

Metallized Polyester Film Capacitor

Type: **ECQUL [Class X2] [Class Y2/X2]**

In accordance with UL/CSA and European safety regulation class X2 or class Y2/X2

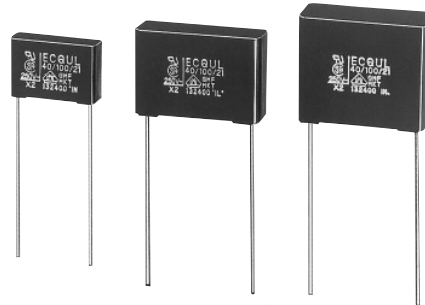
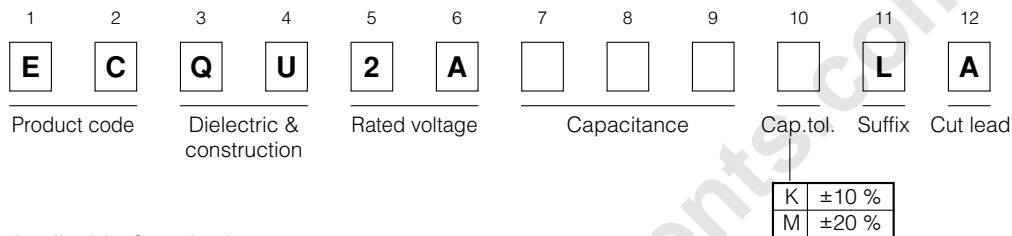
■ Features

- Compact
- Flame-retardant plastic case and non-combustible resin
- RoHS directive compliant

■ Recommended Applications

- Interference suppressors

■ Explanation of Part Numbers



■ Applicable Standard

UL	UL 1414	Across - The - Line Capacitors Antenna - Coupling and Line - By - Pass Components	(0.0010 μ F to 1.0 μ F)
	UL 1283	Electromagnetic Interference Filters	(1.2 μ F to 2.2 μ F)
CSA	CAN/CSA E60384-14	Class Y2/X2	(0.0010 μ F to 0.0068 μ F)
		Class X2	(0.0082 μ F to 2.2 μ F)
	CSA C22.2 No.8 - M1986	Electromagnetic Interference (EMI) Filters	(1.2 μ F to 2.2 μ F)
VDE	IEC60384-14 EN60384-14	Class Y2/X2	(0.0010 μ F to 0.0068 μ F)
		Class X2	(0.0082 μ F to 2.2 μ F)

*When applying this capacitor to European and American safety standards, please use type designation and rating such as ECQUL, 0.1 μ F.

*Approval number (File No.) of safety regulations are subject to revision without notice. Ask factory for a copy of the latest file No

*This capacitor is recognized for European standards by VDE only. But, there are no problems using this capacitor in a device which will get approvals from certification bodies in Europe, SEMKO, DEMKO, NEMKO, FIMKO and SEV etc. except VDE.

■ Specifications

Category temp. range	-40 °C to +100 °C (85 °C max. on UL/CSA C22.2 No.8 spec.)
Rated voltage	275 VAC (IEC60384-14, CAN/CSA E60384-14), 250 VAC(UL/CSA C22.2 No.8)
Capacitance range	0.0010 μ F to 2.2 μ F
Capacitance tolerance	\pm 10 % (K), \pm 20 % (M)
Dissipation factor ($\tan\delta$)	$\tan\delta \leq 1.0$ % (20 °C, 1 kHz)
Withstand voltage	Between terminals: 575 VAC, 1768 VDC 60 s (0.0082 μ F to 2.2 μ F) Between terminals: 1500 VAC, 2121 VDC 60 s (0.0010 μ F to 0.0068 μ F) Between terminals to enclosure: 2050 VAC 60 s
Insulation resistance (IR)	C \leq 0.33 μ F : IR \geq 15000 M Ω (20 °C, 100 VDC, 60 s) C > 0.33 μ F : IR \geq 5000 M Ω · μ F (20 °C, 100 VDC, 60 s) IR \geq 2000 M Ω (20 °C, 500 VDC, 60 s)

* Use of this capacitor is limited to AC voltage (50 Hz or 60 Hz sine wave).

