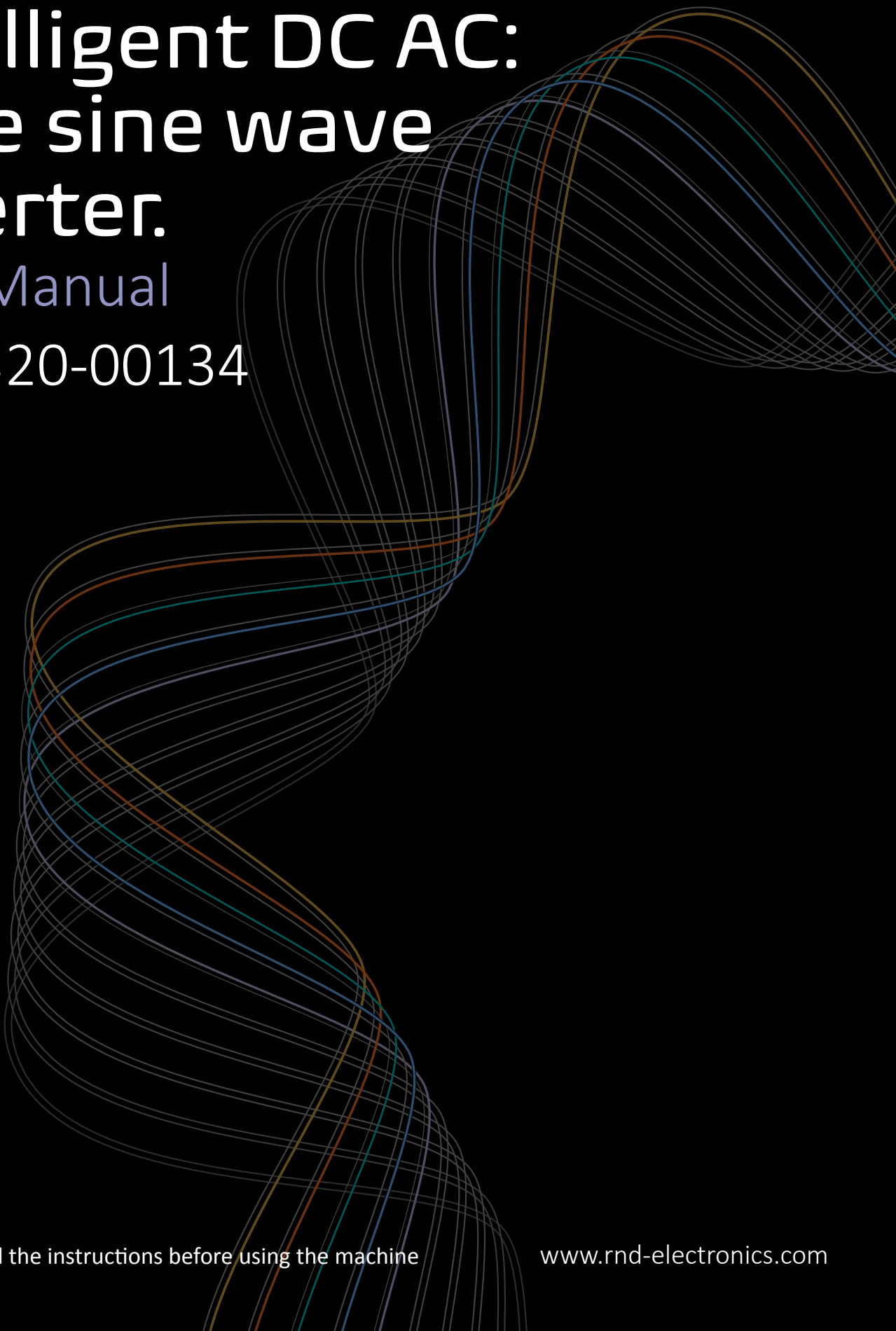
RND
power

Intelligent DC AC: Pure sine wave inverter.

