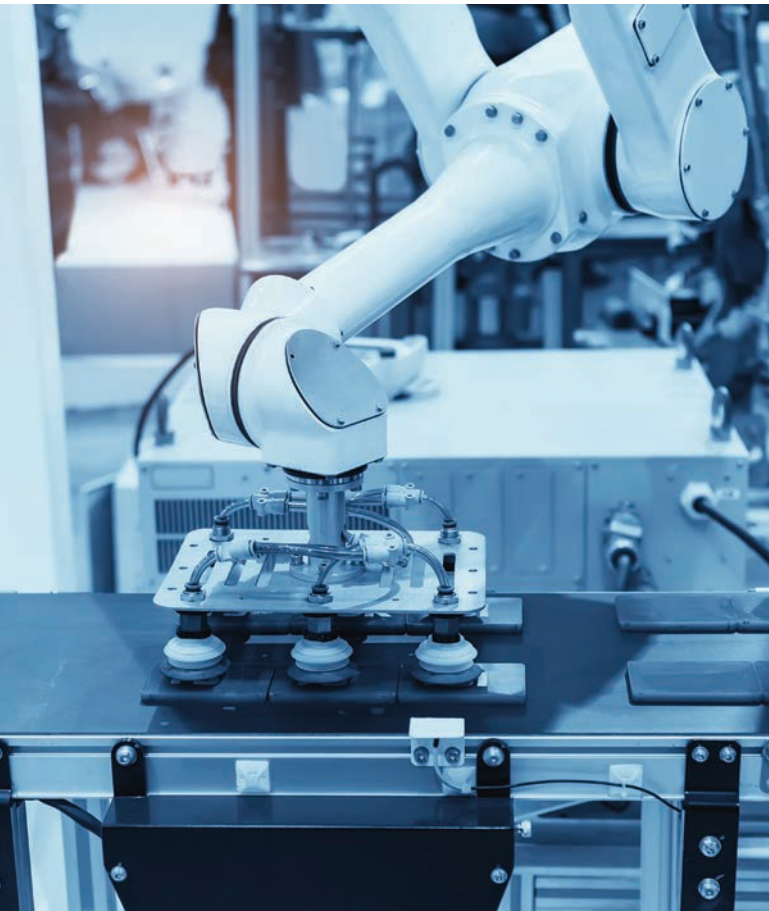




INDUSTRIAL, MEDICAL AND MODIFIED POWER SUPPLY SOLUTIONS

TT Electronics specializes in high reliability, high efficiency power supplies for global customers in the medical and industrial markets.



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OUR PRODUCT PORTFOLIO

Our product portfolio, which includes AC/DC switch mode power supplies, desktop and wall mount products as well as enclosed, encapsulated and configurable power supplies, typically serve key applications such as critical medical equipment, dental devices, instrumentation and renewable energy technologies.

We provide leading power conversion solutions, engineering support and global manufacturing to OEMs worldwide.

- Medical and ITE safety certified AC/DC and DC/DC products from 5W to 1.2KW
- Engineering/technical expertise to ease your system design process
- Individualized inventory and pricing programs
- Full design cycle support from product selection to RMA/local repair services
- Global supply chain and manufacturing
- On site Power Electronics lab for modified design prototyping, fault analysis, applications integration and load characterization testing
- Power Partners, Inc. is proud to be the exclusive distributor of Protek in North America and the UK.



Medical Grade

Open Frame, U-Channel, Wallmount and Desktop Designs. Cost-effective solutions that incorporate the most sought after features such as IEC 60601 3rd Edition safety and 4th Edition EMC compliance, outputs suitable for BF rated applied parts, and Class I and Class II inputs.

Industrial Grade

Open Frame, U-Channel, Wallmount and Desktop Power Supplies. All products are designed to comply with safety and efficiency requirements pertinent to industrial applications and all of our desktop adaptors meet Efficiency Level VI compliance.

