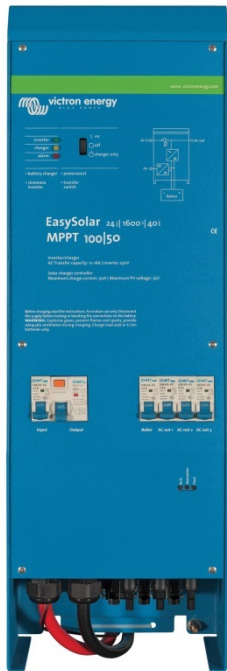


# EasySolar 12V and 24V, 1600VA

The all-in-one solar power solution

[www.victronenergy.com](http://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.

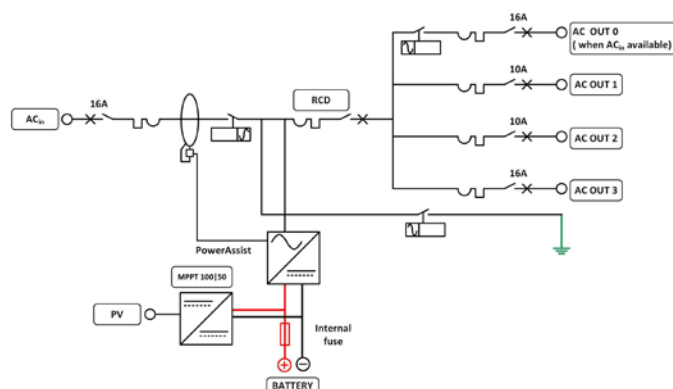
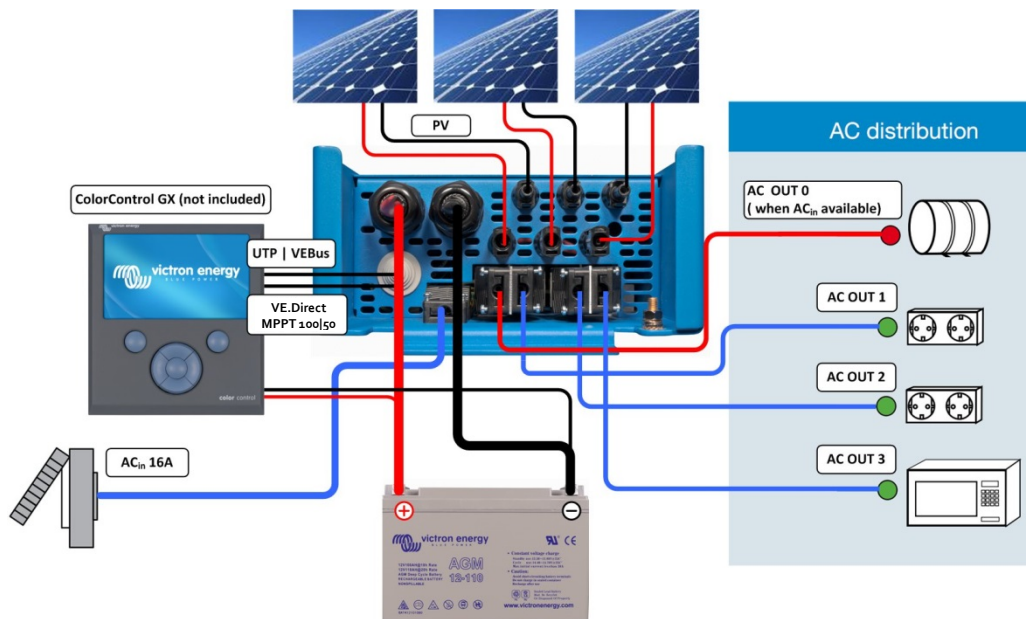
### PowerAssist

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/>



| EasySolar  | EasySolar 12/1600/70   | EasySolar 24/1600/40 |
|--|--|----------------------|
| <b>Inverter/charger</b>  |  |                      |
| Transfer switch  | 16A  |                      |
| <b>INVERTER</b>  |  |                      |
| 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                   |
| <b>CHARGER</b>   |  |                      |
| 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  |                      |
| <b>Solar Charge Controller</b>   |  |                      |
| 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  |                      |
| <b>COMMON CHARACTERISTICS</b>  |  |                      |
| Operating temp. range  | -20 to +50°C (fan assisted cooling)  |                      |
| Humidity (non-condensing):   | max 95%  |                      |
| <b>ENCLOSURE</b>   |  |                      |
| 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 (hxwx d)  | 745 x 214 x 110mm  |                      |
| <b>STANDARDS</b>   |  |                      |
| 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<br>2) Protection<br>a. Output short circuit<br>b. Overload<br>c. Battery voltage too high<br>d. Battery voltage too low<br>e. Temperature too high<br>f. 230 VAC on inverter output<br>g. Input voltage ripple too high | 3) Non-linear load, crest factor 3:1<br>4) At 25°C ambient<br>5) Programmable relay which can be set for general alarm, DC under voltage or genset start signal function<br>6a) If more PV power is connected, the controller will limit input power to 700 W resp. 1400 W<br>6b) PV voltage must exceed Vbat + 5V for the controller to start. Thereafter minimum PV voltage is Vbat + 1V |                      |