

TYPE C072



FEATURES

- Capacitance values to 15 μF
- Solder lug or pillar terminals
- Approved to MIL-PRF-19978
- Drawn rectangular metal cases
- Voltage Ratings 400 to 12,500 VDC

MAJOR APPLICATIONS:

Bypass coupling, filtering in power supply, radar and other high voltage applications.

PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Non-inductive wound paper / polyester film with extended foil electrodes.

CASE: Hermetically sealed metal enclosure. Styles and dimensions are in Guide to Ordering section in the front of the catalog.

TERMINALS:

See table II for the terminal available for each voltage and tables below for terminal description, number and size.

Symbol	Type of Terminal
B	Solder lug (non removable)
D, H	Pillar insulator (for use at altitudes up to 7,500 feet)
F	Pillar insulator (for use at altitudes up to 50,000 feet)

Terminal Number	Terminal Symbols	Terminal Dimensions			
		V Max.	Y Min. UNF-2A	Y Max. UNF-2A	Z
1	B	0.75	-	-	0.812
2	E	1.375	0.190-32	0.216-24	0.812
3	E	1.75	0.190-32	0.216-24	1.000
4	D, E	2.75	0.190-32	0.3125-18	1.438
5	H	4.250	0.375-16	0.500-13	3.000

Shape of terminal B (drilled, punched, forked, or slotted) is optional.

Capacitors having terminal D or E shall be supplied with necessary terminal hardware for each terminal (two nuts, one of these may be a fixed nut on to the insulator, and one lock washer); in addition, capacitors rated at 3,000 VDC or less shall be supplied with a solder lug capable of accommodating a No. 14 AWG wire for each terminal.

MARKING:

Dearborn trademark, part number, capacitance, tolerance, voltage and date code.

ELECTRICAL SPECIFICATIONS

CAPACITANCE RANGE: 0.10 μF to 15.0 μF

DC VOLTAGE RANGE: 400 VDC to 12.500 VDC

CAPACITANCE TOLERANCE: K $\pm$ 10%

OPERATING TEMPERATURE:

- Characteristic E -65°C to +85°C
- Characteristic F -55°C to +85°C
- Characteristic K -55°C to +125°C

VOLTAGE DERATING: • Characteristic E and F at +85°C 65% of rated voltage
• Characteristic K at 125°C 70% of rated voltage

DISSIPATION FACTOR: 1.0% maximum

INSULATION RESISTANCE: Measured at rated voltage or 500 VDC whichever is less.

DIMENSIONS (in inches)

