

Specification of Battery Charger

KP600A
KP600A series
LITHIUM BATTERY
CHARGER

CEL9170

(Aluminum enclosure)



1. General

The series KP600A, 210×100×68mm aluminum shell charger with reverse polarity protection function.

2. Main product specification

Model		KP600A-24
Max output voltage	Lithium	29.2V ± 0.2
Output current		20A ± 5%
Max. output power		584W
Input voltage		<input type="checkbox"/> 90-132Vac <input checked="" type="checkbox"/> 180-255Vac <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"/> 180-255Vac <input type="checkbox"/> 90-260Vac	
3	AC input voltage frequency	50~60 Hz	
4	PFC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO	
5	Input current	5A	220V When 220v input voltage

4.2 Output characteristic or charge stages

No.	Item		Technical specification	Remark
1	Nominal voltage		24V	
2	(Vout)	Lithium	29.2V	
	CC (constant current)		$\leq V_{out}$	
			20A	
3	CV (constant voltage)		$V_{out}, 20A \downarrow$	
4	Transition Current		$V_{out}, 1A \rightarrow 0$	5%CC
5	Power efficiency		$\geq 88\%$	220Vac, $V_{in}=220Vac, \text{rated load}$
6	通讯 Communication		<input type="checkbox"/> 485 communication <input type="checkbox"/> CAN communication <input checked="" type="checkbox"/> NO	
7	Feature 1		<input checked="" type="checkbox"/> With CV when only connect with AC plug <input type="checkbox"/> Without voltage when only connect AC plug	

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	NO, can customization	
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	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	
		Output-ground	\geq 10Mohm@500Vdc	
3	Leakage current		<3.5mA	
4	Safety		<input checked="" type="checkbox"/> CE <input 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			

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
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	IP rate	IP20	

7. Mechanical characteristic:

Shell material: Aluminum

Outline dimension:

L*W*H=210×100×68mm

Input socket: meets IEC standard

AC wires: 1.5m length

DC wire: 1.2m length

Net Weight: 1.5 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 $-40 \sim 70 \text{ }^{\circ}\text{C}$, the normal temperature $-20 \sim 50 \text{ }^{\circ}\text{C}$, 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) $\geq 50\text{K}$ hours;

testing condition: 25°C , full load, testing proved value.

10. Charging Curve

