

## Power Supply Products

# EVS Series for Charging Electrical Energy Storage Systems

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- Charging current and charging voltage can be freely set
- 300 W model features fanless design

September 10, 2015

TDK Corporation announces the successful development of the EVS series of constant current power supplies with a simple function set, designed for electrical energy storage and water processing applications. The new products will be marketed under the TDK-Lambda brand. In addition to a 300 W board type fanless model and a 600 W unit type model, a dedicated module for backflow prevention module will also be offered, resulting in a lineup that covers a wide range of customer needs. TDK-Lambda Corporation will start accepting orders for the new products from September, and shipping will begin in October 2015.

In recent years, the demand for electrical energy storage systems for peak shift and peak cut applications as well as for emergency use is rapidly increasing. The EVS series has been designed as a constant current power supply optimal for integration in such systems, providing the required constant current constant voltage charging capability. The upper output voltage limit as well as the constant current value can be set by the customer using equipped trimmers.

The series comprises a 300 W and 600 W model with simple functionality. The 300 W model realizes silent operation through a fanless design. Available output voltage ratings are 18 V\*, 36 V, and 57 V, to suit the requirements of 12 V\*, 24 V, and 48 V storage systems. Parallel operation is also supported, to enable charging of high-capacity storage systems.

With the development of the new series, in addition to the existing full-function models of the HWS-L/BAT series, TDK-Lambda will now be offering a broad and versatile lineup of power supplies for charging electrical energy storage systems. A dedicated backflow prevention module designed for insertion between the power supply and the storage system and featuring much lower heat generation than a conventional backflow blocking diode will be also be made available, with orders being accepted from October. This backflow prevention module can be used with products from the EVS series as well as the HWS-L/BAT series.

\* The 18 V output type for 12 V storage systems is available only as the 300 W model.

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### Glossary

Constant current constant voltage charging: A charging method where both the charging current and charging voltage are controlled in order to protect the battery from overcharging.

### Main applications

- Charging of various types of storage media, including lithium ion batteries, nickel hydride batteries, and lead acid batteries
- Applications where constant current control is required, such as electrolysis of water, LED drive etc.

### Main features

- Trimmers on power supply allow presetting of charge current and charge voltage to implement constant current constant voltage charging
- 300 W model features fanless design
- Various output voltage ratings to match storage system voltages are available  
For 12 V storage systems: 18 V output type \* Only available as 300 W model  
For 24 V storage systems: 36 V output type  
For 48 V storage systems: 57 V output type
- Compliant with UL 60950-1 and EN60950-1 safety standards
- Dedicated backflow prevention module for insertion between power supply and storage system available

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## Key data: EVS Series

Model	EVS18-16R7	EVS36-8R4	EVS57-5R3	EVS36-16R7	EVS57-10R6	EVS-RP6020
Input voltage range	85 to 265 VAC / 120 to 370VDC			85 to 265 VAC / 120 to 330VDC		7 to 60 VDC
Constant voltage mode Rated voltage (Adjustable range)	18 VDC (12 to 18 VDC)	36 VDC (24 to 36 VDC)	57 VDC (48 to 57 VDC)	36 VDC (24 to 36 VDC)	57 VDC (48 to 57 VDC)	-
Constant current mode Rated current 100 VAC (200 VAC)	16.7 A (16.7 A)	8.4 A (8.4 A)	5.3 A (5.3 A)	15.3 A (16.7 A)	9.7 A (10.6 A)	20 A Max.
Rated current Adjustable range 100 VAC (200 V AC)	8.35 to 16.7 A (8.35 to 16.7 A)	4.2 to 8.4 A (4.2 to 8.4 A)	2.65 to 5.3 A (2.65 to 5.3 A)	8.35 to 15.3 A (8.35 to 16.7 A)	5.3 to 9.7 A (5.3 to 10.6 A)	-
Maximum output power	300 W			600 W		-
Parallel operation	Possible					
Safety	UL60950-1, CSA60950-1, EN60950-1					
Cooling	Convection cooling			Forced air by build-in fan		Convection cooling
Size (W x H x D mm)	84 x 42 x 180			120 x 61 x 190		50 x 26 x 77.5
Outline	PC board type			Unit type		PC board type
Warranty	5 years					

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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\* 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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