

RAYSTECH

Home Battery Backup RT-2.5KW LFP

Main Feature

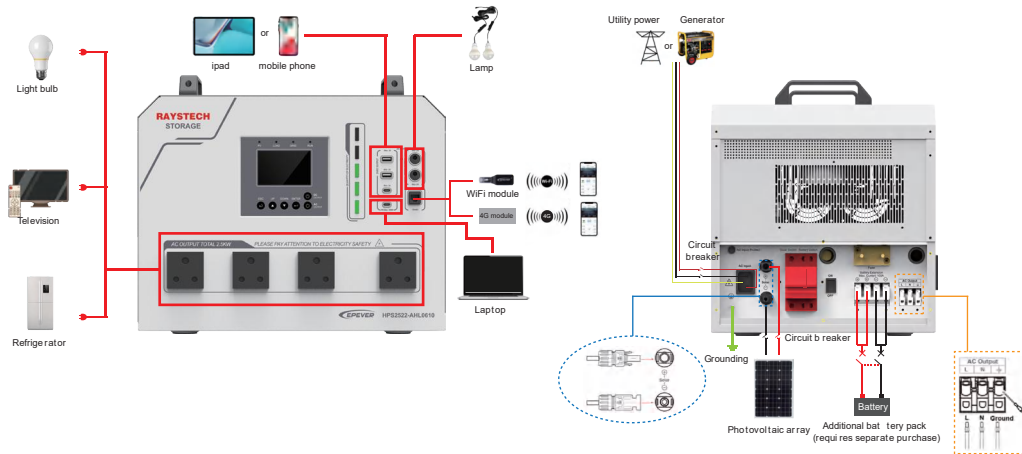
- Excellent dust-proof performance with separate compartment design.
- Built-in LiFePO4 lithium battery.
- Intuitive display of battery SOC via 5-bar indicator lights.
- Multiple DC output ports (5VDC/3A ports, 12VDC/2A ports, Type C ports).
- Build-in bluetooth module.
- Large-sized LCD screen to monitor and modify system parameters.
- Optional 4G or WiFi module to remote control the inverter/charger by the RS485 com. port.
- AC input overload relay for disconnecting from the grid when the fault occurs.
- Circuit breaker on PV input for equipment safety.
- Circuit breaker on battery output for battery safety.
- AC charging with PFC technology, high power factor for efficient energy consumption.
- Bidirectional high-frequency transformer isolation topology.
- Advanced MPPT technology: maximum tracking efficiency \geq 99.5%.
- EMC design on AC output to avoid interference with AC load.
- Long-term continuous operation at full power.
- Pure sine wave output.
- Comprehensive electronic protection.



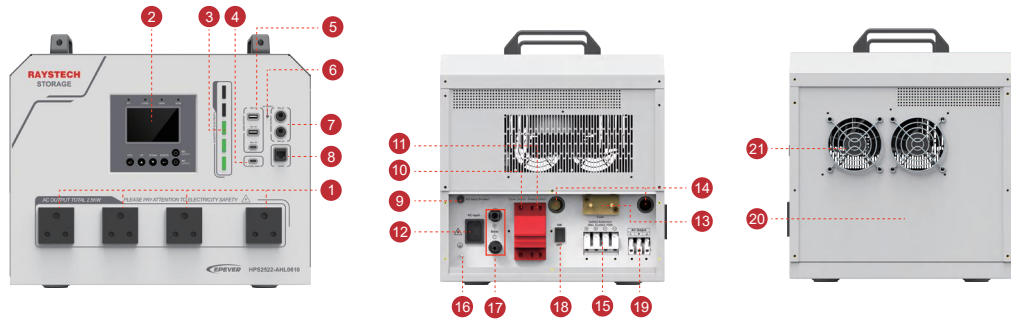
Technical Data

Work Temperature Range	20 C~50 C (when the environment temperature exceeds 30 C, the charging power and load power will be reduced appropriately; working of full load is not supported.)
Enclosure	IP30
Communication Method	Bluetooth, RS485 (WiFi optional)
LCD	Monochrome LCD, English interface
Warranty	Two years
Dimension (Length x Width x Height)	427x325.4x368mm (with floor mats and handles)
Net Weight	37.0kg

Solar System Connection



Product Information

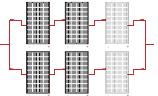
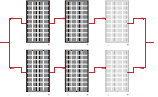
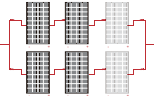
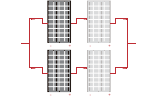
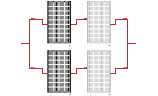
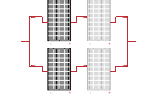
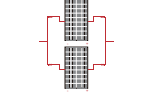
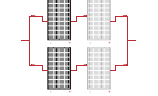
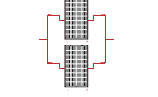
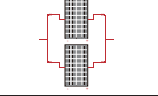
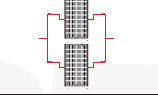


