

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