

# MULTIPLUS Series

INVERTER/CHARGER 500VA - 1200VA

## FEATURES

- 500VA-1200VA Inverter Charger
- PowerControl
- PowerAssist Boost
- High start-up power
- Search Mode
- Programmable relay
- Remote on/off

### Multi-functional, with intelligent power management

The new style MultiPlus is set to replace the earlier MultiPlus Compact range. It is a powerful true sine wave inverter, a sophisticated battery charger that features adaptive charge technology and a high-speed AC transfer switch in a single compact enclosure. Models: 500VA, 800VA, 1200VA

**Uninterrupted AC power (UPS function)** In the event of a grid failure, or when shore or generator power is disconnected, the inverter within the Multi is automatically activated and takes over the supply to the connected loads. This happens so fast (less than 20 milliseconds) that computers and other electronic equipment will continue to operate without disruption.

**Remote Monitoring and Control** Monitor and control your MultiPlus and system or systems' locally (LAN) or remotely via the internet from anywhere in the world, using the free VRM app and free VRM portal website. Access can be from a phone, tablet, laptop or PC for multiple operating systems. There is no end to the level of control, via the required Color Control GX or Venus GX, from adjusting your MultiPlus to setting a Geofence for hire vehicles and more.

**Proven reliability** The full bridge plus toroidal transformer topology has proven its reliability over many years. The inverter is short circuit proof and protected against overheating, whether due to overload or high ambient temperature.

**PowerControl - Dealing with limited generator, shore side or grid power (800VA/1200VA)** With the Multi Control Panel a maximum generator or shore current can be set. The MultiPlus will then take account of other AC loads and use whatever is extra for charging, thus preventing the generator or shore supply from being overloaded.

**PowerAssist - Boosting the capacity of shore or generator power (800VA/1200VA)** Where peak power is so often required only for a limited period, the MultiPlus will make sure that insufficient shore 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

**High start-up power** Needed to start high inrush loads such as power converters for LED lamps, halogen lamps or electric tools.

**Search Mode** When Search Mode is 'on', the power consumption of the inverter in no-load operation is decreased by approx. 70%. In this mode the Multi, when operating in inverter mode, is switched off in case of no load or very low load, and switches on every two seconds for a short period. If the output current exceeds a set level, the inverter will continue to operate. If not, the inverter will shut down again.



**Programmable relay** By default, the programmable relay is set as an alarm relay, i.e. the relay will de-energise in the event of an alarm or a pre-alarm (inverter almost too hot, ripple on the input almost too high, battery voltage almost too low).

**Remote on / off / charger on** Three pole connector

## SPECIFICATIONS

GENERAL	
Inverter	See selection table
Charger	See selection table
Protection	a) Output short circuit b) Overload c) Battery voltage too high d) Battery voltage too low e) Temperature too high f) Input voltage ripple too high
Power Control	800VA and 1200VA models
Power Assist	800VA and 1200VA models
Programmable relay	Can be set for general alarm, DC undervoltage or genset start/stop function AC rating 230V/4A DC rating 4A up to 35Vdc, 1A up to 60Vdc
Operating temp. range:	-40 to +65°C (fan assisted cooling)
Humidity	(non-condensing): max 95%
Enclosure	See selection table

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## ACCESSORIES

Digital Multi Control	A convenient and low cost solution for remote monitoring, with a rotary knob to set Power Control and Power Assist levels
Blue Power Panel	Connects to a Multi or Quattro and all VE.Net devices in particular the VE.Net Battery Controller. Graphic display of current and voltages
BMV Battery Monitor	The BMV Battery Monitor features an advanced microprocessor control system combined with high resolution measuring systems for battery voltage and charge/discharge current. The Software includes complex calculation algorithms, to exactly determine the state of charge of the battery. The BMV selectively displays the battery voltage, current consumed AH or time to go. The monitor all stores a host of data regarding performance and use of the battery
Computer control & monitoring	Several interfaces are available MK2.2 VE.Bus to RS232 converter MK2-USB VE.Bus to USB converter VE Net to VE Bus converter Victron global remote Victron Ethernet Remote

## STANDARDS

Safety	EN-IEC 60335-1, EN-IEC 60335-2-29, 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
Immunity	EN55014-2, EN61000-3-3
Road vehicles	ECE R10-4

## MULTIPLUS SELECTION TABLE

INVERTER	MULTIPLUS 12/500/20 MULTIPLUS 24/500/10 MULTIPLUS 48/500/6	MULTIPLUS 12/800/35 MULTIPLUS 24/800/16 MULTIPLUS 48/800/9	MULTIPLUS 12/1200/50 MULTIPLUS 24/1200/25 MULTIPLUS 48/1200/13
Input Voltage Range	9.5-17V, 19-33V, 38-66Vdc		
Output	230Vac +/-2%, 50Hz +/-0.1%		
Cont. output power at 25°C	500VA	800VA	1200VA
Cont. output power at 25°C	430W	700W	1,000W
Cont. output power at 40°C	400W	650W	900W
Cont output power at 65°C	300W	400W	600W
Peak Power	900W	1,600W	2,400W
Maximum Efficiency	90 / 91 / 92%	92 / 93 / 94%	93 / 94 / 95%
Zero load power	6 / 6 / 7W	7 / 7 / 8W	10 / 9 / 10W
Zero load power in search mode	2 / 2 / 3W	2 / 2 / 3W	3 / 3 / 3W

## CHARGER

AC Input	Input voltage range: 187-265 VAC Input frequency: 45 – 65 Hz		
Charge voltage 'absorption'	14.4 / 28.8 / 57.6V		
Charge voltage 'float'	13.8 / 27.6 / 55.2V		
Storage mode	13.2 / 26.4 / 52.8V		
Charge current house battery	20 / 10 / 6A	35 / 16 / 9A	50 / 25 / 13A
Charge current starter battery	1A (12V and 24V models only)		
Battery temperature sensor	Yes		

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PowerControl / PowerAssist	No	Yes	Yes
Three Phase and parallel operation	No	Yes	Yes
Transfer switch		16A	
Programmable relay		Yes	

## ENCLOSURE

Common Characteristics	Material & Colour: Steel/ABS (blue RAL 5012) Protection category: IP 21		
Battery-connection	16 / 10 / 10 mm <sup>2</sup>	25 / 16 / 10 mm <sup>2</sup>	35 / 25 / 10 mm <sup>2</sup>
230V AC-connection	G-ST18i connector		
Weight	4,4 kg	6,4 kg	8,2 kg
Dimensions (h x w x d)	311 x 182 x 100 mm	360 x 240 x 100 mm	406 x 250 x 100 mm