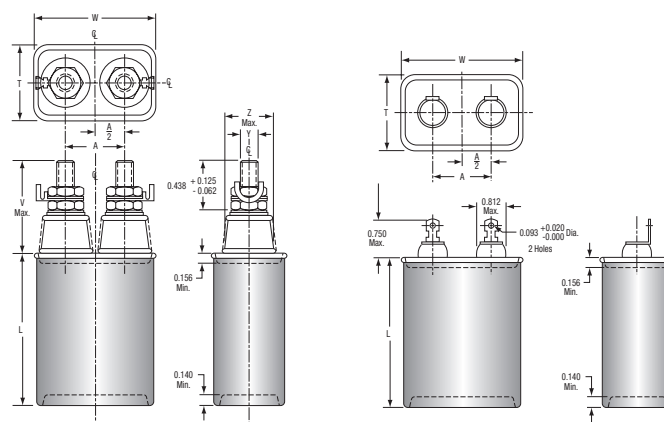


TABLE 1: TERMINAL TO TERMINAL INSULATION RESISTANCE

Capacitance Rating	Minimum Insulation Resistance
Characteristic E	
0 to 0.6 microfarad	At 25°C 25,000 megaohms
Greater than 0.6 microfarad	15,000 megaohm-microfarads ^{1/}
0 to 0.15 microfarad	At 85°C 2,000 megaohms
Greater than 0.15 microfarad	300 megaohm-microfarads ^{1/}
Characteristic K	
0 to 0.6 microfarad	At 25°C 25,000 megaohms
Greater than 0.15 microfarad	15,000 megaohm-microfarads ^{1/}
0 to 0.8 microfarad	At 85°C 250 megaohms
Greater than 0.08 microfarad	20 megaohm-microfarads ^{1/}
Characteristic F	
0.33 microfarad and less	At 25°C 6,000 megohms
Greater than 0.33 microfarad	2,000 megohm-microfarads ^{1/}
0.33 microfarad and less	At 85°C 600 megohms
Greater than 0.33 microfarad	20 megohm-microfarads ^{1/}
Characteristic G	
0.33 microfarad and less	At 25°C 4,500 megohms
Greater than 0.33 microfarad	1,500 megohm-microfarads ^{1/}
0.033 microfarad and less	At 85°C 450 megohms
Greater than 0.033 microfarad	15 megohm-microfarads ^{1/}

^{1/} Product obtained by multiplying capacitance in microfarads by the insulation resistance in megaohms.

