

## **1000-V Input Industrial DC-DC Converters Deliver 500 W**

[ABSOPULSE Electronics'](#) HVI 500-1K-XX-FX series dc-dc converters are designed for rugged industrial applications that require high-input voltages and wide dc-input ranges. The converters accept a nominal input voltage of 1000 V with an 800-V to 1200-V operating input range. The 500-W units provide 36-V, 48-V, 110-V, 125-V or custom outputs.

An optional built-in redundancy diode allows for a number of units to be connected in parallel to achieve higher output power or N+1 redundancy. The output separation diode also makes the units suitable for battery charging applications. An output-fail alarm (Form C) and remote shutdown or enable are available on request.

The input meets EN55022 Class A with wide margins, with Class B available on request. This ensures that the unit can be used in EMI sensitive environments without additional filtering. The converters comply with the requirements of EN/IEC 61010-1 and related standards. The design is verified for 5600-Vdc input-to-output isolation and production level testing is 4300-Vdc input to output. Other electronic protection includes inrush current limiting, reverse polarity protection, output current limiting, short-circuit protection and self-resetting thermal shutdown in the case of insufficient airflow.

The HVI 500-1K-XX-FX converters are cooled by conduction via baseplate, with additional cooling by natural convection through the cooling slots. This enables operation over a 0°C to +50°C temperature range without derating. Wider temperature ranges are available on request. Efficiency is a minimum of 80% at full load depending on input/output configuration.

The units are ruggedized to ensure immunity to shock and vibration (IEC 61373 Cat 1 A&B), which makes them suitable for operation in extreme environments. The internal boards are conformal coated for protection from moisture, humidity and airborne contaminants. The converters measure 153 x 67 x 358 mm. Contact the ABSOPULSE factory for pricing and delivery.



*Figure. The HVI 500-1K-XX-FX series dc-dc converters accept a nominal input voltage of 1000 V with an 800-V to 1200-V operating input range. The 500-W units provide 36-V, 48-V, 110-V, 125-V or custom outputs.*