MultiPlus Inverter/Charger 500VA - 2000VA
12 / 24 / 48V

www.victronenergy.com
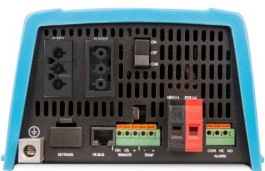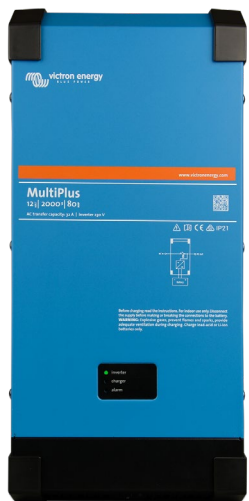
Multifunctional, with intelligent power management
The MultiPlus is a powerful true sine wave inverter, a sophisticated battery charger that features adaptive charge technology, and a high-speed AC transfer switch in a single compact enclosure. Next to these primary functions, the MultiPlus has several advanced features, as outlined below.

Parallel operation and three phase capability
Up to six Multis can operate in parallel to achieve higher power output.
In addition to parallel connection, three units can be configured for three-phase output.

PowerControl - Dealing with limited generator, shore side or grid power
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
This feature takes the principle of PowerControl to a further dimension. It allows the MultiPlus to supplement the capacity of the alternative source. 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.

Four stage adaptive charger and dual bank battery charging
The main output provides a powerful charge to the battery system by means of advanced 'adaptive charge' software. The software fine-tunes the three-stage automatic process to suit the condition of the battery, and adds a fourth stage for long periods of float charging. The adaptive charge process is described in more detail on the Phoenix Charger datasheet and on our website, under Technical Information. In addition to this, the MultiPlus will charge a second battery using an independent trickle charge output intended for a main engine or generator starter 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.

On-site system configuring, monitoring and control
After installation, the MultiPlus is ready to go.
Some settings can be changed with DIP switches.
500/800/1200VA models: remote switch / battery charge voltage / inverter frequency / search mode.
1600/2000VA models: battery charge voltage / search mode.
For more settings use VE-Config or the VE.Bus Smart dongle.

Remote configuring and monitoring
Install a Cerbo GX or other GX product to connect to the internet.
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.

MultiPlus
500 / 800 / 1200 / 1600 VA

MultiPlus 2000 VA
(bottom cover removed)

GX Touch and Cerbo GX
Provides intuitive system control and monitoring.
Besides system monitoring and control the Cerbo GX enables access to our free remote monitoring website: the VRM Online Portal.
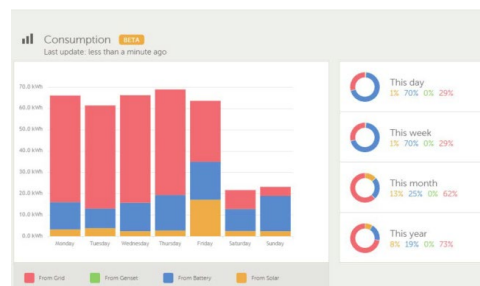
VRM Portal
Our free remote monitoring website (VRM) will display all your system data in a comprehensive graphical format. System settings can be changed remotely via the portal. Alarms can be received by e-mail.

