2201...	800	0.25	300	200	199-286	0.9	68	30	30.2	TC2
C41801334KTC2201...	800	0.33	300	200	150-216	0.8	68	30	30.2	TC2
C41801504KTC2201...	800	0.50	350	200	98-194	0.6	68	30	30.2	TC2
C41701664KTC2201...	700	0.66	400	200	98-193	0.4	68	30	30.2	TC2
C41601125KTC2201...	600	1.20	450	200	74-134	0.4	68	30	30.2	TC2
C41601135KTC2201...	600	1.30	450	200	65-120	0.4	68	30	30.2	TC2
C41451245KTC2201...	450	2.40	500	200	65-85	0.3	68	30	30.2	TC2
C41102104KTC2301...	1000	0.10	300	300	478	1.5	68	30	30.2	TC2
C41102174KTC2301...	1000	0.17	300	300	281	1.4	68	30	30.2	TC2
C41801334KTC2301...	800	0.33	400	300	225-256	1.2	68	30	30.2	TC2
C41801504KTC2301...	800	0.50	400	300	149-170	1.1	68	30	30.2	TC2
C41701664KTC2301...	700	0.66	450	300	147-163	1.0	68	30	30.2	TC2
C41601135KTC2301...	600	1.30	500	300	99	0.9	68	30	30.2	TC2
C41501245KTC2301...	500	2.40	600	300	79	0.8	68	30	30.2	TC2

