

# Aerovox<sup>®</sup>

**Pulse & Custom  
Capacitors**

**CAPACITORS FOR PULSE,  
FLASH LAMP, LASER  
AND CUSTOM AC OR  
DC APPLICATIONS**



**Intelligent Capacitor Solutions**

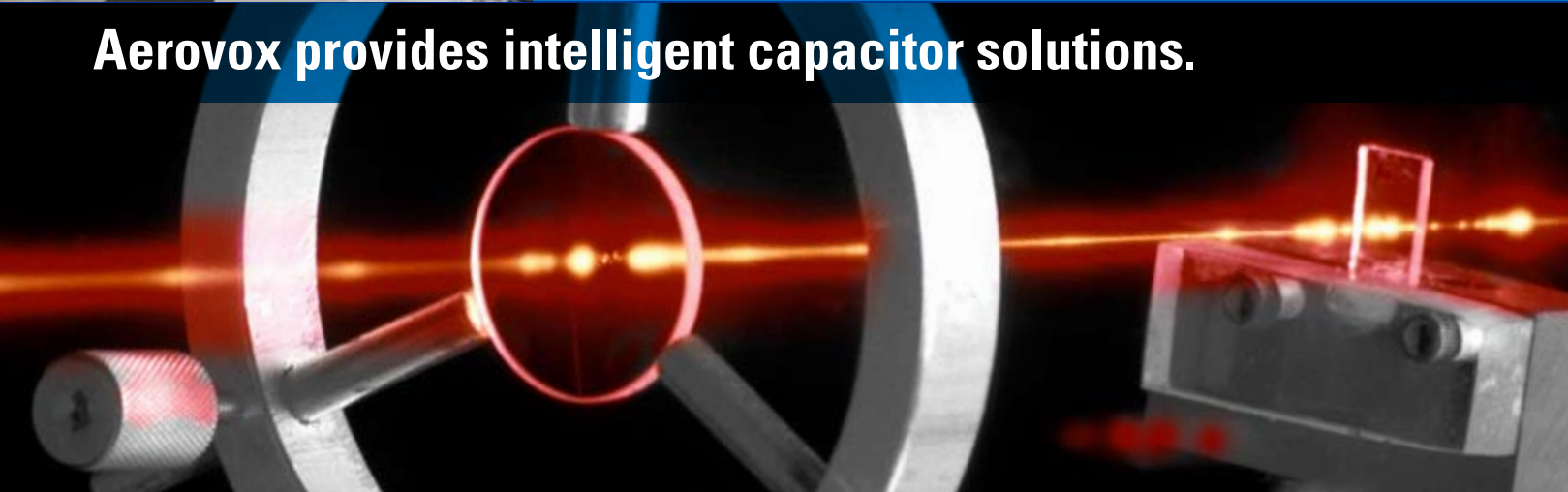


Aerovox's deep technical capabilities and flexible manufacturing processes enable us to meet the unique requirements of demanding pulse, flash lamp, laser and other custom applications. We have a long history in the pulse power area where different capacitor technologies are needed to satisfy the particularly stringent requirements of pulsing applications.

Our custom capacitors are designed and built using state-of-the-art technologies and computer-integrated manufacturing systems under an ISO 9001-certified quality management system. They undergo rigorous quality assurance testing, including 100% electrical testing to further complete reliability and ensure high level performance.



**Aerovox provides intelligent capacitor solutions.**



## Pulse & Custom Capacitors

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Aerovox offers aluminum foil, paper and polypropylene capacitor construction as well as single-sided metallized polypropylene for use in pulse-forming and DC filtering applications.

### Highlights

- High voltage up to 50,000 VDC
- Designed for user specified life
- Dry or oil-filled with an environmentally "green" fluid
- Multiple terminal configurations
- Metal or plastic case designs
- Low inductance

### Specifications

<b>Capacitance Range:</b>	0.01 $\mu$ F to 50,000 $\mu$ F
<b>Capacitance Tolerance:</b>	$\pm$ 3% to $\pm$ 10%
<b>DC Voltage Range:</b>	Up to 50 kV
<b>Operating Life:</b>	Up to 100 million shots
<b>Operating Temperature Range:</b>	-40°C to +55°C typical Higher temperature limit available

### Applications

- Utility UPS
- Magnetic Forming
- MARX Generator Banks
- Strobe Lights
- Flash Lamps
- Particle Accelerators
- Pulsed Lasers
- High Energy Dynodes
- DC Filters

### Typical Specifications

AEROVOX TYPE	TYPE S	TYPE Z	TYPE Q	TYPE C
Electrodes	Aluminum Foil	Single Side	Single Side	Single Side
Dielectric	Polypropylene	Polypropylene	Polypropylene	PET (high energy density)
Impregnated	Yes	Yes	Yes	Yes
Dry	No	Yes	Yes	Yes
Capacitance Range	0.1 to 1,000 $\mu$ F	1 to 4,000 $\mu$ F	10 to 6,000 $\mu$ F	100 to 10,000 $\mu$ F
Voltage Levels	0.5 to 50 kV	0.5 to 50 kV	1 to 50 kV	0.3 to 1.5 kV
Peak Current Levels	Up to 150 kA	Up to 60 kA	Up to 30 kA	Up to 10 kA
Pulse Life, Nominal	250K to 10 million	100 million	250 thousand	250 thousand
Rep Rate	1 – 120 per minute	1 – 120 per minute	1 – 4 per minute	Up to 2 per minute

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### Typical Specifications (cont.)

AEROVOX TYPE	TYPE S	TYPE Z	TYPE Q	TYPE C
Reversal	Up to 95%	Up to 90%	Up to 80%	Up to 20%
DC Life	20,000 Hours	N/A	N/A	N/A
DF% @ 120 Hz	N/A	0.10%	0.60%	1.5%
DF% @ 1 kHz	0.5%	1.0%	N/A	N/A
Energy Density (J/gm)	0.08	0.11	1.0	0.7
Energy Density (J/cc)	0.12	0.12	1.1	1.0

#### Package: Metal Case, Oil-Filled

Round	No	Yes	Yes	Yes
Oval	Yes	Yes	Yes	Yes
Rectangular	Yes	Yes	Yes	Yes

#### Package: Metal Case, Epoxy-Filled

Oval	No	Yes	No	No
Rectangular	No	Yes	Yes	Yes

#### Package: Plastic Case, Epoxy-Filled

Round	No	Yes	Yes	Yes
Oval	No	Yes	Yes	Yes
Box	No	Yes	Yes	Yes
Tubular	No	Yes	Yes	Yes
Function	Pulse Forming and DC Filtering			

## About Aerovox

Aerovox is a leading manufacturer of capacitors for industrial, medical and specialized applications, with world-class design, manufacturing and testing facilities in New Bedford, MA. Global manufacturing facilities in China and India enable quick turn-around for shipping and delivery worldwide.

Aerovox capacitors are among the world's most reliable components. Our extensive custom design and development capabilities coupled with broad, standardized product offerings allow us to provide intelligent capacitor solutions that meet or exceed customers' application requirements.

Our aim is to be the best and most sought after provider of capacitor solutions for specialty markets in the world by achieving the highest level of customer satisfaction with extraordinary emphasis on the creation of value and speed to market.

# Aerovox®

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