

Power Supplies

960W DIN rail mount programmable DC-UPS for mission critical applications

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TDK Corporation (TSE:6762) announces the introduction of the TDK-Lambda brand DUSH series in a compact DIN rail mount package. The DUSH series provides backup power in the event of a power loss. It builds the heart of the DC-UPS system and connects power supply, load and battery. Under normal conditions, the load is powered by the power supply connected to the input. The DUSH series also manages the charging of the connected battery. In the event of a power outage, the DUSH module will maintain a regulated output voltage, using the battery as the power source for the load.

Capable of operating from an input voltage of 10 to 60V, the DUSH series can be programmed to provide a regulated 10 to 58V output rated at 20A. Additionally, an unregulated 5A auxiliary output is available (-0M suffix model). Multiple battery technologies can be accommodated, including lead, nickel, lithium and supercapacitors, up to a capacity of 1000Ah. An integrated DC-DC buck/boost converter decouples the battery from the load voltage. The DUSH module manages the health status of the battery by preventing deep discharging, enabling temperature-compensated charging, and monitoring the internal resistance.

A front panel user interface is available with a 1.5 inch colour graphic LCD and four control keys (-0M suffix model). The DUSH series offers multiple interfaces and signals, including two configurable alarm relays, an isolated remote on/off contact, status LEDs, and a battery temperature sensing input. A Mini USB-B or RS485 port for Modbus is provided for monitoring and programming purposes. The Control and Monitoring Center software (PowerCMC) assists with commissioning and maintenance, holds an alarm log, and provides real-time status values for monitoring.

The operating efficiency is between 96 and 98%, depending on the charging and operating mode. The DUSH series measures 54mm wide, 115mm high and 131mm deep, with a weight of 500g, and operates between -25 and up to +50°C. Both models carry the CE and UKCA marks for the Low Voltage and RoHS Directives and are certified to the IEC/EN/UL/CSA 61010-1, 61010-2-201, and IEC/UL/CSA/EN 62368-1 Ed.3 safety standards.

More information on the DUSH series can be found at www.emea.lambda.tdk.com/dush-series

Main applications

- Factory and building automation, renewables, traffic, ICT and security systems, transportation, or power distribution

Main features and benefits

- DC-UPS with integrated DC-DC converter
- High efficiency – up to 98%
- LCD and Modbus interfaces
- Wide programmable input & output voltage range
- Multiple battery technologies up to 1000Ah

Key data

Model		DUSH960-1248-xM
Input voltage range	Vdc	10 to 60
Output voltage range	Vdc	10 to 58
Maximum output current	A	20
Maximum output power	W	960
Efficiency	%	Up to 98
Topology		buck/boost converter
HMI		LCD and PowerCMC
Connectivity		Modbus/RTU + Mini USB
Size (W x H x D)	mm	54 x 115 x 131
Safety certification		IEC/EN/UL/CSA 61010-1, 61010-2-201 and 62368-1 Ed.3

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 2024, TDK posted total sales of USD 14.6 billion and employed about 101,000 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	Hannah Owen	TDK-Lambda UK	+44 (0)1271 856667	tlu.powersolutions@tdk.com
	Danielle Burness	Publitek	+44 (0)7581 024101	danielle.burness@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. Daiki Ito	TDK Corporation	+813 6778-1055	TDK.PR@tdk.com