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professional *solutions*

FU-CLFP4000-28.8V • Battery charger



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1. SCOPE

This specification defines the input, output, performance characteristics, environment, noise and safety requirements.

2. ELECTRICAL CHARACTERISTICS

Input voltage	100-240V AC
Voltage variation range	90-264V AC
Input frequency	50/60HZ
Input current	2.5A Max.
Maximum energy consumption in NO-Load	2W Max.
Rating output voltage	29.2V±0.2V
Rating output current	4.0A±0.2A
Turn lamp current	200~400mA
Load output voltage range	40%-65%
Ripple and noise	Output ripple voltage is 200mv p-p measured methods:Performed by 20MHz bandwidth in oscilloscope.Applied 0.1uF ceramic capacitor and 10uF electrolytic capacitor across output connector terminals Measured at the end of DC cable.
Rise time	40mS Max. At 115Vac input and output Max. Load.
Hold up time	5mS Min. At 115Vac input and output Max. Load.
Ultimate output	116.8W
Overshoot	15% Max.When power supply at turn on or turn off.

Line/ Load Regulation					
Output Rate	Load condition		Line regulation	Load regulation	Remark
	Min. Load	Max. Load			
29.2V	0.0A	4.0A	±3%	±5%	

Efficiency	
<input type="checkbox"/> PFC	* Active Efficiency at 230V 50Hz: 83% MIN. * Active Efficiency at 110V 60Hz: 81% MIN
<input checked="" type="checkbox"/> PFC	Factor is more than 0.90,at full load and 230Vac input. Active efficiency at 230V 50Hz: 88% MIN. Active efficiency at 110V 60Hz: 85% MIN

3. PROTECTION REQUIREMENT

3.1 Short Circuit protection

The power supply will be auto recovered when short circuit faults remove.

3.2 Over current protection

The power supply will be auto recovered when over current faults remove.

3.3 Temperature protection point of power supply chip:125°C.

3.4 he maximum temperature of the shell:

At the ambient temperature of 25°C, full load for 4h, the maximum temperature of outside enclosure is 45°C.

3.5 Plastic shell temperature resistance:120°C MAX.

4. ENVIRONMENTAL REQUIREMENT

4.1 Operating temperature

0°C to 40°C, full load normal operation.

4.2 Storage Temperature:

-20°C to85°C, with package.

4.3 Relative humidity

5% (0°C) ~90% (40°C) RH, 72Hrs, full load normal operating.

4.4 Altitude

Max. 5000M Max. 2000M

5. MECHANICAL CHARACTERISTICS

5.1 Vibration test

Unit is tested at a vibration number 10~50~10Hz (cycle per minute) on vertical direction, and the testing is carried out for 30 minutes. Amplitude is 1.5mm. There is no damage of the case, and the electrical performance is normal

(Reference: IEC60065) .

5.2 Drop test

Making single charger and charger with plug drop from 76cm,1 (one) time in each 3 faces to the flat hardwood floor.

Performance is normal and product no broken contact (Reference: iIEC60950).

6. EMC (SAFETY AND EMI REQUIREMENT)

6.1 Safety:

Certificate	Standard	Certificate	Standard
<input checked="" type="checkbox"/> CB	<input checked="" type="checkbox"/> IEC/EN 61558-2-16	<input checked="" type="checkbox"/> LVD	<input checked="" type="checkbox"/> IEC61558-2-16
	<input type="checkbox"/> IEC/EN60950-1		<input type="checkbox"/> IEC 60950-1
	<input type="checkbox"/> IEC/EN60335-2-29		<input type="checkbox"/> IEC 60335-2-29
<input checked="" type="checkbox"/> GS	<input checked="" type="checkbox"/> EN61558-2-16	<input checked="" type="checkbox"/> PSE	<input checked="" type="checkbox"/> J61558-2-16
	<input type="checkbox"/> EN60950-1		<input type="checkbox"/> J61558-2-16
	<input type="checkbox"/> EN60335-2-29		<input type="checkbox"/> J60335-2-29
<input checked="" type="checkbox"/> SAA	<input type="checkbox"/> AS/NZS 60950-1	<input type="checkbox"/> KCB	<input type="checkbox"/> K60950-1(2011-12)
	<input checked="" type="checkbox"/> AS/NZS 61558.2		<input type="checkbox"/> IEC60335-2-29
<input checked="" type="checkbox"/> CCC	GB4943.1-2011	<input type="checkbox"/> CQC	GB40706.1-2015
<input type="checkbox"/> PSB	IEC 61558-2-16	<input checked="" type="checkbox"/> ETL (UL)	<input type="checkbox"/> UL62368
	IEC 60950-1		<input type="checkbox"/> UL1012
	IEC 60335-2-29		<input type="checkbox"/> UL1310
<input type="checkbox"/> BSMI	CNS 13438:2006; CNS15663		<input checked="" type="checkbox"/> UL 60950

6.2 EMC:

Certificate	Standard	Certificate	Standard
<input checked="" type="checkbox"/> EMC	EN55014-1/-2 EN55032-1 EN61000-3-2/-3	<input checked="" type="checkbox"/> FCC	47CFR FCC part15subpartB ANSI C63.4:2014
<input type="checkbox"/> KCC	KN32:2015, KN35:2015 or KN22, KN24	<input checked="" type="checkbox"/> C-Tick	NTEK-2017NT08145715E AS/NZS CISPR22:2009 AS/ NZS CISPR14.1:2013

6.3 ROHS

IEC62321-4:2013+A1:2017&IEC 62321-5:2013&IEC62321-7-1:2015&IEC62321-7-2:2017.

