

Specification of Battery Charger

KP900F
KP900F series
LITHIUM BATTERY
CHARGER

(Aluminum enclosure)



1. General

KP900F, 245×135×70mm

The series KP900F, 245×135×70mm aluminum shell charger with reverse polarity protection function..

2. Main product specification

Model		KP900F-15
Max output voltage	Lithium	12.6V±0.2
Output current		30-40A±5%
Battery Specifications		
Max. output power		504W
Input voltage		<input type="checkbox"/> 90-132Vac <input checked="" type="checkbox"/> 180-260Vac <input type="checkbox"/> 90-260Vac

3. Environmental condition

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

4. Electrical characteristics

4.1 Input characteristic

No.	Item	Technical specification	Remark
1	Rated input voltage	<input type="checkbox"/> 110Vac <input checked="" type="checkbox"/> 220Vac	
2	Input voltage range	<input type="checkbox"/> 90-132Vac <input checked="" type="checkbox"/> 180-260Vac <input type="checkbox"/> 90-260Vac c	
3	AC input voltage frequency	50~60 Hz	

4.2 Output characteristic or charge stages

No.	Item		Technical specification	Remark
1	Nominal voltage		12V	
2	(Vout)	Lithium	12.6V	30-40A current adjustment
	CC (constant current)		$\leq V_{out}$	
			30-40A	
3	CV (constant voltage)		V_{out} , 30-40A ↓	
4	Transition Current		V_{out} , 2A → 0	5%CC
5	Power efficiency		$\geq 86\%$	$V_{in}=220V_{ac}$, $V_{out}=220V_{ac}$, rated load
6	Features		Add 30-40A manual adjustment function	

4.3 Protection characteristics

No.	Item	Technical specification	Remark
1	Software over voltage protection	The charger output voltage does not exceed set the maximum charging voltage of the battery.	
2	Thermal protection	Aluminum shell the inside temperature $> 65^{\circ}C$, Automatic Shutdown Transformer temperature $> 110^{\circ}C$, Automatic Shutdown	
3	Current limiting protection	The charger output current does not exceed a set battery charge current.	At CC mode
4	Short circuit protection	Short circuit protection should be automatically recovery after remove the condition.	
5	Reverse polarity protection	When output wires are reversely connected to the battery the charger will not operate and will work normally when DC wires	

		are correctly connected.	
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4.4 Charging indicator

No.	Item	Status	备注 Remark
1	Power on	LED1: Red LED2: Green	
2	Charging	LED1: Red LED2: Red	
3	Fully charged	LED1: Red LED2: Green	
4	Charging Voltage Display	No	
5	Charging Current Display	No	

5. Safety & EMC

No.	Item		Standard (or test condition)	Remark
1	Electric strength test	Input-output	1500Vac/1min \leq 10mA	No breakdown
2	Isolation resistance	Input-ground	\geq 10Mohm@500Vdc	
		输出-接地 Output-ground	\geq 10Mohm@500Vdc	
3	Leakage current		<3.5mA	
4	Safety		<input checked="" type="checkbox"/> CE <input checked="" type="checkbox"/> RoHs <input type="checkbox"/> GS <input type="checkbox"/> UL <input type="checkbox"/> CCC <input type="checkbox"/> SAA <input checked="" type="checkbox"/> PSE <input type="checkbox"/> KC	
5	LVD		EN60335-1:2002+EN60335-2-29:2002	

Remark: Discrimination A- Function OK under technical requirement range;

Discrimination R- Physical damage or failure of equipment are not allowed, but damage of protection device (fuse) caused by interference signal of outside is allowed, and the whole equipment can work normally after replacement of protection device and reset of running parameter

6.Environmental testing requirements

No.	Item	Technical specification	Remark
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1	High environmental temperature ambient operating	+40°C	Features OK
2	Low environmental temperature ambient operating	-10°C	Features OK
3	High temperature storage	+70°C	Work normally after recovery under normal temperature for 2 hours
4	Low temperature storage	-40°C	Work normally after recovery under normal temperature for 2 hours
5	Random vibration	20Hz to 500Hz Acceleration 0.49	
6	Repetitive shock	10Hz to 60Hz Amplitude 0.38	
7	Thermal shock	-35°C to 75°C, <3min transition, 2.5hours dwell, 200cycle	
8	Drop test	BS EN60068-2-32:1993 TEST ED: free fall appendix B	
9	IP rate	IP20	

7. Mechanical characteristic:

Shell material: Aluminum

Outline dimension: L*W*H=245×135×70 mm

Input socket: meets IEC standard

AC wires: 1.5m length

DC wire: 1.5 m length

Net Weight: 2.6 Kg

8. Package, transportation & storage

8.1 Package:

There is product name, model, name of manufacturer, safety approval, serial number, User Manual and packing list in the package box.

8.2 Transportation:

Suit for transportation by truck, the products should be Placed in cool dry place, and loaded and unloaded carefully.

8.3 Storage:

Products should be stored in package box when it is not used. And Warehouse extreme temperatures should be $-40 \sim 70$ °C, the normal temperature $-20 \sim 50$ °C, and relative humidity is 5~95%. In the warehouse, there should not be harmful gas, inflammable, explosive products, and corrosive chemical products, and strong mechanical vibration, shock and strong magnetic field affection. The package box should be above ground at least 20cm height, and 50cm away from wall, thermal source, and vent. Under this requirement, product has 2 years of storage period, and should be rechecked when over 2 years. The charger must be powered on every three months, and the power on time should not be less than 0.5 hours.

9. Reliability requirements

MTBF (standard, environmental temperature, load requirement) ≥ 50 K hours;
testing condition: 25°C,full load, testing proved value.

10. Charging Curve

