

Power Supply Solutions



























Complete Power Supply Solutions

YEG Powerline is a specialist manufacturer and distributor of power supplies and is a division of the Young Electronics Group.

Industry Experience and Markets

We have nearly 30 years experience of providing power supplies to OEMs in aerospace, broadcast, data storage, food handling, gaming, industrial computing, LED displays, medical, military, process and instrumentation, professional audio, rail and track side, servers, telecoms, traffic management, vending and video conferencing.

Wide Range of Power Supplies

Our range of standard power supplies are used in equipment needing 1 watt up to 6 kilowatts. Power supplies in our range are AC/DC and DC/DC; formats include open frame, enclosed, PCB mount, programmable and bench types. We carry a range of stocked items at competitive prices and hold specific allocated stock on behalf of customers by agreement.

Specialising in Bespoke Power Supplies

We are also your first port of call if you have what seems a non standard power supply or charger requirement for your new project. We review your needs and determine the most cost effective solution that meets your development time scale. Our solution could be one of our standard products, a semi customised standard part or a fully bespoke customised power supply.

Customer Tailored Solutions

We can also address additional customer system requirements such as custom enclosure, cabling, ruggedisation, EMC pre-compliance and thermal management.

OEM solutions for diverse industry applications

Aerospace Broadcast Data Storage Food Handling Gaming **Industrial Computing LED Displays** Medical **Military Process & Instrumentation Professional Audio** Rail and Track side Servers **Telecoms Traffic Management** Vending **Video Conferencing**



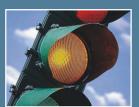


















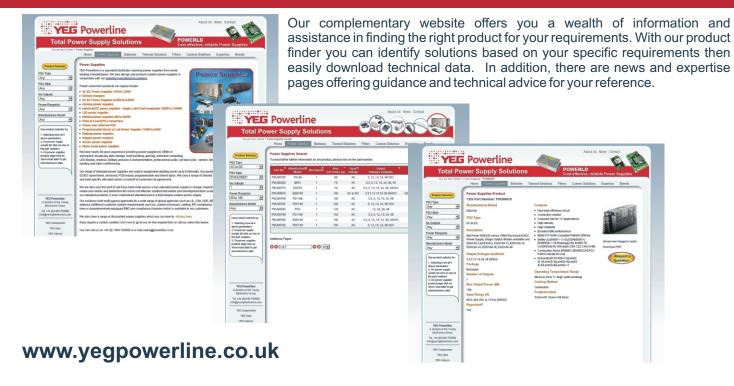




Overview of YEG Powerline power supplies

| | Delta Elektronika | Emacs (Zippy) | ETA Power | FSP | Mornsun | PowerLD | Powerline | Skynet |
|---------------------------|----------------------|------------------|------------|------------|-------------|-----------|------------|-------------|
| Battery Chargers | | | | | | | 4 - 20 A | |
| BenchProgrammable | 150 - 6000W | | | | | | | |
| Brick DC/DC | | | | | | 50 - 300W | | |
| Custom PSU or Charger | | | | | | | Bespoke | |
| Enclosed General AC/DC | | | | | | 25 - 500W | | 600 - 1000W |
| Enclosed General DC/DC | | | 100 - 600W | | | | | |
| Front End Converter AC/DC | | | 100 - 800W | | | | | |
| Gaming ATX | | 400 - 800W | | | | | | |
| Industrial ATX Open Frame | | 120 - 150W | | 20 - 100W | | | | |
| Industrial ATX Single | | 120 - 1200W | | 120 - 500W | | | | |
| Industrial ATX Redundant | | 250 - 2700W | | | | | | |
| LED Driver | | | | | 350 - 700mA | | 30 - 300W | |
| Medical | | 60W | | | | | | 40 - 350W |
| Medical ATX | | | | 180 - 500W | | | | |
| Medical PCB Mount | | | | | 5 - 10W | | | |
| Mini ITX | | | | 40 - 150W | | | 60 - 150W | |
| Open Frame AC/DC | | | | | | | | 10 -350W |
| PCB Mount AC/DC | | | | | 3 - 25W | | | |
| PCB Mount DC/DC | | | | | 1 - 40W | 50 - 300W | | |
| Point of Load (POL) | | | Up to 1.4A | | | 5 - 18A | | |
| Power Over Ethernet (POE) | | | | | | | | 4 - 16W |
| Professional Audio | | | | | | | 80 - 750W | |
| Railway | | | | | | | 25 - 500W | |
| Ruggedised Power Supplies | | | | | | | 10 - 3000W | |
| Waterproof | | | | | | | 30 - 300W | |

Comprehensive Website



Our power supply manufacturing partners:



Delta Elektronika is a world class manufacturer of DC power supplies with a strong emphasis on excellent technical specifications and long life. As a result, the units produce low levels of electromagnetic interference, react fast to on load transients, produce hardly any audible noise and have a very long life at the rated power. Delta Elektronika products are recognised and listed under EC declaration of conformity EN60950, EN61010 and CE marking.

