



## COSEL expands its 3000W low profile power supply series with a 250VDC unit for industrial applications requiring high-speed response

Press Release

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- High power density (2.1W/cm<sup>3</sup>)
- Low profile ( 1U )
- 250VDC output voltage adjustable 100 – 350VDC
- High-speed response output voltage
- 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 with an adjustable output voltage from 100VDC to 350VDC for industrial applications requiring a fast output voltage response. Designed with COSEL's advanced built-in digital microprocessor technology, the FETA3000BC includes active current sharing, making it simple to parallel up to ten units for extra power or redundancy. For high efficiency the FETA3000BC includes an active filter and uses a phase-shift, full-bridge topology offering an efficiency level of up to 93%. Addressing demanding industrial applications, FETA3000BC's high tech design provides a high response speed to adjustments of the output voltage across the full range.

Similar to envelop tracking technology used in Power Amplifiers, industrial applications such as laser, plasma processing, and industrial heating are requiring the output voltage of their power supplies to adjust rapidly within the range of 100VDC to 350VDC in less than 2 milliseconds to provide an accurate voltage to the emitting element. This requires very tight, specific power control and thanks to COSEL's propriety fast response technology, the FETA3000BC's response time across the full output voltage range is just 1.5 millisecond, guaranteeing high performance levels to the final equipment.

With an input voltage range of 170 to 264VAC, the FETA3000BC-250 delivers a nominal output voltage of 250VDC, adjustable from 180VDC to 350VDC using the built-in potentiometer, or 100VDC to 350VDC when using the trimming analog control function available at the interface connector. The nominal output current is 12A and efficiency is up to 93% at 230VAC input.



Utilizing COSEL's digital microprocessor technology, the FETA3000BC series integrates a very sophisticated voltage and current balance control. This simplifies system integrators' task when connecting units in parallel or series. The technology makes it possible to connect up to ten units in parallel without adding any other external components. The advanced digital control also cleverly controls switching parameters to optimize efficiency, thus reducing energy consumption.

To reduce audible noise the FETA3000BC series is equipped with a thermo-regulated fan whose speed is automatically adjusted to optimize cooling according to actual needs.

The FETA3000BC includes inrush current limiting circuitry, overcurrent and overvoltage protection and thermal protection. Power Good and Alarm signals are available from the interface panel and state of those highlighted by LED. The unit can be remotely controlled via RC pin.

Aimed for use in industrial environments, the FETA3000BC 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 methods, a power derating may apply.

The FETA3000BC includes an input filter and complies with FCC Part 15-A, CISPR32-A, EN55032-A, VCCI-A. In cases where a higher level of conducted noise attenuation is required, COSEL recommends use of the NAC-20-472 filter. The power supply has an input to output isolation of 3,000VAC, input to ground (FG) of 2,000VAC and output to ground (FG) of 2,000VAC. It is UL62368-1, C-UL (CSA62368-1), EN62368-1 safety approved.

Designed for integrated industrial applications in 1U height, the FETA3000BC measures 102 x 41 x 340mm [4.02 x 1.61 x 13.39 inches] (WxHxD) and weighs 2.3kg max.

The FETA3000BC is suitable for a wide range of industrial applications including measurement and analysis equipment, machine tools, semiconductor manufacturing equipment, battery chargers, and power amplifiers. The power supplies comply with the RoHS directive and they are CE and UKCA marked in accordance with the Low Voltage Directive.



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**Related links:**

<https://www.coseurope.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 \$255 million global company employing some 710 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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