- 1 AC outlet
- 2 LCD
- 3 Battery SOC indicator
- 4 Type C port (Type C-100W)
- 5 5VDC/3A output port *3
- 6 DC output indicator
- 7 12VDC/2A output port *2
- 8 RS485 com. port
- 9 Utility bypass overload relay
- 10 PV input circuit breaker
- 11 Battery output circuit breaker
- 12 AC input port
- 13 Extension battery fuse
- 14 Outlet holes
- 15 Extension battery terminal
- 16 Grounding terminal
- 17 PV input terminals
- 18 Inverter/charger switch
- 19 AC output terminal
- 20 Battery container
- 21 Cooling fan

Technical Data

	Model	RT252422 Li
Utility Input	Utility Rated Voltage	220VAC
	Utility Voltage	200~240VAC
	Failure Voltage	290VAC
	Utility Frequency	50Hz/60Hz
	Utility Maximum Work Current (Charging + Bypass)	15A@220VAC
	Switch Response Time	Switch Response Time-Utility to Inverter: ≤20ms Switch Response Time-Inverter to Utility: ≤20ms
	AC Input Overload Relay	HAVE
Inverter Output	Inverter Rated Power (@25 °C)	2500W
	4-second Transient Surge Output Power	4500W
	Inverter Output Voltage	220VAC±3%
	Inverter Frequency	50Hz/60Hz±0.2%
	Output Voltage Waveform	Pure sine wave
	Output Voltage Harmonic Distortion Rate	≤3% (Resistive load)
	Output Gradual Start	HAVE
Solar Controller	PV Maximum Input Withstand Voltage	95VDC
	Solar Controller Type	MPPT
	MPPT Maximum Efficiency	≥99.5%
	MPPT Voltage Range	24~76VDC
	MPPT Input Channels	One way
	PV Maximum Charging Current	60A
	Battery	Battery Type
Battery Rated Voltage		25.6VDC
Battery Work Voltage Range		21.0VDC~30.0VDC
Battery Work Temperature Range		Discharging Mode: -20 °C~50 °C Charging Mode: 0 °C~50 °C
Battery Capacity		100Ah
DC Output	12V DC Output (x2)	12V=2A, Max. 24W/port, Total 48W
	USB-A Output (x2)	5V=3A, Max. 15W/port, Total 30W
	USB-C Output (x1)	5V=3A, Max. 15W
	USB-C Output (x1)	5/9/12/15V =3A, 20V=5A, Max. 100W
	DC Output Switch	HAVE









Recommended Component Configuration Table

Specifications	Size	Efficiency	Recommended components	Photovoltaic voltage access range	Recommended photovoltaic access
Polycrystalline	1470x670x28mm	165~170W		30VDC~95VDC	2 in series, 2 in parallel 45VDC
					3 in series, 2 in parallel 68VDC
Monocrystalline	1580x710x28mm	220~235W		30VDC~95VDC	2 in series, 2 in parallel 53VDC
					3 in series, 2 in parallel 80VDC
Monocrystalline	1570x765x28mm	250~260W		30VDC~95VDC	2 in series, 2 in parallel 53VDC
					3 in series, 2 in parallel 80VDC
Polycrystalline	1640x992x30mm	270~280W		30VDC~95VDC	1 in series, 2 in parallel 38VDC
					2 in series, 2 in parallel 76VDC
Polycrystalline	1956x992x30mm	330~350W		30VDC~95VDC	1 in series, 2 in parallel 45VDC
					2 in series, 2 in parallel 90VDC
Monocrystalline	1755x1038x30mm	370~380W		30VDC~95VDC	1 in series, 2 in parallel 45VDC
					2 in series, 2 in parallel 90VDC
Monocrystalline	2094x1038x30mm	450~470W		30VDC~95VDC	1 in series, 2 in parallel 53VDC
Monocrystalline	1722x1134x28mm	400~415W		30VDC~95VDC	1 in series, 2 in parallel 40VDC
					2 in series, 2 in parallel 80VDC
Monocrystalline	2279x1134x30mm	540~555W		30VDC~95VDC	1 in series, 2 in parallel 53VDC
Monocrystalline	2204x1303x35mm	590~600W		30VDC~95VDC	1 in series, 2 in parallel 53VDC
Monocrystalline	2384x1303x35mm	650~670W		30VDC~95VDC	1 in series, 2 in parallel 53VDC

*This table should be validated based on the limit open-circuit voltage at the lowest temperature of 5 degrees Celsius, and it is allowed to exceed 95VDC under any conditions.

Portable Power Station



 Macbook 13 7105mAh ≈105+ times	 iphone XR 2942mAh ≈262+ times
 coffee maker 900W ≈2.7+ hours	 impact drill 1100W ≈2.2+ hours
 rice cooker 600W ≈4+ hours	 television set 100W ≈25+ hours
 electric oven/ toaster oven 800W ≈3.2 hours	 car refrigerator 62W ≈40+ hours

Notes

Empty rectangular box for notes.

RAYSTECH

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