6.4 Hi-Pot

- Input AC 3.0kV between primary and secondary, primary and CASE for 1 minute, no abnormal occur and the leakage current is 5mA max.
- Input AC 1.5kV between primary and secondary, primary and CASE for 1 minute, no abnormal occur and the leakage current is 5mA max.

6.5 Insulation resistance

Apply DC 500V for 60 seconds. Between primary and the secondary; primary and CASE, the insulation resistance is more than 50MΩ.

6.6 Leakage Current

0.25mA max @ 240Vac/50HZ.

7. MECHANICAL REQUIREMENT

7.1 Enclosure

Material requirements:ABS+PC

The power supply size: 171 L *72.5W * 34.5 H (mm)

As the right:

7.2 Input connector

Specifications

According to customer order requirements.

7.3 Output lines

Specifications

2464 18AWG*2C, VW-1, 80°C, FT1, 300V, 1.0M, DC: 5.5*2.1*10MM SR: 9*7.

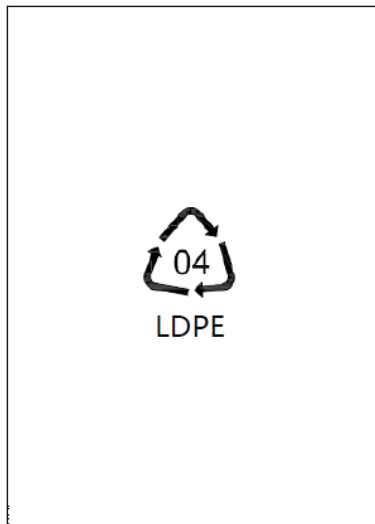
120W



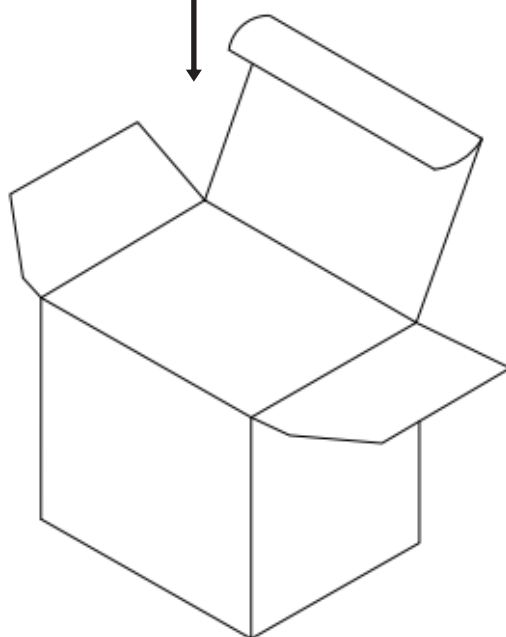
Packing step



A. Product

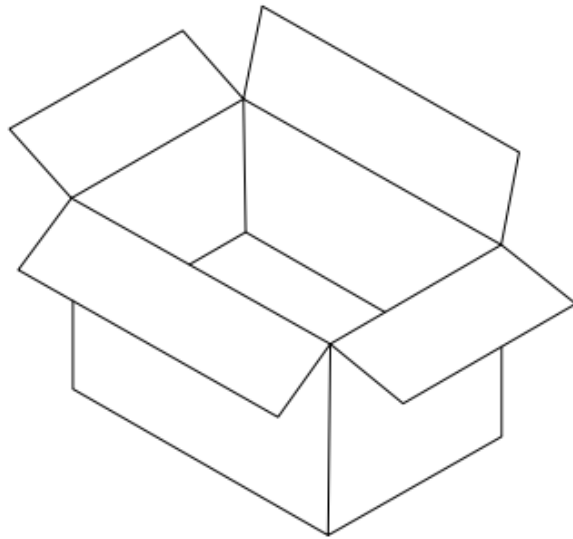


B. PE bag



C. Inner box

Packing step



Packing request

Packaging

Outsidebox: 460L*390W*250H

Quantity: 38PCS/CTN

Weight: 22.8kg

Remarks

1. Firstly, put the product into PE bag according to the picture "A/B".
2. After finishing the first step, then put the product into white box according to the picture "C".
3. Then put the product into outer carton.
4. When packing finished, then seals the carton and labels the mark.
5. Through the QA inspection, the products can be shipped.