

# MultiPlus Inverter/Charger 500VA - 1600VA

12 / 24 / 48V

[www.victronenergy.com](http://www.victronenergy.com)

## 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

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

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).



12 Volt	12/500/20	12/800/35	12/1200/50	12/1600/70
24 Volt	24/500/10	24/800/16	24/1200/25	24/1600/40
48 Volt	48/500/6	48/800/9	48/1200/13	48/1600/20
PowerControl / PowerAssist	Yes / No		Yes / Yes	
Three Phase and parallel operation	Yes			
Transfer switch	16A			
INVERTER				
Input voltage range	9,5 – 17V		19 – 33V	38 – 66V
Output	Output voltage: 230VAC ± 2%      Frequency: 50Hz ± 0,1% (1)			
Cont. output power at 25°C (3)	500VA	800VA	1200VA	1600VA
Cont. output power at 25°C	430W	700W	1000W	1300W
Cont. output power at 40°C	400W	650W	900W	1100W
Cont. output power at 65°C	300W	400W	600W	800W
Peak power	900W	1600W	2400W	2800W
Maximum efficiency	90 / 91 / 92%	92 / 93 / 94%	93 / 94 / 95%	93 / 94 / 95%
Zero-load power	6 / 6 / 7W	7 / 7 / 8W	10 / 9 / 10W	10 / 9 / 10W
Zero-load power in search mode	2 / 2 / 3W	2 / 2 / 3W	3 / 3 / 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 (4)	20 / 10 / 6A	35 / 16 / 9A	50 / 25 / 13A	70 / 40 / 20A
Charge current starter battery	1A (12V and 24V 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-splitter ASS030065510 needed for 500/800/1200VA models)			
Remote on-off	On/off/charger only			On/off
DIP switches	Yes (6)			Yes (7)
Internal DC fuse	125/60/30A	150/80/40A	200/100/50A	200/125/60A
Common Characteristics	Operating temp. range: -40 to +65°C (fan assisted cooling) Humidity (non-condensing): max 95%			
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>	50 / 35 / 16 mm <sup>2</sup>
230V AC-connection	G-ST18i connector			
Weight	4,4 kg	6,4 kg	8,2 kg	10,2 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	470 x 265 x 120 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			
Road vehicles	ECE R10-5			
1) Can be adjusted to 60Hz and to 240V		3) Non-linear load, crest factor 3:1		
2) Protection		4) At 25°C ambient		
a. Output short circuit		5) Programmable relay which can be set for:		
b. Overload		general alarm, DC under voltage or generator start/stop signal function		
c. Battery voltage too high		AC rating: 230V/4A		
d. Battery voltage too low		DC rating: 4A up to 35VDC, 1A up to 60VDC		
e. Temperature too high		6) Remote / Battery charge voltage / Inverter frequency / search mode		
f. 230VAC on inverter output		7) Battery charge voltage / search mode		
g. Input voltage ripple too high				