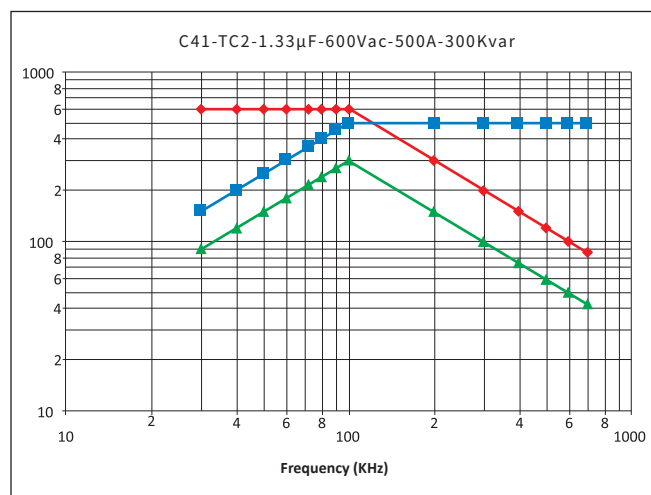
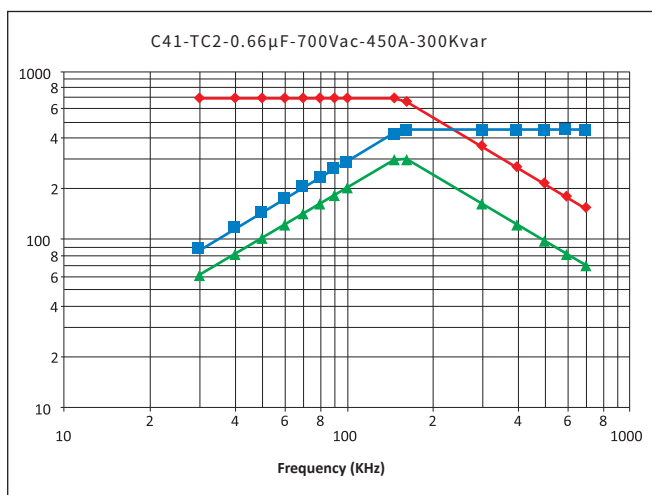
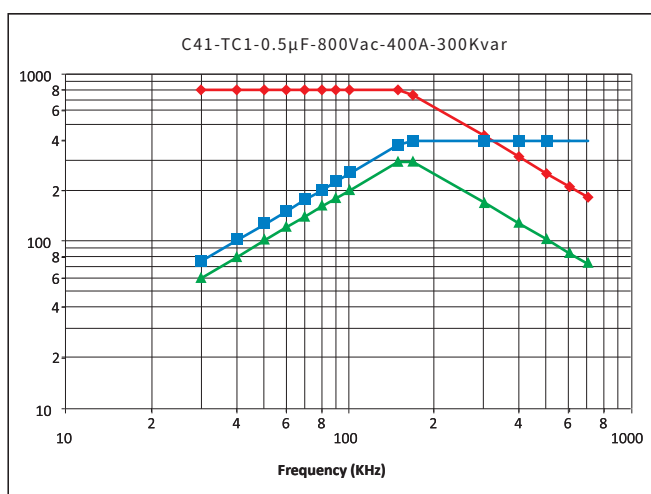
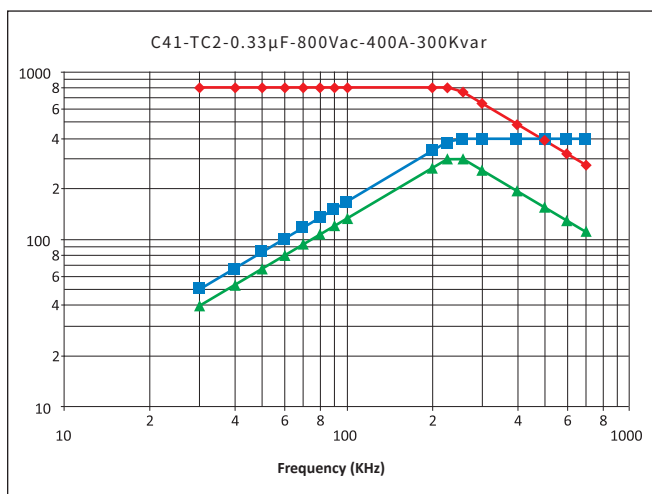
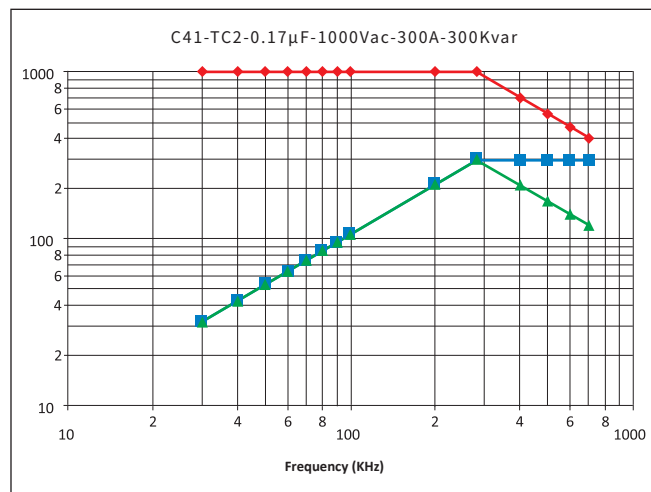
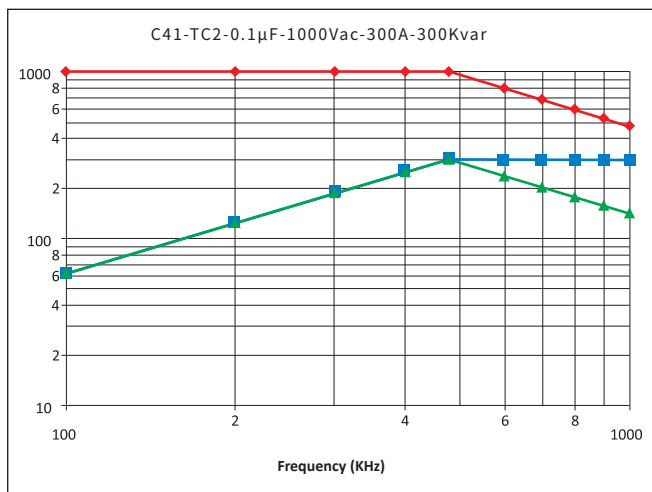
The above table / graphics are for reference only, subject to the actual product (unit: mm)

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Water Cooled Resonant Capacitor

Temperature Characteristics

—◆— Voltage —■— Current —▲— Power



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