

Power supply product

Addition of dual output model to isolated DC-DC converter CCG Series

- Lineup of dual output model in addition to single output to accommodate a wide range of applications
- Industry's best-in-class* power density achieved (maximum output power:15/30W; footprint: 1inch²)

June 20, 2018

TDK Corporation announces the addition of a dual output model to the TDK-Lambda brand of isolated DC-DC converter CCG Series. TDK-Lambda Corporation will start mass production and shipment in June.

The CCG Series is isolated type on-board DC-DC converters accepting wide input, mainly on 1x1 inch footprint. It allows an output power of 15/30W efficiently with 1x1 inch footprint, satisfying customers since the release of its single output model in 2015. The dual output model is now added, enabling the support of analog components for which the current single output model could not be possible. The Series will support a wide range of control boards in the industrial equipment market.

Because this product accepts a broad range of input voltages from 9 to 36 VDC and from 18 to 76 VDC, it is ideal for devices that are driven by battery and for control boards that have different voltage inputs (e.g. 12/24 VDC type and 24/48 VDC type). The achievement of high efficiency by component optimization enables the use through a wide range of operating temperatures (-40 to +85°C). It also reduces the area of footprint and contributes to high density implementation on control boards of devices.

*Status: June 2018 according to studies by TDK

Main applications

- ICT equipment (base stations, servers), Semiconductor manufacturing equipment, Test and measuring equipment, and Control boards of general industrial devices etc.

Main features and benefits

- Dual output model, available for supporting analog components
- Small size, enabling 15/30W output with the shape of 1x1 inch footprint
- Wide input voltage range, a lineup of input types from 9 to 36 VDC and from 18 to 76 VDC
- Six-sided shield structure in consideration of noises, shielding the bottom by board copper foil in addition to metal case
- High efficiency of 92% (CCG30-48-15D)
- Broad operating temperature range, available through a wide temperature range from -40 to +85°C
- Withstand voltage of 1500 VDC (for a minute), improving safety by securing voltage resistance between input and output

Key data

Model	CCG15-D				CCG30-D			
Input voltage range	9 to 36 VDC		18 to 76 VDC		9 to 36 VDC		18 to 76 VDC	
Efficiency (Typ.)	90%		90%		91%		92%	
Output voltage	±12 VDC, ±15 VDC							
Output current	0.5 to 0.65 A				1.0 to 1.25 A			
Output power	15.6	15	15.6	15	30	30	30	30
Output voltage adjustment range	Fixed							
Operating temperature range	-40 to +85°C (with output derating)							
Withstand voltage	Input – Output: 1500V DC for one minute, Input/Output – Case: 1000V DC for one minute							
Safety standards	UL/CSA/EN 60950-1, UL/CSA/EN 62368-1							
Size (W x H x D)	25.4 x 9.9 x 25.4 mm (1 x 0.39 x 1 inch)							
Warranty	5 years							

Production and Marketing Schedule

- Standard price (planned): CCG15-*-D: 2,700 yen, CCG30-*-D: 3,500 yen
- Production location: Nagaoka City, Niigata Pref.
- Scheduled production volume: 1,000,000 units per year
- Start of production: June 2018

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 comprehensive 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 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/en/>

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