Custom and Modified Designs

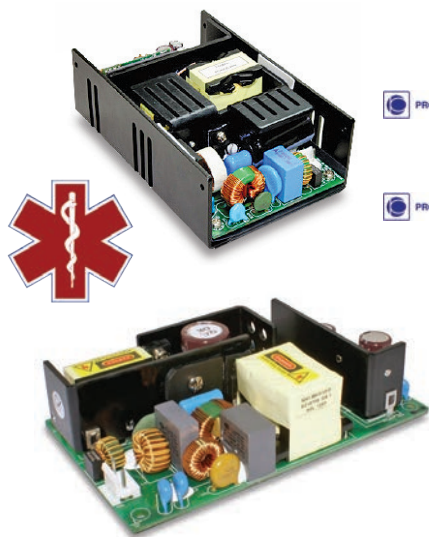
We solve our customer's power challenges in specifying and designing the right standard, modified or customized solution for the application.





- Non-standard output voltages
- Alternate connectors
- Alternate pin-outs
- Modified cord lengths and cables
- Extended temperature ranges
- Enhanced EMI filtering
- Peak power capability
- Decreased leakage current
- Custom enclosures
- Additional safety approvals

Open-Frame/U-Channel AC-DC Power Solutions

MEDICAL-GRADE

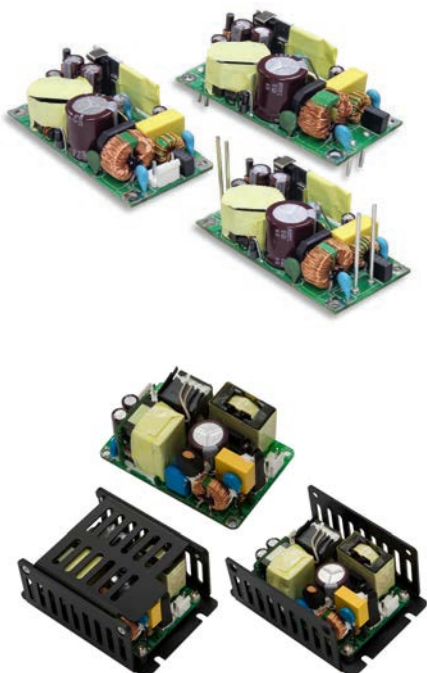
Our medical power supplies are designed with primary focus on safety, quality and reliability. Our power supplies incorporate the most sought after features such as small footprints, high power density, IEC 60601-1-2 4th Edition EMC and IEC 60601-1-11 home healthcare compliance, 2xMOPP, outputs suitable for BF rated applied parts and Class II inputs to address the clinical and growing home healthcare markets.



Series	Output Power	Output Voltage	Input Class	Dimension (w x l x h)	Operating Temperature (with Derating)
 PM101	100W	12-48VDC	I	2.0" x 4.0" x 1.3"	0°C to +70°C
PDAM120	120W	12-48VDC	I / II	2.0" x 3.0" x 1.2"	-30°C to +70°C
 PM150	150W	12-48VDC	I / II	2.0" x 4.0" x 1.3"	0°C to +70°C
PPWAM150	150W	12-54VDC	I	2.0" x 3.0" x 1.2"	-20°C to +70°C
PPWAM180	180W	12-48VDC	I	3.0" x 5.0" x 1.2"	0°C to +60°C
PDAM240	240W	12-48VDC	I / II	2.0" x 4.0" x 1.1"	-30°C to +70°C
PPWAM280	280W	12-54VDC	I	3.0" x 5.0" x 1.2"	0°C to +70°C
PPWAM360	360W	12-54VDC	I	4.0" x 6.0" x 1.2"	0°C to +70°C
PDAM500	500W	12-48VDC	I	3.0" x 5.0" x 1.4"	-30°C to +70°C
 PM500F	500W	12-57VDC	II	4.0" x 7.0" x 1.4"	-10°C to +70°C
 PM1100	1100W	24-48VDC	I	5.9" x 9.3" x 2.4"	-10°C to +70°C

INDUSTRIAL-GRADE

Our industrial power supplies are widely used in applications such as printers, test and measurement instruments, factory automation, industrial controls, and consumer communications/networking devices. Product features include peak output power, high efficiency, small form factors, worldwide safety and EMC compliance, and are updated to the new IEC 62368-1 standard.



