

Power Supply Product

250W Non-Isolated SIP DC-DC Converter Uses 60% Less PCB Area

June 2019

TDK Corporation announces the introduction of 250W rated SIP (Single In-line Package) models to the TDK-Lambda i6A4W product family of non-isolated DC-DC converters. Utilizing less than 0.47 in² of board area, this represents a 60% saving compared to 1/16th brick format converters.

Capable of operating from a wide input voltage of up to 9 to 53V, the i6A4W step-down converters deliver an output voltage that can be adjustable from 3.3V to 15V or 3.3V to 40V. The i6A4W series can operate from existing 12, 24, 36 or 48V system voltages to generate additional high power voltages in medical, communications, industrial and test and measurement equipment.

With efficiencies of up to 97.5%, power losses are minimized allowing the products to operate in harsh ambient temperatures of -40°C to +125°C even with low airflow requirements. The need for external output capacitance is reduced due to an optimized dynamic voltage response, thus further reducing board space requirements.

The basic feature models include an output voltage adjustment pin, positive or negative logic remote on-off, remote sense, input under-voltage, over-current and thermal protection. The full-featured models are equipped with a power good signal, output voltage sequencing and the ability to synchronize the operating frequency to minimize system noise. All models are certified to UL/CSA 60950-1, IEC/EN 60950-1 and carry the CE mark for the Low Voltage and RoHS Directives.

More information can be obtained at the following TDK-Lambda Americas website, <https://www.us.tdk-lambda.com/lp/products/i6A-series.htm>, or by calling 800-LAMBDA-4. Product availability for the i6A4W converters can be found via the link to TDK-Lambda's distributor network (see "Check Distributor Stock") at <https://www.us.tdk-lambda.com/lp/>.

Major applications

Medical, communications, industrial and test and measurement equipment

Main features and benefits

- High efficiency (Up to 97.5%)
- 9 to 53VDC input, up to 3.3 to 40V output adjustment
- Up to 250W or 20A output
- Basic and full featured versions

Major specifications

Model		i6A4W010A033V-0Sx	i6A4W020A033V-0Sx
Input voltage range	Vdc	9 to 53	
Output voltage range	Vdc	3.3 to 40	3.3 to 15
Output current	A	10	20
Maximum output power	W	250	
Efficiency	%	97.5% (40V output, 48V input, 100% loading)	
Optional features	-	Power good, output sequencing and frequency synchronization	
Size (L x W x H)	mm	33 x 11.4 x 24.7	

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 features passive components such as ceramic, aluminium electrolytic and film capacitors, and 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 2019, TDK posted total sales of USD 12.5 billion and employed about 105,000 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 <http://www.tdk-lambda.com/>

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