Power Supply Product

100W Medical / ITE Certified 2x4” Power Supplies Deliver 50W at 80°C Ambient when Conduction Cooled

April 2019

TDK Corporation (TSE 6762) announces the introduction of the TDK-Lambda brand CUS100ME series of AC-DC 100W rated power supplies, with the capability of delivering 50W in ambient temperatures of 80°C when conduction cooled without the need for forced air cooling. Certified to medical and ITE standards for Class I and II (no earth ground connection) operation, the series meets both class B radiated and conducted emissions. CUS100ME target applications include medical, home healthcare, dental, test and measurement, broadcast and industrial equipment.

Available with 12V, 15V, 18V, 24V, 28V, 36V and 48V outputs, the CUS100ME operates from an 85 to 264Vac input and has operating efficiencies up to 94%. Off-load power consumption is less than 0.5W and the product warranty is five years.

The open frame version is in the industry standard 50.8 x 101.6mm (2” x 4”) footprint with a height of 31.5mm. Convection cooled it can deliver 100W at 50°C and 60W at 70°C, or with forced air cooling 100W at 70°C and 75W at 85°C. With a U-channel construction, measuring 64 x 116 x 38.5mm (WxLxH), the CUS100ME can be conduction cooled via a cold plate to deliver 100W at 70°C and 50W at 80°C. Cover or top fan options are also available.

Input to output isolation is 4kVac (2 x MoPP), input to ground 1.5kVac (1 x MoPP) and output to ground 1.5kVac (1 x MoPP) making the series suitable for B and BF rated medical equipment. Touch current is a maximum of 100µA, with leakage current less than 250µA. 5,000m is the maximum operating, transportation and storage altitude.

All the power supplies are certified to IEC/EN/ES/CSA 60601-1, IEC/EN/UL/CSA 62368-1 and IEC/EN/UL/CSA 60950-1 with CE marking for the Low Voltage, EMC and RoHS Directives. The CUS100ME is designed to meet IEC61010-1 and EN 60355-1 compliant versions also available. Both Class I and Class II versions are compliant to EN 55011-B and EN 55032-B (radiated and conducted) and meet the EN 61000-3-2 harmonics, IEC 60601-1-2 Edition 4 and IEC 61000-4 immunity standards.

More information can be obtained at the following TDK-Lambda Americas website, http://www.us.tdk-lambda.com/lp/products/cus-m-series.htm, or by calling 800-LAMBDA-4. Product availability for the CUS100ME power supplies can be found via the link to TDK-Lambda’s distributor network (see “Check Distributor Stock to Buy”) at http://www.us.tdk-lambda.com/lp/.

Major applications

Medical, home healthcare, dental, test and measurement, broadcast and industrial equipment

Main features and benefits

- High Efficiency, up to 94%
- Operation up to 85°C Ambient Temperatures
- Industry Standard 2” x 4” Footprint (open frame)
- Class I and II Operation with Class B EMI
- Suitable for B and BF Rated Equipment

Major specifications

Model		CUS100ME
Input voltage range	Vac	85 to 264Vac
Output voltages	Vdc	12, 15, 18, 24, 28, 36V and 48V
Output power	W	100W
Operating temperature	°C	-20°C to +85°C. (Derating according to case option and airflow)
Safety	-	IEC/EN/ES/CSA 60601-1, IEC/EN/UL/CSA 62368-1 and 60950-1
Size (W x L x H)	mm	50.8 x 101.6 x 31.5 mm (Open frame)
Warranty	-	Five Years

About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's portfolio features passive components such as ceramic, aluminium electrolytic and film capacitors, and 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 the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2018, TDK posted total sales of USD 12 billion and employed about 103,000 people worldwide.

About TDK-Lambda Corporation

TDK-Lambda Corporation, a group company of TDK Corporation, is a leading global power supply company providing highly reliable power supplies for industrial equipment worldwide. TDK-Lambda Corporation meets the various needs of customers with our entire range of activities, from research and development through to manufacturing, sales, and service with bases in five key areas, covering Japan, Europe, America, China, and Asia.
For more details, please pay a visit to http://www.tdk-lambda.com/

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