

# THE SPECIALIST IN POWER CONVERSION AND DISPLAYS



STANDARD IS JUST THE BEGINNING

# HOW WE WORK

1

REQUEST



**Tell us what you're looking for by phone, email or webform.** RELEC's sales and technical support personnel are all qualified engineers and are committed to fully understanding your application before talking through a possible solution.

THAT'S JUST  
THE BEGINNING...

2

REFINE



**Because a standard solution is just the beginning,** where appropriate, we will refine our initial recommendations to include bespoke features and benefits.

# 3

## RESULT



Power for monitoring systems



All weather touch screens



Touch sensitivity with gloves

**RELEC's goal is to make a measurable difference to every project by achieving optimum performance and service delivery for your power conversion or display applications.**

**ANY  
REQUESTS?**

**01929 555800**

Discover more  
[www.RELEC.co.uk/Case\\_Studies.html](http://www.RELEC.co.uk/Case_Studies.html)



**REQUEST**

**“WE WANT A DC DC  
CONVERTER TO  
PROTECT OUR HULL  
FROM CORROSION”**



# POWER CONVERSION

An AC DC power supply is a key component in the design of nearly all mains powered electrical and electronic equipment.

We can source and supply the widest range of AC DC PSUs from a 5W plugtop, desktop or PCB mounting device, through to very large battery backed standby systems that can be 19" rack mounted.

RELEC can provide you with a variety of chassis mounting power supplies, including single, dual and quad output industry standard modules, with configurable power supplies, starting at 300W and going up to 2kW in output power.

We can also supply in-depth technical advice on a range of specialist AC DC power supplies for medical, railway and DIN rail mounting applications.

If we cannot fulfil your demands from our standard range of AC DC power supplies, we work closely with our suppliers to develop full custom and variant solutions.

Our DC DC converters cover power ranges from 1 to 500W, input ranges from 3 to 1200Vdc and output voltages from 0.8Vdc upwards. If you cannot find the perfect DC DC converter, we would again be happy to discuss custom specifications.

We offer a wide range of fully regulated converters with fixed input and wide inputs (2:1 range and 4:1 range) as well as industry standard brick formats.

REFINE

**“YOU NEED A  
CONVERTER WITH  
0 - 100% CONTROL OF  
THE OUTPUT VOLTAGE”**

**JONATHAN SMITH**  
RELEC power conversion specialist



Jon specialises in bespoke power conversions, dedicated to creating solutions that go the extra mile.

Standard is just the beginning.

**TALK TO JON**  
**01929 555800**

E: [JON@RELEC.CO.UK](mailto:JON@RELEC.CO.UK)

# AC DC CONVERTERS

## DIN RAIL MOUNT

DIN rail mounted power supplies offer a simple, uncomplicated method of integrating power conversion to both equipment and installations.

Typical applications include process control panels, machinery, building automation, outdoor telemetry, ticketing machines and network security equipment.

**Let's begin as we mean to go on!**

We carry extensive stocks for next day delivery, but we are more than happy to customise and schedule to your requirements. Let us have as much application information as possible and we will take care of the rest based on price, reliability and availability.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase / three phase DC 90 – 375V / 480 – 820V	Low profile (building automation) High density (process control) Pulse load capability UL / cUL / TUV / CE approvals Wide temperature range Parallel operation	Conformal coating Field bus solutions Custom labelling Screw terminals / Cage clamp solutions EN50155 Railway versions
Outputs	5V to 56V		
Power rating	5 to 960W		
Temperature	-40 to +60 degrees (typical)		





**WE CARRY EXTENSIVE  
STOCKS FOR NEXT  
DAY DELIVERY  
AND ARE MORE THAN HAPPY  
TO CUSTOMISE AND SCHEDULE  
TO YOUR REQUIREMENTS.**

Discover the full range at  
[www.RELEC.co.uk/ac\\_dc\\_power\\_supplies.html](http://www.RELEC.co.uk/ac_dc_power_supplies.html)

We can take you through the pros and cons for forced air,  
conduction or convection cooling your product.



**LET'S CREATE YOUR IDEAL  
DIN RAIL POWER SOLUTION  
01929 555800**

# AC DC CONVERTERS

## DIN RAIL SUPPLEMENTARY MODULES

Whilst the power supply is the heart of any process control system, RELEC can help add extra functionality to your design.

Typical applications include remote telemetry, emergency lighting and access control systems.

Our range includes maintenance free capacitive buffer modules, fully protected DC UPS chargers and controllers, redundancy modules for N+1 systems as well as options for field bus monitoring.

