DURITE®

Modified wave 1500 watt voltage inverter
24 volt dc to 110 volt 50Hz ac
Part 0-856-66

Warnings

Read all instructions before attempting to install or use the inverter.
High voltage, 110 volts ac, is generated by this unit.
Do not use with wet hands or near water.
This unit is only suitable for 24 volt electrical systems with negative earth.
To supply 110 volt 50 Hz loads of <1500 watts.
Do not connect to any other ac power source.

Installation Instructions

1. Disconnect all battery leads, -ve leads first, before installing the inverter.
2. Locate a suitable position for the inverter and fit securely. The site chosen should be:
   (a) Well ventilated.
   (b) Not exposed to direct sunlight or heat source.
   (c) Away from water or moisture.
   (d) Out of reach of children.
   (e) Away from any flammable or heat sensitive substance.
3. Connect the black 24 volt -ve terminal to the negative side of the supply source and the red 24 volt +ve terminal to a fused positive supply source. Use a minimum of 16.00mm^2 cable and keep all cable runs as short as possible.
4. Connect the inverter case ground terminal to the chassis ground when installing in a vehicle, the vessel's grounding system in a boat or to earth in a fixed location. The case ground terminal is connected to the ground terminal in the ac outlet socket.
5. If using the optional remote control (part 0-856-98), fix the remote control in a suitable position and insert the connector into the remote control socket on the rear panel.

Operating Instructions

1. Ensure that the inverter is supplied by a 24-28 volt dc negative earth system and that the load requires <1500 watts at 110 volt 50Hz ac.
2. Plug the appliance into the inverter and then turn on the inverter's power switch. The LED will illuminate to indicate ac power is present, then switch on the appliance. Always turn on the inverter before turning on loads individually. If using the optional remote control, ensure the control panel power switch is set to 'Remote' then use the remote 'On/Off' switch as the inverter power switch.
3. Switch off the inverter when not in use or when heavy current is drawn from the dc supply, e.g. when starting an engine from the same supply source.
4. Battery voltage and current bar graphs indicate supply voltage and current. In normal operation the inverter will operate in the green region. The inverter can operate for short periods in the current yellow zone and protective shutdown will occur if used in the red zone.
5. If the inverter beeps, but is still supplying ac output, this indicates a low supply voltage; switch off the inverter to preserve battery voltage. If left on the inverter will automatically shut down when the supply voltage falls to approximately 20.0 ± 1.0 volts.

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Gordon Equipments Limited 0-856-66LEAF1

6. The overtemp indicator illuminates when the inverter has shutdown due to overheating. The inverter will restart automatically once it has cooled down.

7. The overload indicator illuminates when the inverter has shutdown due to output short-circuit or gross overloading. If this occurs switch the inverter off and correct the cause before switching the inverter on again.

Troubleshooting

If the inverter beeps or does not appear to be functioning properly, check the following:

(i) Low dc supply voltage, supply voltage <21.0 ± 1.0 volts.
(ii) Low dc voltage shutdown, supply voltage <20.0 ± 1.0 volts.
(iii) Overload shutdown, check load requirement is <1500 watts.
(iv) Thermal shutdown, switch off, allow the inverter to cool down and reduce load.
(v) Wiring, terminals and connections.

Specifications

DC input voltage	**24 volts (22 - 33 (+/-1.5) volts)**
AC output voltage	**110 volts**
Output frequency	**50 Hz**
Output waveform	**Modified wave**
Continuous output power	**1500 watts**
Surge output power	**3000 watts**
Efficiency	**90%**
No load current	**< 0.35 amps**
Input 100% load current draw (@ 24 volt supply)	**72.4 amps**
Output 100% load current draw	**12.77 amps**
Battery low voltage alarm	**21.0 ± 1.0 volts**
Battery low voltage shutdown	**20.0 ± 1.0 volts**
Alarm and thermal shutdown	**55 ± 5˚C**
Dimensions	**l 240 x w 408 x h 76mm**
Weight	**4.6 Kg**

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Weight	**4.6 Kg**