# COSEL's 200W power supply's triple isolated outputs are perfect for robotic controllers and factory automation

Press Release
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- Industry's first integrated and flexible power solution for robotic controllers
- Configurable, isolated, triple outputs. One being dedicated with reinforced isolation - ideal for IGBT drive
- Certified to IEC/EN62477-1 OVC III and complying with EN61558-2-16
- Modular design with built-in digital control, shortening time to application
- High efficiency - up to 91%

Cosel Co, Ltd (6905: Tokyo) today announced the release of an industry first, 200W, open-frame, configurable AC/DC power supply with triple outputs tailored for robotic controllers and factory automation. Based on a unique concept, the Cosel RB series offers three configurable isolated outputs, with one having a reinforced isolation to power Intelligent Gate Bipolar Transistors (IGBT) or equivalent applications. Certified to EN62477-1 Over Voltage Category (OVC) III, by reducing the need for an extra isolation transformer when connected to a distribution panel, the RBC200F power supply simplifies the design process for systems architects while reducing costs. Reducing energy consumption, the RBC200F is fully digitally controlled on the input and output stages.

The RBC200F accepts input voltages of 84 to 264VAC and delivers an output power of 207W. The product is designed for convection cooling and can be operated from -20 to +70 degrees centigrade at an altitude up to 3,000 meters, 9,000 meters in the case of storage. The RBC200F can be installed in any orientation and under standard mounting (horizontal orientation) derating starts from 50°C under convection cooling.

Designed to reduce complexity, the RBC200F features three independent outputs. The master output (Slot 1) can deliver 24V adjustable 22.8 to 26.4V, or 48V adjustable 45.6 to 52.8V with 144W output power. The second output (Slot 2) can host configured modules of 3.3V/5A ; 5V/5A ; 12V/2.5A ; 16.5V/1.9A ; 24V/1.3A ;

48V/0.65A ; +/- 12V/0.7A and +/-15V/0.7A with a power of 16.5 to 30W depending on the output voltage. The third output (Slot 3) can host any of the single output voltage modules in the same power level. For higher voltages, outputs can be connected in series. All output voltages are adjustable via a built-in potentiometer.

To optimize efficiency, the master output DC/DC converter is based on an LLC resonant topology when the second and third outputs are using Quasi-Resonant-Flyback topology.

The RBC200F as an input to output isolation of 3,000VAC, and an input to ground isolation of 2,000VAC. The isolation voltage between the three outputs has been optimized for robotic controllers applications. Isolation between the master output and output two corresponds to a functional isolation of 500VAC when the isolation between the master output, output two and the third output is reinforced to 3,000VAC.

Certified to IEC/EN62477-1 OVC III and complying with EN61558-2-16, the RBC200F can be directly connected to the installation distribution panel, eliminating the need for an additional isolation transformer.

The reinforced isolation of output three is suitable to supply voltages to IGBTs or IPMs, which reduces the number of power supplies required to power robotic controllers and high power modules in factory automation. By integrating a reinforced isolated output, the ‘three in one’ RBC200F has an equivalent footprint 40% lower than conventional solutions.

The RBC200F has built-in inrush current limitation, overcurrent, overvoltage, as well as thermal protection.

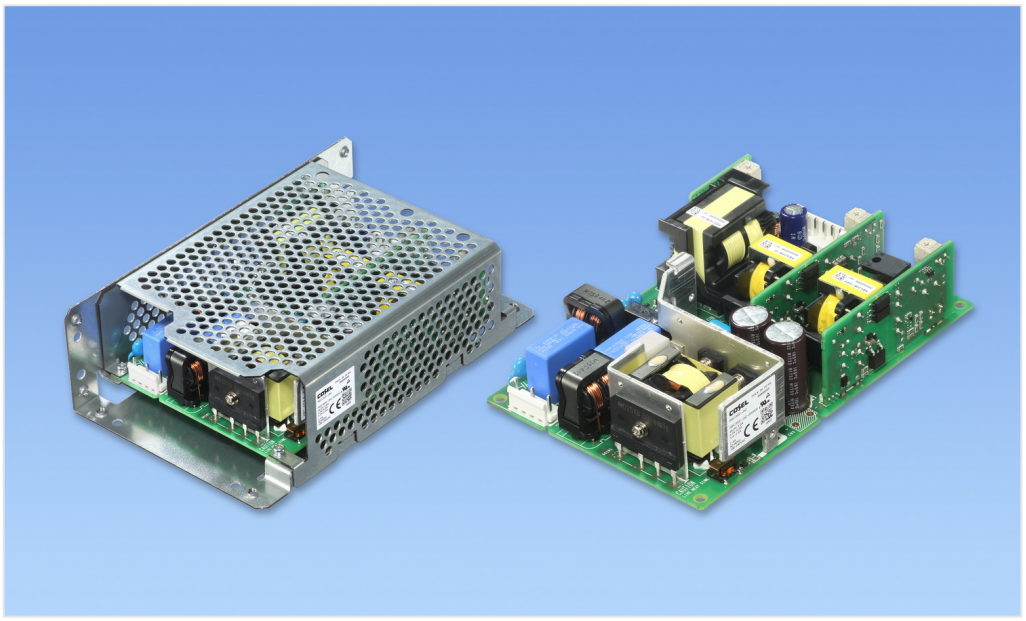
The RBC200F is certified in accordance to UL62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), EN62368-1, EN62477-1 (OVC III) and complies with EN61558-2-16 (OVC III).

The RBC200F has a built-in active input filter, and conducted noise complies with FCC-B, VCCI-B, CISPR11-B, CISPR32-B, EN55011-B, EN55032-B and the harmonic current emission with the IEC61000-3-2 (class A).

In accordance with IEC62368-1, Cosel's RBC200F has a leakage current of 0.40 to 0.75mA maximum, though for applications requiring lower levels, the option G offers a leakage current of 0.15mA maximum.

The RBC200F measures 101 x 38.3 x 152mm [3.98 x 1.5 x 5.98 inches], or including a terminal block this becomes 101 x 38.3 x 164 mm [3.98 x 1.5 x 6.46 inches] (W x H x D), and has a weight of 450 grams. An optional chassis with cover is available on request, as well as a vertical mounting terminal block. In the case of harsh or corrosive environments, a conformal coating option is available (Option C).

The RBC200F has a five-year warranty.



RBC200F triple isolated outputs perfect for robotic controllers and factory automation

**Related links:**
https://en.cosel.co.jp/product/powersupply/RB/

## 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 $284m global company employing some 790 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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### Reference :

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