### There's no such thing as standard!

Our extensive stock means that we can react to your demands quickly. We are always happy to schedule your orders, so you can call off your stock as and when you need it.



RANGE	FEATURES	OPTIONAL FEATURES
<ul style="list-style-type: none"> <li>Redundancy modules</li> <li>Battery chargers / temperature sensors</li> <li>DC UPS controllers</li> <li>Buffer modules</li> <li>Surge / transient protection</li> <li>Field programmable modules</li> </ul>	<ul style="list-style-type: none"> <li>Low profile (building automation)</li> <li>High density (process control)</li> <li>Pulse load capability</li> <li>UL / cUL / TUV / CE approvals</li> <li>Wide temperature range</li> <li>Parallel operation</li> </ul>	<ul style="list-style-type: none"> <li>Battery packs</li> <li>Conformal coating</li> <li>Field bus solutions</li> <li>Custom labelling</li> </ul>





# CHASSIS MOUNT CASED / CONVECTION COOLED

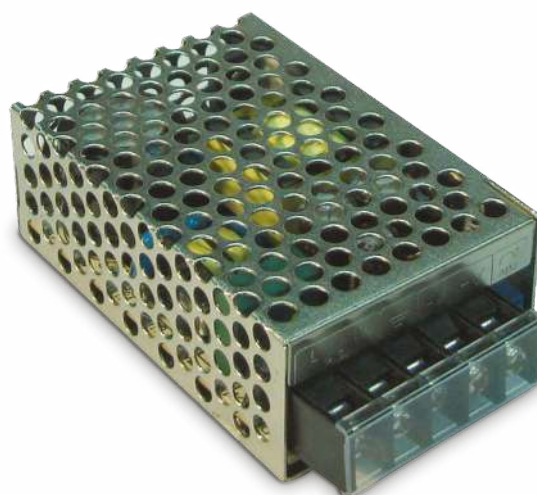
High efficiency, low cost cased converters ideal for process control and other industrial applications. We have a range of units which can operate down to -40 degrees and altitudes in excess of 4800m.

Typical applications include information terminals, vending / gaming machines, office equipment and control panels.

The latest generation products are designed to meet the latest ErP standards for high average efficiency and low standby power.

As well as standard industrial options we can also supply medical grade products, including solutions for 2 x MOPP applications.

Tell us what you need your power supply to do and we will find a solution for you. Samples are generally available for next day delivery.



RANGE		FEATURES	OPTIONAL FEATURES
Inputs	AC single phase 85 – 264Vac (Typ) DC 120 – 380Vdc (Typ)	Up to 5 year warranty High average efficiency Low standby power UL / cUL / TUV / CE approvals Wide temperature range Active PFC (>100W)	Conformal coating Output voltage adjustment Medical – EN60601 Remote on / off
Outputs	5V to 48V		
Power rating	5 to 500W		
Temperature	-40 to +71 degrees		



# AC DC CONVERTERS

## CHASSIS MOUNT OPEN FRAME

Ultra-miniature, high efficiency AC DC converters for systems which already have a circulating airflow. We have a range of products starting at 40W in a 3" x 2" package, right the way through to 550W in a 5" x 3" footprint.

These products are ideal for telecom, datacom, instrumentation and other industrial applications requiring high power density.

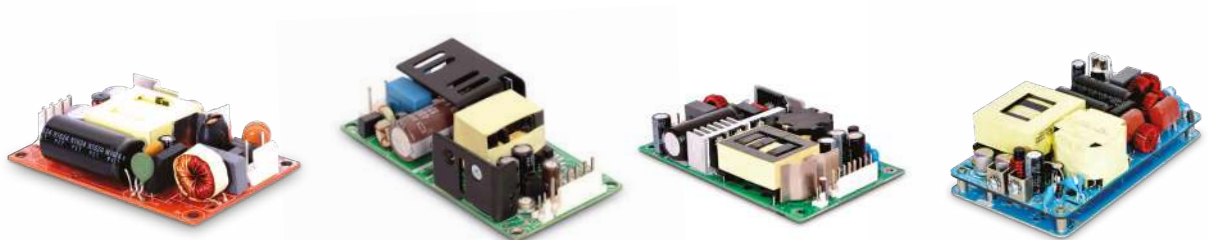
We also offer an extensive range of medical versions (EN60601) including 2 x MOPP isolation.

### Designed in. Shipped out!

Our technical sales team will talk you through all stages of designing these products into your equipment. Call us today and we'll be happy to advise.