User Manual

RND 320-00134



CAUTION: Read the instructions before using the machine

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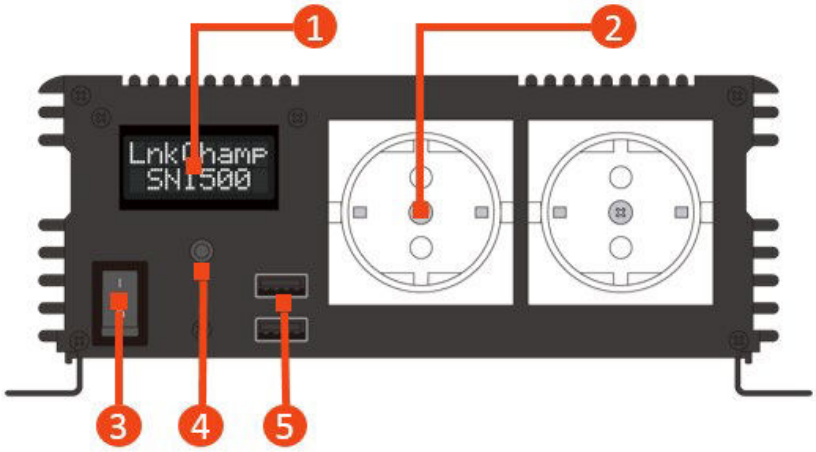
1000W/1500W, DC 12V/24V, AC 220~240V/110~127V INSTRUCTION MANUAL

PLEASE READ THE INSTRUCTION MANUAL BEFORE USE

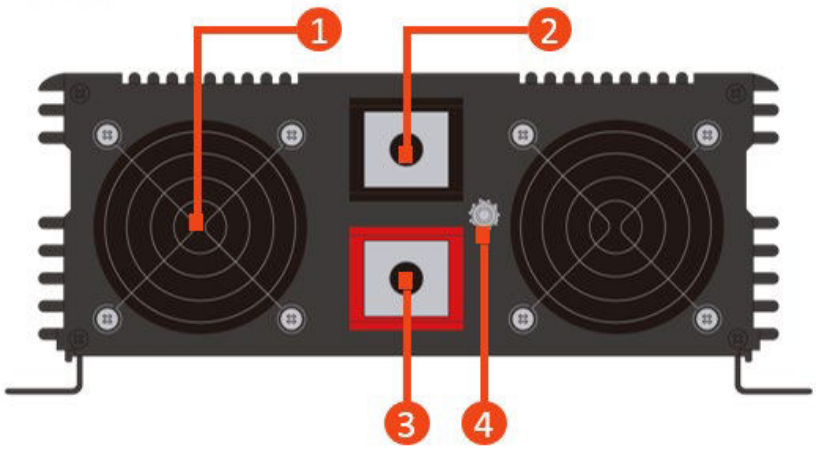
1. INTRODUCTION

RND 320-00134- Pure Sine Wave Power Inverter is advanced in design and equipped with a Smart Display and QC3.0 USB. This product has a high-efficiency output ranging from 1000W~3000W and minimalistic aesthetic design.

2. PRODUCT DIAGRAM



① 8x2 Display
② AC Output
③ Main Switch
④ Display Select Button
⑤ USB Port



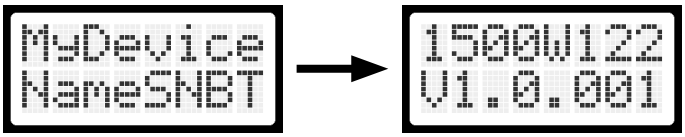
① Fan
② Negative Terminal
③ Positive Terminal
④ Ground Terminal

3. PRODUCT FEATURES

• Smart Display • USB Quick Charge 3.0 • Adjustable Settings by Display Button • Energy Saving Mode	• Intelligent Fan Control • Multi Pre-Alarm & Shutdown Alarm Protections: Battery Type / Low Voltage / Short Circuit / Overheat / Overload

4. DISPLAY SCREEN

WELCOME SCREEN



1500W}: output watt {12}: input volt {2}: output volt type
{V1.0.001}: firmware version

DEVICE NAME

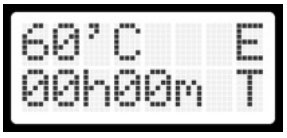
MAIN (PRESS DISPLAY BUTTON TO SWITCH PAGES)

INPUT VOLTAGE
OUTPUT WATTS*

E) ENERGY SAVING / (S)TANDARD MODE
(T) TIMER-OFF ENABLE

OUTPUT HZ
OUTPUT VOLT TYPE

TEMPERATURE
COUNTDOWN TIMER



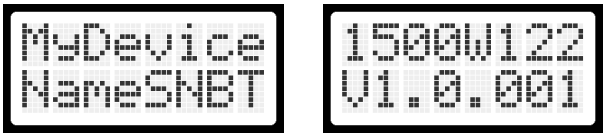
* THE OUTPUT WATTAGE PRECISION IS ABOUT ± 5% AND FOR REFERENCE ONLY. PLEASE USE A DEDICATED AC POWER METER IF A PRECISE VALUE IS NEEDED.

