

## Power Supply Product

# Convection Cooled 600W Programmable Power Supplies Are Certified to Medical and Industrial Standards

January 2019

TDK Corporation (TSE 6762) announces the introduction of the TDK-Lambda GXE600 programmable AC-DC power supplies. The convection cooled 600W rated series is certified to the medical IEC 60601-1 and industrial IEC 60950-1 and IEC 62368-1 standards. The GXE600 is suitable for medical, industrial, test and measurement applications requiring wide-range output voltage and current programming, with sensitivity to noise from cooling fans.

The GXE600 is available with a nominal 24V or 48V output and can be programmed, using the RS-485 interface (Modbus RTU protocol) or an external 0 – 6V analog signal, for constant voltage and constant current (CVCC) operation. The programming range is 20% to 120% for the voltage and 20% to 100% for the current. In addition, the parameters for fault programming (protection level and recovery characteristics) and the slew rate timing can be changed. Remaining electrolytic capacitor life, operating hours and alarm history can be read through the RS-485 interface, aiding remote preventative maintenance.

Accepting an 85 to 265Vac input, the 95% efficient power supplies can start up at -40°C and operate in ambient temperatures ranging from -20 to +70°C (derating linearly to 50% load above 50°C). Additional derating or external cooling is required for operation below 170Vac input at full load. As standard the GXE600 has a 5V 1A standby voltage, isolated DC Good and AC Fail signals, remote on/off and paralleling capability for up to five units. Overall dimensions are 127mm wide, 41mm (1U) high and 254mm in length. A seven year warranty is also provided.

The series has been certified to IEC/ES/CSA/EN 60601-1, IEC/UL/CSA/EN 60950-1, IEC/UL/CSA/EN 62368-1, EN 62477-1 (OVC III) and carries the CE mark for the Low Voltage, EMC and RoHS Directives. All models meet IEC 60601-1-2 Ed4:2014, EN 55011-B, EN 55032-B, FCC Class B, VCCI-B emissions and immunity standards. The earth leakage current is <math><300\mu\text{A}</math>, input to ground isolation is 1,500Vac (1 x MoPP), input to output 4,000Vac (2 x MoPP) and output to ground 1,500VAC (1 x MoPP) for suitability with B and BF rated equipment.

More information can be obtained at the following TDK-Lambda Americas website, <https://www.us.tdk-lambda.com/lp/products/gxe-series.htm>, or by calling 800-LAMBDA-4. Product availability for the GXE600 series can be found via the link to TDK-Lambda's distributor network (see "Check Distributor Stock to Buy") at <https://www.us.tdk-lambda.com/lp/>.

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### Major applications

Medical, industrial, test and measurement applications requiring wide-range output voltage and current programming, with sensitivity to noise from cooling fans.

## Main features and benefits

- Convection cooled
- Up to 95% efficient
- RS-485 read-write communication (Modbus RTU protocol)
- Constant voltage & constant current modes
- Monitoring & programming functions
- Digital or analog programming
- Seven year warranty

## Major specifications

Model		GXE600-24	GXE600-48
Input voltage range	Vac	85 to 265Vac	
Output voltages	Vdc	24V (4.8 - 28.8V)	48V (9.6 - 57.6V)
Output power	W	600W convection cooled	
Efficiency	%	Up to 95%	
Communications	-	RS-485 read-write interface (Modbus RTU protocol)	
Functions	-	DC Good and AC Fail signals, remote On/Off, parallel operation	
Safety	-	IEC/ES/CSA/EN 60601-1. IEC/UL/CSA/EN 60950-1 and 62368-1	
Size (W x H x L)	mm	127 x 41 x 254 mm	

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## 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 <https://www.tdk-lambda.com/>

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