RANGE		FEATURES	OPTIONAL FEATURES
Inputs	AC single phase 85 – 264Vac (Typ)	High efficiency	Output voltage adjustment
Outputs	5V to 48V	Active PFC	Medical – EN60601 (2 x MOPP)
Power rating	40 to 550W	UL / cUL / TUV / CE approvals	Remote on / off
Temperature	-40 to +70 degrees	Industry standard footprints	Class II options
		Low height profile (<0.75")	Screw terminals / Molex connection
		Low standby power	



# CHASSIS MOUNT RUGGED

Ultra-reliable and robust power supplies from an industry leader for applications which are mission critical. Modules can be either chassis or 19" rack mounted with a full range of accessories available from stock.

We have active projects in the military (naval, land-based vehicles and avionic) sectors, railway signalling, radar and high integrity communication systems.

These power supplies are extremely well protected against surges and transients and also come conformally coated as standard. They are suitable for applications which are susceptible to high shock and vibration, local lightning strikes and high levels of moisture and other contaminants.

**Whatever you're looking for, you've just found it!**

If you're struggling to find a product to meet all of your requirements, please call us. We may just have the perfect product.



RANGE		FEATURES	OPTION / ACCESSORIES
Inputs	AC single phase 85 – 264Vac (Typ) DC 88 – 372Vdc (Typ)	High galvanic isolation Isolated outputs UL / cUL / TUV / CE approvals Excellent transient immunity Fully short circuit protected	Convection or conduction cooled options Output / input voltage monitoring Inrush current limitation Mating connectors Front panels Base plates Anti vibration clips DIN rail mounting
Outputs	5V to 56V		
Power rating	50 to 300W		
Temperature	-40 to +70 degrees		



# AC DC CONVERTERS

## CHASSIS MOUNT FAN COOLED

We are pleased to be able to offer a range of high efficiency, high density fan cooled AC DC power units providing the ultimate in flexibility.

Typical applications include automotive test, battery chargers, cathodic protection and medical perfusion equipment.

Whether you need simple bulk power or the ability to remotely control the output voltage or current we have an ideal product for you. Either through analogue control or via an I<sup>2</sup>C or RS232 interface we can find a solution which meets your requirements.

### Tough products. Easy choices.

All of our products are extremely rugged in terms of temperature, EMC performance and vibration and come with a 3 year warranty as standard.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase 90 – 264Vac (Typ) DC 127 – 370Vdc (Typ)	Programmable voltage Programmable current I <sup>2</sup> C / RS232 Control CC current limit Selectable standby voltages 1U footprints Remote on / off	EN60601 medical versions Convection cooled options Extended warranty Redundancy ORing PMBus Conformal coating
Outputs	12V to 60V		
Power rating	800 to 3000W		
Temperature	-40 to +60 degrees		







**WE PRIDE OURSELVES  
ON FINDING THE  
BEST SOLUTION FOR  
YOUR APPLICATION  
WHATEVER YOUR  
DRIVING MOTIVATION.**

**BE IT PRICE, DELIVERY OR  
SPECIFICATION, WE CAN HELP.**

Discover the full range at  
[www.RELEC.co.uk/ac\\_dc\\_power\\_supplies.html](http://www.RELEC.co.uk/ac_dc_power_supplies.html)

We can take you through the pros and cons for forced air,  
conduction or convection cooling your product.



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# AC DC CONVERTERS

## BATTERY CHARGERS RACK MOUNT

High efficiency battery chargers and power distribution systems for both telecom (48V) and industrial (24V) applications. Our racks can be integrated into both 19" and 23" cabinets as standard.

Applications include street side cabinets, exchanges, data centres, radar systems or other critical systems which cannot be affected by power outages.

All of our solutions are modular and based around standard subracks, high efficiency rectifiers and cross platform controllers. Configuration of your system is easy. We just need to understand your requirements based on your connected loads and battery size. We can do the rest. Our solutions start at 400W and can grow up to 30kW through the addition of extra subracks.



### Go figure!

We have over 20 years' experience configuring these products. Give us a call and let's see what we can do for you.

RANGE		FEATURES	OPTIONS
Inputs	AC single phase 85 – 264Vac (Typ) AC three phase (with neutral)	>95% efficiency Field replaceable controller	Modular DC breaker panels Choice of battery breakers
Outputs	24V or 48V nominal	LED status / alarms	GMT fuse option
Power rating	400W to 30kW	Modular DC distribution	Partial load disconnect
Temperature	-20 to +60 degrees	19" / 23" all in one package 3 year warranty	Ethernet / SNMPv3 comms Interface with DC AC inverters



# RACK MOUNT FRONT ENDS

A wide range of front ends and rack mounted solutions suitable for high power density industrial, datacom or telecom applications.

