

## Quattro Inverter/Charger

Lithium Ion battery compatible

3kVA - 15kVA

#### www.victronenergy.com



Quattro 48/5000/70-100/100



Quattro 48/15000/200-100/100

#### 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.

#### 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 48kW / 60kVA 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 144kW / 180kVA inverter power and more than 2500A 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 (16A per 5kVA Quattro at 230VAC). 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, 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, Venus GX and the Color Control Panel.

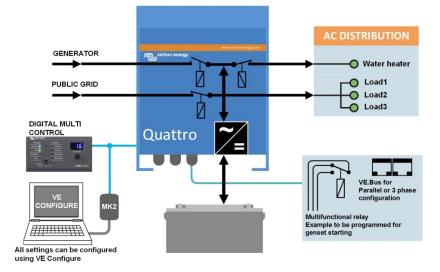
Data can be stored and displayed on our VRM (Victron Remote Management) website, free of charge.

#### **Remote configuring**

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



Color Control panel, showing a PV application



Quattro	12/3000/120-50/50 24/3000/70-50/50	12/5000/220-100/100 24/5000/120-100/100 48/5000/70-100/100	24/8000/200-100/100 48/8000/110-100/100	48/10000/140- 100/100	48/15000/200- 100/100
PowerControl / PowerAssist			Yes	100/100	100/100
ntegrated Transfer switch	Yes				
C inputs (2x)		1 3 3	265 VAC Input frequency:		
laximum feed through current (A)	2x 50	2x100 INVERTER	2x100	2x100	2x100
nput voltage range (V DC)			,5 – 17V 19 – 33V 38 – (	66V	
utput (1)		Output voltage	e: 230 VAC ± 2% Frequer	ncy: 50 Hz ± 0,1%	
ont. output power at 25°C (VA) (3)	3000	5000	8000	10000	15000
ont. output power at 25°C (W)	2400	4000	6500	8000	12000
ont. output power at 40°C (W)	2200	3700	5500	6500	10000
ont. output power at 65°C (W) eak power (W)	1700 6000	3000 10000	3600 16000	4500 20000	7000 25000
laximum efficiency (%)	93 / 94	94 / 94 / 95	94 / 96	96	96
ero load power (W)	20/20	30 / 30 / 35	45 / 50	55	80
ero load power in AES mode (W)	15/15	20 / 25 / 30	30 / 30	35	50
ero load power in Search mode (W)	8/10	10/10/15	10 / 20	20	30
		CHARGER			
harge voltage 'absorption' (V DC)	14,4 / 28,8	14,4 / 28,8 / 57,6	28,8 / 57,6	57,6	57,6
harge voltage 'float' (V DC)	13,8 / 27,6	13,8 / 27,6 / 55,2	27,6 / 55,2 26,4 / 52,8	55,2 52,8	55,2
torage mode (V DC) harge current house battery (A) (4)	13,2 / 26,4 120 / 70	13,2 / 26,4 / 52,8 220 / 120 / 70	26,4 / 52,8 200 / 110	52,8 140	52,8 200
harge current starter battery (A)	120770	220/120/70	4 (12V and 24V models only		200
attery temperature sensor			Yes		
		GENERAL			
uxiliary output (A) (5)	25	50	50	50	50
rogrammable relay (6)	3x	3x	3x	3x	3x
rotection (2)		Faussenellal and three who	a-g		
E.Bus communication port eneral purpose com. port	2x	For parallel and three pha	se operation, remote monito 2x	2x	on 2x
emote on-off	2X	2X	Yes	2X	28
Common Characteristics		Operating temp.: -40	) to +65°C Humidity (non-c	condensing): max. 95%	
		ENCLOSURI			
ommon Characteristics			minium (blue RAL 5012) Pr	<b>,</b>	
Battery-connection	Screw terminals 13 mm <sup>2</sup>	Four M8	bolts (2 plus and 2 minus co	onnections)	
30 V AC-connection	(6 AWG)	Bolts M6	Bolts M6	Bolts M6	Bolts M6
Veight (kg)	19	34 / 30 / 30	45 / 41	51	72
	2/2 252 242	470 x 350 x 280	470 050 000	470 050 000	570 400 044
Dimensions (hxwxd in mm)	362 x 258 x 218	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
		STANDARD	s s		
Safety			60335-1, EN-IEC 60335-2-29,		
mission, Immunity	EN 5501	4-1, EN 55014-2, EN-IEC 61	000-3-2, EN-IEC 61000-3-3, IE		2, IEC 61000-6-3
Road vehicles			12V and 24V models: ECE I	R10-4	
Anti-islanding ) Can be adjusted to 60 HZ; 120 V 60 Hz on re	equest	3) Non-linear load, cre	See our website		
<ul> <li>Protection key:</li> <li>a) output short circuit</li> <li>b) overload</li> <li>c) battery voltage too high</li> <li>d) battery voltage too low</li> <li>e) temperature too high</li> <li>f) 230 VAC on inverter output</li> <li>g) input voltage ripple too high</li> </ul>		4) At 25°C ambient 5) Switches off when 6) Programmable rela DC under voltage o AC rating: 230 V / 4	no external AC source available y that can a.o. be set for general r genset start/stop function	alarm,	
	•	iter controlled operation nterfaces are available:	-		
Digital Multi Control Panel A convenient and low cost solution for remote monitoring, with a rotary knob to set PowerControl and PowerAssist levels.		Color Control GX         Monitoring and control. Locally, and also remotely on the VRM Portal.         MK3-USB VE.Bus to USB interface         Connects to a USB port (see 'A guide to VEConfigure')		The BMV-700 an advanced system comb resolution me battery volta current. Besic includes com algorithms, li exactly deter	attery Monitor Battery Monitor featu microprocessor contro ined with high easuring systems for ge and charge/dischar les this, the software plex calculation ke Peukert's formula, t mine the state of charg
Slue Power Panel	/E.Net	Connects the	IMEA 2000 interface device to a NMEA2000 mari etwork. See the NMEA2000 <i>8</i>	selectively di current, cons	r. The BMV-700 splays battery voltage, umed Ah or time to go

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

Graphical display of currents and voltages.

# electronics network. See the <u>NMEA2000 & MFD</u> integration guide