

Specification

29.4V/30A Lithium Battery
29.4V/30A LPE BATTERY

Main Parameters

Max. Output Power	Input Voltage	Max. Output Voltage	Combined Regulation	Output Current	Combined Regulation
820W	180-240V	29.4Vdc	±0.2V	30A	+0.2A

Environmental Conditions

No.	Item	Technical Specification	Remark
1	Humidity	5~95%	With package
2	Altitude	≤3000m	Work normally

Electrical Characteristics

3.1 Input Characteristic

No.	Item	Technical Specification	Remark
1	Rated Input Voltage	220Vac	—
2	Input Voltage Range	180-240Vac	—
3	AC Input Frequency	50~63Hz	—

3.2 Output Characteristic & Charge Stages

No.	Item	Technical Specification	Remark
1	CC (Constant Current)	≤29.4Vdc, 30A	—

No.	Item	Technical Specification	Remark
2	CV (Constant Voltage)	29.4Vdc, 30A	–
3	Float Stage	NO	–
4	Power Efficiency	$\geq 82\%$	Vin=220Vac, rated load

3.3 Protection Characteristics

No.	Item	Technical Specification	Remark
1	Over Voltage Protection	Yes	–
2	Software Over Voltage Protection	The charger software limits the maximum output voltage to a level suitable for the connected battery system.	–
3	Thermal Protection	Yes	–
4	Current Limiting Protection	Yes	At CC mode
5	Short Circuit Protection	Short circuit protection should be automatically recovered after removing the fault condition.	–
6	Reverse Connection Protection	Yes	–

3.4 Charging Indicator

No.	Item	Status	Remark
1	Power On	LED1: Red	–

No.	Item	Status	Remark
2	Charging	LED2: Red	–
3	Fully Charged	LED2: Green	–
4	Charging Voltage Display	No	–
5	Charging Current Display	No	–

Safety & EMC

No.	Item	Item	Standard (or Test Condition)	Remark
1	Electric Strength Test	Input-Output	950Vac/10mA/1min	No breakdown
2	Isolation Resistance	Input-Ground	$\geq 10\text{Mohm}@500\text{Vdc}$	–
–	–	Output-Ground	$\geq 10\text{Mohm}@500\text{Vdc}$	–
3	Leakage Current	Leakage Current	$< 3.5\text{mA}$	Vin=264Vac
4	Safety	Safety	CE/ROHS compliant	–
5	LVD	LVD	EN60335-1:2002 + EN60335-2-29:2002	–

Remark

Discrimination A: Function OK under technical requirement range; Discrimination R: Physical damage or equipment failure is not allowed. Damage of protection device (fuse) caused by external interference signals is allowed, and the equipment can resume normal operation after replacing the protection device and resetting operating parameters.

Environmental Testing Requirements

No.	Item	Technical Specification	Remark
1	High Temperature Ambient Operating	+60°C	Features OK
2	Low Temperature Ambient Operating	-10°C	Features OK
3	High Temperature Storage	+70°C	Work normally after recovery at normal temperature for 2 hours
4	Low Temperature Storage	-20°C	Work normally after recovery at normal temperature for 2 hours
5	Random Vibration	20Hz to 2000Hz 3Grms 20hours per axis	-
6	Repetitive Shock	40g peak 3 orthogonal axes, 3+ and 3- in each axis, 11ms pulse width	-
7	Thermal Shock	-35°C to 75°C, <3min transition, 2.5hours dwell, 200 cycles	-
8	Drop Test	BS EN60068-2-32:1993 TEST ED: free fall appendix B	-

Mechanical Characteristic

Shell Material: Aluminum shell
 Outline Dimension: LWH=212×86.5×65mm
 Input Socket: Meets IEC standard
 AC Wires: 1.0m length
 DC Wire: 1m; Output terminal: T-shaped connector
 Net Weight: 0.8Kg

8. Package, Transportation & Storage

8.1 Package

The package box includes product name, model, manufacturer name, safety approval, serial number, user manual and packing list.

8.2 Transportation

Suitable for truck transportation. Products shall be protected from direct sunlight and handled with care during loading and unloading.

8.3 Storage

When not in use, products shall be stored in the package box. Warehouse temperature: -40°C ~ 70°C , relative humidity: 5~95%. No harmful gases, flammables, explosives, corrosive chemicals, strong mechanical vibration, shock or strong magnetic field allowed in the warehouse. The package box shall be placed at least 20cm above the ground and 50cm away from walls, heat sources and vents. Storage life: 2 years under above conditions; re-inspection required after 2 years. The charger must be powered on once every three months for at least 0.5 hours.

9. Reliability Requirements

MTBF (standard, ambient temperature, load condition) $\geq 50,000$ hours; Test condition: 25°C , full load, verified by test.

10. Charging Curve

Charging Voltage (V) Charging Current (A) Switching point 5% of CCCC
Step CV Step Outline: Length 23.3cm, Width 9cm, Height 7cm