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Accelonix BV ■ Luchthavenweg 18-b ■ NL-5657 EB Eindhoven
www.accelonix.nl ■ info@accelonix.nl ■ Tel: +31-40-7501650

FEEDTHROUGH CAPACITORS WITH RADSOK

PLASTIC FILM FEEDTHROUGH CAPACITORS WITH RADSOK INTERFACE



FM00699

MPE Limited
Hammond Road
Knowsley Industrial Park
Liverpool L33 7UL

Radsok Feedthroughs iss A-1
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MPE Proprietary Information

Web: www.mpe.co.uk
E-mail: sales@mpe.co.uk
Tel: +44(0)151 632 9100
Fax: +44(0)151 632 9112



DESCRIPTION

Ranges of ac and dc feedthrough capacitors designed to interface to Amphenol Radsok connectors. Suitable for all high performance applications requiring high reliability coupled with good high frequency performance such as mains power supplies for servers, base stations, and switches.



FEATURES

- 300V Y2 ac ratings
- 150V Y4
- 100V and 250V DC ratings
- 32A and 63A current ratings
- RoHS compliant, CE Marked

RATINGS AND CHARACTERISTICS

For ac capacitors Y2

Rated Voltage

300V ac 50/60 Hz (Y4)
(also suitable for 1000VDC)

Test Voltage

5000V dc 2 seconds

Capacitor Class (EN60384-14)

Y2

Pulse Test (EN60384-14)

5000V peak

Insulation Resistance (within 1 minute)

> 15000MΩ

For ac capacitors Y4

Rated Voltage

250V ac 50/60 Hz
(also suitable for 600VDC)

Test Voltage

150V ac (Y4)

Capacitor Class (EN60384-14)

2500V dc 2 seconds

Pulse Test (EN60384-14)

Y4

Insulation Resistance (within 1 minute)

2500V peak

> 15000MΩ

For dc capacitors

Rated Voltage

100Vdc or 250V as tabulated

Test Voltage

Twice working voltage

Insulation resistance

> 15000MΩ

General

Ambient Temperature Range

-40°C to +60°C

Category Temperature Range

-40°C to +85°C

Climatic Category

40/85/21

MTBF

Typically >10million hours

Insulating materials flammability rating

UL94 V-0



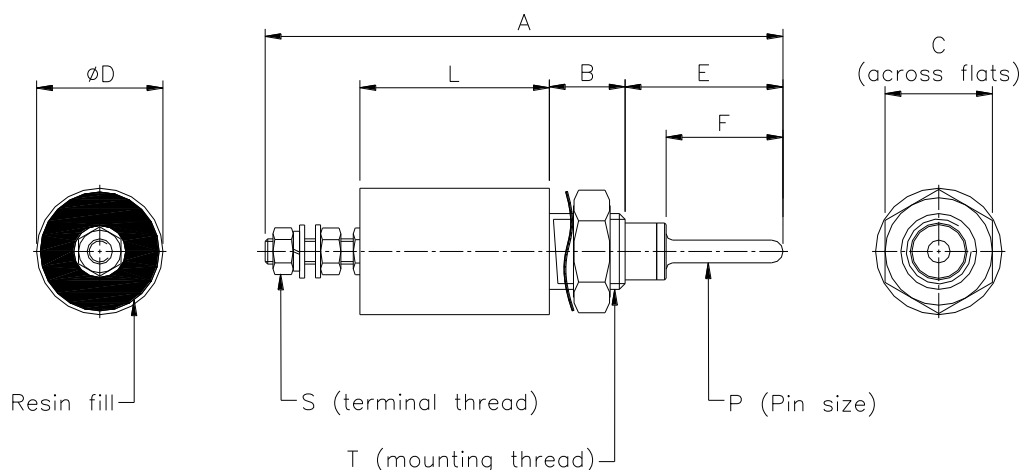
PRODUCT RANGE

Part Number	Current Rating I _R (A) @60°C*	Capacitance Value (±20%)		Typical Insertion Loss (dB) in 50 Ω system with/without load								
				10 kHz	30 kHz	100 kHz	300 kHz	1 MHz	10 MHz	100 MHz	1 GHz	
AC CAPACITORS Y2				Max Leakage Current (mA)								
	32	33nF	3.1	-	-	-	4	12	30	48	90	
DS34873	32	47nF	4.4	-	-	2	6	15	34	50	90	
DS34874	63	47nF	4.4	-	-	2	6	15	34	50	90	
	63	100nF	9.4	-	2	5	11	20	40	65	90	
AC CAPACITORS Y4												
	32											
DS34870	32	100nF	9.4	-	2	5	11	20	40	65	90	
DS34871	63	100nF	9.4	-	2	5	11	20	40	65	90	
	63											
DC CAPACITORS				Voltage								
DS34864	32	4μF	100VDC	16	26	36	46	56	70	90	90	
DS34867	32	1μF	250VDC	5	14	24	34	44	52	84	90	
DS34865	63	14μF	100VDC	27	37	47	57	63	87	90	90	
DS34868	63	4μF	250VDC	16	26	36	46	56	70	90	90	

Current derating between 60°C and 85°C:

$$I_{\theta} = I_R \sqrt{(85 - \theta) / 25}$$

DIMENSIONS AND MECHANICAL DETAILS



Current Rating	Dimensions (mm)												Weight (g)
	D ±0.5	L ±1	A ±1	B ±1	C	E ±2	T	Torque on T (N-m)	S	Torque on S (N-m)	P	F	
32A	20	30	82	12	17	24	M12	4	M4	1.2	3.6	18.5	60
63A	25	30	100	14	22	33	M16	7	M6	2.5	4.7	26	85



INSTALLATION GUIDELINES

Feedthrough capacitors and filters are designed for through-bulkhead mounting for offering high frequency filtering in line to ground applications. They should be mounted through a metal bulkhead or chassis.

The bulkhead mounting surface should be clean and unpainted to offer a low impedance path from the filter to the equipment chassis. Poor earth bonding will limit the available performance of the product and could compromise safety.

Conductive paint finishes should be avoided as they do not usually provide adequate conductivity.

2 spanners should be used when making electrical connections to the terminals, and maximum tightening torque figures quoted should be observed.

CONSTRUCTION AND RELIABILITY

MPE have been designing and manufacturing feedthrough capacitors and filters for more than 40 years, and plastic film feedthrough capacitors for more than 25 years. MPE has always been at the forefront of the design of feedthrough capacitors and the improvements in materials and assembly techniques, which have evolved over the years, have been incorporated into this new product.

The designs covered by this catalogue all utilise self-healing metallised plastic film capacitor material and incorporate a solderless capacitor assembly technique to avoid heat damage to the plastic dielectric material, which would reduce its life and reliability. Terminals are nickel plated for good conductivity.

SAFETY

Relevant safety standards have been adhered to in the design and manufacture of these products. However, all capacitors will store charge after power has been removed and must be treated with respect as this can be lethal when the voltage and charge are high enough. The filters covered by this catalogue do not contain internal discharge resistors. It is therefore recommended that they are fitted with external discharge resistors to discharge their capacitors after the power has been removed. Where necessary, terminals should be enclosed by the user to prevent any danger of electric shock or accidental shorting.

In all cases, filters should always be shorted to earth prior to touching to ensure they are fully discharged.

The user should ensure he is familiar with restrictions on capacitance value, earth leakage current, test voltage, and safety labelling requirements, which may be applicable to his particular installation.