12 Volt 24 Volt 48 Volt	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	MultiPlus 12/1600/70 MultiPlus 24/1600/40 MultiPlus 48/1600/20	MultiPlus 12/2000/80 MultiPlus 24/2000/50 MultiPlus 48/2000/25
PowerControl / PowerAssist	No	Yes	Yes	Yes	Yes
Three Phase and parallel operation	Yes	Yes	Yes	Yes	Yes
Transfer switch	16 A	16 A	16 A	16 A	35 A
INVERTER					
Input voltage range			9,5 – 17 V 19 – 33 V 38– 66 V		
Output			Output voltage: 230VAC ± 2% Frequency: 50Hz ± 0,1% [1]		
Cont. output power at 25℃ [3]	500 VA	800 VA	1200 VA	1600 VA	2000 VA
Cont. output power at 25℃	430 W	700 W	1000 W	1300 W	1600 W
Cont. output power at 40℃	400 W	650 W	900 W	1100 W	1400 W
Cont. output power at 65℃	300 W	400 W	600 W	800 W	1000 W
Peak power	900 W	1600 W	2400 W	2800 W	3500 W
Maximum efficiency	90 / 91 / 92%	92 / 93 / 94%	93 / 94 / 95%	93 / 94 / 95%	93 / 94 / 95%
Zero-load power	6 / 6 / 7 W	7 / 7 / 8 W	10 / 9 / 10 W	10 / 9 / 10 W	10 / 9 / 10 W
Zero-load power in search mode	2 / 2 / 3 W	2 / 2 / 3 W	3 / 3 / 3 W	3 / 3 / 3 W	3 / 3 / 3 W
CHARGER					
AC Input			Input voltage range: 187-265 VAC Input frequency: 45 – 65 Hz		
Charge voltage 'absorption'			14,4 / 28,8 / 57,6 V		
Charge voltage 'float'			13,8 / 27,6 / 55,2 V		
Storage mode			13,2 / 26,4 /52,8 V		
Charge current house battery [4]	20 / 10 / 6 A	35 / 16 / 9 A	50 / 25 / 13 A	70 / 40 / 20 A	80 / 50/ 25 A
Charge current starter battery			1A (12 V and 24 V models only)		
Battery temperature sensor			Yes		
GENERAL					
Programmable relay [5]			Yes		
Protection [2]			a – g		
VE.Bus communication port			For parallel and three phase operation, remote monitoring and system integration (RJ45-spliter ASS030065510 needed for 500 / 800 / 1200 VA models)		
Remote on-off		On/off/charger only		On/off	
DIP switches	Yes [6]	Yes [6]	Yes [6]	Yes [7]	Yes [7]
Internal DC fuse	125 / 60 /30 A	150 / 80 / 40 A	200 / 100 / 50 A	200 / 125 / 60 A	no
Common Characteristics			Operating temp. range: -40 to +65℃ (fan assisted cooling) Humidity (non-condensing): max 95%		
ENCLOSURE					
Common Characteristics		Material & Colour: Steel/ABS (blue RAL 5012) Protection category: IP 21			Steel (RAL 5012), IP22
Battery-connection	16 / 10 / 10 mm²	25 / 16 / 10 mm²	35 / 25 / 10 mm²	50 / 35 / 16 mm²	M8 bolts
230V AC-connection			G-ST18i connector		Screw
Weight	4,4 kg	6,4 kg	8,2 kg	10,2 kg	15,5 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	470 x 265 x 120 mm	506 x 236 x 147 mm
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		
Automotive Directive			ECE R10-5		

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. 230VAC on inverter output
g. Input voltage ripple too high

3) Non-linear load, crest factor 3:1
4) Up to 25℃ ambient
5) Programmable relay which can be set for:
   general alarm, DC under voltage or generator start/stop signal function
   AC rating: 230V/4A
   DC rating: 4A up to 35VDC, 1A up to 60VDC
6) Remote / battery charge voltage / inverter frequency / search mode
7) Battery charge voltage / search mode

Digital Multi Control Panel
A convenient and low cost solution for remote monitoring, with a rotary knob to set PowerControl and PowerAssist levels.

VE.Bus Smart Dongle
Measures battery voltage and temperature and allows monitoring and control of Multis and Quattros with a smartphone or other Bluetooth enabled device.

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

MK3-USB (VE.Bus to USB interface)
Connects to a USB port (see 'A guide to VEConfigure')

BMV-712 Smart Battery Monitor
Use a smartphone or other Bluetooth enabled device to:
1. customize settings,
2. monitor all important data on single screen,
3. view historical data,
4. update the software when new features become available.

victron energy
BLUE POWER