Our front ends are used anywhere where bulk DC power is required. Primarily designed for the datacom market, we also have applications in the military and super computer sectors.

Systems can be configured for 12V / 24V or 48V outputs and we can even offer solutions with mixed DC Voltages (24V / 48V).

Our modules cover the range 400W to 3000W. They can either be integrated into your equipment or simply slid into our own bespoke subracks.

### Tailored to your needs!

Systems are fully scalable and hot swappable and can be tailored to your needs quickly and easily – just call for more information.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase / three phase DC 180 – 350V (Typ)	Very high efficiency (Platinum level) 12V, 24V or 48V outputs Hot pluggable I <sup>2</sup> C communication Active current sharing Active PFC	PMBus control Mixed output voltage racks Scalable systems Ethernet / SNMPv3 comms DC distribution DC power shelves
Outputs	12V to 56V		
Power rating	400 to 12kW		
Temperature	-20 to +60 degrees		



# AC DC CONVERTERS

## BATTERY CHARGERS INDUSTRIAL

A range of industrial grade battery chargers and DC UPS controllers which can be used as stand alone chargers or as part of a standby battery backed solution.

Typical applications include automotive, radio communications and telemetry systems.

Our products feature 3 or 4 stage charging characteristics (float / boost modes) depending on the battery type and technology you choose. All units have reverse polarity protection as standard and those designed for standby applications are also provided with deep discharge protection.

### You talk. We listen!

We would love to discuss your application and find the ideal solution for you. Just pick up the phone and speak to one of our experienced technical sales team. It begins by being good listeners.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase 85 – 264Vac (Typ)	Li-ion, lead-acid batteries	RS232 control
Outputs	12V, 24V or 48V batteries	Automatic boost / float modes	Variable fan speeds
Power rating	100 to 1000W	LVD and polarity protection	Temperature compensation
Temperature	-25 to +70 degrees	Rugged construction	Terminal block / connector / faston
		Automatic changeover	Base plate / DIN rail options
		Alarm contacts	





# EXTERNAL POWER SUPPLIES

High quality external power supplies covering power levels from 5W to 300W (All convection cooled) with outputs up to 56V. Modules can be easily customized with your choice of IEC inlet, cable length and DC termination.

Our external power supplies are suitable for a wide variety of applications including chargers, set top boxes, motor control and other office automation products.

We have plugtop style products starting at 5W and desktop modules going up to 300W with outputs available from 3V3 up to 56V.

### It's all about you!

Our warehouse carries extensive stock to help you with prototyping, but we really want you to tell us more about your application. Call us with your power requirements as well as cable length and termination type and we'll provide a competitive quote and fast turn around on samples.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase 100 – 240Vac (Typ)	CEC Level VI compliant	Active PFC
Outputs	3V3 to 56V	RoHS / REACH compliant	C6, C8, C14 and C18 input options
Power rating	5 to 300W	UL / cUL, TUV, CB, CE,	Choice of barrels
Temperature	-10 to +40 degrees	FCC, CCC certified	Locking connectors



# AC DC CONVERTERS

## CONFIGURABLE

Are you looking for a power supply with multiple rails or maybe a unit with an odd output voltage? Our configurable power supplies provide solutions in a single, low profile chassis mounting enclosure. Products are available which meet both industrial and medical standards.

Typical applications are widespread include ticketing machines, medical, military, broadcast and industrial. In fact anywhere that needs unusual voltages or multiple outputs can be built quickly and easily.

We can supply units which are either fan or convection cooled (fanless = silent) with chassis options available between 200W and 1400W.


### Fast enough for you?

We will configure solutions for next day delivery with up to 12 outputs. Just give us a call. We're sure you won't be disappointed with our reactions.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase 85 – 264Vac (Typ) DC 120 – 380 (Typ)	60950 and 60601 approvals User and field configurable Very high efficiency Series and parallel connection 5V isolated standby voltage <1U height profile Low acoustic noise Fully floating outputs	Convection or fan cooled Conformal coating Reverse air flow Additional ruggedisation
Outputs	1 to 56V per output (336V system)		
Power rating	200 to 1400W		
Temperature	-40 to +60 degrees		





**DO YOU NEED A  
MULTI OUTPUT,  
FANLESS POWER  
SUPPLY FOR YOUR  
STUDIO OR THEATRE?**

**NOT SURE OF YOUR FINAL  
REQUIREMENTS? ALL OF OUR  
CONFIGURABLE PSUS CAN BE  
USER ADJUSTED.**

Discover the full range at  
[www.RELEC.co.uk/ac\\_dc\\_power\\_supplies.html](http://www.RELEC.co.uk/ac_dc_power_supplies.html)

Our technical team are on hand to configure the best  
solution to your requirements.



