

# MultiPlus Inverter/Charger 500VA - 1200VA

12 / 24 / 48V

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## 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.



| 12 Volt<br>24 Volt<br>48 Volt          | MultiPlus 12/500/20<br>MultiPlus 24/500/10<br>MultiPlus 48/500/6  | MultiPlus 12/800/35<br>MultiPlus 24/800/16<br>MultiPlus 48/800/9        | MultiPlus 12/1200/50<br>MultiPlus 24/1200/25<br>MultiPlus 48/1200/13 |
|--|---|---|--|
| PowerControl / PowerAssist             | No  | Yes   |  |
| Three Phase and parallel operation     | No  | Yes   |  |
| Transfer switch                        | 16A   |   |  |
| <b>INVERTER</b>                        |   |   |  |
| 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   |
| Cont. output power at 25°C             | 430W  | 700W  | 1000W  |
| Cont. output power at 40°C             | 400W  | 650W  | 900W   |
| Cont. output power at 65°C             | 300W  | 400W  | 600W   |
| Peak power                             | 900W  | 1600W   | 2400W  |
| 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   |
| <b>CHARGER</b>                         |   |   |  |
| 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  |
| Charge current starter battery         | 1A (12V and 24V models only)  |   |  |
| Battery temperature sensor             | Yes   |   |  |
| <b>GENERAL</b>                         |   |   |  |
| Programmable relay (5)                 | Yes   |   |  |
| Protection (2)                         | a – g   |   |  |
| Common Characteristics                 | Operating temp. range: -40 to +65°C (fan assisted cooling)<br>Humidity (non-condensing): max 95%          |   |  |
| <b>ENCLOSURE</b>                       |   |   |  |
| 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   |
| <b>STANDARDS</b>                       |   |   |  |
| 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<br>IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3 |   |  |
| Road vehicles                          | ECE R10-4   |   |  |
| 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                |   |   |  |
| f. 230VAC on inverter output           |   |   |  |
| g. Input voltage ripple too high       |   |   |  |