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2-kW Industrial Power Supply With PFC Is Rugged, Compact And Light

[ABSOPULSE Electronics'](#) PFL 2K-E/110-F6W is a switching power supply designed for rugged 2-kW industrial applications that require power factor correction (PFC). The power supply uses field-proven PFQ 900 technology to deliver a compact, light-weight cost-effective solution (see the figure) with high system reliability and power efficiency (86% min. at full load).

The PFL 2K-E/110-F6W employs active PFC to convert 230 Vac (195 to 264 Vac) to an 110-Vdc output capable of 18 A. Custom input/output voltages are available on request. The power supply complies with EN61000-3-2 and EN61000-3-12 directives for low input harmonic distortion. Hold-up time is 5 ms min at nominal input for 5% drop of the output voltage. An optional built-in redundancy diode allows parallel connection to achieve higher output power, N+1 redundant operation or back-up battery connection. The unit includes an output fail alarm, with Form C contacts available as an option.

The 2-kW power supply is 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 EN55032 Class A with wide margins with Class B available as an option. Electronic protection includes 4300-Vdc input-output isolation, inrush current limiting, output current limiting with short-circuit protection, output overvoltage protection and thermal shutdown in case of insufficient cooling.

Cooling is by high-quality built-in fans which draw air into the unit, and by additional conduction via the baseplate which provide sufficient cooling for operation over a 0°C to +50°C temperature range for full specification without derating. Wider temperature ranges are available on request. Contact the company by phone at 613-836-3511 or see the [website](#) for further information on this and similar designs, for pricing and delivery.



Figure. The PFL 2K-E/110-F6W is a 2-kW switching power supply with power factor correction (PFC), rugged industrial quality, a field-proven design topology, full electronic protection and N+1 redundancy as an option. The unit measures 254 x 65 x 349 mm (10 x 2.6 x 13.75 in.) including mounting flanges and terminal block, and weighs 3.3 kg (7.5 lbs).