

## Power Supplies

# Through-hole and surface-mount DC-DC converter range extended with 6W and 10W models

March 30, 2023

TDK Corporation (TSE:6762) announces the introduction of additional models to the TDK-Lambda brand CCG series of isolated DC-DC converters. Rated at 6W and 10W output, the CCG6 and CCG10 are available in both through-hole and surface-mount packages, extending the range from 1.5W to 10W. Applications include data and tele-communications, test, measurement, process control, broadcast and battery powered equipment.

The CCG6 and CCG10 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 configured to supply single 24V and 30V outputs. All models 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 DC power sources. The 4:1 input range assists inventory reduction programs and procurement management with one part number covering two nominal input voltages.

The 6W and 10W share a common footprint of 19mm x 12.4mm (length x width) with a height of 11.5mm for the through-hole and 11.8mm for the surface mount models. The plastic case is not encapsulated, avoiding quality risks associated with silicone potting compounds during reflow soldering.

Using the trim function, single output models can be adjusted -5/+10% of nominal to compensate for printed circuit board voltage drops. Over-current protection and remote on/off is standard on all models. The on/off function can also be used to put the converters into stand-by mode. This reduces the off-load power consumption to less than 0.1W, to extending the time between battery charges on portable equipment.

The operating temperature range for the CCG6 is from -40 up to +95°C and -40 up to +90°C for the CCG10 using convection or forced air cooling. 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.

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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 Silicone Potting

#### Key data

Model		CCG6 and CCG10
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	6 to 10
Safety Certifications	-	IEC/UL/CSA/EN 62368-1 with CE and UKCA Marks
Size (W x L x H)	mm	19.0 x 12.4 x 11.5 (11.8 for SMD version)

#### 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 2022, TDK posted total sales of USD 15.6 billion and employed about 117,000 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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Further information on the products can be found under

[https://product.tdk.com/system/files/dam/doc/product/power/switching-power/dc-dc-converter/catalog/ccg1r5\\_10\\_e.pdf](https://product.tdk.com/system/files/dam/doc/product/power/switching-power/dc-dc-converter/catalog/ccg1r5_10_e.pdf)

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