

## Power Supply Product

# Quarter Brick DC-DC Converter Series Extended with New 504W Models

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December 2015

TDK Corporation announces the introduction of an extension to the popular TDK-Lambda iQG series of DC-DC converters with new 504W models having efficiencies of up to 96.3%. Operating from a 48Vdc nominal input, the quarter brick iQG range now includes 12V 42A outputs in addition to 300W and 400W rated parts. With exceptionally high true useable power, the series is ideally suited for power-hungry, applications in demanding thermal environments.

Utilizing a dual cooling technique (thermal enhancement), the modules will deliver 38.5A (438W) in ambient temperatures of 55°C with airflow of 400 LFM. With the addition of a 0.5" heat sink, it can deliver 504W at 70°C with airflow of 400 LFM. The dimensions follow the industry standard five pin quarter brick footprint of 57.9 x 36.8 x 12.9mm (typical). Accepting an input voltage of 39V to 75Vdc, these additional iQG models maintain a tight output tolerance of +/-210mV (+/-1.7%) for all input, loading and temperature variations.

As an option, droop mode current share can be specified, allowing parallel operation to for additional output current. Input-to-output isolation is 2,250Vdc (basic), and the converters are safety certified to UL/CSA/EN 60950-1 (2<sup>nd</sup> edition), carrying the CE mark in accordance with the LV Directive and RoHS Directives.

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

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### Major applications

- Servers, routers and other ICT equipment, semiconductor manufacturing, test and measurement and general industrial equipment

### Main features and benefits

- Industry standard ¼ brick format
- Efficiencies of up to 96.3%
- High true useable power in demanding thermal environments
- Droop mode current share option

**Major specifications**

Model		iQG48042A120V
Input voltage range	Vdc	39 – 75
Nominal output voltage	Vdc	12V
Efficiency	%	Up to 96.3%
Maximum output power	W	504W
Cooling	-	Convection or forced air
Safety	-	UL 60950-1, CSA 60950-1, EN 60950-1, CE Mark (LVD & RoHS)
Size (W x H x D)	mm	57.9 x 36.8 x 12.9

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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 includes electronic components, modules and systems\* which are marketed under the product brands TDK and EPCOS, power supplies, magnetic application products as well as energy devices, flash memory application devices, and others. TDK focuses on demanding markets in the areas of information and communication technology and consumer, automotive and industrial 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 2015, TDK posted total sales of USD 9.0 billion and employed about 88,000 people worldwide.

\* The product portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites, inductors, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors.

**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 <http://www.tdk-lambda.com/>

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