**LET'S CREATE YOUR IDEAL  
CONFIGURABLE POWER SOLUTION  
01929 555800**

# AC DC CONVERTERS

## PCB MOUNT

Component level AC DC converters for integration into a broad range of equipment and applications. All of the products are approved to the latest safety and EMC standards, but we are on hand to support you at every step through the design process.

Typical applications include home automation, motor control, ventilation, pumps, signalling etc. In fact, any applications where the PSU has to be integrated onto the main PCB.

Products start with low profile single in line solutions from 1W to 5W and dual in line modules from 3W through to 100W.

### PCB? PSU? AOK....

Samples are generally available from stock. Simply give us a call and we could have a converter on your desk the next day.



RANGE		FEATURES	OPTIONS
Inputs	AC single phase 85 – 264Vac (Typ) DC 120 – 380 (Typ)	Low cost UL / cUL / TUV / CE approvals	Custom outputs Chassis / DIN rail mount
Outputs	5V to 48V / $\pm 5V$ to $\pm 24V$	EN55022 Class B	Heatsinks
Power rating	1 to 100W	Industry standard footprints	Active PFC
Temperature	-40 to +70 degrees	Low standby power	





# DC DC CONVERTERS

## FIXED INPUT UNREGULATED

An extensive range of high quality, low cost, low power DC DC converters available with very short production lead-times. Our modules are designed to operate from a fixed input DC source with either single or bipolar outputs. Outputs are regulated to + / - 10% over a 10 - 100% load range.

Typical applications include RS232 / RS485 interfaces and OP amp supplies. Anywhere a simple isolation barrier is required. Standard products start with 1500V isolation, with options for 3000V, 6000V and 12000V as off the shelf solutions.



### We're only just scratching the surface!

Surface mount or through hole? Single or Dual in line? We can supply solutions in whatever package you need.

RANGE		FEATURES	OPTIONS
Inputs	DC 3V3, 5V, 12V, 15V, 24V + / - 10%	No external components	1.5kV, 3kV, 6kV or 12kV isolation
Outputs	3V3 to 24V / $\pm 5V$ to $\pm 24V$	High efficiency	Reinforced isolation
Power rating	0.2 to 3W	Standard pin outs	Single or dual outputs
Temperature	-40 to +105 degrees	Short circuit protection	Wide choice of inputs
		Low cost	Through hole or surface mount
		Short delivery time	



# DC DC CONVERTERS

## FIXED INPUT REGULATED

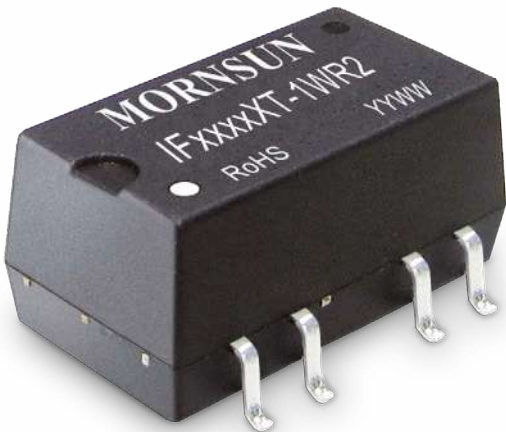
Similar to the unregulated products on the previous page, but there are occasions where tighter regulation is required for more sensitive loads.

Typical applications include remote monitoring, RS232 / RS485, communications and biometrics.

We can offer a range of 1W and 2W products with 3% load regulation with options for single in line through hole, or low profile surface mount.

**We think we're the perfect match!**

If you're at all unsure about what you think you might need, please call us and we'll help you specify the right product to match your application.



RANGE		FEATURES	OPTIONS
Inputs	DC 5V, 12V, 15V, 24V + / - 10%	No external components	1.5kV, 3kV isolation
Outputs	3V3 to 48V / $\pm 5V$ to $\pm 24V$	High efficiency	Single or dual outputs
Power rating	1 to 2W	Standard pin outs	Wide choice of inputs
Temperature	-40 to +85 degrees	Short circuit protection	Choice of footprint
		Low cost	
		Short delivery time	



# WIDE INPUT

## 2:1 LOW POWER

Industry standard footprint DC DC converters with wide 2:1 inputs and tightly regulated outputs. We have a choice of 3 input ranges all based around standard battery voltages of 12V (9 – 18V), 24V (18 – 36V) and 48V (36 – 75V).

