

► Press Information

Power Supplies

Essential DIN-Rail power supplies for cost-efficient automation designs

November 10, 2025

TDK Corporation (TSE 6762) announces the introduction of the single-phase D1SE series to TDK-Lambda's extensive range of DIN-rail mount power supplies. This entry-range series comes with an AC and DC input and is optimized for essential functionality, without compromising on performance or quality. The products are rated for continuous operation at 120W, 240W or 480W with a 24V output. With efficiencies of up to 95.1%, energy consumption and internal losses are reduced, lowering internal component temperatures and enhancing long-term product reliability.

Equipped with push-in wire terminations, the cost-effective D1SE can be quickly and reliably mounted, reducing installation times or even enabling robotic automation. In addition to a conventional 100 to 240Vac nominal input, the D1SE is safety certified for operation from a 93 to 300Vdc supply. Responding to market demand, the DC input is addressing applications where the energy supply is coming from a common DC bus voltage or a battery. Its compact size and easy installation make the D1SE series an optimal choice for a variety of control cabinets, machinery, and production systems.

The 120W rated model can deliver a boost power of 156W for 80 seconds, the 240W rated model 312W for 10 seconds, and the 480W rated model 552W for an extended 200 seconds. The 24V output can be adjusted from 22.5V to 29V to allow compensation for cable drops, redundancy modules, or setting to non-standard output voltages. All three power supplies are available with or without a DC-OK contact. For applications in challenging environments, a printed circuit board coating option is available.

The units are housed in a rugged metal enclosure with a width of 38mm for the 120W models, 44mm for the 240W, and 60mm for the 480W. This narrow design saves space on the DIN-rail for other components, reducing cost. All models feature a high-quality electrolytic capacitor which extends lifetime, further reducing costs for users. The warranty is three years.

Input-to-output isolation is 5000Vdc, input-to-ground 3100Vdc, and output-to-ground is 750Vdc. The D1SE models are convection-cooled and rated for operation in -25 to +70°C ambient temperatures, with derating above 55°C.

The series is certified to IEC/EN/UL/CSA 61010-1, 61010-2-201, 62368-1 (Ed.3) and IS 13252-1 standards and is CE and UKCA marked to the Low Voltage, EMC and RoHS Directives. It meets EN 55011-B and CISPR11-B radiated and conducted emissions. The series also complies with EN 61000-3-2 (Class A) harmonic currents and IEC/EN 61000-6-2 immunity standards.

Further information on the products can be found at <https://product.tdk.com/en/power/d1se>

Main applications

- Conventional switch cabinets, stand-alone machinery and industrial systems, information and communications technology.

Main features and benefits

- Boost power capability up to 130%
- Push-in wiring terminations
- High efficiency, up to 95.1%
- Narrow case widths
- Long E-capacitor and field life

Type		D1SE120-24-Ax	D1SE240-24-Ax	D1SE480-24-Ax
Nominal input voltage	Vac	100 - 240		
Input voltage	Vdc	93 - 100		
Output voltage	Vdc	24		
Output power	W	120	240	480
Boost power	W	156 for 80s	312 for 10s	552 for 200s
Efficiency	%	Up to 95.1		
Size (W x H x D)	mm	38 x 125 x 110	44 x 125 x 127	60 x 125 x 129
Safety certifications		IEC/EN/UL/CSA 61010-1, 61010-2-201, 62368-1 (Ed.3), IS 13252-1		

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 SensEI, 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/

Contacts for regional media

Region	Contact		Phone	Mail
Americas	Tom TILLMAN	TDK-Lambda Americas	+1 619-575-4400	tom.tillman@tdk.com
EMEA	Sylvia KIEFER Danielle SMITH	TDK-Lambda Europe Publitek Ltd	+49 7841 666 281 +44 (0)7581 024101	tle.powersolutions@tdk.com danielle.smith@publitek.com
Other Asia	BK NEO	TDK-Lambda Singapore Pte Ltd.	+65 6251 7211	tls.marketing@tdk.com
Greater China	Helen VAN	TDK-Lambda (China) Electronics Co., Ltd.	+86 21 64850777 *209	helen.van@tdk.com
Japan	Mr. D. ITO	TDK Corporation Tokyo, Japan	+813 6778 1055	TDK.PR@tdk.com