Power Supplies

TDK announces industrial 3kW programmable power supplies offering dual sided board coating, enhanced shock and vibration with the option for reverse airflow

July 31, 2025

TDK Corporation (TSE 6762) announces the introduction of the 3000 watt TDK-Lambda brand HWS3000G programmable AC-DC power supplies. The nominal output voltages and output currents are fully programmable (CV/CC) from zero up to their maximum rating. These new models have an /HD option for board coating and the ability to meet MIL-STD-810G Shock and Vibration in harsh environments. The /RF option provides the ability to have the airflow direction reversed for compatibility with the user's end system.

The HWS3000G can deliver 1500W with a low-line single-phase input voltage (85 to 132Vac) and 3000W at high-line (170 to 265Vac). Four nominal output voltages, 24V, 48V, 60V and 130V, can be programmed to provide 0 - 28.8V, 0 - 52.8V, 0 - 66V, and 0 - 156V. Up to three units can be connected in series, or ten units in parallel. The output voltage slew rate can be digitally programmed and monitored, along with information regarding cumulative operating time, fault log, and product identification information. Digital programming can be performed without turning the power supply on.

Output programming can be achieved using a serial RS485 interface (MODBus protocol) or analog 1 - 5V or 4 - 20mA signals. These very compact products also feature a variable speed fan with typically 45dB audible noise at <70% load, and a 25°C ambient temperature. The power supplies can be used in a wide range of applications, including test and measurement, semiconductor fabrication, RF amplifiers, laser machining, printing, and industrial equipment.

A 5V 2A standby voltage, remote on/off, remote sense, fan fail and power good signals are fitted as standard. With efficiencies of up to 93%, internal heating is reduced, allowing reliable operation in the compact package size. The HWS3000 models can operate in -20° C (-40° C start-up) and up to +70° C ambient temperatures, derating linearly from 50°C to 50% load at +70°C. Both models have a seven-year warranty and conservatively rated electrolytic capacitor temperatures for long field life. The output terminals are user-configurable for horizontal or vertical connections.

The input to output isolation is 3000Vac, input to ground 2000Vac, and output to ground 1500Vac. The leakage current is <0.85mA and the maximum operating, transportation and storage altitude is 5000m (2000m for the IEC/EN62477-1 standard).

Safety certifications include IEC/EN/UL 62368-1 and IEC/EN62477-1 (OVC III) with CE/UKCA marking for the Low Voltage, EMC, and RoHS Directives. The units meet EN55032A, EN55011-A and FCC-A conducted and radiated emissions. The series also complies with the EN 61000-3-2 harmonics and IEC 61000-4 immunity standards.

Further information on the products can be found at https://product.tdk.com/en/power/hws-g

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Main applications

- Test and measurement, semiconductor fabrication, RF amplifiers, laser machining, printing, and industrial equipment

Main features and benefits

- /HD option to meet MIL-STD-810G shock and vibration
- Digital or analog programming (CV/CC)
- Series and/or parallel operation
- Compact 270 x 150 x 61mm (10.6 x 5.9 x 2.4”) footprint

Model		HWS3000G
Input voltage range	Vac	Single phase 85 - 265
Output voltages	Vdc	0 - 28.8, 0 - 52.8, 0 - 66 and 0 - 156
Maximum output power	W	1500W at 85 – 132Vac input, 3000W at 170 – 265Vac input
Efficiency	%	Up to 93
Safety certifications	-	IEC/EN/UL/CSA62368-1, IEC/EN62477-1 (OVC III)
Size (LxWxH)	mm	270 x 150 x 61
Programming	-	RS485 interface (MODBus) or analog 1-5V or 4-20mA signals
Options	-	/HD option to meet MIL-STD-810G shock and vibration /RF for reverse airflow
Warranty	-	Seven years

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. 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, software 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 2025, TDK posted total sales of USD 14.4 billion and employed about 105,000 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/

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