Typical applications include instrumentation, breaker control, fire detection and numerous industrial control systems.

Products come in a wide variety of industry standard footprints including SIP8, SMD24, DIP24 1" x 1", 2" x 1" packages with options to chassis or DIN rail mount many of the modules.

All of our families are available with a choice of output voltages and currents with isolation options up to 3kV on standard products.

### Fast and furious

Simply pick up the phone. It's the quickest way to find the best fit and to talk to one of our highly experienced engineers.



RANGE		FEATURES	OPTIONS
Inputs	DC 4.5 – 9V, 9 – 18V, 18 – 36V, 36 – 75V	No external components	Heatsinks
Outputs	3V3 to 24V / ±5V to ±24V	High efficiency	1.5kV, 3kV isolation
Power rating	1 to 50W	Standard pin outs	Single or dual outputs
Temperature	-40 to +105 degrees	Class A EMC without filters	Wide choice of inputs
		Short circuit protection	Choice of footprint
		Low no load power	Chassis / DIN rail options
		Short delivery time	Remote on / off



# DC DC CONVERTERS

## WIDE INPUT 4:1 LOW POWER

A complementary range of products but with wider inputs often covering 2 battery ranges. Our three ranges cover 12 & 24V (9 – 36V), 24 & 48V (18 – 75V) as well as 72 & 110V (40 – 160V).

Typical applications include emergency lighting, railway information systems, instrumentation, audio and access control systems.

Footprints including SMD16, DIP24 1" x 1", 2" x 1" with options to chassis or DIN rail mount many of the modules.

In addition to the above choices we can also support a wide range of output voltages and currents and isolation requirements up to 3kV with standard products.



### Let's hear it...

We want to hear everything there is about your requirements. That's when we can be sure to find a solution to fit both your commercial and technical needs.

RANGE		FEATURES	OPTIONS
Inputs	DC 9 – 36V, 18 – 75V, 40 – 160V	No external components	Heatsinks
Outputs	3V3 to 48V / $\pm 5V$ to $\pm 24V$	High efficiency	1.5kV, 3kV isolation
Power rating	3 to 50W	Standard pin outs	Single or dual outputs
Temperature	-40 to +105 degrees	Class A EMC without filters	Wide choice of inputs
		Short circuit protection	Choice of footprint
		Low no load power	Chassis / DIN rail options
		Short delivery time	Remote on / off







**WE CAN SUPPORT  
A WIDE RANGE OF  
OUTPUT VOLTAGES  
AND CURRENTS  
AND ISOLATION  
REQUIREMENTS  
UP TO 12kV WITH  
STANDARD PRODUCTS.**

Discover the full range at  
[www.RELEC.co.uk/dc\\_dc\\_converters.html](http://www.RELEC.co.uk/dc_dc_converters.html)

Tell us what you want and we can use our  
experience to provide what you need.



**LET'S CREATE YOUR  
IDEAL DC DC SOLUTION  
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# DC DC CONVERTERS

## WIDE INPUT BRICKS (OPEN FRAME)

High efficiency, high power density bricks with ultra-low profiles in industry standard 1/16, 1/8, 1/4 and 1/2 brick formats. All feature wide input voltage ranges, high input-transient withstand capabilities and start-up into pre-biased loads. Models are compliant with the DOSA standards.

Typical applications include super computers, avionic systems, datacom and communication systems.

### Background checks

With a little background we will help you design in the optimum product for your application. We have solutions with tightly regulated as well as intermediate bus converters. If you are looking to generate a localised lower voltage DC bus for downstream point of load devices, look no further.



RANGE		FEATURES	OPTIONS
Inputs	DC range 9 to 154V	4:1 input voltage ranges	Through hole or surface mount
Outputs	1V to 54V	No minimum load	Heatsink options available
Power rating	Up to 1000W	Up to 1000g shock	+ve and -ve control options
Temperature	-40 to +85 degrees	Remote sense	EMC filters
		Very high power density	Avionic versions
		Wide trim ranges	



# WIDE INPUT

## BRICKS (CONDUCTION COOLED) 50 -700 WATTS

Industry standard DC DC converters in conduction cooled, 1/4, 1/2 and full brick formats. Products are designed to be PCB mounted with cooling provided either from an extensive range of standard heatsinks, or cold wall mounted for optimal thermal performance.

