RND

USER MANUAL

150W, 300W, 600W, 1500W

Pure Sine Wave
Power Inverter

Greeting from RND

Dear Customer,

Thank you for your preferred choice in purchasing our RND inverters. Our power inverter series are designed to be your best companion at home, in the office, when traveling, outdoors camping, at sea, etc. Low DC current is converted into AC current to run your household and office appliance. That is why RND inverter series can be used to operate most TVs, VCRs, sound systems, PCs & laptops, refrigerators, handy tools, among others, definitely a must to stay in control whenever and wherever you are.

You will have to install and use your RND inverters properly according to our operating procedures to maximize its advanced technology on dependable operation and years of reliable service. Please read to content of this Use's Guide carefully and file for future reference.

Sincerely yours,
RND.

General safety, installation, & operating guidelines

GENERAL SAFETY

- Never attempt to operate the inverter from any power source other than a 12V or 24V battery.
- Read this General Safety, installation, and Operation Guidelines carefully before using your inverter and strictly follow the instructions.
- 3Failure to properly connect wiring between inverter and power source will result in reverse polarity. Reverse polarity will blow the internal fuse in the inverter and permanently damage said inverter. Damage caused by reverse polarity is not covered under RND warranty.
- Always check that power cable terminal connections run Negative(-) to Negative(-) and Positive(+) to Positive(+) . Frequently check for secure connections. Improperly tightened connectors will result in excessive drop causing overheated wiring and melted insulation.
- Loose connections can result in a severe decrease in voltage which may cause damage to the wires and insulation.
- Keep inverter and 12V or 24V battery (power source) away from any inflammables to avoid possible fire or explosion. Note that it is normal to experience sparks during connection between the Positive (+) Terminals of the inverter and 12V / 24V battery. This is caused by the current flow to charge the capacitors within the inverter.
- Always properly ground the inverter before operation to avoid possible electrical shock.
- Make sure that the power consumption of the appliance or equipment you wish to operate is compatible with the capacity of the inverter.

- Monitor battery temperature for approximately ten (10) minutes when attempting to recharge battery. Immediately disconnect when battery become abnormally warm.
- When operating the inverter with a car or marine battery, start the engine every 30 to 60 minutes and let it run for approximately 10 minutes to recharge the battery.
- In the event of a continuous audible alarm or automatic shut-off, immediately turn the inverter power switch to OFF position. Do not restart the inverter until the source of the problem has been identified and corrected.
- Always disconnect the inverter when not in use.
- Do not expose the inverter to moisture.
- Avoid placing inverter near sources of heat or under direct sunlight.
- Make sure inverter is well ventilated during use.

General safety, installation, & operating guidelines

Pre-installation Testing

This process is to determine whether your inverter will operate a specific equipment or appliance. The inverters of 600W, 1500W are designed to automatically shut-off in the event of a power overload.

The inverters of 150W and 300W are designed to automatically protect and limit output power on setting rating when overloading or short circuit and the inverter performs automatically shut-off when output power exceeds overload setting rating.

Some refrigerators, freezers, pumps and other similar equipment and appliances require very high start up loads to operate. Before attempting to power up this type of equipment or appliance, make sure that all connections have been properly made and that the power source is fully charged. Then, follow step by step procedures for Operational Guidelines.

If Voltage indicator confirms that the input voltage is within an acceptable range. Turn inverter switch OFF, ON, OFF, and ON again in quick succession. If unsuccessful, it is likely that the inverter model does not have the required start up capacity to operate the equipment or appliance specified.

INSTALLATION

1. Location Set-up. Power inverter unit/s will have to be installed on cool, dry, and well ventilated area. Away from inflammables.

2. Cables. Make sure to use the correct cables. A chart is provided below, for your reference:

Max. watt Output	Amps Req'd..	Wire Gauge
150W	15A	2.5mm²
300W	30A	6.0mm²
600W	60A	12.0 or 16.0mm²
1500W	150A	25.0mm²

3. Grounding. Connect Chassis Ground Terminal Lug to earth ground or vehicle chassis using 10.0mm² wire.

General safety, installation, & operating guidelines

OPERATIONAL GUIDELINES

Step 1 Remove inverter from its packaging. Check to verify that the ON/OFF Switch is in the OFF position.

Step 2 Connect the cables to the Power Input Terminals located at the rear part of the inverter. Do not tighten these screws excessively.

Step 3 Connect the cable securely from the Negative Terminal (-) of the inverter to the Negative Terminal (-) of the 12V / 24V power source.

