

 Press Information

Aluminum Electrolytic Capacitors

TDK expands ultra-compact snap-in capacitor series for AI servers and raises the voltage rating to 500 V

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TDK Corporation (TSE:6762) has expanded its B43645, B43657, B43658, B43659, B43660, and B43661 series of ultra-compact snap-in aluminum electrolytic capacitors to meet the specific needs of advanced AI server power supply units (PSUs) and high-performance SMPS applications. Additionally, the rated DC voltages were raised to 500 V. With diameters ranging from just 22 mm to 35 mm and lengths between 25 mm and 100 mm, these capacitors deliver high voltage capability in an exceptionally compact form factor. For high-performance power supplies, this translates to higher power densities, improved reliability, and greater design flexibility—critical for supporting the continuous, high-load operation typical in AI data centers. This enables smaller, more efficient systems without compromising electrical or thermal performance.

These extended-voltage series cover capacitances from 80 μF to 2060 μF , handle high ripple currents up to 5.39 A, and deliver a service life of up to 5,000 h at +105 °C. Their ultra-compact CV design minimizes footprint, while robust aluminum-can construction with PET sleeve, secure snap-in pins, and integrated pressure relief ensures durability. All types are RoHS-compliant and vibration-tested per IEC 60068-2-6.

The web-based [AlCap Tool](#) quickly and easily calculates accurate lifetime under application-specific conditions.

Main applications

- AI server power supply units (PSUs)
- Switch-mode power supplies (SMPS)
- Uninterruptible power supplies (UPS)
- Solar inverters

Main features and benefits

- Ultra-compact, extremely high CV product
- High reliability
- High ripple current capability
- 2 terminals (standard), 3 terminals to ensure correct insertion
- RoHS-compatible

Ordering code	Rated voltage V_R (DC) [V]	Rated capacitance [μ F]	Useful life [h] (+105 °C; V_R ; $I_{AC,R}$)	$I_{AC,R}$ [A] (120 Hz, +105 °C)
B43645*	400 ... 475	110 ... 1960	> 5000	5.34
B43657*	420 ... 500	80 ... 2060	> 2000	5.36
B43658*	420 ... 500	80 ... 2060	> 3000	5.39
B43659*	420 ... 450	140 ... 1440	> 2000	3.37
B43660*	450 ... 475	460 ... 1320	> 2000	3.54
B43661*	450 ... 475	440 ... 1300	> 3000	3.58

About TDK Corporation

TDK Corporation (TSE:6762) is a global technology company and innovation leader in the electronics industry, based in Tokyo, Japan. With the tagline “In Everything, Better” TDK aims to realize a better future across all aspects of life, industry, and society. For over 90 years, TDK has shaped the world from within; from the pioneering ferrite cores to cassette tapes that defined an era, to powering the digital age with advanced components, sensors, and batteries, leading the way towards a more sustainable future. United by TDK Venture Spirit, a start-up mentality built on visions, courage and mutual trust, TDK’s passionate team members around the globe pursue better—for ourselves, customers, partners, and the world. Today, the state-of-the-art technologies of TDK are in everything, from industrial applications, energy systems, electric vehicles, to smartphones and gaming, at the core of modern life. TDK’s comprehensive, innovative-driven portfolio includes cutting-edge passive components, sensors and sensor systems, power supplies, lithium-ion and solid-state batteries, magnetic heads, AI and enterprise software solutions, and more—featuring numerous market-leading products. These are marketed under the product brands TDK, InvenSense, Micronas, Tronics, TDK-Lambda, TDK SenseEI, and ATL. Positioning the AI ecosystem as a key strategic area, TDK leverages its global network across the automotive, information and communication technology, and industrial equipment sectors to expand its business in a wide range of fields. In fiscal 2026, TDK posted total sales of USD 16.6 billion and employed about 107,000 people worldwide.

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