

Power Supplies

4:1 input 15 to 30W DC-DC converters have medical and ICT safety certifications with 5kVac isolation

September, 2020

TDK Corporation (TSE 6762) announces the introduction of the 15 to 20W PXG-M and 30W PXD-M30 board mount DC-DC converter series. With 4:1 input ranges of 9 to 36Vdc and 18 to 75Vdc, the two series are certified to IEC 60601-1 (medical) and IEC 62368-1 (ICT - Information and Communication Technology equipment). The input to output isolation is 5,000Vac allowing them to be used in multiple medical and industrial applications.

The PXG-M and PXD-M30 series have industry standard package sizes, with overall dimensions of 40.6 x 25.4 x 10.2 mm (1.6 x 1 x 0.4") and 50.8 x 25.4 x 10.2 mm (2 x 1 x 0.4") respectively. 5V, 12V, 15V and 24V single and +/-5V, +/-12V and +/-15V dual outputs are available in all three power levels. The single output models have an output adjustment function using a trim pin.

The units will operate with convection cooling in ambient temperatures of -40°C to +105°C. Derating at high temperatures may be required, which can be minimized with the use of external airflow. Over-current, over-voltage and over-temperature protection is standard. Off-load input current consumption is just 12mA or less, allowing battery powered equipment to remain functional longer during periods of non-operation. Positive or negative logic remote on-off is optional.

The two series have an input to output isolation of 5,000Vac (2 x MOPPs) and less than 2.5µA touch current. Safety certification includes IEC/EN 60601-1, ANSI/AAMI ES 60601-1 and IEC/EN/UL/CSA 62368-1 with CE marking for the Low Voltage and RoHS Directives. No external EMI filtering is required for compliance to EN 55011-A, EN 55032-A.

More information on the PXG-M15, PXG-M20 and PXD-M30 models, including distributor inventory, can be obtained from the TDK-Lambda Americas website at <https://www.us.lambda.tdk.com>.

Main applications

- Medical, industrial and battery powered equipment

Main features and benefits

- Wide 4:1 input ranges to support either 12V/24V or 24V/48V system voltages
- Compact industry package sizes, reducing board area
- Certification to IEC 60601-1 and IEC 62368-1 for medical and industrial applications
- 2 x MOPP isolation for use in medical applications
- Low no-load power consumption to extend battery powered equipment operation

Key data

Model		PXG-M15	PXG-M20	PXD-M30
Input voltage ranges	Vdc	9 to 36 or 18 to 75		
Output voltages	Vdc	5, 12, 15, 24, +/-5, +/-12 and +/-15		
Maximum output power	W	15	20	30
Efficiency	%	Up to 90.5		
Optional features	-	Positive or negative logic remote on/off		
Safety Certifications	-	IEC/EN 60601-1, ANSI/AAMI ES 60601-1, IEC/EN/UL/CSA 62368-1 with CE Marking for the LVD and RoHS Directives		
Size (W x L x H)	mm	40.6 x 25.4 x 10.2	40.6 x 25.4 x 10.2	50.8 x 25.4 x 10.2

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 2020, TDK posted total sales of USD 12.5 billion and employed about 107,000 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/

Contact for media

Region	Contact	Phone	Mail
Americas	Tom Tillman TDK-Lambda Americas	(619) 575 4400	tom.tillman@us.tdk-lambda.com