# EasySolar 12V and 24V, 1600VA

## The all-in-one solar power solution

www.victronenergy.com


### All-in-one solar power solution

The EasySolar combines a MPPT solar charge controller, an inverter/charger and AC distribution in one enclosure.
The product is easy to install, with a minimum of wiring.

### The solar charge controller: Blue Solar MPPT 100/50

Up to three strings of PV panels can be connected to three sets of MC4 (PV-ST01) PV connectors.

### The inverter/charger: MultiPlus Compact 12/1600/70 or 24/1600/40

The MPPT charge controller and the MultiPlus Compact inverter/charger share the DC battery cables (included). The batteries can be charged with solar power (BlueSolar MPPT) and/or with AC power (inverter/charger) from the utility grid or a genset.

### AC distribution

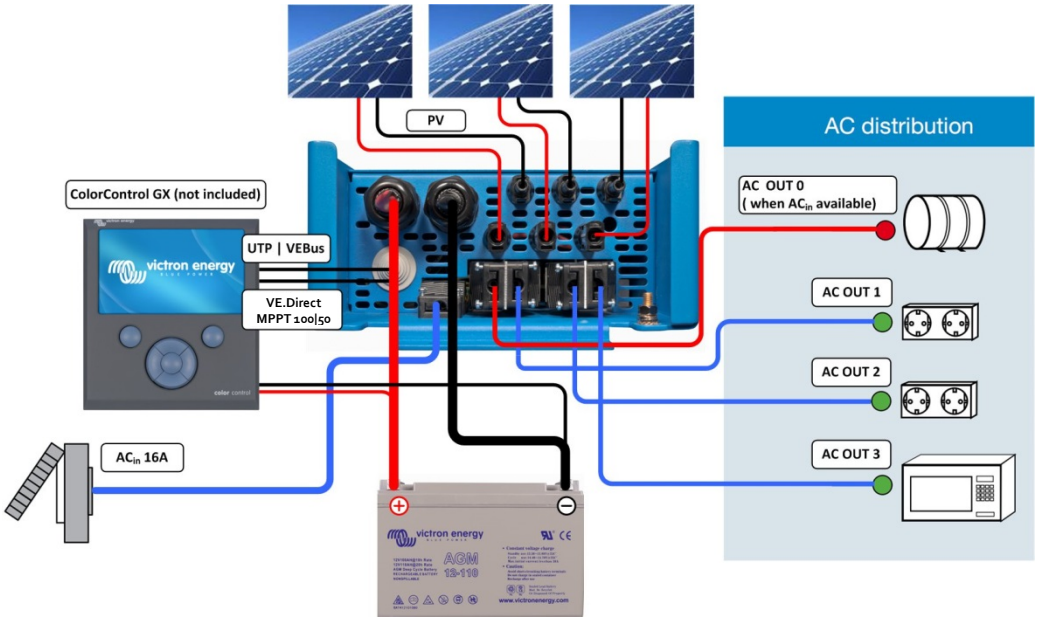
The AC distribution consists of a RCD (30 mA/16 A) and four AC outputs protected by two 10A and two 16A circuit breakers.
One 16A output is controlled by the AC input: it will switch on only when AC is available.

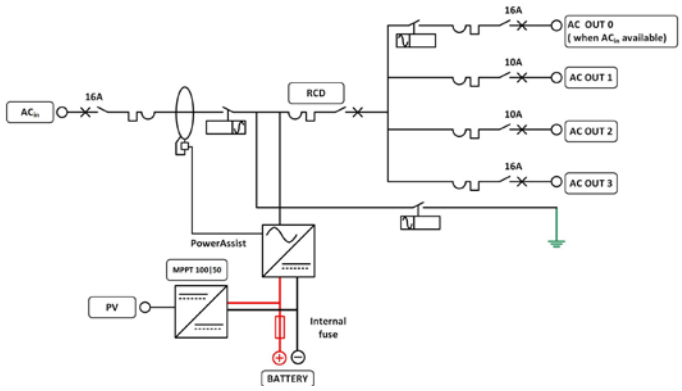
### PowerAssist

Unique PowerAssist technology protects the utility or generator supply from being overloaded by adding extra inverter power when needed.

### Unique solar application software

Several software programs (Assistants) are available to configure the system for various grid interactive or stand-alone applications. Please see
http://www.victronenergy.nl/support-and-downloads/software/

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| EasySolar | EasySolar 12/1600/70 | EasySolar 24/1600/40 |
|---|---|---|
| **Inverter/charger** | | |
| Transfer switch | 16A | |
| **INVERTER** | | |
| Input voltage range | 9,5 – 17V | 19 – 33V |
| 'Heavy duty' output AC o | 16 A | |
| Output AC1, 2, 3 | Output voltage: 230 VAC ± 2%<br>Frequency: 50 Hz ± 0,1% (1) | |
| Cont. output power at 25°C (3) | 1600VA / 1300W | |
| Cont. output power at 40°C | 1200W | |
| Peak power | 3000W | |
| Maximum efficiency | 92% | 94% |
| Zero load power | 8W | 10W |
| Zero load power in search mode | 2W | 3W |
| **CHARGER** | | |
| AC Input | Input voltage range: 187-265 VAC<br>Input frequency: 45 – 65 Hz Power factor: 1 | |
| Charge voltage 'absorption' | 14,4V | 28,8V |
| Charge voltage 'float' | 13,8V | 27,6V |
| Storage mode | 13,2V | 26,4V |
| Charge current house battery (4) | 70A | 40A |
| Charge current starter battery (A) | 4 | |
| Battery temperature sensor | yes | |
| Programmable relay (5) | yes | |
| Protection (2) | a - g | |
| **Solar Charge Controller** | | |
| Model | MPPT 100/50 | |
| Maximum output current | 50 A | |
| Maximum PV power, 6a,b) | 700W | 1400W |
| Maximum PV open circuit voltage | 100V | 100V |
| Maximum efficiency | 98% | |
| Self-consumption | 10 mA | |
| Charge voltage 'absorption', default setting | 14,4V | 28,8V |
| Charge voltage 'float', default setting | 13,8V | 27,6V |
| Charge algorithm | multi-stage adaptive | |
| Temperature compensation | -16 mV / °C | -32 mV / °C |
| Protection | a - g | |
| **COMMON CHARACTERISTICS** | | |
| Operating temp. range | -20 to +50°C (fan assisted cooling) | |
| Humidity (non-condensing): | max 95% | |
| **ENCLOSURE** | | |
| Material & Colour | aluminium (blue RAL 5012) | |
| Protection category | IP 21 | |
| Battery-connection | Battery cables of 1.5 meter | |
| PV connection | Three sets of MC4 (PV-ST01) PV connectors. | |
| 230 V AC-connection | G-ST18i connector | |
| Weight | 15kg | |
| Dimensions (hxwxd) | 745 x 214 x 110mm | |
| **STANDARDS** | | |
| Safety | EN 60335-1, EN 60335-2-29, EN 62109 | |
| Emission / Immunity | EN 55014-1, EN 55014-2, EN 61000-3-3 | |
| Automotive Directive | 2004/104/EC | |

1) Can be adjusted to 60Hz and to 240V
2) Protection
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) Programmable relay which can be set for general alarm, DC under voltage or genset start signal function
6a) If more PV power is connected, the controller will limit input power to 700 W resp. 1400 W
6b) PV voltage must exceed Vbat + 5V for the controller to start. Thereafter minimum PV voltage is Vbat + 1V

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