MultiPlus Inverter/Charger 2000VA 120V

12 / 24 / 48V

MultiPlus 2000 VA
(with bottom cover)

MultiPlus 2000 VA
(bottom cover removed)

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.

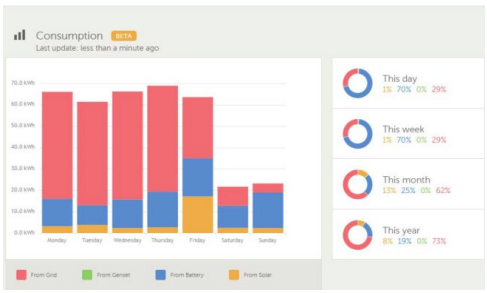
On-site system configuring, monitoring and control

After installation, the MultiPlus is ready to go.
Settings which can be changed with DIP switches: 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.

GX Touch 50 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.

	MultiPlus 12/2000/80-50	MultiPlus 24/2000/50-50	MultiPlus 48/2000/25-50
PowerControl / PowerAssist	Yes		
Three Phase and parallel operation	Yes		
Transfer switch	50 A		
INVERTER			
Input voltage range	9.5 – 17 V	19 – 33 V	38– 66 V
Output	Output voltage: 120VAC ± 2% Frequency: 60Hz ± 0,1% (1)		
Cont. output power at 25°C (3)	2000 VA		
Cont. output power at 25°C	1600 W		
Cont. output power at 40°C	1400 W		
Cont. output power at 65°C	1000 W		
Peak power	3500 W		
Maximum efficiency	93%	94%	95%
Zero-load power	10 W	11 W	11 W
Zero-load power in search mode	3 W	4 W	4 W
CHARGER			
AC Input	Input voltage range: 95-140 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)	80 A	50 A	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		
Remote on-off	On/off		
DIP switches	Yes (7)		
Internal DC fuse	no		
Common Characteristics	Operating temp. range: -40 to +65°C (fan assisted cooling) Humidity (non-condensing): max 95%		
ENCLOSURE			
Common Characteristics	Steel (RAL 5012), IP22		
Battery-connection	M8 bolts		
230V AC-connection	Screw terminals 13 mm² (6 AWG)		
Weight	15.5 kg		
Dimensions (h x w x d)	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 50Hz
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) At 25°C 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.