

Power Supply Products

High Efficiency AC-DC Power Module PFE1000FA With Conduction Cooling

- Conduction cooling makes the product highly suitable for outdoor equipment or compact equipment with high mounting density

February 3, 2016

TDK Corporation announces the successful development of the TDK-Lambda brand of PFE1000FA model AC-DC power module designed for high efficiency and high reliability. The new product meets various customer needs by providing support for outdoor equipment requiring water-cooled, hermetically sealed, fanless construction or compact equipment with high mounting density for which conduction cooling is most suitable. TDK-Lambda Corporation will start accepting orders for the new product from February 2016, and shipping will begin in March.

The PFE series are power modules that combine a PFHC (Power Factor and Harmonic Correction) front end for stepping up the AC voltage with a DC-DC converter in a single integrated package. The flagship AC-DC power module PFE1000F originally introduced in 2008 now has been further upgraded and released as the PFE1000FA.

The highly efficient design achieved by harnessing sophisticated simulation technology and materials technology results in a maximum efficiency of 90%, which represents a 4% increase over the existing model. The new product further facilitates the thermal design of equipment in which it is used, thereby contributing to the realization of more compact, more efficient, and more reliable systems. Dimensions and electrical specifications are compatible with the existing model (PFE1000F), to allow easy replacement from the old type.

Main applications

- General industrial equipment including automated devices for industrial and commercial applications, measuring instruments, ICT equipment, etc.

Main features

- High efficiency over the entire load range: 90% Max. (PFE1000FA-48)
- Conduction cooling which is highly suitable for compact equipment with high mounting density or outdoor equipment
- External dimensions, mounting dimensions, and electrical specifications compatible with existing product (PFE1000F)

Key data: PFE1000FA

Model	PFE1000FA-12	PFE1000FA-28	PFE1000FA-48
Input Voltage Range	85 to 265 VAC (Integrated harmonic current suppression function)		
Power Factor (with full load)	0.95 Min.		
Efficiency (100/200 VAC Typ.)	84%/86%	86%/89%	87%/90%
Output Voltage	12 VDC	28 VDC	48 VDC
Output Current	60 A	36 A	21 A
Output Power	720 W	1008 W	1008 W
Operating Temperature (Baseplate temperature)	-40°C to +100°C	-40°C to +85°C (85≤Vin<170 VAC) -40°C to +100°C (170≤Vin≤265 VAC)	
Cooling	Conduction cooling method		
Safety	UL60950-1, CSA60950-1, EN60950-1 (pending)		
Dimension (W x H x D)	100 x 13.4 x 160 mm		
Warranty	5 years		

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 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>

The text of this release and related images can be downloaded from

http://www.tdk-lambda.com/about/press/20160203_1.html

Further information on the product can be found at

www.tdk-lambda.com/products/sps/ps_pm/pfe-fa/indexe.html

Contact for media

Contact	Department	Phone	Mail
Mr. Teshima	TDK Corporation Corporate Communications Group	+81 3 6852-7102	pr@jp.tdk.com