



## **COSEL adds 1500W unit to its PCA power supplies with extended communications bus for demanding medical and industrial applications**

**Press Release**

**2021-03-23**

- Ultra-compact design combined with high power density
- Analog control of output voltage/current without additional circuit design
- Digital interface for monitoring/setting/controlling of parameters
- Medical (2 x MOPP Isolation and 4th Edition compliance) and Industrial approved
- 5 year standard warranty
- Temperature regulated fan

**COSEL Co, Ltd (6905: Tokyo) today announced the addition of a 1500W power supply to its PCA series with extended communications I/O for demanding medical and industrial applications. The addition of the PCA1500F complements and expands the family of power supplies to cover a much larger range of applications from 300W up to 1500W in four series. The PCA series have a built-in extended-UART (Universal Asynchronous Receiver –Transmitter) interface supporting more than 80 commands to monitor and control the whole range of power supply parameters, a PMBus option is also available.**

**Complying with stringent medical standards EN/IEC 60601-1, the PCA1500F features a reinforced input to output isolation of 4,000VAC and a grade of 2X Means of Patient Protection (2xMOPP). The PCA series offers a universal input voltage of 85 to 264VAC. Exhibiting flexibility, the output can be operated in constant voltage (CV) or constant current (CC) mode with either analog or digital control. All PCA series power supplies are built in 1U height housings and utilize COSEL's high-density, integrated packaging with optimized cooling**

Available in six different output voltages, the PCA series covers the whole range of applications from 5V to 48V and embraces 5, 12, 15, 24, 32 and 48V. All output voltages can be adjusted to near zero volts and operated

in constant voltage or constant current mode. Worthy of highlighting, the 5V model trims down to 3V and so covers 3.3V for computing applications, and the 48V model trims up to 57.6V covering some of the growing Power over Ethernet (PoE) applications.

In addition to the main output, an independent isolated auxiliary voltage of 12V is provided which is adjustable in the range of 4.7 -12.6V DC using digital control.

Designed for demanding applications, and in line with its predecessors, the PCA1500F combines the benefits of constant voltage and constant current, simplifying the designer's task when developing power systems requiring both modes without adding external circuitry e.g. for lead acid battery charging requiring constant current charging up to 90%, and constant voltage above that.

For flexibility, the PCA1500F includes analog and digital interfaces - the analog interface includes current adjustment (ITRM), voltage adjustment (VTRM), remote control ON/OFF, voltage sensing, LED alarms and current monitoring. For extended flexibility, the extended-UART digital interface supports more than 80 commands for monitoring and control. Operating data can be stored and locked inside the internal memory, and recorded error codes can be used for analysis and the recording of operational hours for preventive maintenance.

All parameters can be programmed and monitored via COSEL's extended UART control panel GUI, which is able to control up to seven units. Extended UART is built-in as standard, and a PMBus option is available.

The PCA series can easily be connected in series or parallel for extra power, and in parallel redundant mode (N+1) for improved system reliability and availability.

The PCA1500F is rated for operation at temperatures from -20 to +70 degrees C, and cooling is achieved by an internal intelligent fan, the speed of which adjusts automatically to match and work alongside environmental conditions. The fan can also be set to maximum (fixed) speed manually via the digital interface.

The PCA1500F includes inrush current limiting, over-current protection, thermal protection, and output status alarm. For safety, the power supplies have an IN/OUT isolation of 4,000VAC (2MOPP) and IN/FG of



2,000VAC (1MOPP). Output isolation to FG and other functional pins is 500VAC.

For high performance, the PCA1500F has a built-in active power factor corrector (PFC). Conducted noise complies with FCC Part 15 class A, VCCI-A, CISPR11-A, CISPR32-A, EN55011-A and EN55032-A. For applications requiring lower conducted noise, COSEL offers the NAC-30-472 filter. The harmonic current emission complies with the IEC61000-3-2 (class A).

The PCA series comes with agency approvals UL62368-1, EN62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd Ed., C-UL (equivalent to CAN/CSA-C22.2 No.60601-1), and complies with IEC60601-1-2 4th Ed.

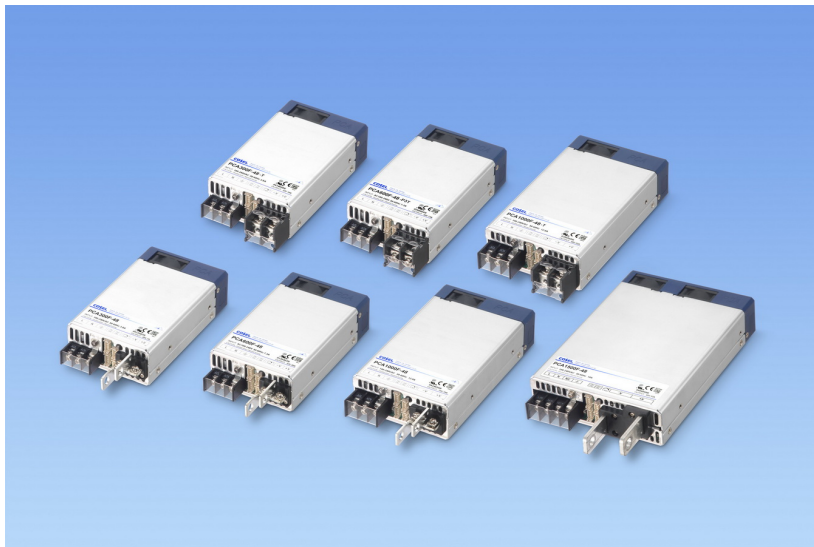
All PCA units come in 1U height (41mm, 1.61 inch) Including fan. The PCA1500F has a length of 203mm (7.99 inches) and a width of 140mm (5.52 inches), the weight is 2.0kg maximum.

To accommodate application specific requirements, a number of options are available including conformal coating (C), low leakage current (G), PMBus interface (I), reverse air exhaust (F2), master-slave operation (P3) and alarm in reverse logic (W1).

PCA1500F power supplies have a five-year warranty and conform to the European RoHS Directive, REACH Directive, CB-Report and CE Marking.



**Designed for demanding applications, the PCA1500F combines the benefits of constant voltage, constant current and digital interface, simplifying designers' task when developing power systems.**



**The addition of the PCA1500F complements and expands the COSEL PCA family of power supplies to cover a much larger range of applications from 300W up to 1500W in four series.**

**Related URL:**

PCA1500F Series

<https://www.prbx.com/product/pca1500f-series/>

**Link to Cosel Europe product page:**

<https://www.coseurope.eu/Products/AC-DC/PCA>

**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 \$228m 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 :**

COSEL PR-21:003-PCA1500F\_EN