

## Film capacitors

# TDK offers robust capacitors with low self-inductance and high design flexibility

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TDK Corporation (TSE:6762) presents the B3271\*H\* series, new EPCOS film capacitors for DC link applications that feature high energy and power density. The capacitors are rated for voltages from 500 V DC to 1600 V DC, offer capacitance values from 0.47  $\mu\text{F}$  to 170  $\mu\text{F}$  and are suitable for a maximum operating temperature of up to 105 °C. At a rated voltage and operating temperature of 70 °C, the typical life of the rugged, self-healing and RoHS-compliant capacitors is 95,000 hours.

The capacitors are available in lead spacings of 27.5, 37.5 and 52.5 mm, with both 2-pole and 4-pole versions. This results in more than 90 types, offering high design flexibility. For the selection of the suitable DC link capacitor TDK offers the tool [CLARA](#).

The low self-inductances of only 11.5 nH to 23 nH combined with the high ripple current capability make the new capacitors particularly well suited for SiC-based inverters operating at high switching frequencies. The series is qualified to IEC 61071, AEC-Q200 as well as UL 810 and enables use in typical industrial applications such as frequency converters, photovoltaic inverters, EV fast chargers and automotive applications such as onboard chargers and auxiliary and power inverters.

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### Main application areas

- Frequency converter
- Photovoltaic inverter
- EV fast chargers
- Onboard chargers
- Auxiliary and power inverters

### Main features and benefits

- Voltages from 500 V DC to 1600 V DC
- Capacitance values from 0.47  $\mu\text{F}$  to 170  $\mu\text{F}$
- Maximum operating temperature 105 °C
- 2-pole and 4-pole versions available
- Low self-inductances of only 11.5 nH to 23 nH
- High ripple current carrying capacity

## 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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Please send reader inquiries to [marketing.communications@tdk-electronics.tdk.com](mailto:marketing.communications@tdk-electronics.tdk.com)

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## Contact for regional media

Region	Contact	Phone	Mail
Europe	Mr. C. JEHLE TDK Electronics AG Munich, Germany	+49 89 54020 2441	<a href="mailto:christoph.jehle@tdk.com">christoph.jehle@tdk.com</a>
North America	Ms. D. MARTIN TDK Electronics Inc. Fountain Hills, AZ, USA	+1 480 836 4104	<a href="mailto:debbie.martin@tdk.com">debbie.martin@tdk.com</a>
South America	Mr. C. DALL'AGNOL TDK Electronics do Brasil Ltda., Gravataí, Brazil	+55 51 3484 7158	<a href="mailto:candido.dallagnol@tdk.com">candido.dallagnol@tdk.com</a>
India	Mr. H. BAGHEL TDK India Private Limited Noida, India	+91 12 04 50 58 42	<a href="mailto:himalaya.baghel@tdk.com">himalaya.baghel@tdk.com</a>
Greater China	Ms. S. SUEN TDK Electronics Hong Kong Limited, Hong Kong	+852 3669 8224	<a href="mailto:stella.suen@tdk.com">stella.suen@tdk.com</a>
Japan	Mr. Y. OSUGA TDK Corporation Tokyo, Japan	+813 6778 1055	<a href="mailto:pr@jp.tdk.com">pr@jp.tdk.com</a>