Series	Output Power	Output Voltage	Input Class	Dimensions (w x l x h)	Operating Temperature (with Derating)
PPWA40	25-40W	5-48VDC	I	1.5" x 3.0" x 0.9"	0°C to +70°C
PPWAM150	150W	12-54VDC	I	2.0" x 3.0" x 1.2"	-20°C to +70°C
PPWA150B	150W	12-48VDC	I	2.0" x 4.0" x 1.0"	-25°C to +70°C
PDAM240	240W	12-48VDC	I / II	2.0" x 4.0" x 1.1"	-30°C to +70°C
PPWAM280	280W	12-54VDC	I	3.0" x 5.0" x 1.2"	0°C to +70°C
PPWAM360	360W	12-54VDC	I	4.0" x 6.0" x 1.2"	0°C to +70°C
PDAM500	500W	12-48VDC	I	3.0" x 5.0" x 1.4"	-30°C to +70°C

Desktop AC-DC Power Solutions

MEDICAL-GRADE

Our medical desktop adapters are designed with safety, quality and reliability as priority. Our power supplies incorporate the latest features such as low noise, small form factors, IP22 ingress protection, IEC 60601-1-2 4th Edition EMC and IEC 60601-1-11 home healthcare compliance, 2xMOPP, outputs suitable for BF Rated applied parts and Class I/II inputs to address the clinical and the growing home healthcare markets.



Series	Output Power	Output Voltage	Input Class	Dimensions (w x l x h)	Operating Temperature (with Derating)
PEAMD36	20-36W	5-48VDC	I / II	1.8" x 3.9" x 1.2"	0°C to +60°C
PEAMD50	35-50W	5-56VDC	I / II	1.9" x 4.4" x 1.4"	0°C to +60°C
PEAMD72	45-72W	5-56VDC	I / II	1.9" x 4.4" x 1.4"	0°C to +60°C
PMP92	90W	12-24VDC	I / II	2.8" x 5.5" x 0.9"	0°C to +60°C
PEAMD100	90-100W	12-56VDC	I / II	2.3" x 6.0" x 1.3"	0°C to +60°C
PEAMD120	120-130W	12-56VDC	I / II	2.3" x 5.4" x 1.3"	0°C to +60°C
PEAMD150	150W	12-56VDC	I / II	2.6" x 7.0" x 1.6"	0°C to +60°C
PEAMD180	160-180W	12-56VDC	I / II	2.6" x 7.0" x 1.6"	0°C to +60°C
PEAMD250	220-250W	12-56VDC	I / II	3.3" x 7.2" x 1.8"	0°C to +60°C
PMP250	220-250W	12-54VDC	I / II	3.5" x 8.0" x 1.6"	-20°C to +60
PPWAMD300	300W	12-54VDC	I / II	4.4" x 8.7" x 1.8"	0°C to +60°C
PEAMD310	250-310W	12-56VDC	I / II	4.0" x 7.8" x 2.0"	0°C to +60°C
PMP400	400W	18-48VDC	I / II	4.7" x 9.8" x 1.9"	-10°C to +60°C

INDUSTRIAL-GRADE

Our industrial desktop adapters are widely used in applications such as printers, test and measurement instruments, factory automation, industrial controls, and consumer communications/networking devices. Product features include low noise, small form factors, IP22 ingress protection, Level VI and CoC Tier 2 compliance, and a choice of Class I or Class II inputs. All certifications are updated to the new IEC 62368-1 standard.