PROTECTIONS (AUTOMATICALLY SHOW UP WHEN TRIGGERED)

WELCOME SCREEN

Pre-Alarm <!> : Low Voltage, Overload, Overtemp
Shutdown (X) : Low Voltage, Overload, Overtemp, Short Circuit, High Voltage

Example:



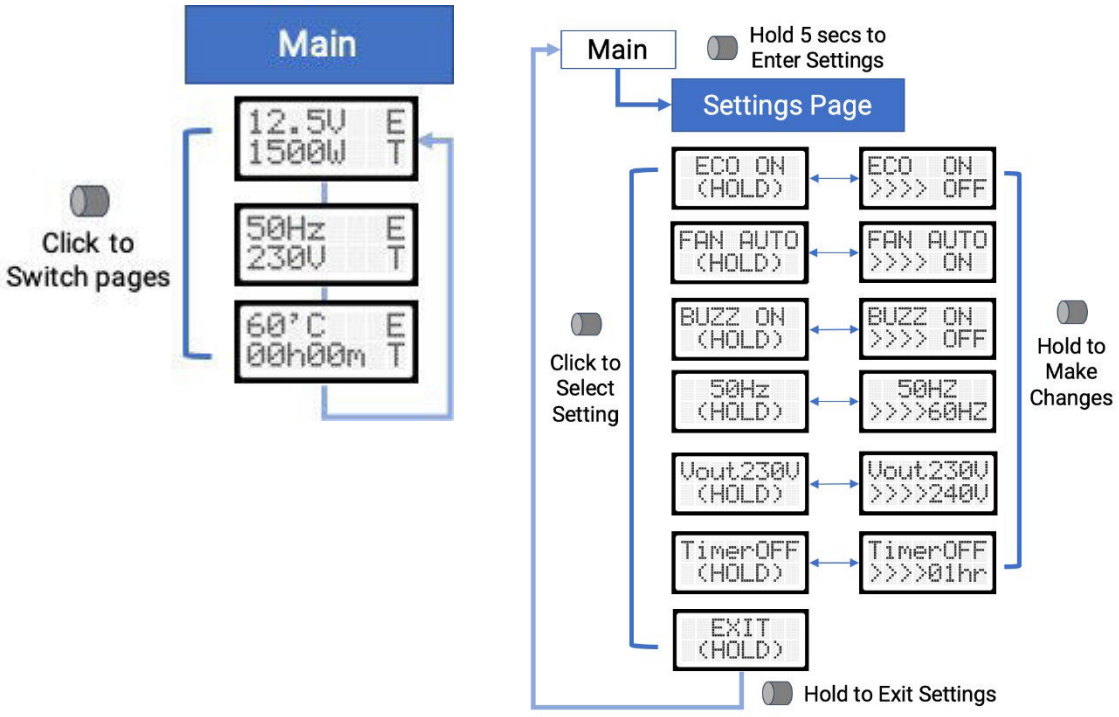
SETTINGS

Press and hold the display button for 5 seconds to switch to the settings menu. Here, click the display button to select setting. Once the setting is picked, press and hold the display button to confirm change.

AVAILABLE OPTIONS:

Eco Mode: ON/OFF	Hz: 50/60Hz	Timer OFF: 1hr/2hr/3hr/6hr/12hr/24hr
Fan: AUTO/ON	Buzzer: ON/OFF	V out: 220/230/240V (110/120/127V)

MENU FLOW: (DISPLAY BUTTON)



5. INSTALLATION

Connect Battery (CAUTION: DO NOT REVERSE INPUT)

Use the **RED** battery cord to connect from **(+)** the positive terminal to (+) the DC battery. Use the **BLACK** battery cord to connect from **(—)** the negative terminal to **(—)** the DC battery.

Connect Chassis Earth

The chassis earth lug should be connected to an earth point, which will vary depending on where the power inverter is installed. In a vehicle, connect the chassis ground lug to the chassis of the vehicle. In a boat, connect to the boat's ground system. In a fixed location, connect to earth.

Connect Remote Switch (Optional)

Connect the remote plug to the remote port on the front panel. Turn the inverter power switch from Off (○) to the Remote Mode **(=)**. When in remote mode, the inverter's main power will be controlled by the remote switch.

6. OPERATION

Power On

When connected to any appliance, be sure to turn on the inverter first. Then, turn on the power switch of the appliance.