Typical applications include passenger information, rugged communication or solar powered control systems to name a few.

Products are available with a choice of 2:1 or 4:1 inputs, high isolation levels and excellent efficiency.

### Expert-to-expert (that's you!)

Our expert sales team are standing by waiting to hear from you. We want to know all about your application and what you want to achieve. We will walk you through the design process with all of the tools you'll ever need.



RANGE		FEATURES	OPTIONS
Inputs	DC 9 – 18V, 18 – 36V, 36 – 75V 9 – 36V, 18 – 75V, 40 – 160V	Very high efficiency Excellent thermal performance Short circuit protection Five side metal case EN / UL60950 approved Trimmable output voltage Remote on / off	Heatsinks / thermal pads Single or dual outputs Customised output voltages Chassis / DIN rail kits
Outputs	3V3 to 48V		
Power rating	50 to 700W		
Temperature	-40 to +105 degrees		



# DC DC CONVERTERS

## NON ISOLATED POINT OF LOADS

Point of load (POL) converters are the ideal solution for providing tightly regulated voltages for individual ICs, circuits or sub-assemblies. We have a range of products optimised for intermediate bus architectures or for wide inputs up to 72V.

Typical applications include alarm systems, remote monitoring, instrumentation and temperature control systems.

### Let us stick to the point

Our extensive range of POLS is available in a choice of industry standard footprints and options. Our experts are waiting to find the best solution for you. And there are lots of them.



RANGE		FEATURES	OPTIONS
Inputs	DC 5V, 12V, 9 – 36V, 18 – 72V	Industry standard footprints	Through hole or surface mount
Outputs	0.5V to 24V	Convection cooled	Heatsink options available
Power rating	500mA to 100A	Remote sense	+ve and -ve control options
Temperature	-40 to +105 degrees	Wide trim ranges	EMC Filters
		Thermal protection	Avionic versions
		Short circuit protection	



# CHASSIS MOUNT AND EUROCASSETTE

A range of high reliability DC DC converters for railway / transportation and other demanding industrial applications running from DC system voltages.

Typical applications include trainborne wifi, lighting, windscreen wipers and HVAC control systems.

Power ranges from 20 to 1000W are available with inputs covering all standard battery voltages of 12, 24, 48, 72 and 110Vdc. Products are also available with a 10:1 range allowing operation on any system voltage between 24 – 110Vdc.

We have extensive experience in the railway industry with full understanding of railway norms EN50121 / EN50155 and RIA12. Call us today for a detailed proposal which will meet your requirements.

### Keeping you on track...

Our extensive experience in the railway industry is backed up by a full understanding of railway norms EN50121 / EN50155 and RIA12 to keep you pointed in the right direction.



RANGE		FEATURES		OPTIONS	
Inputs	DC range 9 to 154V	Extremely rugged designs		Convection or conduction cooled options	
Outputs	5V to 96V	EN45545 fire and smoke compliant		Output / input voltage monitoring	
Power rating	20 to 1000W	EN50155 / EN50121		Inrush current limitation	
Temperature	-40 to +100 degrees	Wide output trim range		Mating connectors	
		External inhibit		Front panels	
		Low inrush currents		Base plates	
				Anti vibration clips	
				DIN rail mounting	





# DC DC CONVERTERS

## ULTRA WIDE, HIGH INPUT VOLTAGE

A range of wide input DC DC converters originally designed for the photovoltaic industry. They provide a regulated supply voltage used for linking multiple panels together in series, helping reduce copper losses in the interconnecting wiring.

These modules can also be used with rectified mains voltages to provide solutions for low power DC systems operating from both single phase and three phase supplies. As well as PV projects, typical applications include telemetry, process control and signaling systems.

### Ready when you are!

Our technical team are on hand, ready to talk you through designing these modules into your system.



RANGE		FEATURES	OPTIONS
Inputs	DC 100 to 1500V	100 to 1000V or 200 to 1500V inputs	PCB mounting
Outputs	5V to 24V	4000Vac isolation	Chassis or DIN rail options
Power rating	15 to 40W	UL / CSA / CE approvals	Optional EMC filters
Temperature	-40 to +70 degrees	Output short circuit protection	
		Input under voltage protection	



# DC AC INVERTERS

# RACK MOUNT INVERTERS

19" rack mounted DC to AC inverters with power outputs from 1kVA to 6.4kVA. They have a host of features making them extremely versatile in a number of applications. Typically used where a battery provides the primary source of supply and mains output is required or can be used as part of the DC backed UPS system.

