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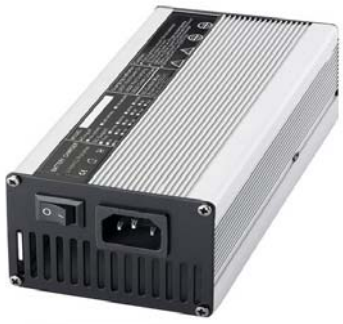
CL4Y Ladegeräte

Specification of Battery Charger

Model Number: EJ1218

12V /18A 4S LiFeO4 BATTERY CHARGER

(Aluminium Case)



Doc No: SPE-BC-0099

Prepared	Checked	Approved
Sara	Jess	John

1. General

Battery Charger EJ1220AL, 200×100×68mm can work normally under14.6Vdc/20A and with reverse polarity protection.

2. Main product specification

Max. output power	Input voltage	Output voltage	Output current	Combined regulation
240W	230Vac	14.6V+/-0.2Vdc	18A	+/-0.2

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	220Vac	
2	Input voltage range	180~ 264Vac	
3	AC input voltage frequency	50～60 Hz	

4.2 Output characteristic or charge stages:

No.	Item	Technical specification	Remark
1	CC (constant current)	≤14.6Vdc, 18A	
2	CV (constant voltage)	14.6Vdc, 18A ↓	
3	Cut off	14.6Vdc,1A	5%CC
4	Power efficiency	≥90%	

4.3 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	N/A	
4	Current limiting protection	Yes	At CC mode
5	Short circuit protection	Short circuit protection should be automatically recovery after remove the condition	
6	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.	

4.4 Charging indicator

No.	Item	Status	Remark
1	Power on	LED1: Red	
2	Charging	LED2: Red	
3	Fully charged	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/10mA/1min	No breakdown
2	Isolation resistance	Input-ground	≥10Mohm@500Vdc	
		Output-ground	≥10Mohm@500Vdc	
3	Leakage current		＜3.5mA	Vin=264Vac
4	Safety		CE / UL compliant	
5	EMC		EN55022:1998+A1:2000+A2:2003 EN55024:1998+A1:2001+A2:2003 (EN61000-4-2:1995+A1:1998+A2:2001) EN61000-4-3:2002 EN6100-4-4:1995+A1:2000+A2:2001 EN61000-4-5:1995+A1:2000 EN61000-4-6:2001 EN61000-4-11:2001)	
6	LVD		EN60335-1:2002+EN60335-2-29:2002	

Remark: Discrimination A- Function OK under technical requirement range;
Discrimination B- Function temporarily debasement without reposition and halt is allowed;
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 temperature ambient operating	+40℃	Features ok
2	Low temperature ambient operating	-10℃	Features ok
3	High temperature storage	+70℃	Work normally after recovery under normal temperature for 2hours
4	Low temperature storage	-40℃	Work normally after recovery under normal temperature for 2hours
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℃ to 75℃, ＜3min transition, 2.5hours dwell, 200cycle	
8	Drop test	BS EN60068-2-32:1993 TEST ED: free fall appendix B	

7. Mechanical characteristics

Outline dimension: L*W*H=200×100×68mm
Input socket: meets IEC standard
AC wire: 1.5m length
DC wire: 1.5m length
Net Weight: 1.2Kg

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 shielded by tent from sunshine, and loaded and unloaded carefully.

8.3 Storage:

Products should be stored in package box when it is not used. And warehouse temperature should be -40~70℃, 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 2years of storage period, and should be rechecked when over 2years.

9. Reliability requirements

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

10. Charger wiring

10.1 A spark often on first connection of the charge to the battery terminals due to charging the internal output capacitors, this is normal and should not lead to undue concern, care should be taken to ensure the battery vent caps are closed and there are no flammable object in the vicinity of where the connection will be made

10.2 The charger has been calibrated to take account of the voltage drop in the DC output cables during operation, to prevent the possibility of over or under charging of the battery it is recommended the DC output cable are connected directly to the battery without modification. We are able to customize cable length and connections for volume customers with specific requirements.

11. Charging Curve