MultiPlus-II Inverter/chargers for ESS use in Australia

48/3000/35-32 230V AU, 48/3000/35-32 230V GX AU, 48/5000/70-50 230V AU, 48/5000/70-50 230V GX AU

MultiPlus-II

MultiPlus-II GX

The MultiPlus-II and ESS (Energy Storage System) functionality

The MultiPlus-II is a multifunctional inverter/charger with all the features of the MultiPlus, plus an external current sensor option which extends the PowerControl and PowerAssist function to 50A resp. 100A.
The MultiPlus-II is ideally suited for professional marine, yachting, vehicle and land based off-grid applications.
It also has built-in anti-islanding functionality, and an increasingly long list of country approvals for ESS application. Several system configurations are possible. For more detailed information see the ESS Design and configuration manual.

The MultiPlus-II GX

The MultiPlus-II GX model integrates a MultiPlus-II inverter/charger and a GX device with a 2x16-character display and the VE.Can, VE.Direct, USB and Ethernet ports.

PowerControl and PowerAssist - Boosting the capacity of a generator

A maximum grid or generator current can be set. The MultiPlus-II will then take account of other AC loads and use whatever is extra for battery charging, thus preventing the generator from being overloaded (PowerControl function).
PowerAssist takes the principle of PowerControl to a further dimension. Where peak power is so often required only for a limited period, the MultiPlus-II will compensate for insufficient generator power with power from the battery. When the load reduces, the spare power is used to recharge the battery.

Solar energy: AC power is available even during a grid failure

The MultiPlus-II can be used in off grid as well as grid connected PV and other alternative energy systems. It is compatible with both solar charger controllers and grid-tie inverters.

Two AC Outputs

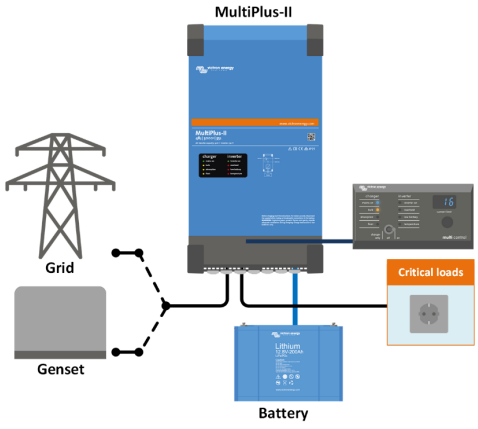
The main AC output features no-break functionality. Upon grid disconnection the MultiPlus-II takes over the load supply in under 20ms, ensuring uninterrupted operation of computers and electronics.
The second AC output is active only when grid power is available on the AC input. Use this to connect non-critical loads that should not deplete battery, e.g., water heater or air conditioner.

Virtually unlimited power thanks to parallel and three-phase operation

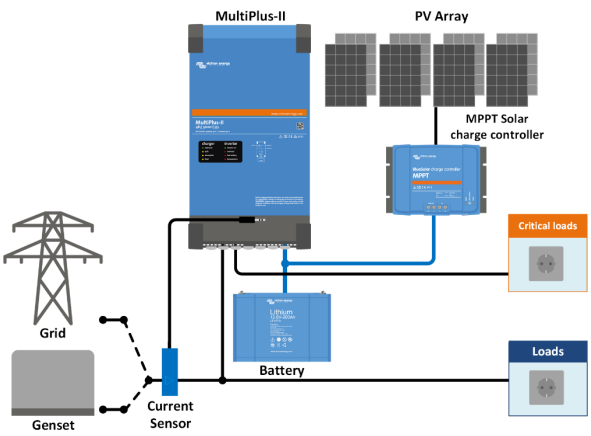
Up to six units can operate in parallel to achieve higher power output. Six 48/5000/70 units, for example, will provide 25kW / 30kVA output power with 420A charging capacity.
In addition to parallel connection, three units of the same model can be configured for three-phase output. But that's not all: up to six sets of three units can be parallel connected for a 75kW / 90kVA inverter and more than 1200A charging capacity.
For parallel and three-phase setups, you can create a multi-unit system with one GX unit and other non-GX units.

Configuring, monitoring and control

Settings can be changed in a matter of minutes with the VictronConnect app or VEConfigure software (computer or laptop and MK3-USB interface needed) or via the VRM portal.
Use the MultiPlus-II GX or add a Cerbo GX, Ekrano GX or Color Control GX to a MultiPlus-II for local or remote connectivity.
Operational data can be stored and displayed on our VRM (Victron Remote Management) website, free of charge.
When connected to the internet, systems can be accessed remotely, and settings can be changed.
Other monitoring and control options are available as well, like the VictronConnect app together with a VE.Bus Smart dongle, a Battery Monitor or the Digital Multi Control Panel.



