

High Voltage DC Filter Capacitors



TYPE EC

The EC range of capacitors are similar in design to the ET range but are housed in a more robust container. They are manufactured using a mixed dielectric material that consists of polyester / polypropylene film and capacitor tissue. They are impregnated and filled with a mineral oil. The container is a Synthetic Resin Bonded Paper (SRBP) tube sealed at both ends with resin assuring a hermetic seal. The capacitors may be used in air, oil or SF6. They are terminated with M6 studs x 15 mm long or tinned copper wire.

Note

- The impregnant used is a non toxic highly purified and inhibited mineral oil

APPLICATIONS

The EC range of capacitors are specifically designed for high voltage filters and can be successfully used in the following applications:

- High voltage smoothing
- Induction heating
- RT transmitter power supplies
- X-ray power supplies

TEMPERATURE RANGE

Temperature range is -40 °C to +85 °C. Derating is required for operation at higher temperatures.

TEMPERATURE COEFFICIENT

Capacitance will increase by 2 % per 100 °C temperature rise.

CAPACITANCE RANGE

0.001 μ F to 2 μ F. The tolerance is \pm 10 %. Other tolerance are available on request. Normal values measured at 1 kHz.

VOLTAGE RANGE

1000 V_{DC} to 100 000 V_{DC}

TEST VOLTAGE

Terminal/terminal (Vt/t)

For DC rating < 20 kV

Vt/t = 2.0 x rated voltage 60 s

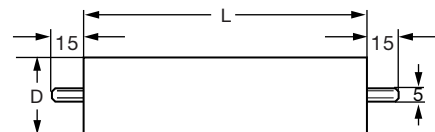
For DC rating > 20 kV

Vt/t = 1.5 x rated voltage 60 s

TYPE DESCRIPTION

PART NUMBER	CAP. [μ F]	L [mm]	D [mm]
10 kV			
EC100-104	0.1	115	65
EC100-254	0.25	140	75
EC100-504	0.5	205	95
20 kV			
EC200-503	0.05	180	65
EC200-104	0.1	230	65
EC200-254	0.25	280	75
EC200-504	0.5	360	95
30 kV			
EC300-253	0.025	245	65
EC300-503	0.05	320	65
EC300-104	0.1	395	65
EC300-254	0.25	510	75
40 kV			
EC400-253	0.025	305	65
EC400-503	0.05	410	65
EC400-104	0.1	345	95
EC400-124	0.12	440	95
50 kV			
EC500-103	0.01	270	65
EC500-253	0.025	335	65
EC500-503	0.05	430	75
EC500-104	0.1	430	95
60 kV			
EC600-502	0.005	310	65
EC600-103	0.01	310	75
EC600-253	0.025	390	75
EC600-503	0.05	500	75
EC600-104	0.1	615	95
80 kV			
EC800-502	0.005	400	65
EC800-103	0.01	400	75
EC800-253	0.025	500	95
EC800-503	0.05	650	95
100 kV			
EC1000-502	0.005	485	65
EC1000-103	0.01	485	75
EC1000-253	0.025	610	95
120 kV			
EC1200-502	0.005	425	75

DIMENSIONS in millimeters





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.