

## QUATTRO



Inversor / Cargador Victron Energy Quattro



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Digital Multi

### Two AC inputs with integrated transfer switch

The Quattro can be connected to two independent AC sources, for example the public grid 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.

Victron Energy - Unlimited Power - Thanks to AC

## **virtually unlimited power thanks to parallel operation**

Up to 6 Quattro units can operate in parallel. Six units 48/10000/140, for example, will provide 54 kW / 60 kVA output power and 840 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 162 kW / 180 kVA inverter power and more than 2500 A charging capacity.

## **PowerControl – Dealing with limited generator, shoreside or grid power**

The Quattro is a very powerful battery charger. It will therefore draw a lot of current from the generator or shoreside supply (16 A per 5 kVA 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 mains 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 mains 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. Loss of mains detection software is available.

## **System configuring**

- In case of a stand-alone application, if settings have to be changed, this can be done in a matter of minutes with a DIP switch setting procedure.
- Parallel and three phase applications can be configured with VE.Bus Quick Configure and VE.Bus System Configurator software.
- Off grid, grid interactive and self-consumption applications, involving grid-tie inverters and/or MPPT Solar Chargers can be configured with Assistants (dedicated software for specific applications).

## **On-site Monitoring and control**

Several options are available: Battery Monitor, Multi Control Panel, Cerbo, Venus, Color Control panel, or VRM thru any smartphone or tablet (Bluetooth Smart), laptop or computer (USB or RS232).

## **Remote Monitoring and control**

Victron Ethernet Remote, Victron Global Remote and the Color Control Panel. Data can be stored and displayed on our VRM (Victron Remote Management) website, free of charge.

## **Remote configuring**

When connected to the Ethernet, systems with a Color Control panel can be accessed and settings can be changed.

# SPECIFICATIONS

12/3000/120 - 50/50	12/5000/220 - 100/100	24/8000/200- 100/100	48/10000/140- 100/100	48/15000/200- 100/100
24/3000/70 - 50/50	24/5000/120 - 100/100	48/8000/110- 100/100		
	48/5000/70 - 100/100			

## Electrical specifications

PowerControl	Yes	Yes	Yes	Yes	Yes
PowerAssist	Yes	Yes	Yes	Yes	Yes
Transfer switch	2 x 50 Amp	2 x 100 Amp	2 x 100 Amp	2 x 100 Amp	2 x 100 Amp
Parallel and 3-phase operation	Yes	Yes	Yes	Yes	Yes

## Inverter

Output power (continuous) (3)	3000 VA	5000 VA	8000 VA	10000 VA	15000 VA
Output power 25 °C	2400 W	4500 W	7000 W	9000 W	12000 W
Output power 40 °C	2200 W	4000 W	6300 W	8000 W	7000 W
Output Power 65 °C	6000 W	10000 W	16000 W	20000 W	25000 W
Output voltage (1)	230 Vac ±2%				
Output Frequency	50 Hz ±0,1 Hz				
Wave Signal	Pure sinewave				
Maximum efficiency	93 / 94 %	94 / 94 / 95 %	94 / 96 %	96 %	96 %
Zero load power	20 / 20 W	30 / 30 / 35 W	60 / 60 W	60 W	110 W
Zero load power (AES mode)	15 / 15 W	20 / 25 / 30 W	40 / 40 W	40 W	75 W
Zero load power (search)	8 / 10 W	10 / 10 / 15 W	15 / 15 W	15 W	20 W

## Charger

Input voltage	187 - 265 Vac, 45 - 65 Hz, Power factor 1				
Charge current	120 / 70 Amp	220 / 120 / 70 Amp	200 / 110 Amp	140 Amp	200 Amp
Auxiliar Battery charge current	4 Amp (12 and 24 volts only)				
Absorption charge voltage	14,4 / 28,8 Vcc	14,4 / 28,8 / 57,6 Vcc	28,8 / 57,6 Vcc	57,6 Vcc	57,6 Vcc
Float charge voltage	13,8 / 27,6 Vcc	13,8 / 27,6 / 55,2 Vcc	27,6 / 55,2 Vcc	55,2 Vcc	55,2 Vcc
Storage mode voltage	13,2 / 26,4 Vcc	13,2 / 26,4 / 52,8 Vcc	26,4 / 52,8 Vcc	52,8 Vcc	52,8 Vcc
Battery temperature	Included				

sensor

### General

Auxiliary output (A) (5)	25	50	50	50
Programmable relay (6)			3x	
Protection (2)			a - g	
VE.Bus communication port	For parallel and three phase operation, remote monitoring and system integration			
General purpose com. port			2x	
Remote on-off			Yes	
Operating temperature range			-40 to 65 °C	

### Mechanical specifications

Material and colour	Aluminium - Blue RAL 5012				
Device mounting	Wall mount (backplate included).				
Battery connections	Four M8 bolts (2 plus and 2 minus connections)				
Battery connections	Screw terminals 13 mm <sup>2</sup> (6 AWG)	Bolts M6			
Inverter Dimensions (mm)	362 x 258 x 218	470 x 350 x 280 444 x 328 x 240 444 x 328 x 240	470 x 350 x 280	470 x 350 x 280	572 x 488 x 344
Weight	19 Kgr	34 / 30 / 30 Kgr	45 / 41 Kgr	51 Kgr	72 Kgr

### Environmental specifications

IP Degree of protection	IP 21
Operating temperature range	- 25 to 50 °C
Warranty	5 years

### Standards

Safety	EN-IEC 60335-1, EN-IEC60335-2-29, EN 62109-1
Emission, Immunity	EN 55014-1, EN 55014-2, EN-IEC 61000-3-2, EN-IEC 61000-3-3, IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3
Automotive Directive	12 and 24 V models: ECE R10-4

1) Can be adjusted to 60 HZ; 120 V 60 Hz on request

2) Protection key:

- a) output short circuit
- b) overload
- c) battery voltage too high
- d) battery voltage too low
- e) temperature too high
- f) 230 VAC on inverter output
- g) input voltage ripple too high


3) Max. line load, exact factor 2.1

- 3) Non-linear load, crest factor 3:1
- 4) At 25°C ambient
- 5) Switches off when no external AC source available
- 6) Programmable relay that can a.o. be set for general alarm,
  - DC under voltage or genset start/stop function
  - AC rating: 230 V / 4 A
  - DC rating: 4 A up to 35 VDC, 1 A up to 60 VDC

## DOWNLOADS

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CATÁLOGO GENERAL BORNAY 14-15

 [Catalogo-Bornay-1415.pdf](#) (10.41 MiB)  
Size: 10.41 MiB

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