

## Power Supplies

# Through-hole and surface-mount 1.5 and 3W DC-DC converters operate at full load in -40 to +85°C temperatures

March 3, 2022

TDK Corporation (TSE 6762) announces the introduction of additional models to the popular CCG series of isolated DC-DC converters. The 1.5W and 3W rated parts operate convection cooled at full load from -40 to +85°C. All voltage combinations are available with terminations for either surface-mount or through-hole placement. Applications include data and tele-communications, test, measurement, process control, broadcast and battery powered equipment.

The new CCG1R5 (1.5W) and CCG3 (3W) models comprises of 36 voltage and current combinations with 3.3V, 5V, 12V, 15V and dual +/-12V and +/-15V outputs. The dual output models can also be connected to supply 24V and 30V. All can operate from either 4.5 to 18V, 9 to 36V or 18 to 76Vdc inputs to support operation from 5V, 12V, 24V and 48V power sources. This 4:1 input range can assist with inventory reduction programs with one part number covering two nominal voltages.

Both the 1.5W and 3W share a common compact package size of 15.7mm x 10.4mm x 11.5mm (length x width x height). The plastic case is not encapsulated, avoiding quality risks associated with silicon potting compounds during reflow soldering.

Over-current protection and remote on/off is standard, with a -5/+10% output voltage adjustment range on single outputs only. Input to output isolation is 1,500Vdc. Certification is to the IEC/UL/CSA/EN 62368-1 safety standards with the CE and UKCA marks for the Low Voltage and RoHS Directives.

More information on the CCG series, including distributor inventory, can be obtained from the TDK-Lambda Americas website at <https://www.us.lambda.tdk.com>.

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### Main applications

- Data and tele-communications, test, measurement, process control, broadcast and battery powered equipment.

### Main features and benefits

- Wide 4:1 Input Ranges
- Space Saving Package Sizes
- Certified to IEC 62368-1
- Reduced Derating at High Ambient Temperatures
- No Silicon Potting

## Key data

Model		CCG1R5 and CCG3
Input voltage ranges	Vdc	4.5 to 18, 9 to 36 or 18 to 76
Output voltages	Vdc	3.3, 5, 12, 15, +/-12, +/-15 (dual models can operate as 24 or 30V)
Output power levels	W	1.3 to 3.12
Safety Certifications	-	IEC/UL/CSA/EN 62368-1 with CE and UKCA Marks
Size (W x L x H)	mm	15.7 x 10.4 x 11.5

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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.

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## 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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