

# Dual Input Power System

INTEGRATED AC, UPS BACK-UP, & SWITCHING SYSTEM FOR VEHICLES  
(WITH BATTERY CHARGING)



Dual input mains system

The Quattro inverter system has been developed to meet the demanding needs of supporting electrical equipment in the vehicle environment.

This all in one package should be used where the AC power requirement is:

- onboard AC generator, plus
- hook up to an external AC source,
- Uninterrupted Power Supply,
- Essential and non-essential loads

In addition the unit includes many innovative and unique features:

- Power control
- Power assist
- Built-in UPS
- Built-in transfer switch

See below for more details.

Available in 3kW, 5kW or even 10kW Quattro models can be software configured and controlled by a range of optional remote panels to suit the most exacting requirements found in professional vehicles.

## PowerControl : Coping with limited generator, or AC landline power

Part of the Quattro is a very powerful battery charger. It could therefore, if not restricted, draw high currents from the generator or AC inlet (eg the Quattro charger could draw 16A at 230VAC) which would either

- a) "blow " the fuse or trip
- b) take all the available power, leaving none for the loads.

The control panel (see right) allows a current limit to be set on each input. The Quattro will then monitor the AC loads and only use spare capacity for charging, thus preventing the generator or landline supply from being overloaded, but still maximising charge to the batteries.

## PowerAssist : Boosting landline or generator power

This feature takes the principle of PowerControl to a further dimension, allowing the Quattro to supplement the capacity of the active source when demand exceeds supply.

This is useful where high power peaks are routinely required and potentially enables smaller generators to be used , saving space cost and payload.

As the loads near the maximum power that the source can supply, we know that charging will have dropped to zero, but more importantly, the inverter is always on standby - "ready to go".

As soon as a kettle, air conditioning or similar load is switched on, the Quattro will automatically synchronise with the existing "mains" input with inverter power provided by the battery. When the load reduces, the spare "mains" power is redirected to recharge the battery.



FM 37786  
ISO 9001:2008

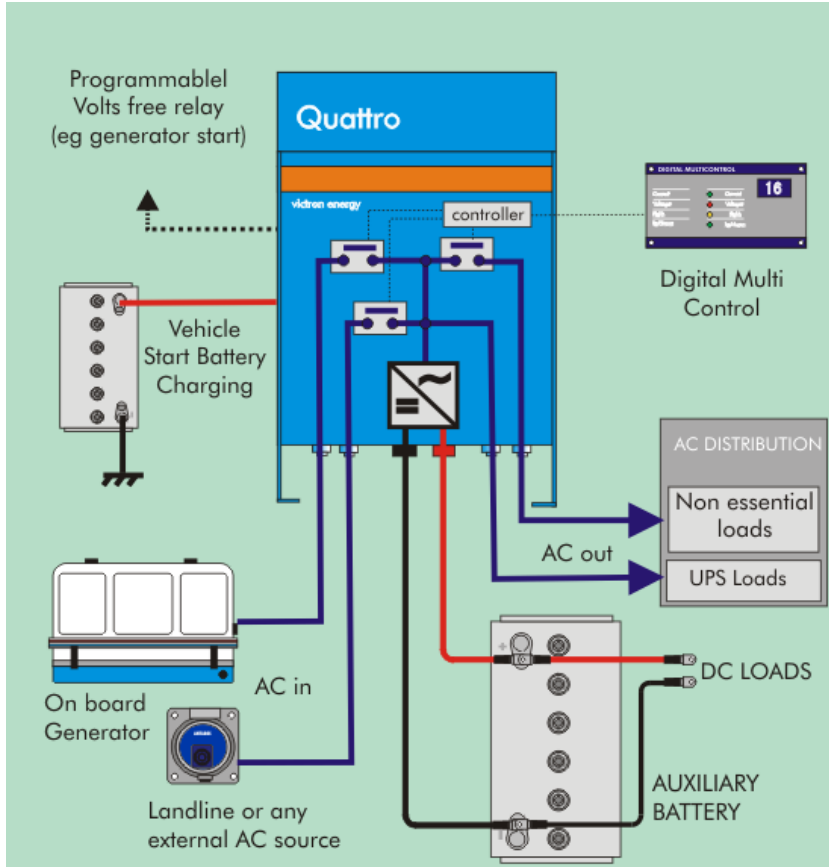
Antares (Europe) Limited  
Knaves Beech Business Centre  
Davies Way  
Loudwater  
HIGH WYCOMBE  
HP10 9QR UK

www.antares.co.uk  
email: info@antares.co.uk  
tel: +44 (0)1628 535440  
fax: +44 (0)1628 535441

**ANTARES**  
engineering with answers

# Dual Input Power System

INTEGRATED AC, UPS BACK-UP & SWITCHING SYSTEM FOR VEHICLES  
(WITH BATTERY CHARGING)



## 2 AC inputs, and 2 AC outputs for “essential” and “non-essential” loads via built-in transfer switches

The Quattro can be connected to two independent AC sources, for example AC Inlet and a generator. It will then determine how, when and which input to use.

The Quattro will automatically connect to whichever is the active source. If both are active it will only connect the designated “priority” input, but can change from one to the other without break. If non are available it works as a UPS – see below:

## UPS AC Output

The main “essentials” output is always connected to a power source, and provides no-break power continuously, even if the generator, or the AC inlet, or both,

fail. The change-over from any given “mains” source to any other “mains” source is controlled by the Quattro and is seamless, even though the inputs have different sources. The maximum time that it takes for this to happen is less than 20 milliseconds, ensuring that computers and other electronic equipment will continue to operate without disruption. In the event of both external outputs failing, this output will continue to provide 230VAC for as long as the batteries can support the inverter function.

The second “non-essentials” output is live only when an AC is available on either of the external inputs (eg: the generator). Loads that should not discharge the UPS/battery, such as air conditioning, or a kettle, for example, should be connected to this output.

## Other Capabilities:

### Three phase capability

Three units can be configured for three-phase output from a single phase input.

### Virtually unlimited power thanks to parallel operation

Up to 6 Quattro units can operate in parallel. Six units 24/5000/120, for example, will provide 25kW / 30kVA output power and 720 Amps charging capacity.

### Power from other sources

The Quattro can be used in conjunction with off-grid as well as grid connected solar PV and other alternative energy systems.

It can be integrated with fuels cells, Dynawatt engine driven inverter systems, or Fischer Panda Gen-sets—just ask our support team.

## System configuring has never been easier

After installation, the Quattro is ready to go, but to maximise it’s latent ability settings have to be changed, and this can be done in a matter of minutes with the DIP switch setting procedure.

Even parallel and 3-phase operation can be programmed with DIP switches: no computer needed, but if you have one it is easier!

## Support

Support for your application is only a phone call away. If you need to discuss any of the features described here, our engineers will be pleased

