









# Medical-grade Power Supplies for Advanced Industrial and Household Appliance Applications

You might not be a medical device designer or manufacturer, but this guide is written for you. Are you looking for power supplies with lower leakage current, reduced conducted and radiated EMI, and a higher level of isolation for your advanced industrial or household appliance products/systems? Does your company manufacture equipment across multiple industries and aim to streamline its supply chain? If your answers are affirmative, Delta's medical-grade power supplies could provide a more straightforward solution. Read this guide for more detailed information.

## The medical power supplies chosen by our industrial and household appliance customers and their proven applications

Since Delta's medical power supplies often also hold household appliance or ITE certificates, many of our customers choose them for their high-end non-medical systems, ensuring additional safety and robustness.




	IMA Series	MEB Series	MEU Series	MEP Series	MEA Series	MEG-A Series
						
Output power	400 W~2000 W	500 W~2500 W*	600 W, 650 W	120 W, 200 W	65 W~300 W	16.5 W~3000 W
Number of output	Single output with 5 V standby	Single output with 5 V standby	Single output with 5 V standby and 12 V for fan	Single output	Single output	Up to 18 configurable
Safety certificates	IEC 60601, 62368	IEC 60601, 60335, 61558, 62368	IEC 60601, 60335, 61558, 62368	IEC 60601, 60335, 61558, 62368	IEC 60601, 62368	IEC 60601, 62368
Earth and isolation	Type BF (3000 Vac isolation, 5 mm creepage, double insulation) 2 x MOPP (4000 Vac isolation, 8 mm creepage, double insulation)					
Cooling	Fan	Fan	Convection	Convection	N/A	Fan
EMI	Class B					
Current sharing	Yes	Yes	Yes	-	-	With single output module
Proven medical applications (selected)	Surgery robotics, radiology, lab machines, hematology analyzers, medical operation tables, lab temperature equipment.	Therapy machines, MRI, aesthetic machines, blood analyzers, ultrasound.	Dialysis equipment, dental equipment, IVD equipment, anesthesia machines, ultrasound.	Oxygen concentrators, aesthetic machines.	Handheld ultrasound, medical treatment equipment, CPAPs, endoscopy, medical displays.	Laparoscopy surgical system, microscopy/sequencers, medical laser, imaging systems, spectroscopy.
Proven household and industrial applications (selected)	Thermal compression system, industrial display, welding machines and robots, cleanroom lights, charging stations for drones, cash management machines, IT/IPTV solutions, SMT solution business.	Optical terminal switch, AOI equipment, food machinery.	Food machinery.	Garage door openers.	Measurement instruments.	Wire binders, PV testing equipment, oven less burn-in & HTOL, passenger flight simulators, semiconductor testers, signal testers.

\*2500 W coming soon

## Does your equipment require exceptional thermal performance with low noise, adjustable output voltage, active current sharing, low leakage current, and Class B conducted and radiated EMI?

The [IMA Series](#) and [MEB Series](#) stand out as some of the most high-end single-output medical-grade power supplies available in the market. With an output power capacity of 1000 W and higher, they incorporate up to two variable-speed fans that effectively manage power supply temperature without producing unbearable noise. These power supplies offer adjustable output voltage and active current sharing, providing greater flexibility for end system design and development. Their low leakage current and adherence to conducted and radiated EMI Class B standards contribute to enhanced safety and EMC at the system level. The IMA-S2000 PLUS and MEB-1K5A48T also excels with high peak power to support the start-up of electromechanical components like fans and motors. Carrying both medical and ITE certificates makes them suitable for a wide variety of systems.