RECTANGULAR METAL CASE PAPER / POLYESTER FOIL CAPACITORS

TABLE 2

Part Number	Capacitance μF	Vibration Grade	Case Size				Available Terminal Identification No.			
			Characteristic				Terminal			
E	K	F	G	B	D	E	H			
400 DC Voltage Rating (Volt)										
CQ72-1KE254K3	0.25	3	-	A1	-	-	1	-	2	-
CQ72-1-E504K3	0.5	3	A1	A2	-	-	1	-	2	-
CQ72-1-E105K3	1.0	3	A1	A3	-	-	1	-	2	-
CQ72-1-E205K3	2	3	A2	A5	-	-	1	-	2	-
CQ72-1-E405K3	4	3	B2	B6	-	-	1	-	2	-
CQ72-1-E605K3	6	3	B6	C3	-	-	1	-	2	-
CQ72-1-E805K3	8	3	C3	D4	-	-	1	-	2	-
CQ72-1-E106K3	10	3	C4	E4	-	-	1	-	2	-
CQ72-1-E126K3	12	3	D2	E6	-	-	1	-	2	-
CQ72-1-E156K3	15	3	D5	G4	-	-	1	-	2	-
600 DC Voltage Rating (Volt)										
CQ72-1FF254K1	0.25	1	-	-	A1	-	1	-	2	-
CQ72-1-F504K3	0.5	3	A1	A2	-	-	1	-	2	-
CQ72-1-F105K-	1.0	1.3	A2	A3	-	-	1	-	2	-
CQ72-1-F205K-	2	1.3	A2	B4	A4	A3	1	-	2	-
CQ72-1-F405K-	4	1.3	B3	D2	B4	B3	1	-	2	-
CQ72-1-F605K-	6	1.3	B6	E4	C2	B6	1	-	2	-
CQ72-1-F805K-	8	1.3	C2	F1	C3	C2	1	-	2	-
CQ72-1-F106K-	10	1.3	C4	J2	D3	C4	1	-	2	-
CQ72-1-F126K3	12	3	E2	J3	-	-	1	-	2	-
CQ72-1-F156K3	15	3	E5	J6	-	-	1	-	2	-
1,000 DC Voltage Rating (Volt)										
CQ72-1FG104K1	0.1	1	-	-	A1	-	1	-	2	-
CQ72-1-G254K-	0.25	1.3	-	A2	A2	-	1	-	2	-
CQ72-1-G504K-	0.5	1.3	A1	A3	A2	-	1	-	2	-
CQ72-1-G105K-	1.0	1.3	A2	B3	A3	A2	1	-	2	-
CQ72-1-G205K-	2	1.3	A5	C4	A6	A5	1	-	2	-
CQ72-1-G405K-	4	1.3	B6	F1	C2	B6	1	-	2	-
CQ72-1-G605K-	6	1.3	C4	G2	D3	C4	1	-	2	-
CQ72-1-G805K-	8	1.3	D2	J2	D5	D2	1	-	2	-
CQ72-1-G106K-	10	1.3	D5	J5	E5	D5	1	-	2	-
CQ72-1-G126K-	12	1.3	E4	J6	E6	E4	1	-	2	-
CQ72-1-G156K-	15	1.3	F1	J11	G2	F1	1	-	2	-
1,500 DC Voltage Rating (Volt)										
CQ72-1-H104K	0.1	1.3	A1	A1	A2	-	1	-	2	-
CQ72-1-H254K	0.25	1.3	A1	A2	A3	A2	1	-	2	-
CQ72-1-H504K	0.5	1.3	A2	A5	A3	-	1	-	2	-
CQ72-1-H105K	1.0	1.3	A5	B5	A6	A5	1	-	2	-
CQ72-1-H205K	2	1.3	B6	D4	B6	B5	1	-	2	-
CQ72-1-H405K	4	1.3	D5	G4	D4	C4	1	-	2	-
CQ72-1-H605K	6	1.3	G1	J6	E5	D5	1	-	2	-
CQ72-1-H805K	8	1.3	J2	J10	F2	F1	1	-	2	-
CQ72-1-H106K	10	1.3	J4	-	G4	G2	1	-	2	-
CQ72-1-H126K	12	1.3	J6	-	J3	G2	1	-	2	-
CQ72-1-H156K	15	1.3	J10	-	J6	J3	1	-	2	-
2,000 DC Voltage Rating (Volt)										
CQ72E1FJ254K1	0.25	1	-	-	B1	-	-	-	3	-
CQ72E1FJ504K1	0.5	1	-	-	B2	-	-	-	3	-
CQ72E1-J105K	1.0	1.3	-	C3	B6	B3	-	-	3	-
CQ72E1-J205K	2	1.3	C4	E6	C4	C3	-	-	3	-
CQ72E1-J405K	4	1.3	F1	J4	E6	E3	-	-	3	-
CQ72E1-J605K	6	1.3	G3	J8	G4	G1	-	-	3	-
CQ72E1-J805K	8	1.3	J2	-	J4	G3	-	-	3	-
CQ72E1-J106K	10	1.3	J5	-	J7	J3	-	-	3	-
CQ72E1-J126K	12	1.3	J6	-	J9	J5	-	-	3	-
CQ72E1-J156K	15	1.3	J11	-	J10	J7	-	-	3	-
2,500 DC Voltage Rating (Volt)										
CQ72E1FK104K1	0.1	1	-	-	B1	-	-	-	3	-
CQ72E1-K254K	0.25	1	-	-	B2	B1	-	-	3	-
CQ72E1-K504K	0.5	1.3	-	B5	B4	B3	-	-	3	-
CQ72E1-K105K	1.0	1.3	-	D2	D2	D1	-	-	3	-
CQ72E1-K205K	2	1.3	C4	G4	E5	D5	-	-	3	-
CQ72E1-K405K	4	1.3	E6	J8	J2	-	-	-	3	-
CQ72E1-K605K	6	1.3	J2	-	J6	J4	-	-	3	-
CQ72E1-K805K	8	1.3	J5	-	J8	J6	-	-	3	-
CQ72E1-K106K	10	1.3	J7	-	J10	J8	-	-	3	-
CQ72E1-K126K	12	1.3	J11	-	K3	J10	-	-	3	-