The range consists of:



ES Series

150W and 300W bench programmable power supply



EST 150 Series

SM Series

power supplies

150W bench, power supply - triple Output

800W, 1500W, 3000W and 6000W bench programmable





S280

240W, 600W and 1200W tolerant (redundant) operation





240S 600S and 1200S

industrial, high reliability; prepared for N+1 fault



Trusted Brands - cost effective, reliable solutions



















Manufacturing Partners

One of our key strengths lies in the close supplier relationships we have built over the last 30 years. We have partnered with suppliers who have specialisation in a wide range of disciplines within the power supplies market, enabling us to offer customers tailored solutions for a diverse range of applications.



EMACS is a division of Zippy Technology Corporation and provides power supplies for applications such as servers, industrial PCs, storage, workstations, blade servers, and communications. The brand "EMACS" is well known worldwide and has been certificated by and introduced into several blue chip international server manufacturers in both America and Europe.



While many manufacturers focused on PC consumer grade and lower-wattage power supplies, EMACS has been developing high-end, heavy duty, industrial grade power supplies since

EMACS products are recognised and listed under UL and CB scheme (for IEC and / or EN) and CE marking.

Key EMACS form factors are:



Single ATX and EPS

In 1U, 2U and PS/2 formats from 120W to 1200W



Dual and N+1 redundant ATX and EPS

In 1U. 2U. 3U. mini redundant and micro redundant formats from 200W to 950W

Gaming ATX

In PS2 format from 400W to 800W



For power requirements up to 2.7KW

High Power EPS





ETA POWER is one of the worlds leading manufacturers of power conversion devices, including standard and custom AC/DC power supplies as well as DC/DC converters ranging from 1.5W to 800W.

ETA POWER power supplies are suitable for a multitude of applications in the areas of industrial machines and appliances, medical equipment, broadcast systems, military devices, laboratory appliances, test and laboratory equipment, automotive industry, aviation systems, maritime equipment and many more.

ETA-Power products are recognised and listed under UL60950-1, CSA60950-1, EN60950-1, UL508, SEMI F47 and CE Marking (dependent on model).

ETA offers more than 2,000 different standard power conversion products, including:



Front End AC Power Module

EFY series fan-less 800W AC universal input for use with ET series DC-DC converters



OB, OC, OH, OT series point of load, up to 3A rating, single and multiple outputs



DC/DC Converters

ETD, ETF and ETG Ultra compact 100 to 600W, 95% efficiency.

DC/DC Modules

EP series - single and multiple output 50W to 240W







FSP are one of the largest manufacturers of PC power supplies. Within their product portfolio they have a strong range of Industrial PC (IPC) power supplies. They currently have models with greater than 80% efficiency (conforming to 80 plus silver and bronze standards).

FSP products are recognised and listed under TUV EN60950 OR VDE EN60950, IEC 60950, UL 60950 and CE marking.

FSP formats of PC power supplies include:



1u Single ATX

250W to 460W power supplies



180W to 500W power supplies





Flex ATX

120W to 350W power supplies

DC Input ATX

200W to 400W power supplies 12, 24 and 48VDC input





2u Single ATX

400W and 500W power supplies

Mini ITX AC

Compact, fan-less AC to ITX output power supply, from 40 to 150W





PS2 ATX, EPS

350 to 460W power supplies

Mini ITX with DC input

Compact fan-less DC to ITX output power supply. 90W Pico and 150W A series



YEG Powerline Power Supplies Range

- AC-DC power supplies
- DC-DC power supplies
- Industrial PC power supplies
- LED power supplies
- Medical power supplies
- Point of Load (POL) Converters
- Power over ethernet POE

- Programmable Bench or Lab power supplies
- Railway power supplies
- Rugged power supplies
- Server power supplies
- Waterproof power supplies
- Gaming power supplies
- Battery chargers



MORNSUN is a leading provider of DC/DC converters and AC/DC power modules. Mornsun also manufacture DC input LED drivers and IGBT drivers. The focus applications are in the industry power fields of telecom, automation, medical and test and measurement.

Mornsun have quality management system certification ISO9001:2000, Environmental management system certification ISO14001 and occupational health and safety management system certification OHSMS18001. Their products are recognised and listed under UL and CE.

Mornsun products are supplied to leading customers, including GE, Siemens, Honeywell and Emerson, etc.

Mornsun power supply types:



DC/DC Converter

Isolated and non isolated, rated power from 0.25W~40W, SIP, DIP, SMD version package optional, isolation voltage from 1KV DC,1.5KV DC, 3KV DC, 6KV DC, and even to 12KV DC. Widely used in applications such as: industrial control, electric power, electronic instruments, medical electronics, rail transit, communication and telecom.



