

## Power Supplies

# Medical and industrial power supply series augmented with 500W models

October 2021

TDK Corporation (TSE 6762) announces the introduction of the TDK-Lambda brand CUS500M1 AC-DC power supplies. The series is rated at 500W and is packaged in a 3 x 5" footprint. It provides an alternative for the 600W CUS600M models and an easy cost reduction for lower power, more cost sensitive applications. The CUS500M1 is suitable for use in a wide range of Class I or Class II (double insulated) applications, including home healthcare, medical, dental, test and measurement, broadcast and industrial equipment.

The CUS500M1 series accepts an 85 to 264Vac input and has a choice of seven output voltages: 12V, 19V, 24V, 28V, 32V, 36V and 48V. An integral fan option with cover is also available. The open frame models measure 76.2 x 127 x 37mm (WxLxH), or 85 x 157 x 42.5mm with the cover/fan assembly fitted.

Convection cooled the CUS500M1 can deliver 300W (500W peak) in -20°C to +40°C ambient temperatures, derating linearly to 150W load at +70°C. With forced air cooling or the integral fan fitted, the series provides up to 500W in a +60°C ambient, derating to 400W at +70°C. The efficiency of the series is up to 96%, reducing internal power losses.

The CUS500M1 has an input to output isolation of 4,000Vac (2 x MoPP), an input to ground isolation of 2,000Vac (1 x MoPP) and an output to ground isolation of 1,500Vac (1 x MoPP) for suitability in B and BF rated medical equipment. The leakage current is <200µA and the touch current is <100µA. The maximum operating, transportation and storage altitude is 5,000m.

Safety certifications include IEC/EN/ES 60601-1 and IEC/EN/UL 62368-1 with CE and UKCA markings for the Low Voltage, EMC and RoHS Directives. The units also comply with EN 55011-B and EN 55032-B conducted and radiated emissions (for Class II applications, external filtering may be required), and meets the EN 61000-3-2 harmonics, IEC60601-1-2 Edition 4 and IEC 61000-4 immunity standards.

More information can be obtained at the following TDK-Lambda Americas website <https://product.tdk.com/en/power/cus-m> or by calling 800-LAMBDA-4. Product availability for the CUS500M1 power supplies can be found via the link to TDK-Lambda's distributor network (see "Check Distributor Inventory") at <https://www.us.lambda.tdk.com>.

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## Main applications

Home healthcare, medical, dental, test and measurement, broadcast and industrial equipment

## Main features and benefits

- 300W (500W Peak) convection cooled, 500W with forced air
- Medical certifications (2 x MOPP), Class I or Class II (double insulated)
- Class B conducted and radiated EMI (Class I applications)
- Compact 3 x 5 x 1.46" size

## Key data

Model		CUS500M1
Input voltage range	Vac	85 - 265Vac
Output voltages	Vdc	12V, 19V, 24V, 28V, 32V, 36V and 48V
Maximum output power	W	500W with forced air 300W (500W peak) convection cooled
Efficiency	%	Up to 96%
Safety Certifications	-	IEC/EN/ES 60601-1 and IEC/EN/UL 62368-1
Size (L x W x H)	mm	127 x 76.2 x 37mm (5 x 3 x 1.46")
Warranty	-	Five years

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## 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 2021, TDK posted total sales of USD 13.3 billion and employed about 129,000 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/](http://www.jp.lambda.tdk.com/en/)

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