

Warranty on this product for one year from date of purchase. If this item is part of an installation or another product, please contact the installer or supplier for your warranty.

During the warranty period, we undertake to repair or replace your product at no charge if found to be defective due to a manufacturing fault. The warranty excludes damage by misuse or incorrect installation (i.e. failure to install and operate device according to specifications in the supplied instruction manual), neglect, shipping accident, or no fault found, nor by use in a way or manner not intended by the supplier.

For repair or service please contact your PLACE OF PURCHASE.

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DC to AC Pure Sine Wave Power Inverters

Operating Instructions



Instructions apply to the following models:

Overview

A compact inverter series designed to deliver pure AC output for powering difficult loads such as appliances with switchmode power supplies (computers, displays & game consoles) and voltage sensitive devices such as medical equipment. Includes a handy multi-function LCD display providing a complete picture of operating parameters, including: battery capacity bar graph, input voltage, output voltage, protection conditions, power load and capacity bar graph. All models are isolated for maximum electrical safety during operation and will self reset from a number of abnormal operating conditions once the condition is resolved (such as over voltage or over temperature). Housed in a rugged aluminium case with flange mounting points and in-built cooling fans.

Features

- Isolated design for maximum electrical safety
- Pure sine wave output
- Certified to Australian Standard AS/NZS 4763.2011
- Multi-function LCD readout
- DC/AC isolated design
- Safety authority tested for reliable & safe operation
- Over temperature, over voltage, over load and short circuit protection
- Low voltage cut off
- Excellent voltage regulation
- Binding post connection to battery
- Temperature controlled cooling fan.

Applications (appliance connected should not exceed inverter rating)

Power Tools: Circular saws, electric drills, rotary machines, grinders, bumpers, weed trimmers, air compressors and soldering irons.

Home entertainment electronic devices: TV, game consoles, audio systems, musical instruments and satellite equipment.

Household appliances: Vacuum cleaners, fans, fluorescent and incandescent lamps, razors, sewing machines and heaters.

Office equipment: Computers, printers, surveillance cameras, fax machines, scanners

Kitchen appliances: Coffee machine, blender, ice makers and toasters.

Note:

Some appliances require 2-3 times rated power to start. It is always best to allow plenty of headroom to ensure reliable operation.

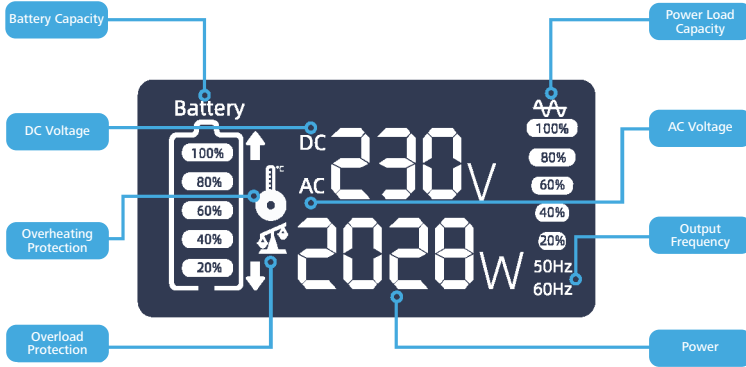
PRECAUTIONS

- The installation and commissioning of this equipment should be carried out by professional electrical maintenance personnel who are familiar with the structure and operation of the device. Failure to follow this precaution could result in bodily harm and or damage to the unit.
- Do not connect this equipment to household wiring. For stand alone use only.
- Install the inverter in a cool, dry, well ventilated location out of direct sunlight.
- Do not insert or pull out the connected appliance plug with wet hands.
- Keep the inverter away from flammable materials or where flammable gases accumulate.
- Do not open the inverter. Due to dangerous high voltages inside.
- Use a suitably rated DC cable to power the unit.
- Make sure the inverter is connected to the battery correctly.
- Turn off the switch when the inverter is not in use, and before cleaning. Clean it with a dry cloth.
- Do not use a damp cloth or detergent.

Installation environment

- Install the inverter according to local power requirements.
- The installation location must be dry, clean and well ventilated.
- Working temperature: -20°C to 50°C
- Storage temperature: -10 to 40°C
- Relative humidity: 0% to 90%, no condensation
- Cooling: forced ventilation
- Keep battery leads as short as possible to avoid voltage drop
- Use correct size cable

LCD Readout



Protective Functions

1. Low-voltage alarm: The buzzer sounds twice with a 1 second gap.
2. Low voltage protection: The buzzer continuously sounds 3 times, with a 1 second gap.
3. Low-voltage recovery: the low-voltage rise automatically restores the output, and the buzzer sounds 3 times, alarm is cancelled.
4. Overvoltage protection: The buzzer sounds 4 times, with a 1 second gap.
5. Over voltage recovery: The voltage is reduced automatically to restore the output, and the buzzer sounds 4 times, alarm is cancelled.
6. Thermal protection: $80^{\circ} \pm 5^{\circ}$. The overtemp protection buzzer sounds 5 times, with a 1 second gap.
7. Overload protection: 10 second automatic shutdown output for overload protection, 5 second automatic recovery, automatic locking for three consecutive times.
8. Short circuit protection: Output short circuit protection shutdown in 1 second.

Specifications

Model	M 8025	M 8027
Output power	600W	1500W
Surge power	1200W	3000W
Display Method	LCD Display	
Input Voltage	24V DC	
Input Range	20-30	
Low Voltage Protection	20.0V \pm 0.3	
Over Voltage Protection	30.0V \pm 0.3	
Recovery Voltage	25.5V \pm 0.3	
No-load current	0.50A	0.70A
Overload protection	110%	
Output voltage	230V AC	
Output frequency	50Hz	
Output waveform	Pure sine wave	
Over temperature protection	$80^{\circ} \pm 5^{\circ}$	
Waveform THD	$\leq 3\%$	
Conversion efficiency	90%	
Cooling method	Fan cooling	
Dimensions	228x173x76mm	360x173x76mm
Weight	2.0kg	3.6kg

Wiring Requirements

Based on 2M cable length

Inverter power	Input Voltage	Input wire diameter
600W	24V	10AWG
1500W	24V	4AWG

Troubleshooting

- **Fault: Inverter indicator light is not on**
 1. Check the battery is connected. Check the battery polarity is correct.
- **Fault: Low output voltage**
 1. Battery voltage is too low. Recharge or replace battery.
 2. Connected load exceeds inverter rating, rearrange load to suit inverter.
- **Fault: Low voltage alarm**
 1. The battery is flat. Recharge the battery.
 2. Battery voltage is too low, or battery contacts are high resistance. Recharge battery and clean battery terminals.
- **Fault: Inverter has no output**
 1. The battery voltage is too low. Recharge the battery.
 2. The load current is too high. Disconnect the load. Ensure the load is within the rating limit of the inverter.
 3. The over temperature protection has activated. Allow the inverter to cool down. Ensure the load is within limits.
- **Fault: The inverter fails to start**
 1. The battery is reversed connected. Check and reconnect correctly.
 2. The battery terminals are high resistance. Check terminals and clean as required.