

Power capacitors

TDK offers DC link capacitors for +105 °C

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TDK Corporation (TSE:6762) presents a new series of EPCOS power capacitors for DC link applications designed for an operating temperature of up to +105 °C. The components with the ordering code B25695E can operate at rated DC voltages from 700 V to 1300 V (voltage derating necessary from +85 °C). The ESR ranges from 1.0 mΩ to 2.7 mΩ, resulting in a current capability of up to 110 A at +70 °C, depending on the model (current derating necessary at higher temperatures). However, the film capacitors can repetitively withstand current peaks of up to 15.8 kA. At the rated voltage and +75 °C, their service life is 120,000 h – up to 35% more than the standard version.

The cylindrical cases of the RoHS-compatible capacitors with diameters of 85 mm or 116 mm are aluminum and have a synthetic resin lid. The metalized polypropylene film is encapsulated with a dry epoxy resin. M6 screw terminals ensure a secure electrical connection and an M12 threaded bolt on the bottom side provides a secure mechanical connection.

Typical applications are DC link circuits in converters in renewable energies (photovoltaics, wind power), in rolling stock (train, subway, streetcar), and industrial drives.

Main applications

- DC links for renewable energies (photovoltaics, wind power)
- DC links in rolling stock (trains, subways, streetcars)
- DC links for industrial drives

Main features and benefits

- Operating temperature up to +105 °C
- Low dissipation factor
- Overvoltage resistant (130% of the rated voltage every day for 1 minute)

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 2023, TDK posted total sales of USD 16.1 billion and employed about 103,000 people worldwide.

You can download this text and associated images from www.tdk-electronics.tdk.com/en/240328
 Further information on the products can be found at www.tdk-electronics.tdk.com/en/dc_cyl

Contacts for regional media

Region	Contact	Phone	Mail
Europe	Mr. R. HIGGELKE TDK Electronics AG Munich, Germany	+49 89 54020 1378	ralf.higgelke@tdk.com
North America	Ms. D. MARTIN TDK Electronics Inc. Fountain Hills, AZ, USA	+1 480 836 4104	debbie.martin@tdk.com
South America	Mr. C. DALL'AGNOL TDK Electronics do Brasil Ltda., Gravataí, Brazil	+55 51 3484 7158	candido.dallagnol@tdk.com
India	Mr. H. BAGHEL TDK India Private Limited Noida, India	+91 12 04 50 58 42	himalaya.baghel@tdk.com
Greater China	Ms. S. SUEN TDK Electronics Hong Kong Limited, Hong Kong	+852 3669 8224	stella.suen@tdk.com
Japan	Mr. Y. OSUGA TDK Corporation Tokyo, Japan	+813 6778 1055	TDK.PR@tdk.com