Series	Output Power	Output Voltage	Input Class	Dimensions (w x l x h)	Operating Temperature (with Derating)
PUP25N3	15-25W	5-24VDC	I	1.5" x 3.7" x 1.2"	0°C to +60°C
PEAD36B	36W	5-48VDC	I / II	1.8" x 3.9" x 1.2"	0°C to +60°C
PSAD36B	36W	5-48VDC	I / II	1.8" x 3.8" x 1.2"	0°C to +60°C
PEAD50	50W	5-56VDC	I / II	1.9" x 4.4" x 1.4"	0°C to +60°C
PEAD60	60W	5-56VDC	I / II	1.9" x 4.4" x 1.4"	0°C to +60°C
PSAD65	65W	12-48VDC	I / II	2.0" x 4.7" x 1.3"	0°C to +60°C
PEAD72	72W	5-56VDC	I / II	1.9" x 4.4" x 1.4"	0°C to +60°C
PUP90N3	90W	19-54VDC	I	2.6" x 5.5" x 1.0"	0°C to +60°C
PUP120N3	96-120W	12-54VDC	I	3.0" x 6.0" x 1.0"	0°C to +60°C
PEAD100	100W	12-56VDC	I / II	2.3" x 5.4" x 1.3"	0°C to +60°C
PEAD120B	120W	12-56VDC	I / II	2.3" x 5.4" x 1.3"	0°C to +60°C
PEAD150C	150W	12-56VDC	I / II	2.5" x 6.3" x 1.2"	0°C to +60°C
PUP150N3	150W	12-54VDC	I	3.0" x 6.0" x 1.0"	0°C to +60°C
PEAD180	180W	12-56VDC	I / II	2.6" x 7.0" x 1.6"	0°C to +60°C
PUP180N3	180W	19-54VDC	I	3.0" x 6.0" x 1.0"	0°C to +60°C
PUP230N3	230W	19.5-24VDC	I	3.4" x 7.0" x 1.3"	0°C to +60°C
PEAD250	250W	12-56VDC	I / II	3.3" x 7.2" x 1.8"	0°C to +60°C
PEAD310	310W	12-56VDC	I / II	4.0" x 7.8" x 2.0"	0°C to +60°C
PUP330N3	330W	19-24VDC	I	3.9" x 7.9" x 1.1"	0°C to +60°C

Wallmount AC-DC Power Solutions

MEDICAL-GRADE

Our medical wallmount adapters are designed with safety, quality and reliability as priority. Our power supplies incorporate the latest features such as low noise, IP22 ingress protection, small form factors, IEC 60601-1-2 4th Edition EMC and IEC 60601-1-11 home healthcare compliance, 2xMOPP, outputs suitable for BF Rated applied parts and Class I/II inputs to address the clinical and the growing home healthcare markets.



Series	Output Power	Output Voltage	Input Class	Dimensions (w x l x h)	Operating Temperature (with Derating)
PEAMW6I	6W	5-12VDC	II	1.4" x 2.2" x 1.3"	0°C to +60°C
PEAMW6NA	6W	5-12VDC	II	0.9" x 2.1" x 1.6"	0°C to +60°C
PEAMW12NA	12W	5-24VDC	II	1.4" x 2.2" x 1.3"	0°C to +60°C
PEAMW12I	12W	5-24VDC	II	0.9" x 2.1" x 1.6"	0°C to +60°C
PEAMW20I	20W	5-48VDC	II	1.5" x 2.2" x 1.3"	0°C to +60°C
PEAMW30I	30W	5-48VDC	II	1.7" x 2.9" x 1.3"	0°C to +60°C

INDUSTRIAL-GRADE

Our industrial wallmount adapters are widely used in applications such as printers, test and measurement instruments, factory automation, industrial controls, and consumer communications/networking devices. Product features include low noise, small form factors, IP22 ingress protection, Level VI and CoC Tier 2 compliance. All certifications are updated to the new IEC 62368-1 standard.