### Medical and ITE certified power supplies

	IMA-S2000 PLUS	MEB-1K5A	MEB-2K5A
			
Output power	2000 W	1500 W	2500 W (coming soon)
Adjustable output range	±20%	±10%	-11%~+16%
Dimensions	309.6 x 127 x 40.6 mm	127 x 204 x 40.5 mm	127 x 259 x 40.6 mm
Acoustic noise level	< 39 dB(A) @ 50% load, 30°C	30 dB(A) @ 30% load, 25°C 45 dB(A) @ 80% load, 25°C	< 45 dB(A) @ 2000 W, 30°C
Leakage current (264Vac/63Hz, normal condition)	Input-earth < 300 µA Output-earth < 230 µA	Input-earth < 500 µA Output-earth < 100 µA	Input-earth < 306 µA Output-earth < 64 µA
PMbus	Yes	-	Yes
Special highlights	Remote on/off, power good, AC good, peak power 3000 W for 5 sec	Remote on/off, peak power 2200 W @ 48 V, no load power consumption 1 W	Up to 29.5 W/inch <sup>3</sup> power density, remote on/off, power good

## Does your device require compact size, noiseless convection cooling, higher peak power, and good derating performance?

The [MEU](#) and [MEP](#) Series have been purposefully designed and engineered for small to mid-sized, typically portable medical devices, where acoustic noise levels and power density are paramount concerns. These power supplies rank among the most compact options available at their respective output levels, preserving internal system space for other functionalities. Their convection cooling design ensures a noiseless operation. Additionally, they outperform competitors with up to a 20% better derating performance, assuring reliable system operation under extreme conditions. Carrying medical, household appliance, and ITE certificates, they are suitable for a broader range of needs.

### Medical, household and ITE certified power supplies

	MEU-650A	MEP-120A	MEP-200A
			
Output power	650 W	120 W	200 W
Dimensions	152.4 x 101.6 x 40 mm	76.2 x 50.8 x 31 mm	101.6 x 50.8 x 28.5 mm
Power density	17.25 W/inch <sup>3</sup>	16.67 W/inch <sup>3</sup>	22.3 W/inch <sup>3</sup>
Energy efficiency	Up to 96%	Up to 94%	Up to 95.4%
Peak power	N/A	150 W @ 15 V for 10 spec	N/A
Derating	53.3% load @ 70°C	50% load @ 70°C	50% load @ 70°C

# Does your machine require maximum design flexibility for power supplies? Compact size, ultra-high power density, a wide range of output selections, PMbus capability, lower leakage current, and reversible fans? The solution is MEG-A Configurable Power Supply.

For developers working on the most advanced medical machines, the flexibility to achieve cutting-edge design is of utmost concern. That's why Delta launched [MEG-A Series configurable standard power supplies](#).

The MEG-A series distinguishes itself as one of the most compact configurable power supplies available in the market, boasting a power density up to 2.6 times that of its configurable counterparts. This empowers system designers with the flexibility to optimize limited internal space. The series offers an adjustable output voltage range from 2V to 60V through various modules and current configurations, ensuring a wide array of options.

Recognizing the significance of communication and integration with medical IoT in advanced medical systems, MEG-A supports not only PMbus but also offers a selection of multiple communication modules. It operates efficiently over a broader temperature range when compared to alternative solutions, and its reversible fans provide diverse thermal solutions at the system level.

Furthermore, the user-friendly graphic interface allows users to adjust the output voltage of each module, monitor input voltage, fan speed, and ambient temperature.

## 4 types of cases and max. output



MEG-700A3  
700W  
3 slots  
88.9 x 215.9 x 41.5 mm



MEG-1K2A4  
1200W  
4 slots  
88.9 x 254 x 40.5 mm



MEG-2K1A6  
2100W  
6 slots  
127 x 254 x 40.5 mm



MEG-3K0A9  
3000W  
9 slots  
181 x 254 x 40.5 mm

## 3 types of output modules



Single slot module  
300W

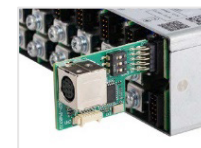


Single slot dual-output module  
240W



Triple slot module  
1200W

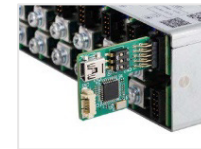
## 3 types of communication modules



RS-232 communication module



RS-485 communication module



USB communication module

**2V~60V** Up to **2.6X**

Adjustable Output Voltage Power Density

Up to **93%**

Energy Efficiency

**-20~70°C**

Operable

**3000 W**

Max. Output

- Adjustable output voltage
- Monitor input voltage
- Monitor fan speed
- Monitor ambient temperature



If you're still not sure which power supply is the best fit, please don't hesitate to [contact us](#).