

# 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.

### 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<br>24/3000/70 - 50/50 | 12/5000/220 - 100/100<br>24/5000/120 - 100/100<br>48/5000/70 - 100/100 | 24/8000/200-100/100<br>48/8000/110-100/100 | 48/10000/140-100/100 | 48/15000/200-100/100 |
|----------------------------------|---|--|--|----------------------|----------------------|
| <b>Electrical specifications</b> |   |  |  |                      |                      |
| 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                  |
| <b>Inverter</b>                  |   |  |  |                      |                      |
| 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            |
| <b>Charger</b>                      |  |   |                 |                 |                 |
| 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 sensor          | Included   |   |                 |                 |                 |
| <b>General</b>                      |  |   |                 |                 |                 |
| 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   |   |                 |                 |                 |
| <b>Mechanical specifications</b>    |  |   |                 |                 |                 |
| 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 mm2 (6 AWG)   |   | Bolts M6        |                 |                 |
| Inverter Dimensions (mm)            | 362 x 258 x 218  | 470 x 350 x 280<br>444 x 328 x 240<br>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          |
| <b>Environmental specifications</b> |  |   |                 |                 |                 |
| IP Degree of protection             | IP 21  |   |                 |                 |                 |
| Operating temperature range         | - 25 to 50 °C  |   |                 |                 |                 |
| Warranty                            | 5 years  |   |                 |                 |                 |
| <b>Standards</b>                    |  |   |                 |                 |                 |
| 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) 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

CATÁLOGO GENERAL 2020

 [Catalogo-Bornay-0520.pdf](#)

Size: 21.51 MiB