

MERLIN INVERTER/ CHARGERS

The Merlin Inverter/ Charger incorporates an advanced DC to AC inverter, 4 stage adaptive smart battery charger, and super-fast changeover switch into a single, compact unit.

By combining inverter & charger functions plus automatic switching, a Merlin Inverter/ Charger simplifies installation and cabling while saving considerable weight and cost.

When mains power (from hook up or generator) is available, the unit will rapidly and safely charge your batteries. At the same time, it passes power through to the onboard AC system. As soon as the plug is pulled, the unit switches over instantly to provide inverter power around your electrical systems to keep the onboard appliances running. Typical transfer time is ~30m/s, which is fast enough to keep audio/visual equipment running, clocks going on appliances, and will keep a computer up and running.

IMPORTANT: Make sure you compare like for- like with inverter/ charger specifications-almost all other manufacturers quote 30 minute cold ratings. With Merlin, our ratings are for continuous output power to ensure that you specify the correct unit first time.

- **Pure sinewave output**
ensures interference-free operation with all electrical appliances.
- **4 Stage smart battery charger**
By combining an inverter and a charger you are not compromising quality of battery charge. The charger with these units is based on the same technology as the standalone ABSO units.
- **Fast transfer switch**
Switching between inverter and external AC power takes less than 30 milliseconds. This is fast enough to keep most PC's, clocks on microwaves, or audio-visual equipment operating. The transfer between external AC power and inverter power is automatic or can be controlled manually using the unit's front control panel. The transfer switch is rated for systems up to 30 amps AC (7kW).
- **Built-in control panel**
Built into the front of the unit to allow set up, monitoring, and control. Displays battery voltage and output wattage when in use. The control panel is detachable so it may be mounted anywhere on board. Supplied with a 25' (7.5m) extension cable.
- **Programmable features**
Idle mode sends the inverter to sleep and automatically awakens it when a load is sensed to reduce zero.



| PART# | 03-1001 | 03-1021 | 03-1023 |
|-------------------------------|---|-------------------------------|-------------------------------|
| PARAMETER | 1000W MODEL | 2000W MODEL | 3000W MODEL |
| AC OUTPUT | | | |
| AC OUTPUT POWER (CONTINUOUS) | 1000W | 2000W | 3000W |
| AC OUTPUT POWER (PEAK) | 2000W | 4000W | 6000W |
| AC OUTPUT VOLTAGE/FREQUENCY | 230VAC / 50 HZ | 230VAC / 50 HZ | 230VAC / 50 HZ |
| AC OUTPUT CURRENT | 4.3A | 8.7A | 13.0A |
| AC OUTPUT WAVEFORM | TRUE SINEWAVE (<3% THD) | TRUE SINEWAVE (<3% THD) | TRUE SINEWAVE (<3% THD) |
| PEAK EFFICIENCY | 90% | 90% | 90% |
| DC INPUT | | | |
| VOLTAGE (NOMINAL) | 12.SVDC | 12.SVDC | 12.5VDC |
| OPERATION RANGE | 10.5 - 15.SVDC | 10.5 - 15.5VDC | 10.5 - 15.SVDC |
| INVERTER STANDBY CURRENT | < 1.SA | < 1.5A | < 1.SA |
| PROTECTION | | | |
| INPUT UNDERVOLTAGE SHUTDOWN | 10.5 / 11.0VDC | 10.5 / 12.0VDC | 10.5 / 12.0VDC |
| INVERTER OVERVOLTAGE SHUTDOWN | 15.SVDC | 17.0VDC | 17.0VDC |
| DISPLAY PANEL | | | |
| INDICATOR | STATUS, DISPLAY | STATUS, DISPLAY | STATUS, DISPLAY |
| DIGITAL DISPLAY (LED) | INPUT VOLTAGE, OUTPUT POWER, WARNING, AND ERROR CODE | NOT APPLICABLE | NOT APPLICABLE |
| BATTERY CHARGER | | | |
| CHARGER VOLTAGE RANGE | 13.5 - 14.4V | 13.5 - 14.4V | 13.5 - 14.8V |
| FLOAT VOLTAGE RANGE | 13.4 - 13.8V | 13.0 - 14.4V | 13.0 - 14.4V |
| CHARGER CURRENT | 40A | 80A | 100A |
| CHARGER BATTERY TYPE | GEL, FLOODED, AGM, LITHIUM | GEL, FLOODED, AGM, LITHIUM | GEL, FLOODED, AGM, LITHIUM |
| AC INPUT VOLTAGE/ FREQUENCY | FIXED 230VAC / 50HZ | FIXED 230VAC / 50HZ | FIXED 230VAC / 50HZ |
| AC TRANSFER SWITCH | | | |
| TRANSFER TIME | < 30MS | < 30MS | < 30MS |
| TRANSFER RELAY RATING | 16A | 16A | 16A |
| REGULATORY COMPLIANCE | | | |
| MARKINGS | CE | CE | CE |
| CONFORMANCE | LVD, EMC | LVD, EMC | LVD, EMC |
| ENCLOSURE | | | |
| WEIGHT (KG) | 5.7 | 10.8 | 10.8 |
| DIMENSIONS (MM) | 477.5 X 231 X 114 | 391 X 302 X 106 | 500 X 307 X 106 |