Typical applications include telecom exchanges and server rooms, military grade UPS systems and track side signalling equipment.

We have a choice of inverters in 1U and 2U formats with options for static transfer switches and / or parallel / 3 phase operation. We also have the ability to offer hot swappable configurations rated at 6400VA, which can be parallel connected up to 51kVA.

### It's all about communication

Speak to us and we'll have your inverter talking to the rest of your system. With RS232 / 485 or SNMP option you'll always know what your inverter is doing. We also have the ability to offer hot swappable configurations in a 2U rack rated at 6400VA, which can be parallel connected for systems up to 51kVA.



RANGE		FEATURES	OPTIONS
Inputs	DC 24V or 48V	Positive or negative ground systems	Hot swappable
Outputs	115Vac or 230Vac	True sine wave outputs	Static transfer switches
Power rating	Up to 6400VA	Parallelable configurations	3 phase configurations
Temperature	-25 to +55 degrees	RS485 / RS232 / SNMP control	Integration with rack mount battery chargers
		High efficiency	



# DC AC INVERTERS

# INDUSTRIAL INVERTERS

A series of industrial / transportation grade DC to AC inverters rated from 250 to 4500 VA. Designed for the harshest environments, the units come conformally coated as standard and can be used both in mobile and static environments.

Typical applications include, HVAC control, 'at seat' power on trains and buses, network security systems.

**When the going gets tough...**

In addition to the usual 24V and 48V inputs we also supply inverters which run from 12V, 36V, 72V or 110V battery systems, with approvals available to international rail standards EN50155 and EN50121-3-2.

Need a prototype? We hold stock of many of the items highlighted below. We will go through all the mounting options with you to ensure you get the right product for your application. Call us today.



RANGE		FEATURES	OPTIONS
Inputs	DC 12V, 24V, 36V, 48V, 72V, 110V	True sinewave output	Base plates
Outputs	115Vac or 230Vac	Adjustable output voltage	DIN rail mount
Power rating	250 to 4500VA	Output failure alarm	Connectors / cage clamp / faston
Temperature	-25 to +70 degrees	Remote inhibit	19" rack mount
		Railway versions (EN50155)	RIA12 compliant products
		Fire and smoke to EN45545	
		Input polarity protection	



# EMC FILTERS

## POWER ENTRY FILTERS PCB AND PANEL MOUNT

With over 30 years experience supplying EMC filters we are pleased to be able to offer a wide range of modules with different form factors to suit your application.

### Power entry modules

Available in C8, C14, C18 or C20 formats we have a products starting at 1A through to 16A with options for fuses, switches and circuit breakers integrated within them.

### PCB mount modules

Rated from 0.6A to 16A and ideal to complement our board mount AC DC converters.

### PCB mount chokes and inductors

Component level solutions if you are designing your own bespoke filter or need extra attenuation.



RANGE		FEATURES	OPTIONS
Inputs	115 / 230Vac mains	High attenuation	Front or rear mount
Current rating	1A to 18A	Large current range	Screw in or snap in options
Temperature	-25 to +80 degrees	Single / dual stage	Switches and circuit breakers
		Short lead-times	Fuses
			Solder terminals
			V-lock locking inlets



# CHASSIS MOUNT FILTERS

Single phase 115 / 230Vac

1 to 36A filters available with varying degrees of attenuation. Our portfolio includes 1 stage, 2 stage and 3 stage filters ensuring we can find the optimum filter for your application and budget.

3 phase 440 / 480 / 520Vac

Suitable for use in control panels and machines with options available specifically for inverter drives.

3 phase + neutral 277 to 520Vac

Filters rated up to 550A for 3 phase star configured networks with an active neutral conductor.



RANGE		FEATURES	OPTIONS
Inputs	115V / 230V / three phase AC mains	High attenuation	1, 2 or 3 stage filtering
Current rating	1A to 1100A	Large current range	DIN rail options
Temperature	-25 to +80 degrees	Short lead-times	Screw terminals / fastons
			Cabled terminations







**PROBLEMS WITH  
NOISY NEIGHBOURS?  
DO YOU HAVE EMC  
IMMUNITY OR  
EMISSION ISSUES?**

**WE CAN FIND THE OPTIMAL  
SOLUTION FOR YOU FROM OUR  
EXTENSIVE PORTFOLIO**

Discover the full range at  
[www.RELEC.co.uk/emc\\_filters\\_chokes](http://www.RELEC.co.uk/emc_filters_chokes)



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EMC FILTER SOLUTION  
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