

MultiGrid 3000 VA

The flexible energy storage and self-consumption solution

www.victronenergy.com

VDE-AR-N 4105 approval

(and other country specific approvals will follow soon)



Combined with the flexibility of a MultiPlus bidirectional converter

The MultiPlus range of bidirectional converters is the worldwide product of choice on boats and vehicles to generate AC power, and to recharge batteries, either with shore power or an onboard AC generator.

The MultiPlus also is the industry standard in on-grid and off-grid energy storage systems and is approved for use in energy storage and self-consumption systems in the UK (G83/2 and G59-3-1 standards).

Several hardware and firmware modifications were needed to qualify for VDE-AR-N 4105 and several other country specific energy storage related standards.

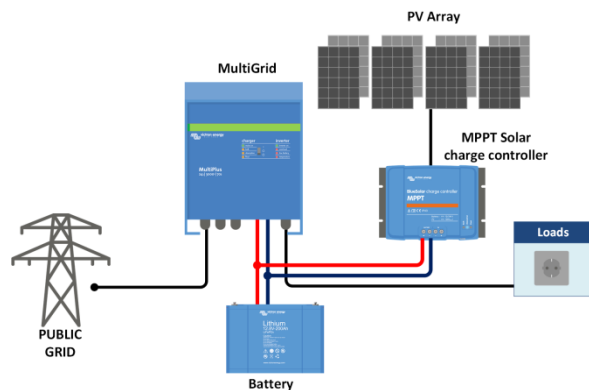
The resulting product is the **MultiGrid**.

The MultiGrid fits seamlessly in all common energy storage topologies

There is no one-size-fits-all solution to energy storage. The building blocks, topology and control systems will depend on local conditions and regulations.

The MultiGrid hardware, together with a wide range of software tools, seamlessly fits in all common topologies, shown in the pictures below.

More detail can be found in our Energy Storage brochure.



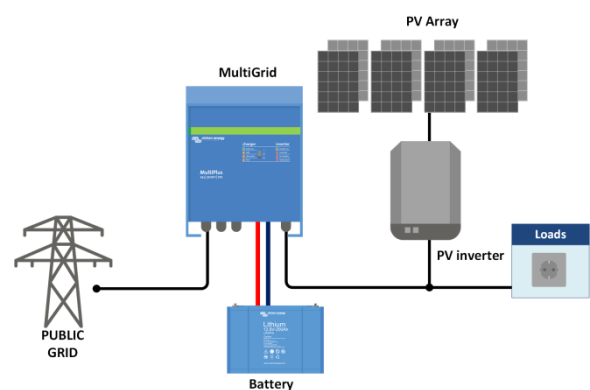
Hub 1

Grid in-line topology with MPPT solar charge controller.

A solar charge controller supplies PV power to the battery.

The stored energy is used by the MultiGrid to supply AC power to the load and, if required, to feed excess solar power back into the grid.

In case of a utility power outage, the MultiGrid will disconnect the grid and continue to supply the load.



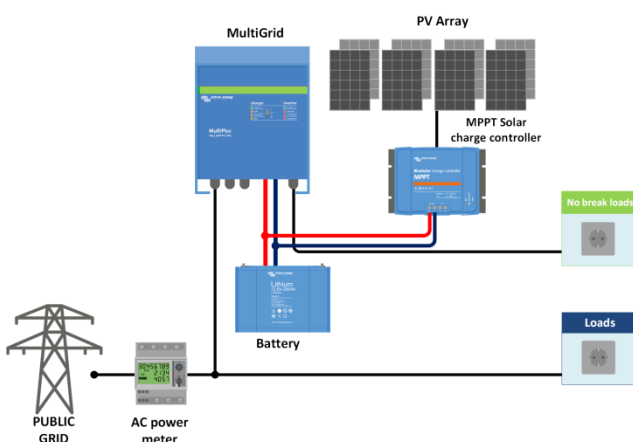
Hub 2

Grid in-line topology with PV inverter.

PV power is converted to AC.

The MultiGrid will use excess PV power to charge the batteries or to feed power back into the grid, and will discharge the battery or use power from the grid to supplement a shortage of PV power.

In case of a power outage, the MultiGrid will disconnect the grid and continue to supply the load.

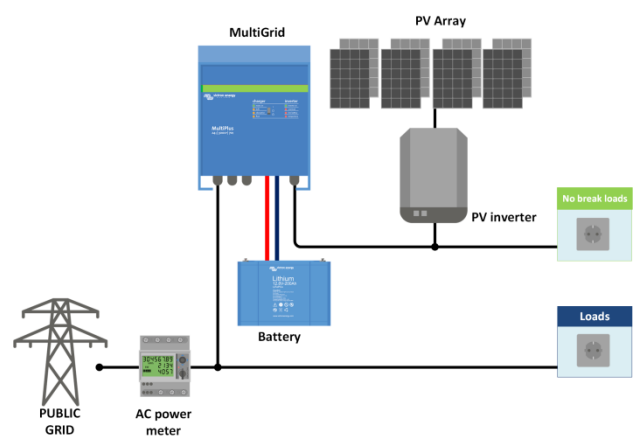


Hub 4-1

Grid parallel topology with MPPT solar charge controller.