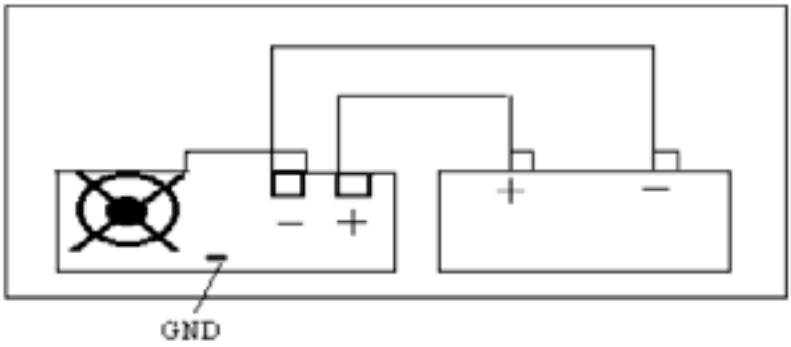
Step 4 Connect the cable securely from the Positive Terminal (+) of the inverter to the Positive Terminal(+) of the 12V / 24V power source.

Step 5 Set power switch to ON position. Check the status of the LED indicators. LED indicators should be lighted.

Step 6 Set power switch to OFF position.

Step 7 Plus the equipment/ appliance into the AC receptacle at the front panel of the inverter. Leave the equipment/ appliance switched OFF.

Step 8 Set the power switches of both inverter and equipment / appliance, respectively, to ON position. (The inverter is now ready to transfer power to the equipment/ appliance.)



Technical specification reference

150W Pure Sine Wave Inverter

Maximum Continuous Power ……150W

Maximum Surge Capability (Peak Power)……..……..300W

No Load Current Draw

* 12V DC-115VAC ……..……< 0.5A
* 24V DC-115VAC……..……< 0.3A
* 12V DC-230VAC ……..……< 0.6A
* 24V DC-230VAC……..……< 0.4A

DC Input Voltage Range

* 12V DC……..……10.5V– 16.5V
* 24V DC……..…21V – 33V

AC Output Voltage Range……..115V/230V +/- 3%

Total Harmonic Distortion…… ……..……< 3%

Frequency (may be as specified)……..……..50Hz or 60Hz

Efficiency ……..> 85%

Low Battery Alarm

* 12V DC…… ……..10.5V
* 24V DC……..21.0V

Low Battery Shut-Off

* 12V DC…… ……...10V
* 24V DC……..20V

Wave Form…… ……..Sine Wave

Dimensions (L x W x H)……..210 x 147 x 66

Net Weight……..1.28 kgs

Function of LED:

*Green : Power On

*Orange : Over Temperature, Over Voltage & Low Voltage

Protection:

*Input low voltage *Input over voltage *Low battery alarm

*Over temperature *Overload *Short circuit

Technical specification reference

300W Pure Sine Wave Inverter

Maximum Continuous Power ……300W
Maximum Surge Capability (Peak Power)……..500W
No Load Current Draw
* 12V DC-115VAC……..< 0.5A
* 24V DC-115VAC……..< 0.4A
* 12V DC-230VAC……..< 0.7A
* 24V DC-230VAC……..< 0.5A

DC Input Voltage Range
* 12V DC……10.5V– 16.5V
* 24V DC……21V – 33V
AC Output Voltage Range……..115V/230V +/- 3%
Total Harmonic Distortion…… ……..< 3%
Frequency (may be as specified)……..50Hz or 60Hz
Efficiency ……..> 85%

Low Battery Alarm

* 12V DC……..10.5V
* 24V DC……...21.0V

Low Battery Shut-Off

* 12V DC……..10V
* 24V DC……..20V

Wave Form……Sine Wave

Dimensions (L x W x H)……210 x 147 x 66 mm

Net Weight……1.4 Kgs

Function of LED:

*Green : Power On

*Orange : Over Temperature, Over Voltage & Low Voltage

Protection:

*Input low voltage *Input over voltage *Low battery alarm

*Over temperature *Overload *Short circuit

Technical specification reference

600W Pure Sine Wave Inverterr

Maximum Continuous Power……..600W

15 Minutes Power……650W

Maximum Surge Capability (Peak Power)……..1000W

No Load Current Draw

* 12V DC-115VAC……<0.6A
* 24V DC-115VAC……<0.45A
* 12V DC-230VAC……<1A
* 24V DC-230VAC……<0.6A

DC Input Voltage Range

* 12VDC……..10.7V–16.5V
* 24VDC……..21.4V – 33V

AC Output Voltage Range ……115V/230V +/- 3%
Total Harmonic Distortion……< 3%
Frequency (may be as specified)……50Hz or 60Hz
Efficiency ……..> 85%

Low Battery Alarm

* 12V DC……10V
* 24V DC……20V

Wave Form……Sine Wave
Dimensions (L x W x H)……280 x 236 x 82 mm
Net Weight……2.46 Kgs

Protection:
*Input low voltage *Input over voltage *Low battery alarm
*Over temperature *Overload *Short circuit

Technical specification reference

1500W Pure Sine Wave Inverter

Maximum Continuous Power ……..1500W
10 Minutes Power.……..…1800W
Maximum Surge Capability (Peak Power)…….……..3000W

No Load Current Draw
* 12VDC-115VAC…….<1A
* 24VDC-115VAC…….<0.6A
* 12VDC-230VAC…….<1.6A
* 24VDC-230VAC…….<1A