Energy-Saving Mode

Under energy-saving mode, the inverter will detect AC output every 4~6 seconds thus causing a 4~6 seconds delay to start up. When using power tools such as drill, electric saw, mower, …etc., we suggest switching to normal mode for a better response time.

Long Hours Operation

When the inverter operates in full output capacity for a long period, the temperature of the inverter will increase and potentially shutdown by the over-temperature protection mode. Therefore, it is recommended to reduce the AC output capacity if a long continuous operating time is required.

Applications *Applications are for reference only. To avoid any potential damage to the inverter, please carefully read the manual and specification of the appliances before connecting to the inverter.

Digital: Mobile phone, tablet, computer, camera. Travel: Drone, coffee machine, microwave oven, refrigerator. Industrial: Electric drill, vacuum cleaner, electric chainsaw, pump.

7. SPECIFICATION

System	Model: SN-1000LCD	Model: SN-1500LCD
Continuous Power	1000W	1500W
Surge Power	2000W	3000W
Output Voltage	110/120/127 VAC; 220/230/240 VAC **BTN**	
Output Waveform	Pure Sine Wave	
Total Harmonic Distortion	< 3%	
Output USB Port	QC3.0 x 2 Ports	
Standby Current (Normal Mode)	DC 12V: < 1.0A; DC 24V: < 0.8A	DC 12V: < 1.2A; DC 24V: < 0.9A
Standby Current (Saving Mode)	DC 12V: < 0.15A; DC 24V: < 0.15A	
Output Regulation	< ±5% Intelligent PWM	
Output Frequency	50/60 Hz **BTN**	
Input Voltage	DC 12V: 10~15V; DC 24V: 20~30V	
Efficiency	> 85%	
Protection		
Input Type Auto-Detection	YES	
Input Polarity Reverse Protection	Fuse	
Input Low Voltage Pre-Alarm	DC 12V: < 10.5V; DC 24V: < 21.0V	
Input Low Voltage Shutdown	DC 12V: < 10.0V; DC 24V: < 20.0V	
Output Short Circuit Protection	YES	
Output Overheat Protection	> 80°C Pre-Alarm, > 90°C Shutdown & Alarm	
Output Overload Protection	> 110% Pre-Alarm, > 120% Shutdown & Alarm	
Cooling	Intelligent Fan **BTN**	
Mechanical		
Fuse	DC 12V: 25A x 6PCS; DC 24V: 20A x 6PCS	DC 12V: 25A x 8PCS; DC 24V: 20A x 8PCS
AC Outlets	EU: 2; USA: 3 (GFCI optional)	
Dimension (L x W x H)	360 x 227 x 88 mm	430 x 227 x 88 mm
Net Weight	3.6 kg	5.5 kg
Note: **BTN** Adjustable by Display Button		

8. SAFETY

- DO NOT use the inverter near any flammable substance
- DO NOT place the inverter near any water, moisture, oil or grease
- DO NOT expose the inverter to direct sunlight or heat source
- Make sure to provide adequate ventilation to the inverter
- Make sure to keep the inverter out of reach from children

9. TROUBLESHOOTING

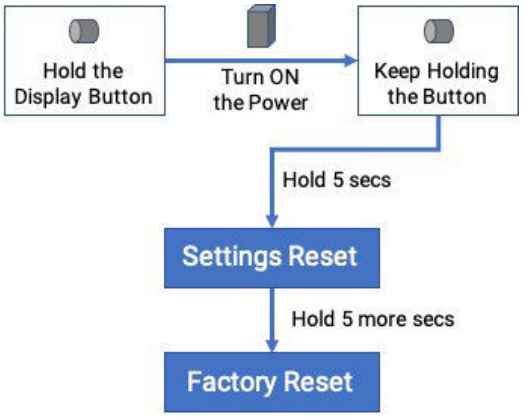
There are several reasons why the inverter may not be responding and the potential solutions to fix it.

- **No output power**
  Check if all the contact parts are connected thoroughly
  Check if the fuse has been damaged/burned. The fuse is located on the PCB board.
  Check the receptacle wiring. Repair if necessary.
- **Overload caused AC output to reduce or shutdown**
  Reduce the wattage of your load to lower than maximum continuous output power
- **Thermal caused AC output to reduce or shutdown**
  Turn off the inverter. Then, reduce the load or wait until the inverter as cooled. Lastly, turn the inverter back on.
- **Low battery shutdown:** Recharge your battery and resume operation.
- **Settings Reset : Steps:** Turn off the inverter. Press and hold the display button. Turn on the inverter while keep holding the display button. After 5 seconds, the display will show “SETTINGS RESET”. Release the display button and the settings reset is completed. Result: This operation will reset all the configurations on the inverter including but not limited to: energy-saving mode, output frequency, buzzer, output voltage type, timer settings.
- **Factory Reset: Steps:** Turn off the inverter. Press and hold the display button. Turn on the inverter while keep holding the display button. After 5 seconds, the display will show “SETTINGS RESET”. Continue to hold the display button. After 10 seconds, the display will show “FACTORY RESET”. Release the display button and the factory reset is completed. **Result:** This operation will reset the firmware on the inverter back to original factory firmware.