Certain critical loads only are protected against a power outage.

The MultiGrid will use data from the power meter to optimise self-consumption and, if required, to prevent back feed of excess solar power into the grid.

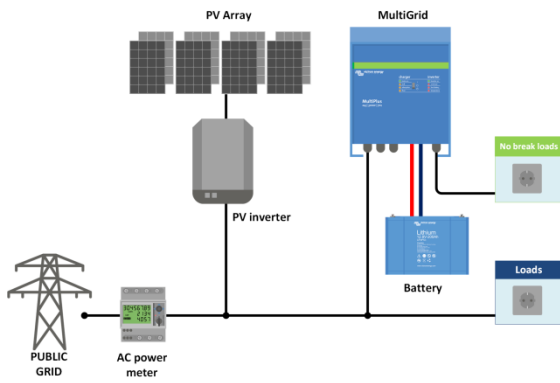


Hub 4-2

Grid parallel topology with PV inverter.

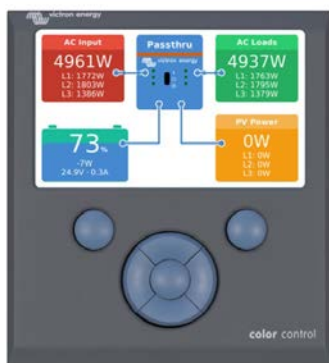
Certain critical loads only are protected against a power outage.

The MultiGrid will use data from the power meter to optimise self-consumption and, if required, to prevent back feed of excess solar power into the grid.



Hub 4-3

Grid parallel topology with PV inverter. Similar to Hub 4-2 but in this topology the PV inverter will shut down in case of a power outage. Certain critical loads only are protected against a power outage. The MultiGrid will use data from the power meter to optimise self-consumption and, if required, to prevent back feed of excess solar power into the grid.



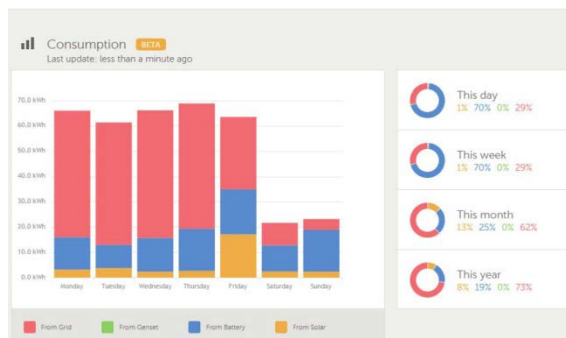
Color Control Panel (CCGX)

Provides intuitive system control and monitoring. Besides system monitoring and control the CCGX enables access to our free remote monitoring website: the VRM Online Portal



VRM app

Monitor and manage your Victron Energy system from your smart phone and tablet. Available for both iOS and Android.



VRM Portal

Our free remote monitoring website (VRM) can display all your systems data in a comprehensive graphical format. System settings can be changed remotely via the portal. Alarms can be received by e-mail.

MultiGrid	24 Volt 48 Volt	24/3000/70 48/3000/35
PowerControl & PowerAssist		Yes
Transfer switch		50 A
INVERTER		
Input voltage range		19 – 33 V 38 – 66 V
Output		Output voltage: 230 VAC ± 2% Frequency: 50 Hz ± 0,1% (1)
Cont. output power at 25°C (3)		3000 VA
Cont. output power at 25°C		2400 W
Cont. output power at 40°C		2200 W
Cont. output power at 65°C		1700 W
Peak power (W)		6000 W
Maximum efficiency		94 / 95 %
Zero load power		20 / 25 W
Zero load power in AES mode		15 / 20 W
Zero load power in Search mode		10 / 12 W
CHARGER		
AC Input		Input voltage range: 187-265 VAC Input frequency: 45 – 65 Hz
Charge voltage 'absorption'		28,8 / 57,6 V
Charge voltage 'float'		27,6 / 55,2 V
Storage mode		26,4 / 52,8 V
Charge current house battery (4)		70 / 35 A
Battery temperature sensor		yes
GENERAL		
Auxiliary output (5)		Yes (16 A)
Programmable relay (6)		Yes
Protection (2)		a - g
VE.Bus communication port		For parallel and three phase operation, remote monitoring and system integration
General purpose com. port		Yes
Remote on-off		Yes
Operating temperature range		-40 to +65°C (fan assisted cooling)
Humidity (non-condensing)		max 95%
ENCLOSURE		
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		Screw terminals 13 mm ² (6 AWG)
Weight		18 kg
Dimensions (hwxwd)		362 x 258 x 218 mm
STANDARDS		
Safety		EN-IEC 60335-1, EN-IEC 60335-2-29, EN-IEC 62109-1, EN-IEC 62109-2
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
Uninterruptible power supply		IEC 62040-1
Anti-islanding		VDE-AR-N 4105
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		