# Type Q/QRL (Quencharc<sup>®</sup>) Arc Suppressor/Snubber Network Radial Metallized Polyester RC Network for Transient Suppression





"ARCING", "SPARKING", and "TRANSIENTS" often cause premature failures in relays, switches, thyristors, triacs, contactors, and related products. QUENCHARC® extends operating life when properly selected and applied

## **Outline Dimensions**



## Highlights

- Noise and arc suppression
- RC Snubber Network
- Relay contact protection
- Noise reduction on controllers and drives
- EMI/RFI reduction
- ♦ dv/dt suppression
- Type QRL UL/CSA verison
- Coated with flame retardant epoxy
- Halogen-free (date codes 1807 and after)

# **Specifications**

Capacitance Range	0.10 μF, 0.25 μF, 0.50 μF, 1.0 μF
Capacitance Tolerance	±20%
Rated Voltage	200 Vdc/125 Vac, 60 Hz thru 1600 Vdc/660 Vac, 60 Hz
Resistor Tolerance	±10%
Resistor Values	22, 39, 47, 100, 150, 220, 330, 680 ohms
Operating Temperature Range	−55 °C to +85 °C at full rated voltage
Construction	Metallized polyester in series with a carbon composition resistor1
Dielectric Withstand Voltage	1.6 x DC rated voltage @ +25 ℃
DC Life Test	125% of rated voltage for a period of 500 hours at 85 °C with
	capacitance change $\leq$ 5% and DF $\leq$ original limits
Long Term Stability	The capacitance shall not change more than 2% when stored at ambient temperature and humidity for a period of two years or less.

#### **Regulatory Information**

### Ratings

Catalog Part Number	Cap (uF)	Resistor		Dimensions in Inches						Dimensions in Millimeters					
		Ohms	Watts	L	T Max	H Max	S Typ.	Ød <sub>c</sub> Typ.	Ød <sub>,</sub> Typ.	L Max	T Max	H Max	S Typ.	Ød <sub>c</sub> Typ.	Ød <sub>,</sub> Typ.
				Мах											
200 Vdc / 125Vac															
504M02QA22	0.5	22	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
504M02QA47	0.5	47	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
504M02QA100	0.5	100	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
504M02QA220	0.5	220	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
105M02QB22	1.0	22	1/2	1.45	0.39	0.66	1.20	0.032	0.025	36.8	9.9	16.7	30.5	0.8	0.635
105M02QB47	1.0	47	1/2	1.45	0.39	0.66	1.20	0.032	0.025	36.8	9.9	16.7	30.5	0.8	0.635
600 Vdc / 250Vac															
104M06QC22	0.1	22	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC47	0.1	47	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC100	0.1	100	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC150	0.1	150	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC220	0.1	220	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC330	0.1	330	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635

Type QRL: UL File No. E33628, CSA File No. LR32208

#### Ratings

	Cap (μF)	Resistor		Dimensions in Inches							Dimensions in Millimeters						
Catalog Part Number				L	Т	Н	S Typ.	Ød <sub>c</sub> Typ.	Ød <sub>,</sub> Typ.	L Max	T Max	H Max	S Typ.	Ød <sub>c</sub> Typ.	Ød <sub>,</sub> Typ.		
		Onms	Watts	Мах	Мах	Мах											
600 Vdc / 250Vac																	
254M06QD22	0.25	22	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635		
254M06QD47	0.25	47	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635		
254M06QD100	0.25	100	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635		
254M06QD150	0.25	150	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635		
504M06QE22	0.5	22	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635		
504M06QE47	0.5	47	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635		
504M06QE100	0.5	100	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635		
504M06QE150	0.5	150	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635		
1200 Vdc / 480Vac																	
104M48QH39	0.1	39	2	1.60	0.64	1.04	1.29	0.032	0.032	40.6	16.3	26.4	32.7	0.8	0.8		
1600 Vdc / 660Vac																	
104M66QV39	0.1	39	2	2.18	0.54	1	1.8	0.032	0.032	55.3	13.7	25.4	45.7	0.8	08		
UL/CSA Recognized Across-the-Line Application Type QRL 125VAC Type QRL complies with UL1414/CSA-C22.2 No. 1																	
104MACQRL150	0.1	150	1/2	1.08	0.44	0.66	0.82	0.032	0.025	27.4	11.18	16.7	20.8	0.8	0.635		
104MACQRL680	0.1	680	1/2	1.08	0.44	0.66	0.82	0.032	0.025	27.4	11.18	16.7	20.8	0.8	0.635		

Type QRL: UL File No. E33628, CSA File No. LR32208

<sup>1</sup> Two watt resistor is wire wound

Shaded items are stocked parts

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