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

■ Dimensions in mm (not to scale)

Marking Example

STYLE	A side	B side	C side
1 0.0010 μ F to 0.0068 μ F	M.001 μ F K	ECQU 275 V~Y2X2 250 V~ 40/100/21□	GMF MKT 132400
2 0.0082 μ F to 0.047 μ F	M.033 μ F K	ECQU 275 V~X2 250 V~ 40/100/21□	GMF MKT 132400
3 0.056 μ F to 1.0 μ F	M.068 μ F K	ECQU 40/100/21 250 V~ X2 GMF MKT 132400□	
4 1.2 μ F to 2.2 μ F	M.15 μ F K	1283 8X 250 V~ X2 ECQU 40/100/21 GMF MKT 132400□	

Note : only $\pm 10\%$ as cap. tol. be marked as "K". Note □ Date Code.

■ Rating & Dimensions

● Capacitance tolerance : $\pm 10\%$ (K), $\pm 20\%$ (M)

Part No.	Cap. (μ F)	Dimensions (mm)							Min. order Q'ty
		L	T	H	F	ϕ d	P	Q	
ECQU2A102□L	0.0010	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	500
ECQU2A122□L	0.0012	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A152□L	0.0015	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A182□L	0.0018	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A222□L	0.0022	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A272□L	0.0027	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A332□L	0.0033	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A392□L	0.0039	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A472□L	0.0047	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A562□L	0.0056	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A682□L	0.0068	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A822□L	0.0082	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A103□L	0.010	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A123□L	0.012	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A153□L	0.015	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A183□L	0.018	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A223□L	0.022	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A273□L	0.027	15.0	5.0	11.5	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A333□L	0.033	15.0	6.0	13.0	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A393□L	0.039	15.0	6.0	13.0	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A473□L	0.047	15.0	6.0	13.0	12.5	0.60	0 \pm 0.5	1.3	
ECQU2A563□L	0.056	17.5	4.5	11.5	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A683□L	0.068	17.5	4.5	11.5	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A823□L	0.082	17.5	5.5	12.0	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A104□L	0.10	17.5	5.5	12.0	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A124□L	0.12	17.5	6.5	14.5	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A154□L	0.15	17.5	6.5	14.5	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A184□L	0.18	17.5	8.0	16.0	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A224□L	0.22	17.5	8.0	16.0	15.0	0.60	0 \pm 0.5	1.3	
ECQU2A274□L	0.27	17.5	9.5	17.5	15.0	0.80	0 \pm 0.5	1.3	
ECQU2A334□L	0.33	17.5	9.5	17.5	15.0	0.80	0 \pm 0.5	1.3	
ECQU2A394□L	0.39	25.5	8.5	17.5	22.5	0.80	0 \pm 0.75	1.5	
ECQU2A474□L	0.47	25.5	8.5	17.5	22.5	0.80	0 \pm 0.75	1.5	
ECQU2A564□L	0.56	25.5	10.5	19.5	22.5	0.80	0 \pm 0.75	1.5	
ECQU2A684□L	0.68	25.5	10.5	19.5	22.5	0.80	0 \pm 0.75	1.5	
ECQU2A824□L	0.82	25.5	12.0	22.0	22.5	0.80	0 \pm 0.75	1.5	
ECQU2A105□L	1.0	25.5	12.0	22.0	22.5	0.80	0 \pm 0.75	1.5	
ECQU2A125□L	1.2	30.5	16.5	26.0	27.5	0.80	0 \pm 0.75	1.5	
ECQU2A155□L	1.5	30.5	16.5	26.0	27.5	0.80	0 \pm 0.75	1.5	
ECQU2A185□L	1.8	30.5	19.0	29.5	27.5	0.80	0 \pm 0.75	1.5	
ECQU2A225□L	2.2	30.5	19.0	29.5	27.5	0.80	0 \pm 0.75	1.5	

Cap. tol. code

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