DC Input Voltage Range
* 12VDC……10.7V– 16.5V
* 24VDC……21.4V – 33V
AC Output Voltage Range…….115/230V+/ -3%
Total Harmonic Distortion…….< 3%
Frequency (may be as specified)……..50Hz or 60Hz
Efficiency ……> 85%

Low Battery Alarm
* 12V DC……10V
* 24V DC……20V
Wave Form…….Sine Wave
Dimensions (L x W x H)…….415 x 283 x 100 mm
Net Weight…….5.75 Kgs

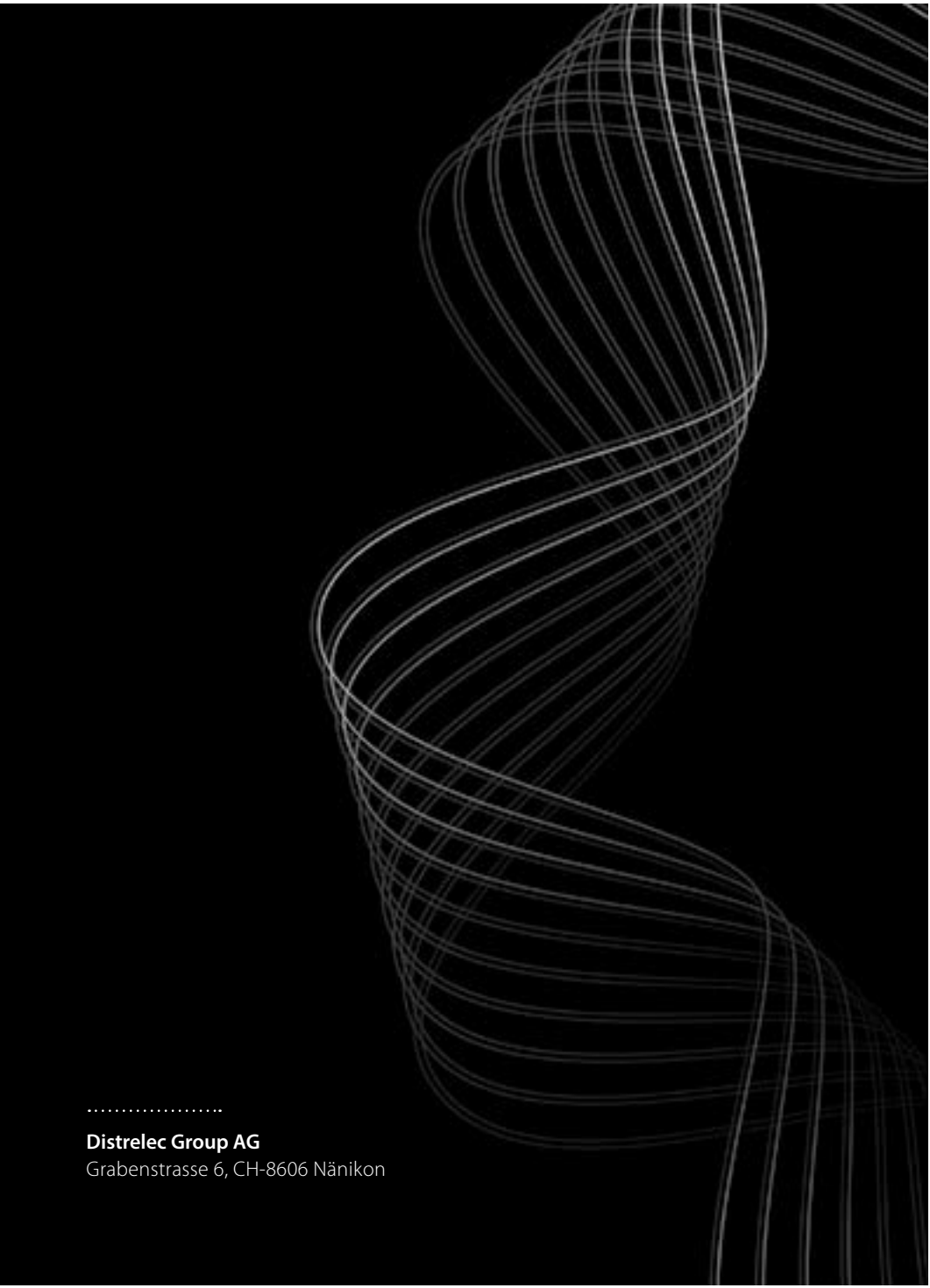
Protection:

*Input low voltage *Input over voltage *Low battery alarm

*Over temperature *Overload *Short circuit

Output Power	DC input	AC Ouput
150W RND 320-00008	12V	230V
300W RND 320-00009 RND 320-00012	12V 24V	230V 230V
600W RND 320-00010 RND 320-00013	12V 24V	230V 230V
1500W RND 320-00011 RND 320-00014	12V 24V	230V 230V

All 230V models are CE and E-mark Compliance. Should you have further questions regarding the proper operation and service maintenance of this inverter unit, please get in touch with our customer service.



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