victron energy
BLUE POWER

Quattro 3kVA - 5kVA

Quattro

Two AC inputs with integrated transfer switch

The Quattro can be connected to two independent AC sources, for example shore-side power and a generator, or two generators. The Quattro will automatically connect to the active source.

Two AC Outputs

The main output has no-break functionality. The Quattro takes over the supply to the connected loads in the event of a grid failure or when shore/generator power is disconnected. This happens so fast (less than 20 milliseconds) that computers and other electronic equipment will continue to operate without disruption.
The second output is live only when AC is available on one of the inputs of the Quattro. Loads that should not discharge the battery, like a water heater for example, can be connected to this output.

Virtually unlimited power thanks to parallel operation

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

Three phase capability

Three units can be configured for three-phase output. But that's not all: up to 6 sets of three units can be parallel connected to provide 75kW / 90kVA inverter power and more than 2000A charging capacity.

PowerControl - Dealing with limited generator, shore-side or grid power

The Quattro is a very powerful battery charger. It will therefore draw a lot of current from the generator or shore side supply (16 A per Quattro at 230 VAC). A current limit can be set on each AC input. The Quattro will then take account of other AC loads and use whatever is spare for charging, thus preventing the generator or shore supply from being overloaded.

PowerAssist - Boosting shore or generator power

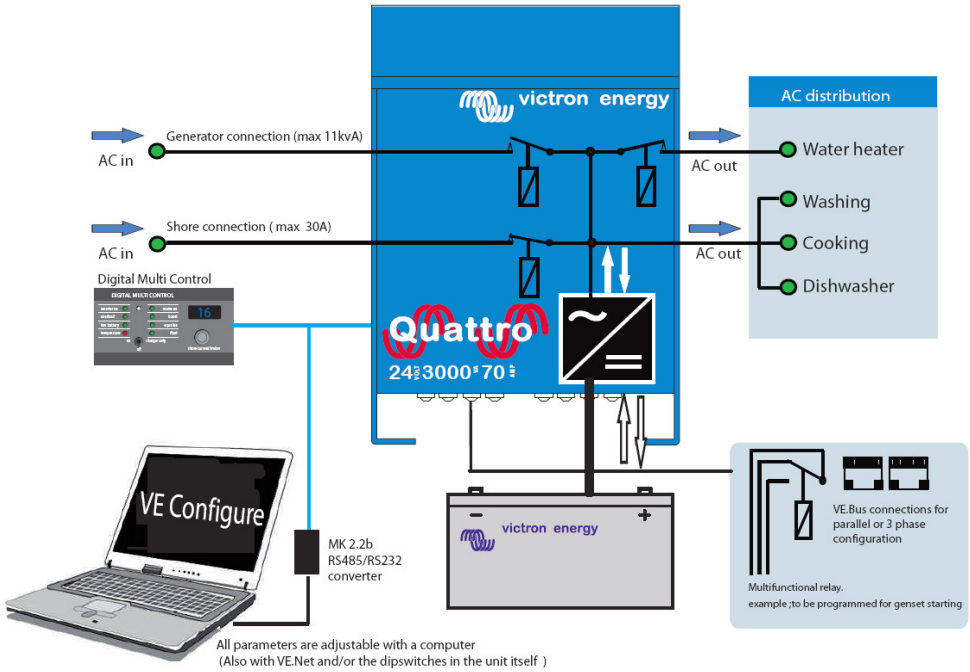
This feature takes the principle of PowerControl to a further dimension allowing the Quattro to supplement the capacity of the alternative source. Where peak power is so often required only for a limited period, the Quattro will make sure that insufficient shore or generator power is immediately compensated for by power from the battery. When the load reduces, the spare power is used to recharge the battery.

Solar energy: AC power available even during a grid failure

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

System configuring has never been easier

After installation, the Quattro is ready to go.
If settings have to be changed, this can be done in a matter of minutes with a new DIP switch setting procedure. Even parallel and 3-phase operation can be programmed with DIP switches: no computer needed!
Alternatively, VE.Net can be used instead of the DIP switches.
And sophisticated software (VE.Bus Quick Configure and VE.Bus System Configurator) is available to configure several new, advanced, features.