RECTANGULAR METAL CASE PAPER / POLYESTER FOIL CAPACITORS

TYPE CQ72

TABLE 2

Part Number	Capacitance μF	Vibration Grade	Case Size				Available Terminal Identification No.			
			Characteristic				Terminal			
			E	K	F	G	B	D	E	H
3,000 DC Voltage Rating (Volt)										
CQ72E1-L104K1	0.1	1	-	-	B2	B1	-	-	3	-
CQ72E1-L254K1	0.25	1	-	-	B3	B2	-	-	3	-
CQ72E1-L504K1	0.5	1	-	-	B6	B5	-	-	3	-
CQ72E1-L105K	1.0	1.3	D1	E4	E4	E3	-	-	3	-
CQ72E1-L205K	2	1.3	E2	J2	G2	G1	-	-	3	-
CQ72E1-L405K	4	1.3	G4	J11	J7	J3	-	-	3	-
CQ72E1-L605K	6	1.3	J5	-	K2	J9	-	-	3	-
4,000 DC Voltage Rating (Volt)										
CQ72E1FM104K1	0.1	1	-	-	E1	-	-	-	4	-
CQ72E1-M254K	0.25	1.3	-	C1	E3	E1	-	-	4	-
CQ72E1-M504K	0.5	1.3	-	C4	E5	E3	-	-	4	-
CQ72E1-M105K	1.0	1.3	C2	F2	G2	E6	-	-	4	-
CQ72E1-M205K	2	1.3	E6	J7	J6	J4	-	-	4	-
CQ72E1-M405K	4	1.3	J5	-	J11	J10	-	-	4	-
5,000 DC Voltage Rating (Volt)										
CQ72E1-N104K	0.1	1.3	C1	-	E1	-	-	-	4	-
CQ72E1-N254K	0.25	1.3	C1	-	E3	-	-	-	4	-
CQ72E1-N504K	0.5	1.3	C1	E4	E6	E4	-	-	4	-
CQ72E1-N105K	1.0	1.3	D2	G4	J4	J2	-	-	4	-
CQ72E1-N205K	2	1.3	F2	J11	J11	J6	-	-	4	-
CQ72E1-N405K1	4	1	-	-	K4	K3	-	-	4	-
6,000 DC Voltage Rating (Volt)										
CQ72D1-P104K	0.1	1.3	C1	-	E3	E2	-	4	-	-
CQ72D1-P254K-	0.25	1.3	C1	D2	E5	E4	-	4	-	-
CQ72D1-P504K-	0.5	1.3	C1	E6	J3	J2	-	4	-	-
CQ72D1-P105K-	1.0	1.3	E5	J6	J11	J9	-	4	-	-
CQ72D1-P205K-	2	1.3	G1	-	L1	K3	-	4	-	-
7,500 DC Voltage Rating (Volt)										
CQ72D1-R104K	0.1	1.3	C1	C1	E5	E3	-	4	-	-
CQ72D1-R254K	0.25	1.3	C2	G1	J2	J1	-	4	-	-
CQ72D1-R504K	0.5	1.3	E4	J3	J6	J4	-	4	-	-
CQ72D1-R105K	1.0	1.3	G3	-	K3	-	-	4	-	-
CQ72D1-R205K	2	1.3	J10	-	L2	K4	-	4	-	-
10,000 DC Voltage Rating (Volt)										
CQ72D1-S104K	0.1	1.3	C2	E2	-	-	-	4	-	-
CQ72D1-S254K	0.25	1.3	E3	J3	-	-	-	4	-	-
CQ72-1-S504K	0.5	1.3	F2	J9	K4	K3	-	4	-	5
CQ72-1-S105K	1.0	1.3	J6	-	L2	K4	-	4	-	5
CQ72-1-S205K1	2	1	-	-	M1	L3	-	4	-	5
12,500 DC Voltage Rating (Volt)										
CQ72-1-T104K	0.1	1.3	E2	J1	K1	-	-	4	-	5
CQ72-1-T254K	0.25	1.3	E4	J5	K2	-	-	4	-	5
CQ72-1-T504K	0.5	1.3	J4	-	L1	K4	-	4	-	5
CQ72-1-T105K	1.0	1.3	J10	-	M1	L3	-	4	-	5
CQ72-1-T205K1	2	1	-	-	M2	M1	-	4	-	5

^{1/} Complete part number shall include additional symbols to indicate terminal, characteristic, and vibration grade, as applicable.

