

1-kW, 400-V Power Supply Suits Industrial Applications

[ABSOPULSE Electronics](#)' HTH 1K-F6W is a three-phase high-voltage ac-dc power supply designed for 1000-W industrial applications. Operating from a three-phase input of 400 Vac (340- to 446-Vac range), the unit delivers a single 200-Vdc output. Similar power supplies that operate from 380 Vac or 480 Vac three-phase sources are also available on request. The HTH 1K-F6W targets industrial applications such as dc motor control, battery charging, dc bus voltage for distributed systems and power servos (see the figure).

The power supply operates with an 85% minimum efficiency at full load, depending on the input and output configuration. Cooling by conduction via a heat-sinking surface and high-quality internal fans provide sufficient cooling for operation over a 0°C to +50°C temperature range for full specification without derating. The power supply is verified for 5600-Vdc input-to-output isolation. Production level testing of 4300-Vdc input-to-output isolates equipment from the supply and contributes to the high reliability and long operating life of the unit.

Further electronic protection includes inrush current limiting, output current limiting with short-circuit protection and thermal shutdown in case of insufficient cooling and output overvoltage protection. The units are designed for compliance with EN/UL60950-1 and equivalent safety standards. Filtering on the input and output contributes to low output ripple and noise. The input meets EN55022 Class A with wide margins with Class B available as an option.

The power supply is ruggedized for resistance to shock and vibration and meets IEC 61373 Cat 1 A & B. Conformal coating ensures protection from humidity and airborne contaminants. Built on a single PCB, the power supply measures 254 mm (w) x 349 mm (d) with a low profile of 65 mm, and a light weight of 3.4 kg. For more information, see the [website](#). Contact the company at 613-836-3511 for pricing and delivery.



Figure. Designed for heavy-duty industrial applications, the HTH 1K-F6W ac-dc power supply delivers 1 kW at 200 V while operating from a 340- to 446-Vac input.