PCB Mount AC/DC Converter

Rated power from 3W to 25W. Universal input, high efficiency, high reliability, very low standby power and high isolation. This range meets the energy star standard as well as, EMC and IEC61000, UL60950 and IEC60950 safety standards. Many items also carry medical safety approval.

Used in a range of applications including: AC municipal electric power system, electric power industry, instrumentation, metering, industrial control, communication equipment and medical.



LED Driver

DC input 350mA to 700mA rated with ultra wide input range, constant current output, can drive several high wattage LED lights. Efficiencies up to 95% with very small size, short circuit protection, PWM digital and analogue dimming, remote ON/OFF.

Applications include: traffic lights, railway traffic signal, airline cabin lighting, hazardous environment, bus, and highway signage and lighting.

Easy on-line product selection



Power Supply Product Selector

To aid product identification, you can search for your power supply requirements by inputting your specifications via our product selectors on our web site. This will present specific product options and data sheet information to enable you to identify your ideal power supply solution.

Visit our website at:

www.yegpowerline.co.uk



POWERLD ENTERPRISES is an ISO-certified global manufacturer of standard and custom power supplies such as DC-DC brick module, DC-DC power supplies, point of load and AC/DC power supplies.

The company's monthly capacity is 1,000,000 power supplies. PowerLD runs quality Management System TUV ISO9001 and products are recognised and listed under UL and CE.

General purpose enclosed AC/DC converters 25W to 500W

All models feature:



- Universal AC input
- Wide operating ambient temperature (-20°C~70°C)
- Compact metal case with screw terminal block
- Industry standard footprint; an ideal alternative for many power supplies
- Compliance to EN61000-3-2(PFC)
- 3 years warranty
- Wide range of output voltages available (see below); others are available on request
- MTBF: >2 million hours

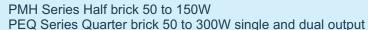




| Power Rating (W) | Series | Output Voltages Available | Footprint (mm) |
|------------------|--------|------------------------------------|-----------------|
| 25 | PD | 3.3, 5, 12, 15, 24VDC | 79 × 51 × 28 |
| 60 | PD | 5, 12, 15, 24, 48VDC | 129 × 98 × 38 |
| 100 | PD | 5, 12, 15, 24, 48VDC | 160 × 98 × 38 |
| 100 | PDF | 3.3, 5, 7.5, 12, 15, 24, 48VDC | 194 × 99 × 50 |
| 150 | PDF | 3.3, 5, 7.5, 12, 15, 24, 36, 48VDC | 194 × 99 × 50 |
| 200 | PDF | 5, 7.5, 12, 15, 24, 48VDC | 199 × 99 × 50 |
| 320 | PDF | 3.3, 5, 7.5, 12, 24, 32, 36, 48VDC | 226.5 × 15 × 50 |
| 500 | GPF | 12, 15, 24, 27.5, 48VDC | 170 × 117 × 94 |



DC-DC Brick Modules



PEE series Eighth brick 50 to 75W

POE Series Sixteenth brick 50W

All have an industry standard footprint with an operating ambient temperature range of -40°C to +55°C and MTBF of up to 2 million hours.





Point of Load (POL) converters (PN series)

- Output load ratings from 5A to 18A
- Point of load(POL) applications
- No minimum load requirement
- Fixed frequency switching (300KHZ)
- -40°C to +85°C ambient operating temperature
- Adjustable output from 0.75V to 5.5V
- Positive enable function
- Open frame SIP
- 3.3 to 14VDC input
- High efficiency: 5V@94%
- Low output ripple and noise



SKYNET ELECTRONICS specialises in the design, development and manufacture of switching power supplies, with one of the broadest product lines available, ranging from 10W to 1000W. Skynet's facilities are certified by ISO 9001, BABT and T-MARK. Skynet's power supplies are also recognized and listed by UL, CSA, TUV, and VDE.

Skynet Power supply types include:

Open frame in 4 x 2", 5 x 3" and other common footprints; power rating from 10W to 350W.

The open frame range in more detail is as follows:



SNP-Z Series

SNP-Z is a family of high density open frame, universal AC input and DC (single and multiple) output power supplies. Seven series are available with power ratings from 50W to 360W. They feature high density, low profile, high efficiency, high reliability and long life. For Z05 (50W), Z06 (60W), Z08 (80W), Z10X-M (130W) and Z15 (150W) series, the intended applications are for ITE, medical and industrial. For Z10 (130W), Z20 (250W) and Z30 (360W) series, the intended applications are for ITE and industrial.



SNP-X Series

SNP-X high density green series is a family of open frame, universal AC input and single DC output power supplies. The SNP-X12 series is available in 120W and meets green mode requirements. The SNP-X20 200W series will be available soon. They feature high peak load and capacitance load capability and high reliability. The intended applications are for ITE, medical care and industrial.



