



COSEL expands microprocessor controlled power supplies offering for industrial and semiconductor industries

Press Release

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- High power density (2.1W/cm³)
- Low profile (1U)
- Harmonic attenuator complying with IEC61000-3-2 class A
- Active current sharing and easy paralleling - up to 10 units
- High reliability and 3-year warranty

Cosel Co, Ltd (6905: Tokyo) today announced the addition of a 3000W AC/DC enclosed power supply for industrial and demanding semiconductors applications. Designed with advanced built-in COSEL's digital microprocessor technology, the FETA3000BA includes active current sharing, making it simple to parallel up to 10 units for extra power or redundancy. For high efficiency, the FETA3000BA includes an active filter and uses a phase-shift, full-bridge topology offering an efficiency level of up to 93%. Addressing industrial applications and semiconductors equipment, the FETA3000BA complies with the SEMI F47 standard.

With an input voltage range of 170 to 264VAC, the FETA3000BA-48 delivers an output voltage of 48VDC, adjustable from 38.40 to 52.80VDC using the built-in potentiometer, or 15.00 to 52.80VDC when using the trimming function available at the rear connector. The nominal output current is 62A and efficiency is up to 93% at 230VAC input.

Operated utilizing COSEL's digital microprocessor technology, the FETA3000BA series integrates a very sophisticated voltage and current balance control. This simplifies system integrators' task when connecting units in parallel or series. This technology makes it possible to connect up to 10 units in parallel, without adding any other external components. The advanced digital control also controls switching parameters to optimize efficiency, thus reducing energy consumption.

"Power supplies, which used to be a mass of analog technologies, have been going through major changes since the turn of the century. Once controlled by switching devices on and off in an analog circuit based on output voltage monitoring, they are now controlled digitally by microprocessors and



software," said Mr. Todo, COSEL's Manager of Unit Standard Design Department. "Cosel started to develop its own digital control technology at an early stage. By incorporating digital control technology into the analog circuitry, Cosel has achieved power supplies with higher-level functions from which the FETA3000BA is fully benefiting"

The FETA3000BA complies with the semiconductor standard SEMI F47 which requires that semiconductor processing equipment tolerates voltage sags on their AC power line.

To reduce audible noise, the FETA3000BA series is equipped with a thermo-regulated fan whose speed is automatically adjusted to optimize cooling for specific environments.

Aimed at industrial environments, the FETA3000BA series can be operated within a temperature range of -10 to +70C, 20 - 90%RH (Non condensing), and up to 3,000m (10,000 feet) max altitude. Depending on cooling and assembling method, a power derating may apply.

The FETA3000BA includes an input filter and complies with FCC Part 15-A, CISPR32-A, EN55032-A, VCCI-A. In cases where a higher conducted noise attenuation is required, COSEL recommends the NAC-20-472 filter.

The product is UL62368-1, C-UL (CSA62368-1), EN62368-1 safety approved.

Designed for integrated industrial applications in 1U height, the FETA3000BA measures 102 x 41 x 340mm [4.02 x 1.61 x 13.39 inches] (WxHxD) and weighs 2.3kg max.

The FETA3000BA is suitable for a wide range of applications including measurement and analysis equipment, machine tools, and semiconductor manufacturing equipment. They comply with the RoHS directive and are CE marked in accordance with the Low Voltage Directive.

For higher power requirements, COSEL offers two models of FETA7000, the FETA7000T with three-phase / three wires 170-264VAC input, and the FETA7000ST with three-phase / four wires 300-480VAC input. Both models are available in two outputs versions, 48V and 144V, delivering up to 7488W.



FETA3000BA - 3000W AC/DC enclosed power supply for industrial and demanding semiconductors applications

Related links:

FETA3000BA :

<https://www.prbx.com/product/feta3000ba/>

Link to Cosel Europe product page:

<https://www.coseleurope.eu/Products/AC-DC/FETA>

**About Cosel:**

Established in Japan 1969, COSEL is one of the world's leading designers and manufacturers of high performance AC-DC Power Supplies, DC-DC Converters and EMI Filters. With quality, reliability & flexibility as our main focus, we pride ourselves on developing some of the highest quality and most reliable products seen anywhere in the world today. The Cosel Group is a \$253m global company employing some 810 staff with sales offices throughout Japan, Asia, Europe and North America. Our product range is aimed mostly at demanding applications within the Industrial, Factory Automation, Medical, Telecoms, Lighting, Audio/Broadcast & Renewable Energy sectors. A flexible approach with full in-house design means we deliver products using the very latest technology meeting the growing demands of our customers.

Note to the Editors:

The Cosel Group includes the European power specialist Powerbox International AB, which has been acquired June 25, 2018 by COSEL.

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