

Film capacitors

TDK offers rugged AC filter capacitors with highest safety approvals

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TDK Corporation (TSE:6762) has added the B32354S* series to its portfolio of metalized EPCOS polypropylene (MKP) capacitors for filter applications. The new devices, which feature a 4-pin design and a pitch of 52.5 mm, are rated for V_{RMS} of 275 V AC or 350 V AC and cover a capacitance range from 10 μ F to 40 μ F. The maximum operating temperature is 85 °C.

The new AC film capacitors feature compact dimensions, a high AC load capacity, and optimized dielectric strength. They impress with their high resistance to harsh operating conditions such as high humidity. By means of a THB test (Grade III Test B) according to IEC 60384-14:2013/AMD1:2016 with an operating temperature of 85 °C and a relative humidity of 85 percent at applied nominal voltage for 1,000 hours, reliability even under challenging external influences was proven.

Certified to IEC 61071, the capacitors offer a life of at least 100,000 hours and a very low failure rate of less than 5 FIT. With its integrated safety function, the new series meets the highest safety level (10,000 AFC) and is UL 810 approved. The capacitors carry the CE mark, and the housing and potting material comply with UL 94 V-0.

Typical applications for the rugged film capacitors include demanding filtering applications such as output filtering of frequency converters for drives, uninterruptible power supplies (UPS), and photovoltaic inverters.

Main applications

- Output filters of frequency converters for drives, uninterruptible power supplies, and photovoltaic inverters

Main features and benefits

- Approval to the highest safety standard according to UL 810 (10,000 AFC)
- Approval according to UL 94 V-0, CE marking, certification according to IEC 60384-14:2013
- Life expectancy of at least 100,000 hours according to IEC 61071
- Low FIT rate <5
- Compact design
- High resistance to high humidity

Type	Rated voltage V_{RMS} [V AC]	Rated voltage V_{NDC} [V DC]	Capacity [μ F]	Measurements [mm]
B32354S2106K010	275	400	10	25,5 x 32,0 x 57,5
B32354S2156K010	275	400	15	28,0 x 35,0 x 57,5
B32354S2206K010	275	400	20	30,0 x 38,0 x 57,5
B32354S2256K010	275	400	25	35,0 x 45,0 x 57,5
B32354S2306K010	275	400	30	40,0 x 50,0 x 57,5
B32354S2356K010	275	400	35	40,0 x 50,0 x 57,5
B32354S2406K010	275	400	40	40,0 x 50,0 x 57,5
B32354S3106K010	350	500	10	28,0 x 35,0 x 57,5
B32354S3156K010	350	500	15	35,0 x 45,0 x 57,5
B32354S3206K010	350	500	20	35,0 x 45,0 x 57,5
B32354S3256K010	350	500	25	40,0 x 50,0 x 57,5
B32354S3306K010	350	500	30	45,0 x 50,0 x 57,5
B32354S3356K010	350	500	35	50,0 x 55,0 x 57,5
B32354S3406K010	350	500	40	50,0 x 55,0 x 57,5

About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately “Attracting Tomorrow.” It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK’s comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South

America. In fiscal 2022, TDK posted total sales of USD 15.6 billion and employed about 117,000 people worldwide.

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