USER FLOW:

(DISPLAY BUTTON)

(POWER SWITCH)



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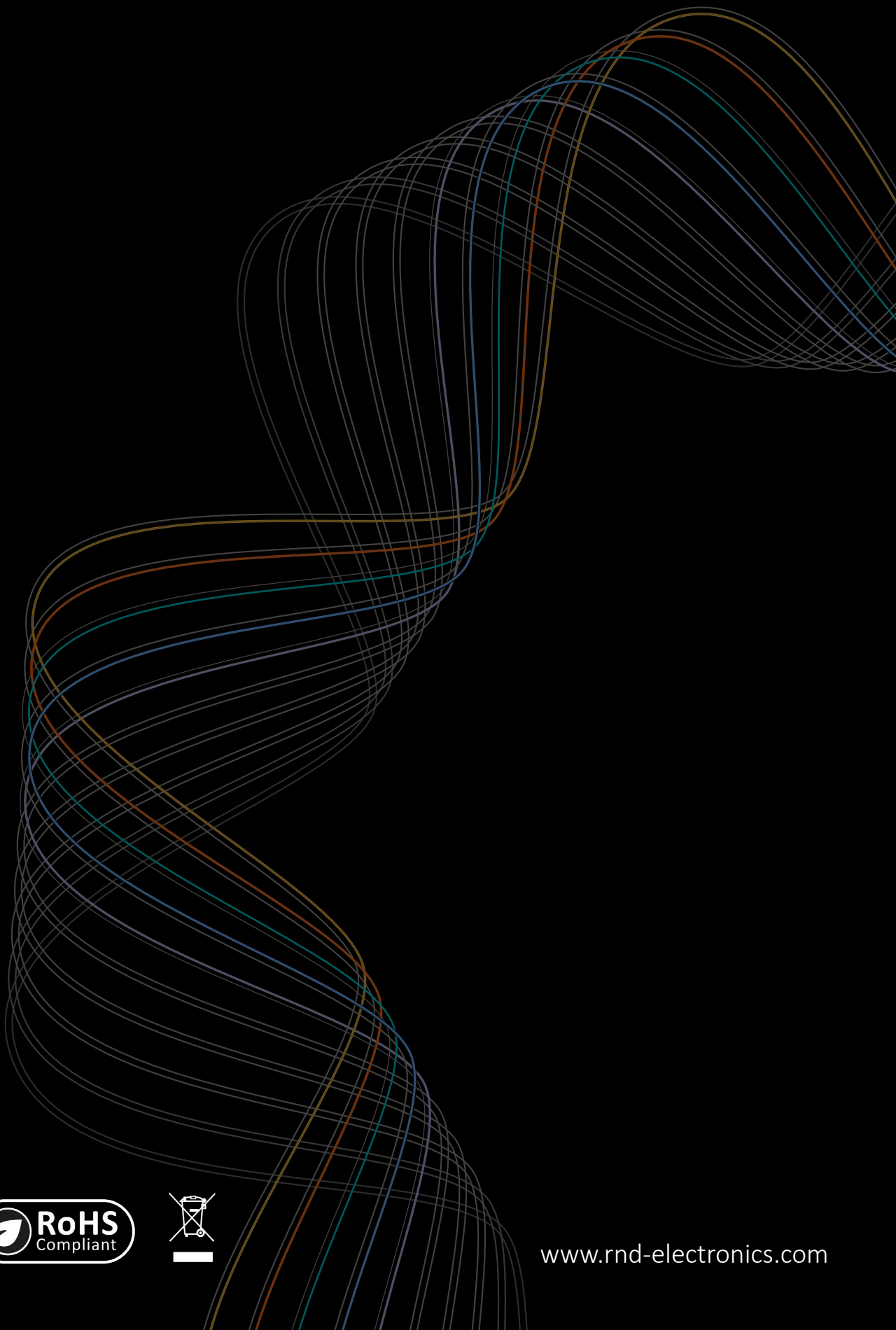

CE RoHS Compliant

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