Series	Output Power	Output Voltage	Input Class	Dimensions (w x l x h)	Operating Temperature (with Derating)
PEAW6I	6W	5-12VDC	II	1.5" x 2.2" x 1.3"	0°C to +60°C
PEAW6NA	6W	5-12VDC	II	0.9" x 2.2" x 1.6"	0°C to +60°C
PEAW12I	12W	5-24VDC	II	1.4" x 2.2" x 1.3"	0°C to +60°C
PEAW12NA	12W	5-24VDC	II	0.9" x 2.1" x 1.6"	0°C to +60°C
PEAW20NA	20W	5-48VDC	II	1.0" x 2.6" x 1.8"	0°C to +60°C
PEAW30I	30W	5-48VDC	II	1.7" x 2.9" x 1.3"	0°C to +60°C
PEAW36I	36W	5-48VDC	II	1.7" x 2.9" x 1.3"	0°C to +60°C
PSAW36I	36W	5-36VDC	II	1.8" x 3.8" x 1.2"	0°C to +60°C
PSAW36NA	36W	5-36VDC	II	1.8" x 3.8" x 1.3"	0°C to +60°C
PSAW65I	65W	5-48VDC	II	2.0" x 4.6" x 1.4"	0°C to +60°C

Enclosed AC-DC Power Solutions

INDUSTRIAL-GRADE

Our new enclosed power supply series' offer features and pricing that are market competitive with similar products. They are ideally suited for a range of today's simple to complex electromechanical systems where ruggedness, reliability and ease of use are needed. Being updated to the latest IEC 62368-1 standard allows them to be used for worldwide system compliance.



Series	Output Power	Output Voltage	Dimensions (w x l x h)	Operating Temperature (with Derating)
SGS15	15W	5-48VDC	2.3" x 3.3" x 1.4"	-10°C to +60°C
SGS25	25W	5-48VDC	2.3" x 3.3" x 1.4"	-10°C to +60°C
SRS35	35W	5-48VDC	3.2" x 4.0" x 1.2"	-30°C to +70°C
SRS50	50W	5-48VDC	3.2" x 4.0" x 1.2"	-30°C to +70°C
SRS75	75W	5-48VDC	3.8" x 4.0" x 1.2"	-30°C to +70°C
SRS100	100W	5-48VDC	3.8" x 5.1" x 1.2"	-30°C to +70°C
SRS150	150W	5-48VDC	3.8" x 6.2" x 1.2"	-30°C to +70°C
SRS200	200W	5-48VDC	4.5" x 8.5" x 1.2"	-30°C to +70°C
SRS350	350W	5-48VDC	2.9" x 8.5" x 1.2"	-30°C to +70°C
PLDA400S	400W	5VDC	2.4" x 9.8" x 1.2"	-40°C to +80°C

Modular Configurable Power Solutions

INDUSTRIAL & MEDICAL GRADE

Our modular configurable power supply series from Vox Power provides an off-the-shelf solution for products/systems that would otherwise require high levels of customization. Featuring the highest power densities in the industry, allowing for size reductions in end equipment. Cooling configurations offered are forced air cooling, with internal fan, or fully conduction cooled models. The versatility of the modular series offers thousands of standard off-the-shelf output choices to suit custom requirements. All series' are certified to the latest medical IEC 60601-1 and Industrial IEC 62368-1 standards. Independent modules can be adjusted, and connected in series or parallel, resulting in a vast range of output voltage/current possibilities.



Series	Output Power	Output Voltage (per channel)	Number of Outputs	Dimensions (w x l x h)	Operating Temperature (with Derating)
NEVO+600S	600W	-58 to +58VDC	1 to 8	3.0" x 5.0" x 1.6"	-20°C to +70°C
NEVO+600M	600W	-58 to +58VDC	1 to 8	3.0" x 5.0" x 1.6"	-20°C to +70°C
VCCM600M	600W	-58 to +58VDC	1 to 4	4.0" x 7.0" x 1.6"	-40°C to +70°C
VCCM600S	600W	-58 to +58VDC	1 to 4	4.0" x 7.0" x 1.6"	-40°C to +70°C
NEVO+1200S	1200W	-58 to +58VDC	1 to 16	6.0" x 6.0" x 1.6"	-20°C to +70°C
NEVO+120M	1200W	-58 to +58VDC	1 to 16	6.0" x 6.0" x 1.6"	-20°C to +70°C

Encapsulated AC-DC Converters

INDUSTRIAL & MEDICAL GRADE

Our selection of high density encapsulated AC/DC converters are perfectly sized for applications where allocated space for the power supply is at a premium. No external forced air is required for operation, which simplifies system design and cooling. Medical or Industrial models are certified to the latest IEC 60601-1 or IEC 62368-1 safety standards, outputs suitable for BF rated applied parts and Class I or II inputs, allows for use in the stringent home healthcare IEC 60601-1-11 products.



