

Quattro Inverter/Charger 3 kVA and 5 kVA

(120 V / 60 Hz)

Lithium-Ion battery compatible

www.victronenergy.com

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 units can operate in parallel. Six units 48/5000/70, for example, will provide 27 kW / 30 kVA output power and 420 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 81 kW / 90 kVA inverter power and 1260 A charging capacity.

Split phase options

Two units can be stacked to provide 120-0-120 V, and additional units can be paralleled up to a total of 6 units per phase, to supply up to 30 kW / 36 kVA of split phase power.

Alternatively, a split phase AC source can be obtained by connecting our autotransformer (see data sheet on www.victronenergy.com) to a 'European' inverter programmed to supply 240 V / 60 Hz.

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 (Up to 40 A per 5 kVA Quattro at 120 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

- 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, Ve.Net Blue Power panel, Color Control panel, 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

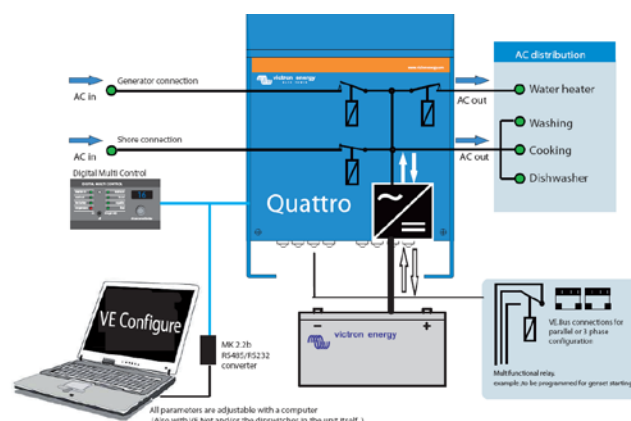
When connected to the Ethernet, systems with a Color Control panel can be accessed and settings can be changed.



Quattro
24/5000/120-100/100



Color Control panel, showing a PV application



Quattro	12/5000/200-100/100 120 V	24/5000/120-100/100 120 V	48/3000/35-50/50 120 V	48/5000/70-100/100 120 V
PowerControl / PowerAssist	Yes			
Integrated Transfer switch	Yes			
AC inputs (2x)	Input voltage range: 90-140 VAC Input frequency: 45 – 65 Hz Power factor: 1			
Maximum feed through current (A)	2x100	2x100	2x50	2x100
INVERTER				
Input voltage range (V DC)	9,5 - 17	19 - 33	37,2 – 64,4	37,2 – 64,4
Output (1)	Output voltage: 120 VAC ± 2%		Frequency: 60 Hz ± 0,1%	
Cont. output power at 25°C / 77°F (VA) (3)	5000	5000	3000	5000
Cont. output power at 25°C / 77°F (W)	4000	4000	2400	4000
Cont. output power at 40°C / 104°F (W)	3700	3700	2200	3700
Cont. output power at 65°C / 150°F (W)	3000	3000	1700	3000
Peak power (W)	10000	10000	6000	10000
Maximum efficiency (%)	94	94	94	95
Zero load power (W)	30	30	25	35
Zero load power in AES mode (W)	20	25	20	30
Zero load power in Search mode (W)	10	10	12	15
CHARGER				
Charge voltage 'absorption' (V DC)	14,4	28,8	57,6	57,6
Charge voltage 'float' (V DC)	13,8	27,6	55,2	55,2
Storage mode (V DC)	13,2	26,4	52,8	52,8
Charge current house battery (A) (4)	200	120	35	70
Charge current starter battery (A)	4	4	n. a.	n. a.
Battery temperature sensor	Yes			
GENERAL				
Auxiliary output (A) (5)	50	50	32	50
Programmable relay (6)	3x	3x	3x	3x
Protection (2)	a-g			
VE.Bus communication port	For parallel and three phase operation, remote monitoring and system integration			
General purpose com. port (7)	Yes, 2x			
Remote on-off	Yes			
Common Characteristics	Operating temp.: -40 - +65°C (-40 - 150°F) 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	M6 bolts	M6 bolts	Screw terminals 13 mm ² (6 AWG)	M6 bolts
Weight (kg)	75 lb 34 kg	66 lb 30 kg	42 lb 19 kg	66 lb 30 kg
Dimensions (hwxwd)	18,5 x 14,0 x 11,2 inch 470 x 350 x 280 mm	17,5 x 13,0 x 9,6 inch 444 x 328 x 240 mm	14,3 x 10,2 x 8,6 inch 362 x 258 x 218 mm	17,5 x 13,0 x 9,6 inch 444 x 328 x 240 mm
STANDARDS				
Safety	EN 60335-1, EN 60335-2-29			
Emission, Immunity	EN 55014-1, EN 55014-2, EN 61000-3-3			
1) Can be adjusted to 50 Hz	3) Non-linear load, crest factor 3:1			
2) Protection key:	4) At 25°C ambient			
a) output short circuit	5) Switches off when no external AC source available			
b) overload	6) Programmable relay that can be set for general alarm, DC under voltage or genset start/stop function			
c) battery voltage too high	AC rating: 120 V / 4 A			
d) battery voltage too low	DC rating: 4 A up to 35 VDC, 1 A up to 60 VDC			
e) temperature too high	7) A.o. to communicate with a Lithium-Ion battery BMS			
f) 120 VAC on inverter output				
g) input voltage ripple too high				



Digital Multi Control

A convenient and low cost solution for remote monitoring, with a rotary knob to set PowerControl and PowerAssist levels.



Blue Power Panel

Connects to a Multi or Quattro and all VE.Net devices, in particular the VE.Net Battery Controller.

Graphic display of currents and voltages.



Computer controlled operation and monitoring

Several interfaces are available:

- MK2.2 VE.Bus to RS232 converter

Connects to the RS232 port of a computer (see 'A guide to VEConfigure')

- MK2-USB VE.Bus to USB converter

Connects to a USB port (see 'A guide to VEConfigure')

- VE.Net to VE.Bus converter

Interface to VE.Net (see VE.Net documentation)

- VE.Bus to NMEA 2000 converter

- Victron Global Remote

The Global Remote is a modem which sends alarms, warnings and system status reports to cellular phones via text messages (SMS). It can also log data from Victron Battery Monitors, Multis, Quattros and Inverters to a website through a GPRS connection. Access to this website is free of charge.

- Victron Ethernet Remote

To connect to Ethernet.

- Color Control panel (see picture on page 1)

Behind the color LCD a Linux microcomputer runs open source software. The Color Control (CCGX) provides intuitive control and monitoring for all products connected to it. The list of Victron products that can be connected is endless: Inverters, Multis, Quattros, all our latest MPPT solar chargers, BMV-700, BMV-600, Lynx Ion + Shunt and more. The information can also be forwarded to our free remote monitoring website: the VRM Online Portal.



BMV-700 Battery Monitor

The BMV-700 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-700 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.