RECTANGULAR METAL CASE PAPER / POLYESTER FOIL CAPACITORS

TABLE 3

Case Size ^{1/}	Case Dimensions (in inches)				Retainer Part Number ^{2/}
	W ± 0.062	T ± 0.062	L ± 0.062	A $+0.0625, -0.187$	
A1	1.812	1.062	1.625	0.812	CQ072-A1
A2	1.812	1.062	2.250	0.812	CQ072-A2
A3	1.812	1.062	2.875	0.812	CQ072-A3
A4	1.812	1.062	3.250	0.812	CQ072-A4
A5	1.812	1.062	3.875	0.812	CQ072-A5
A6	1.812	1.062	4.750	0.812	CQ072-A6
B1	2.500	1.188	2.500	1.125	CQ072-B1
B2	2.500	1.188	2.875	1.125	CQ072-B2
B3	2.500	1.188	3.500	1.125	CQ072-B3
B4	2.500	1.188	3.875	1.125	CQ072-B4
B5	2.500	1.188	4.250	1.125	CQ072-B5
B6	2.500	1.188	4.750	1.125	CQ072-B6
C1	3.750	1.250	3.250	2.000	CQ072-C1
C2	3.750	1.250	3.875	2.000	CQ072-C2
C3	3.750	1.250	4.250	2.000	CQ072-C3
C4	3.750	1.250	4.750	2.000	CQ072-C4
D1	3.750	1.750	3.250	2.000	CQ072-D1
D2	3.750	1.750	3.875	2.000	CQ072-D2
D3	3.750	1.750	4.000	2.000	CQ072-D3
D4	3.750	1.750	4.250	2.000	CQ072-D4
D5	3.750	1.750	4.750	2.000	CQ072-D5
E1	3.750	2.250	2.750	2.000	CQ072-E1
E2	3.750	2.250	3.375	2.000	CQ072-E2
E3	3.750	2.250	3.875	2.000	CQ072-E3
E4	3.750	2.250	4.500	2.000	CQ072-E4
E5	3.750	2.250	4.750	2.000	CQ072-E5
E6	3.750	2.250	5.125	2.000	CQ072-E6
F1	3.750	2.500	4.750	2.000	CQ072-F1
F2	3.750	2.500	5.750	2.000	CQ072-F2
G1	3.750	3.188	4.500	2.000	CQ072-G1
G2	3.750	3.188	4.750	2.000	CQ072-G2
G3	3.750	3.188	5.125	2.000	CQ072-G3
G4	3.750	3.188	5.500	2.000	CQ072-G4
J1	4.562	3.750	3.875	2.000	CQ072-J1
J2	4.562	3.750	4.375	2.000	CQ072-J2
J3	4.562	3.750	4.750	2.000	CQ072-J3
J4	4.562	3.750	5.125	2.000	CQ072-J4
J5	4.562	3.750	5.500	2.000	CQ072-J5
J6	4.562	3.750	6.000	2.000	CQ072-J6
J7	4.562	3.750	6.500	2.000	CQ072-J7
J8	4.562	3.750	7.000	2.000	CQ072-J8
J9	4.562	3.750	7.500	2.000	CQ072-J9
J10	4.562	3.750	8.500	2.000	CQ072-J10
J11	4.562	3.750	9.625	2.000	CQ072-J11
K1	8.000	4.000	5.500	4.500	CQ072-K1
K2	8.000	4.000	7.000	4.500	CQ072-K2
K3	8.000	4.000	9.250	4.500	CQ072-K3
K4	8.000	4.000	11.000	4.500	CQ072-K4
L1	13.500	4.125	7.000	6.750	CQ072-L1
L2	13.500	4.125	9.250	6.750	CQ072-L2
L3	13.500	4.125	13.125	6.750	CQ072-L3
M1	13.500	5.125	12.875	6.750	CQ072-M1
M2	13.500	5.125	13.750	6.750	CQ072-M2

^{1/} For case size J, the retainers are attached to the sides of the case which are parallel to the centerline of the terminals.

^{2/} Complete retainer part number will include the symbol "F" for footed or "S" for the spaded design.

For additional information and retainer size refer to MIL-PRF-19978.