

SUNTECH GT1500

LiFePO4 Portable Power Station

Technical Datasheet



1. Product Overview

The SUNTECH GT1500 is a 1500 W-class LiFePO4 (lithium iron phosphate) portable power station with a 1210 Wh battery capacity. It provides AC, DC, car-socket, USB-A, and USB-C PD outputs, an LED information display, and multiple charging paths (AC adapter, car, and solar), controlled via independent power/output switch buttons.

2. Key Specifications Summary

Product Model	GT1500
Battery Capacity	1210 Wh (22.4 V, 54 Ah / 378,000 mAh)
Cell Chemistry	LiFePO4 (Lithium Iron Phosphate)
AC Rated Output Power	1500 W
AC Peak Output Power	2500 W
AC Output Waveform	Pure Sine Wave
Cycle Life	3500 cycles
Product Size	400 x 210 x 293 mm
Weight	16 kg

3. Battery & Charging

3.1 Battery

Cell Type	LiFePO4 Battery
Battery Energy	1210 Wh (22.4 V, 54 Ah / 378,000 mAh)
Cycle Life	3500 cycles
Charging Temperature	0°C to 40°C
Discharge Temperature	-10°C to 40°C
Safety / Storage Recommendation	Store in a cool, dry place; recharge and discharge once every 3 months if not used for long periods

3.2 Charging Inputs

AC Adapter Input	27 V, 8 A (max. approx. 200 W), via DC7909 input port
Solar Charge Input	12-29 V DC, 4-7 A input current (100 W / 18 V panel recommended)
Car Charging Input	Via cigarette lighter cable, 12-14 V, max. 5 A
Low-Temperature Charging Cutoff	Charging disabled if battery temperature is above 65°C or below -5°C

For all charging methods, the LED display's power icon shows a running-light animation while charging normally, and the battery icon shows full when charging is complete. A built-in over-charge protection automatically stops charging once the battery is full; disconnect the charging source promptly afterward. During charging, the internal cooling fan may activate as temperature rises.

4. Output Ports & Ratings

AC Output (1 socket)	220-240 Vac~50 Hz (100-120 Vac~60 Hz variant available) — Rated 1500 W / Peak 2500 W, Pure Sine Wave
Car Cigarette Lighter / Car Socket Output	12 V, 10 A (max. 120 W)
USB-A Output (x3)	5 V, 2.4 A per port (max. 25 W total when all 3 ports are used simultaneously)
USB-C Output (x1)	PD 60 W
LED Light	2 W LED, with on/off and SOS-style modes

4.1 Port Notes

- DC/car output is controlled by the dedicated DC Output button; car socket and DC output share the same control.
- USB-A output is controlled by its own on/off button; USB-C output operates independently.
- AC output is controlled by its own on/off button, separate from the DC/USB circuits.
- DC input (charging) uses a DC7909 connector.

5. Display & Controls

5.1 Physical Controls

LED Light Button	Toggles the LED work light on/off
DC Output Button	Turns car socket / DC output on or off
USB-A On/Off Button	Turns USB-A ports on or off
Power Button	Turns the unit on/off; wakes the LED screen
AC Output On/Off Button	Turns AC inverter output on or off

5.2 LED Screen Indicators

The display shows: battery temperature icon and value; cooling fan status icon; battery charge level (%) with a graphic battery/lightning icon while charging; total output power in watts; total input power in watts; a warning icon for fault conditions; and individual status icons for AC output, USB output, DC output, and USB-C (Type-C) output.

6. Protection Features

- Short-circuit protection on USB, USB-C, car socket (DC-OUT), and AC outputs — affected port shuts down and its icon flashes to warn.
- Over-current protection on all output ports.
- AC low-voltage cutoff — AC-OUT icon flashes before AC output is disabled.
- AC over-temperature protection — AC output is disabled until the unit cools down, then resumes automatically.
- AC overload protection — AC output disabled and icon flashes; recovers only after the load is removed.
- AC over-voltage protection — AC output disabled until the fault condition is cleared.
- Over-temperature protection — if battery temperature exceeds 65°C, all outputs are disabled, the display shows the peak temperature, the temperature icon flashes, and the cooling fan runs until the unit exits the protection state.
- Auto sleep — if the unit is unloaded (or DC load < 5 W / AC load < 5 W), it automatically goes to sleep after 8 hours.
- Overcharge protection — automatically stops charging once the battery reaches full capacity.

7. Physical & Environmental Specifications

Product Size	400 x 210 x 293 mm
Weight	16 kg
Operating Temperature (per safety instructions)	-10°C to 40°C
Charging Temperature	0°C to 40°C
Discharge Temperature	-10°C to 40°C
Recommended Storage Maintenance	Charge and discharge once every 3 months during long-term storage

8. Package Contents

- 1 x GT1500 Portable Power Station
- 1 x Power Adapter
- 1 x Car Charger Cable
- 1 x MC4 Solar Charge Cable
- 1 x Storage Bag
- 1 x User Manual

9. Safety Instructions (Summary)

- Read all instructions before use; keep away from unsupervised children.
- Do not insert fingers/hands into the unit; keep away from rain and snow.
- Use only chargers/power supplies recommended by the manufacturer.
- Do not use if damaged or modified; do not disassemble — service only by qualified personnel with identical replacement parts.
- Turn off when not in use; store in a cool, dry place; avoid hot or humid environments.
- Operating temperature: -10°C to 40°C.
- If unused for extended periods, charge and discharge once every 3 months.
- Mild warmth during charging is normal; battery performance will gradually decline over years of use.
- Do not clean with harmful chemicals or detergents; avoid dropping or excessive force.
- When disposing of cells/batteries, keep different electrochemical systems separated.

10. Warranty

The product is replaced free of charge under the terms of the manufacturer's warranty policy when used according to the manual and if it fails within the warranty period. Warranty does not cover failure from misuse, improper storage (complete discharge), non-designated power adapters, or unauthorized repair/disassembly/modification. Shipping costs for warranty returns are the customer's responsibility. Proof of purchase (receipt, order number, or invoice) is required for warranty claims.