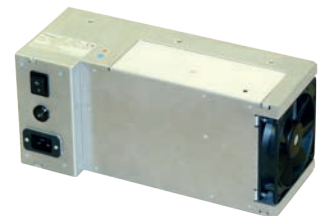
Series	Output Power	Output Voltage	Input Class	Dimensions (w x l x h)	Operating Temperature (with Derating)
PAA05	5W	3.3-24VDC	II	1.1" x 1.5" x 0.7"	-40°C to +70°C
PAA10	10W	5-24VDC	II	1.1" x 1.5" x 0.8"	-40°C to +70°C
PAAM15	15W	5-24VDC	II	1.1" x 2.1" x 0.9"	-40°C to +80°C
PAAM20	20W	12-24VDC	II	1.1" x 2.1" x 0.9"	-40°C to +80°C
PAA25	25W	5.1-24VDC	II	1.1" x 2.1" x 0.9"	-40°C to +70°C
PAA30B	30W	5.1-24VDC	II	1.8" x 2.5" x 0.9"	-40°C to +85°C
PAAM30	30W	5-24VDC	II	1.8" x 2.5" x 0.9"	-40°C to +80°C
PAA50	50W	12-24VDC	II	1.9" x 2.9" x 0.9"	-40°C to +70°C
PAAM60	60W	5.1-24VDC	II	2.5" x 3.5" x 1.1"	-40°C to +80°C
PAAM100	100W	12-48VDC	I/II	2.3" x 4.3" x 1.4"	-30°C to +70°C
PAAM150	150W	12-48VDC	I/II	2.3" x 4.3" x 1.4"	-30°C to +70°C

Customized Power Supply Solutions to 1200W

We solve our customer's toughest challenges providing high reliability, high efficiency customized power supply solutions up to 1200W. Our engineering experts work with you in the design and NPI process through concept development, specifications, electrical and mechanical design, prototype build, testing, DVT, EMC, safety approvals and certification support.

Our expertise has a strong foundation in all matters of regulatory compliance and market drivers in the medical, dental, instrumentation, security, and renewable energy spaces. We identify and implement tailored technologies and conversion topologies to meet the specific demands of each application.

TT Electronics' global manufacturing solutions augments our engineering competence with the capability to provide full assembly of the finished design with tailored delivery programs, including NPI and engineering support.





TT Electronics is a global provider of engineered electronics for performance critical applications. With nearly 5,000 staff members operating from 29 key locations around the world, TT designs and manufactures a wide range of electronics for sensing, power management, and connectivity for applications in the industrial, medical, aerospace and defense and transportation sectors.

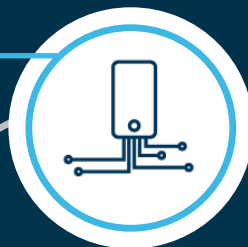
We are all about the design and manufacture of engineered electronics that sense, manage power and deliver machine-to-machine connectivity. We serve OEMs and system integrators – from startups to multi-national enterprises - with a full complement of electronics, from designed component and system engineering, through end-to-end manufacturing and delivery to market.

TT's Smart Solutions provide a unique partnership among our core specialties, offering a broad range of customizable services and solutions to our customers.

TT SMART SOLUTIONS

POWER

Custom power management devices ensure efficiency and risk protection from variation of power input.



CONNECTIVITY

Integrated platform solutions share data and connect systems for peak efficiency and performance.



SENSING

Smart sensors capture data, inform decisions, support data analytics and artificial intelligence.



MANUFACTURING

Seamless end-to-end, low-volume, high-mix global manufacturing, testing, engineering and fulfillment services.

