

UL/EN62368-1 Certified Power Supplies For Industrial Applications

[Cosec](#) has added four new series of open-frame, low-profile, compact power supplies that cover the range of 30 W to 100 W and are UL/EN62368-1 certified. The LHA30F, LHA50F, LHA75F and LHA100F complement Cosec's existing LHA150F and LHA300F models, so that they now offer efficient power solutions from 30 W to 300 W for demanding industrial applications.

Benefiting from the latest power switching technologies, the LHA30-50-75-100F power supplies have a typical efficiency up to 90% at high line and 86% at low line. In addition to higher efficiency, by using partial resonance technology, noise and ripple levels have also been reduced. Designed for use in a wide range of applications, the LHA30-50-75-100F offers a wide temperature range from -10°C to +70°C.

Based on 10 years of successful sales and operation of its predecessor LFA series, the LHA series has been designed to simplify choice for systems designers when selecting power supplies for demanding applications. From the 30-W LHA30F to the 300-W LHA300F, the complete family is UL/EN 62368-1 certified and ready to power the latest industrial applications requiring the highest level of quality and safety.

The LHA30-50-75-100F power supplies are suitable for a wide range of applications including measurement and analysis equipment, machine tools and industrial robots, display equipment, and semiconductor manufacturing equipment. For higher-power applications requiring EN62477-1 (OVC III) certification, models LHA150F and LHA300F are also available.

Designed for worldwide applications, the LHA30-50-75-100F power supplies have an input voltage range of 85 Vac to 264 Vac single-phase, and conform to the safety standards input voltage range of 100 to 240 Vac (50/60 Hz).

The 30-W LHA30F is available in five output voltages, which are 3.3, 5, 12, 15 and 24 V. Designed for an extended range of applications, the LHA50-75F is available in seven output voltages, which are 3.3, 5, 12, 15, 24, 36 and 48 V. The LHA100F comes in six output voltages, 5, 12, 15, 24 and 48 V. Standard products are delivered with a factory-trimmed output voltage though it is possible to order the LHA30-50-75-100F with a built-in potentiometer making it possible to adjust the voltage up and down (option Y).

In addition to their optimized switching topology that provides up to 90% efficiency, to reduce energy consumption when a unit is operating at light loads or is in standby, the LHA30-50-75-100F automatically switch to an energy saving mode using intermittent pulse modulation. This contributes to excellent performance and high reliability. The power supplies include inrush current protection, overcurrent protection with automatic recovery when the default is removed, and overvoltage protection.

The units can be mounted in any orientation, though depending on the ambient temperature and environment a derating may apply. In conducted noise tests, LHA30-50-75-100F power supplies comply with FCC-B, VCCI-B, CISPR11-B, CISPR32-B, EN55011-B, and EN55032-B. For further improved noise performance COSEL offers EMI/EMC filters type EAC-03-472. The units have a 3,000-Vac input-to-output isolation voltage, 2,000-Vac input-to-ground and 500-Vac output to ground.

Designed for use in demanding applications where space is often limited, the LHA30F measures 50 X 27 X 87.5 mm (1.97 X 1.07 X 3.44 in.) and weighs 100 g maximum. The LHA50F measures 50 X 27 X 112 mm (1.97 X 1.07 X 4.41 in.) and weighs 140 g maximum. The LHA75F comes in at 50 X 27 X 150 mm (1.97 X 1.07 X 5.91 in.) and weighs 190 g maximum, and finally the LHA100F measures 62 X 27 X 155 mm (2.44 X 1.07 X 6.10 in.) and weighs 250 g maximum (see the figure).

Additional options are available for specific applications, including option-C for a conformal coating for improved moisture resistance, option-G for a lower leakage current (0.15 mA max.), option-J4 for input and output EP connectors, and option-Y for an output voltage potentiometer. The power supplies comply with the RoHS directive and are CE marked in accordance with the Low Voltage Directive. For more information, see the [website](#).

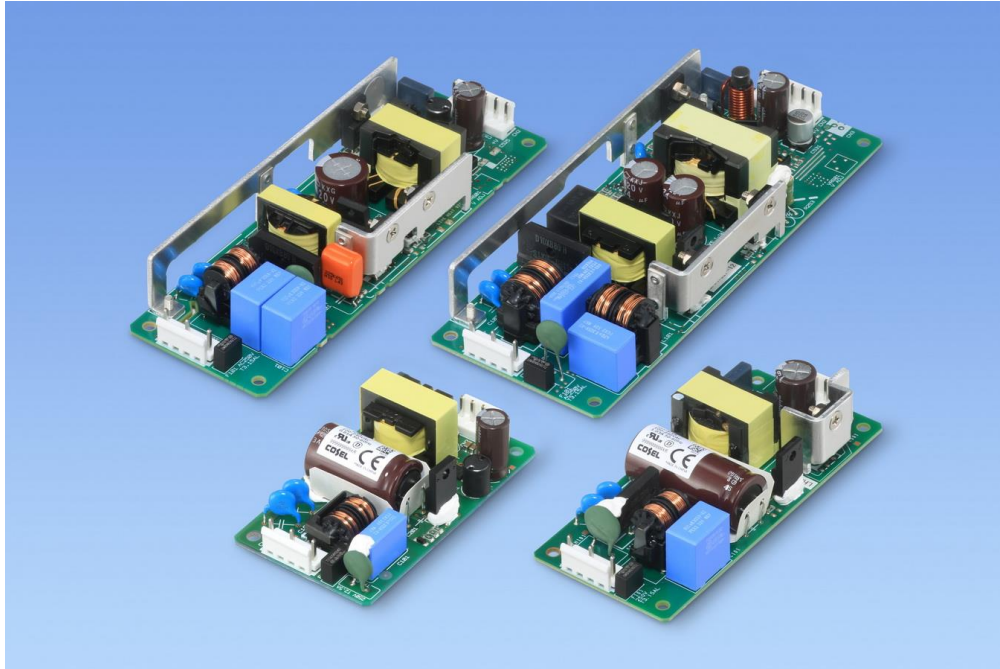


Figure. Certified to UL/EN62368-1, the LHA30-50-75-100F 30-W to 100-W open-frame ac-dc power supplies are designed to power demanding industrial applications.