



COSEL adds high power density 700W unit to robust and reliable 3"x5" GHA series power supplies for demanding medical and industrial applications

Press Release

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- 700W in 3"x5" industry standard footprint and 1U height
- Medical isolation grade 2MOPP Input/Output 4KVAC isolation
- Complies with EN61558-2-16 (OVC III) simplifying design to conform to EN60335
- High power density up to 31.1W per cubic inch
- Active PFC and high efficiency up to 96%
- Aluminum chassis to ease conduction cooling
- Universal input 85 to 264VAC
- 5 years warranty

COSEL Co, Ltd (6905: Tokyo) today announced the introduction of its new open-frame high power density, 700W, 3x5 inch power supply optimized for efficient cooling for use in demanding medical and industrial applications. Based on the robust platform with optimized thermal conduction, the GHA700F delivers 700W within a 3"x5" industry footprint. With a power density of 31.1W per cubic inch it's one of the highest power density power supplies in its category for powering medical and industrial applications. The GHA700F is designed in accordance with safety standard IEC 60601-1, making it suitable for Body Floating medical applications but its high isolation and creepage distance make it eminently suitable for demanding industrial applications, complying with EN61558-2-16 (OVC III) and simplifying design to conform to EN60335. To power a large range of systems-bus-voltages the GHA700F is available in four output voltages, 24, 30, 48 and 56VDC and has a universal input voltage of 85 to 264VAC. Using the latest power switching topology and components, the GHA700F boasts an excellent efficiency figure of up to 96%.

With the growing number of medical applications operating in low noise environments, equipment manufacturers are optimizing equipment to operate with limited airflow. To meet such requirements, power supplies must be design-optimized to combine conduction and convection cooling, offering systems designers the possibility to best optimize the placement of the power supply, without compromising performance. With a long experience in designing optimized power solutions with assisted conduction-convection



cooling, COSEL has combined the latest power switching topologies, digital power and energy optimization algorithms, Silicon Carbide and advanced components to minimize power losses, resulting in a high efficiency, lower power dissipation power supply, making it possible to reach a world leading power density up to 31.1W per cubic/inch.

The GHA700F accepts a universal input voltage of 85 to 264VAC, delivers up to 700W in four output versions: 24V/29.2A, 30V/23.3A, 48V/14.6A, 56V/12.5A. For ease, the output voltage can be adjusted using the built-in potentiometer. It includes inrush current limitation, over-current protection with automatic recovery when the fault condition is removed, and over-voltage protection.

The GHA700F can be operated in a wide environmental temperature range of -20 to +70 degrees centigrade ambient or up to +80 degrees centigrade chassis. Depending on the final equipment assembly style and cooling conditions, a derating may apply.

The power supply includes an active power factor corrector with a coefficient of up to 0.95. The switching topology and power components have been thoroughly selected to offer the highest efficiency, reaching up to 96% in all versions.

The GHA700F has a 4,000VAC (2MOPP) input to output isolation voltage, 2,000VAC (1MOPP) input to Frame Ground (FG) and 1,500VAC (1MOPP) output to FG. In the case of the Body Floating application, patient leakage current must be less than 100 microamperes, which the GHA700F is fully compliant with.

Addressing both medical and industrial applications, the GHA700F has received the following agency approvals: UL62368-1, EN62368-1, c-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd, c-UL (equivalent to CAN/CSA-C22.2 No.60601-1) and complies with IEC60601-1-2 4th Edition and EN61558-2-16 (OVC III).

In conducted emission tests, the GHA700F complies with the FCC-B, VCCI-B, CISPR32-B, EN55011-B and EN55032-B. For even further improved noise performance COSEL offers EMI/EMC filters type EAC-16-472.

To accommodate application specific requirements, five options are available including: conformal coating (C), a set of sub-features including isolated 5V and 12V auxiliary output - Remote Control - Power Good (R3), M3 threaded mounting hole (T3), connection of an external hold-up time extension unit (U1) and for applications requiring additional safety the GHA700F is available with a reinforced isolation in compliance with the IEC class II (E).

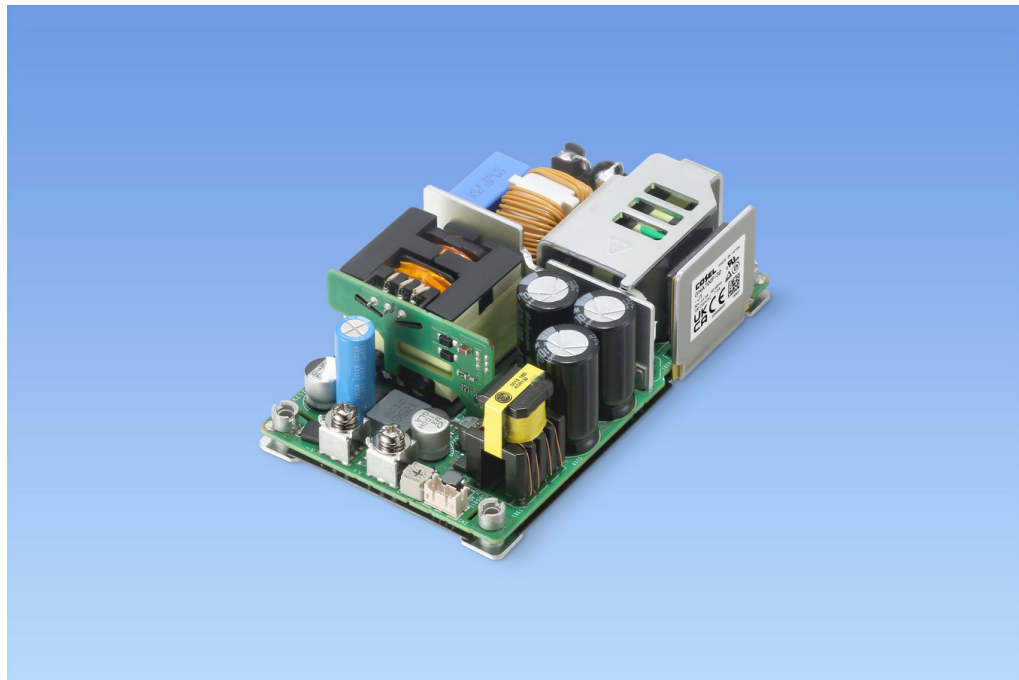


The GHA700F measures 76.2 x 38.1 x 127mm [3.0 x 1.5 x 5.0 inches] (W x H x D) and weighs 570g maximum.

The 700W GHA700F is the third model in COSEL's GHA series that includes the 300W GHA300F and the 500W GHA500F.

The combination of high isolation, low leakage current and high quality make the GHA series an ideal power solution for demanding applications not only in the medical field but also for test and measurement, and industrial applications including household and similar electrical appliances.

The GHA700F has a five-year warranty and conforms to the European RoHS and Low Voltage Directives.



With a power density of 31.1W per cubic inch, COSEL's GHA700F is one of the highest power density power supplies in its category for powering medical and industrial applications.

Related link:

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



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 \$210 million global company employing some 690 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.

For more information contact:

Press and media relations

Patrick Le Fèvre

Phone: +46 (0) 158 703 00

Sales and technical requests

COSEL EUROPE GmbH

Lurgiallee 6-8, 60439 Frankfurt am Main, Germany

<https://www.coseleurope.eu>

TEL: +49-69-95-0079-0

FAX: +49-69-50-8302-00

E-mail: sales@coseleurope.eu

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