Victron Energy B.V. / De Paal 35 / 1351 JG ALMERE / The Netherlands
Phone: (+31) (0)36 535 97 00 / Fax: (+31) (0)36 535 97 40 / www.victronenergy.com / e-mail: sales@victronenergy.com

Quattro

Specifications

Quattro	12/3000/120	24/3000/70	24/5000/120	48/5000/70
PowerControl / PowerAssist	**Yes**			
Integrated Transfer switch	**Yes**			
AC inputs (2x)	Input voltage range: 187-265 VAC		Input frequency: 45 – 65	HzPower factor: 1
Maximum feed through current (A)	50 / 30	50 / 30	2 x 30	50 / 30
INVERTER				
Input voltage range (V DC)	9,5 – 17	19 – 33	19 – 33	38 – 66
Output (1)	Output voltage: 230 VAC ± 2%		Frequency: 50 Hz ± 0,1%	
Cont. output power at 25 °C (VA) (3)	3000	3000	5000	5000
Cont. output power at 25 °C (W)	2500	2500	4250	4250
Cont. output power at 40 °C (W)	2000	2000	3350	3350
Peak power (W)	6000	6000	10.000	10.000
Maximum efficiency (%)	92	94	94	95
Zero-load power (W)	15	15	25	25
Zero load power in AES mode (W)	10	10	20	20
Zero load power in Search mode (W)	4	5	5	6
Auxiliary output (A) (6)	25	25	10	25
CHARGER				
Charge voltage 'absorption' (V DC)	14,4	28,8	28,8	57,6
Charge voltage 'float' (V DC)	13,8	27,6	27,6	55,2
Storage mode (V DC)	13,2	26,4	26,4	52,8
Charge current house battery (A) (4)	120	70	120	70
Charge current starter battery (A)	4			
Battery temperature sensor	Yes			
GENERAL				
Programmable relay (5)	Yes			
Protection (2)	a - g			
Common Characteristics	Operating temp.: -20 to +50°C		Humidity (non condensing) : max 95%	
ENCLOSURE				
Common Characteristics	Material & Colour: aluminium (blue RAL 5012)		Protection category: IP 21	
Battery-connection	Four M8 bolts (2 plus and 2 minus connections)			
230 V AC-connection	Screw terminals 13 mm² (6 AWG)			
Weight (kg)	19	19	30	30
Dimensions (hxwxd in mm)	362 x 258 x 218	362 x 258 x 218	444 x 328 x 240	444 x 328 x 240
STANDARDS				
Safety	EN 60335-1, EN 60335-2-29			
Emission / Immunity	EN55014-1, EN 55014-2, EN 61000-3-3			

1) Can be adjusted to 60 Hz; 120 V 60 Hz on request
2) Protection
   a. Output short circuit
   b. Overload
   c. Battery voltage too high
   d. Battery voltage too low
   e. Temperature too high
   f. 230VAC on inverter output
   g. Input voltage ripple too high
3) Non linear load, crest factor 3:1
4) At 25 °C ambient
5) Programmable relay that can be set for general alarm, DC undervoltage or genset start/stop function
6) Switches off when no external AC source available

Accessories

Digital Multi Control

This panel is intended both for Multi's and Quattro"s.
Allows PowerControl and PowerAssist current limit setting for two AC sources: a generator and shore-side current for example.
Setting range: up to 200 Amps.
The brightness of the LED's is automatically reduced during night time.

Computer controlled operation and monitoring (Victron Interface MK2)

Every Quattro is ready to communicate with a computer through its RS-485 data port. All you need to link to your PC is the data link as shown. This enables you to set and read out all parameters.
(see also 'A guide to VEConfigure')

BMV-600 Battery Monitor

The BMV–600 Battery Monitor features an advanced microprocessor control system combined with high resolution measuring systems for battery voltage and charge/discharge current. Besides this, the software includes complex calculation algorithms, like Peukert's formula, to exactly determine the state of charge of the battery. The BMV–600 selectively displays battery voltage, current, consumed Ah or time to go. The monitor also stores a host of data regarding performance and use of the battery.

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