Standard application



Grid parallel topology with MPPT solar charge controller

Ekrano GX or Cerbo GX

Provides intuitive system control and monitoring and enables access to our free remote monitoring website: the VRM Online Portal.
Note: not required the MultiPlus-II GX unit, as these have an in-built GX device.

VRM Portal

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

VRM app

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

Current Transformer

To implement PowerControl and PowerAssist and to optimize self-consumption with external current sensing. Maximum current: 100A

Interface MK3-USB

Needed to configure the MultiPlus, Can be used with the VictronConnect app or VE.Configure software. The interface connects to the MultiPlus via an RJ45 UTP cable and plugs into a USB port.

MultiPlus-II	48/3000/35-32 230V AU	48/3000/35-32 230V GX AU	48/5000/70-50 230V AU	48/5000/70-50 230V GX AU
PowerControl & PowerAssist	Yes			
Transfer switch	32 A		50 A	
Maximum AC input current	32 A		50 A	
INVERTER				
DC Input voltage range	38 – 66 V			
AC Output voltage	230 V ± 2%			
AC output frequency	50 Hz ± 0,1% (1)			
AC output current	11 A		19 A	
Cont. output power at 25°C (3)	3000 VA		5000 VA	
Cont. output power at 25°C	2400 W		4000 W	
Cont. output power at 40°C	2200 W		3700 W	
Cont. output power at 65°C	1700 W		3000 W	
Max apparent feed-in power	3000 VA		5000 VA	
Peak power	5500 W		9000 W	
Maximum output fault current	32A for 1s		53A for 1s	
Max. output overcurrent protection	32 A		53 A	
Overvoltage category for all ports	OVC III			
Active anti-islanding method	Frequency Shift method			
Maximum battery discharge current	75 A		110 A	
Maximum efficiency	95%		96%	
Zero load power	11 W		18 W	
Zero load power in AES mode	7 W		12 W	
Zero load power in Search mode	2 W		2 W	
Inverter topology	Isolated			
CHARGER				
AC Input voltage range	187-250 V			
AC Input frequency range	45 – 65 Hz			
Charge voltages	Absorption: 55.6 V, Foat: 55.2V, Storage: 52.8V			
Max. battery charge current (4)	35 A		70 A	
Battery temperature sensor	Yes			
Compatible battery chemistries	Lead-acid, Lithium, Zinc-Bromine and others (5)			
GENERAL				
Auxiliary AC output	Yes (32A)			
External AC current sensor (optional)	50A		100A	
Programmable relay (6)	Yes			
Protection (2)	a – g			
Inbuilt GX device	No	Yes	No	Yes
VE.Bus communication port	Yes			
VE.Can port	No	Yes	No	Yes
VE.Direct port	No	Yes	No	Yes
USB port	No	Yes	No	Yes
Ethernet port	No	Yes	No	Yes
WiFi	No	Yes	No	Yes
General purpose communication port	Yes, 2x			
Remote on/off terminal	Yes			
Operating temperature range	-20 to +65°C (fan assisted cooling)			
Rated short-time withstand current	6 kA (Icw)			
Environmental category	Indoor conditional			
Pollution degree	2			
Humidity (non-condensing)	max 95%			
Maximum altitude	2000m			
Country of manufacture	China		India	
ENCLOSURE				
Material & Colour	Steel, blue RAL 5012			
Protection category	IP21			
Battery-connection	M8 bolts			
AC connections	Screw terminals for wire up to 13mm² (6 AWG)			
Weight	18 kg	18 kg	29 kg	29 kg
Dimensions hxwxd (mm)	506 x 275 x 147	506 x 275 x 147	565 x 320 x 148	565 x 320 x 148
STANDARDS				
Safety	EN-IEC 60335-1, EN-IEC 60335-2-29, EN-IEC 62109-1, EN-IEC 62109-2 AS 62477.1:2016, AS/NZS.2:2020 Inc A1			
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			

1) Can be adjusted to 60Hz
2) Protection key:
   a) output short circuit
   b) overload
   c) battery voltage too high
   d) battery voltage too low
   e) temperature too high
   f) 230Vac on inverter output
   g) input voltage ripple too high
3) Non-linear load, crest factor 3:1
4) Up to 25°C ambient
5) Other chemistries are possible as well, providing the charger is configured confirm the battery manufacturer's specifications.
6) Programmable relay which can be set for general alarm, DC under voltage or genset start/stop function. AC rating: 230V / 4A, DC rating: 4A up to 35VDC and 1A up to 60VDC

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