

 Press Information

Power Supplies

TDK Expands i7A Series with High-Power, High-Current DC-DC Buck Converters Delivering Up to 1000 W

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TDK Corporation (TSE: 6762) announces a significant expansion of the TDK-Lambda i7A series of non-isolated DC-DC buck converters, introducing new high-performance models that can deliver up to 1000 W of output power and support output currents of 60 A and 80 A, providing engineers with a very large increase of up to 82 % over existing models.

Maintaining the compact, 1/16th brick footprint, the new converters feature redundant input and output power pins to support higher current delivery. This enhanced pinout enables scalable power solutions ranging from 400 W to 1000 W, streamlining system design and integration. Despite their increased power, the converters weigh only 85 grams, due to an enhanced baseplate construction—making them suitable for weight-sensitive applications.

With a wide input voltage range of 18 V to 60 V and an adjustable output from 3.3 V to 28 V, the expanded i7A series offers exceptional flexibility to support a broad spectrum of DC input sources and system load voltages. This versatility helps reduce the number of unique part numbers in the bill of materials (BOM), simplifying inventory management. An adjustable output current limit reduces overcurrent and short-circuit levels, lowering device stress during overload conditions such as charging large capacitive loads. This feature also enables parallel operation of multiple i7A modules for redundancy or increased power capacity.

Delivering efficiencies up to 99 %, these converters reduce power loss and reduce energy consumption while enhancing thermal performance, system reliability, and overall power density, making them very well-suited for demanding industrial-grade applications.

The i7A series supports multiple cooling configurations, including open frame, baseplate, and heatsink options. This allows engineers to tailor thermal management to their system requirements, whether using conduction-cooled sealed enclosures, forced-air systems, or natural convection environments.

These new models complement the existing i7A converters, offering engineers a high-density, high-efficiency solution for demanding applications in medical, communications, industrial, test and measurement, robotics, drones, and battery-powered equipment. All models are certified to IEC/UL/CSA/EN 62368-1 and carry the CE and UKCA marks for Electrical Safety and RoHS Directives.

Main applications

- High-efficiency solutions for demanding power supply applications in medical, communications, industrial, test and measurement, robotics, drones, and battery-powered equipment.

Main features and benefits

- Up to 1000 W in a 1/16th brick footprint
- High efficiency, up to 99 % for low losses
- Wide input range: 18 to 60 Vdc
- Adjustable output voltage: 3.3 to 28 Vdc
- Light 85 g weight (enhanced baseplate)
- Adjustable output current limit for protection

Type		I7A4W060A033V	I7A24080A033V
Nominal input voltage	Vdc	18 - 60	18 - 32 (24V i/p optimised)
Output voltage	Vdc	3.3 - 28	3.3 - 18
Output power	W	750	1000
Efficiency	%	Up to 99	Up to 98
Size (L x W x H)	mm	34 x 36.8 x 19.8	
Safety certifications		IEC/UL/CSA/EN 62368-1, CE, UKCA Mark	

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, EPCOS, 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 2025, TDK posted total sales of USD 14.4 billion and employed about 105,000 people worldwide.

About TDK-Lambda Corporation

TDK-Lambda Corporation is a trusted, innovative leader and global supplier of highly reliable power conversion products for industrial and medical equipment worldwide.

TDK-Lambda Corporation is aligned for fast responses to any customer need with R&D, manufacturing, sales and service locations in five key geographic regions, namely Japan, EMEA, Americas, China and ASEAN.

For more details, please pay a visit to: www.jp.lambda.tdk.com/en/

Further information on the products can be found under [i7A Series Datasheet](#)

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