

Power Supply Product

Harsh Environment and COTS DC-DC Converter Series Extended with 85W Models

February 2017

TDK Corporation announces the introduction of additional models to the TDK-Lambda HQA series of isolated DC-DC converters. Rated at 85W, the HQA85 has been qualified with methods consistent with MIL-STD-883 and MIL-STD-202, making it suitable for use in COTS and harsh environment industrial equipment. Initially available with 12V, 24V and 28V outputs, the encapsulated quarter bricks accept a wide range DC input of 9V to 40V, withstanding a 50V surge for 10 seconds.

With typical efficiencies of up to 90%, internal heating is minimized allowing the HQA85 converters to operate in high ambient temperatures of up to 115°C and a minimum of -40°C. No opto-couplers are used in the design for enhanced reliability at high temperatures and the switching frequency is fixed at 270 kHz for simplified noise filtering.

The converter pinout follows the industry standard five pin quarter brick footprint featuring negative logic remote on/off and +/- remote sense. Two package styles are offered; a flanged type measuring 2.39" x 2.2" x 0.5" and a non-flanged version measuring 2.39" x 1.54" x 0.5".

Input-to-output and input to baseplate isolation is 2,250Vdc (basic insulation), and the converters are safety certified to UL/CSA/EN 60950-1, with the CE marking 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/hqa-series.htm>, or by calling 800-LAMBDA-4. Product availability for the HQA 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/>.

Major applications

- COTS (Commercial off the Shelf), vehicle, airborne, communications and harsh industrial.

Main features and benefits

- Industry standard ¼ brick pinout
- Efficiencies up to 90% at 24Vdc input
- Operating ambient temperatures up to 115°C
- No opto-couplers used

Major specifications

Model		HQA2W085W120V	HQA2W085W240V	HQA2W085W280V
Nominal Output voltage	Vdc	12V	24V	28V
Input voltage range	Vdc	9 – 40V (50V transient for 1s)		
Output Power	W	85W		
Efficiency (typ. at 24V input)	%	90%	87%	88.5%
Operating ambient temperature	°C	-40 to 115°C		
Cooling	-	Heatsink or cold plate		
Safety	-	UL 60950-1, CSA 60950-1, EN 60950-1, CE Mark (LVD & RoHS)		
Size (W x H x D)	mm	Non-flanged version: 60.6 x 39 x 12.7 Flanged version: 60.6 x 55.9 x 12.7		

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* 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 2016, TDK posted total sales of USD 10.2 billion and employed about 92,000 people worldwide.

* The product portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites, inductors, high-frequency components 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/>

Contacts for regional media

Region	Contact	Phone	Mail
Americas	Tom Tillman	TDK-Lambda Americas (619) 575 4400	tom.tillman@us.tdk-lambda.com