SNP-Y

SNP-Y is a family of low profile, open frame, universal AC input and DC output power supplies. Six series are available with power ratings from 45W to 110W. They feature low component density, low profile, high efficiency, high reliability and long life. The intended applications are for ITE, medical care and industrial.

The enclosed power supplies range with power rating from 30W to 1000W is summarised below:



SNP-BXX Series

SNP-BXX machinery power families from 40W to 300W output power are designed for machinery and electromechanical control. 1U height with 22V to 30V output adjustable and remote sense. Active PFC solution for power ratings above 75W. The range comprises: SNP-B04X 40W Series, SNP-B06X 60W Series, SNP-B10X 100W Series, SNP-B15X 150W Series, SNP-B20X 200W Series, SNP-B30X 300W Series.



SNP-F Series

SNP-F high power families are designed for high power applications. They feature built-in PFC, 90% efficiency and high reliability. The range comprises: SNP-FA0X 1000W Series, SNP-F75X 750W Series and SNP-F60X 600W Series.

Powerline Customisation and Other Services

Powerline also offer a design and manufacturing service where the application solution is not an off the shelf product. Powerline will either adapt a standard product or design and build a full custom solution.

The benefits of customising a standard power supply are shorter development times and minimal safety approval issues. This route is good for prototypes or small to medium volume production. As volumes increase further, the modification can be incorporated at one of our manufacturing partners.

Examples of customisation are:

- Converting open frame to enclosed PSU
- Adding cabling, switch or IEC filter
- Ruggedisation of a standard power supply
- Adjusting output voltage
- Adapting for unusual output voltage combinations
- Modifying output loom or changing connector
- Converting to DIN rail mounting
- Converting to 19" or 23" rack mounting
- Building N+1 or redundant power systems
- Power supply fan noise reduction
- Adding alarms and other interface connections



Powerline Ruggedisation Capabilities

YEG Powerline has experience of many extremely rugged applications, including railways, industrial machinery, cranes, earth moving equipment, power utilities, oil exploration, airborne, military, marine, industrial PC and telecom with some products designed to give up to 30 years service.

YEG Powerline Ruggedisation Capabilities:

- Single or dual redundant
- Full electronic protection
- Custom enclosures and racking
- High output voltages up to 800Vdc
- Ruggedisation for shock and vibration
- Extend operating temperature range
- MIL-STD-461 & MIL-STD-810 standards
- DO160 standards for airborne applications
- Upgrading IP ratings to typically IP54 and above
- Conformal coating or full encapsulation
- EMI filtering to meet any standard, typically EN55022 Class B
- Rail-specific standards including EN50155, EN50121-3-2, EN 61000,
- IEC 61373 shock and vibration, and RIA 12, RIA 13 and RIA 20

Example of Potting



Example of Ruggedised Power Supply





Thermal Management

For thermal management products we are an approved distributor for Sunon, offering fans and blowers and for Kerafol who manufacture a wide range of innovative thermally conductive sheet, gap filler material and compounds.













SUNON_®

EMC Filters

For EMC compliance our mains filters include a range of power entry and power line single or 3 phase in-line filters.

Power entry filter types include IEC inlet only, IEC and switch and IEC, switch and fuse versions.









Batteries and Chargers

We also stock VRLA sealed lead acid batteries and supply NiMH batteries (single or custom NiMH battery packs) and battery chargers (standard and custom).















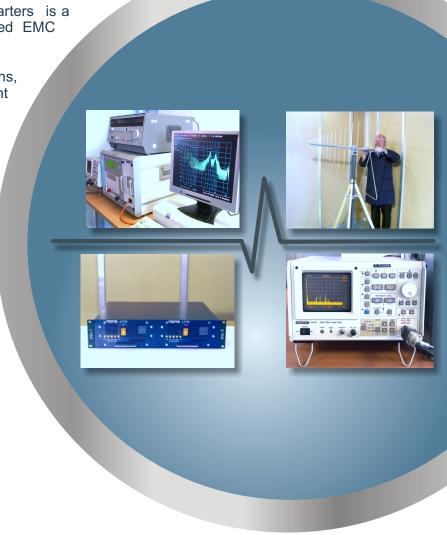


EMC and Safety Compliance Support

Within Powerline's High Wycombe head quarters is a professional and comprehensively equipped EMC pre-compliance testing facility.

The chamber can be used for testing emissions, static discharge susceptibility, fast transient susceptibility and measurement of power factor and we offer a wide range of complimentary filter samples for testing.

This valuable resource is made available on a free-of-charge basis to our customers along with full engineering support and up-to-date advice on EMC, safety related issues and legislation.



www.yegpowerline.co.uk

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