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FU-CLI1200-25.2V • Li-ion battery charger



## FU-CLI1200-25.2V • Li-ion battery charger

### 1. Scope

This specification defines the input, output, performance characteristics, environment, noise and safety requirements for a battery charger for 6 cells in series Li-Ion battery packs.

### 2. Electrical characteristics

Rated input voltage	100-240VAC
Voltage variation range	90-264VAC
Input frequency	50/60HZ
Rated input current	1.50A Max.
Energy consumption in NO-Load	1.00W Max.
Rated output voltage	25.20±0.20V
Rated output current	1.20±0.20A
Minimum charging start voltage	40%-65%

Line / Load regulation					
Rating output	Load condition		Line regulation	Load regulation	Remark
	Min. load	Max. load			
25.2V	0.00A	1.2A	±3%	±5%	--

#### 2.1 Ripple and Noise

Output ripple voltage is 250mVp-p. Measuring method: Performed by 20MHz bandwidth in oscilloscope. Parallel 0.1uF ceramic capacitor and 10uF electrolytic capacitor across output connector terminals. Measured at the end of DC cable.

#### 2.2 Turn on delay time

Maximum of 3S at 115VAC and maximum output load.

#### 2.3 Rise time

Maximum of 40mS at 115VAC and maximum output load.

#### 2.4 Hold up time

Minimum of 5mS at 115VAC and maximum output load.

#### 2.5 Efficiency

No PFC circuit	Active efficiency at 230V 50Hz: 83% Min.
	Active efficiency at 115V 50Hz: 81% Min.

#### 2.6 Rated output power: 30.24W

#### 2.7 Overshoot: Maximum 15% when power is ON or oOFF.

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### 3. Protection requirements

**Short circuit protection**

The power supply will resume normal operation when the short circuit is removed.

**Over current protection**

The power supply will automatically return to normal operation once the overcurrent fault is removed.

**Over voltage protection**

The power supply will resume normal operation when fault is removed.

**Power supply chip temperature protection point**

125°C

**Maximum shell temperature**

Temperature rise of up to 45°C at full load for 4 hours at 25°C ambiente temperature.

**Plastic shell temperature resistance:**

120°C MAX.

### 4. Environmental requirements

**Operating temperature:** 10°C to 40°C, Full load, Normal operation.

**Storage temperature:** -20°C to 85°C (With package).

**Relative humidity:** 5%(0°C)~90%(40°C)RH, 72Hrs, Full load, Normal operation.

**Altitude:** Max.5000m.

### 5. Mechanical characteristics

**Vibration test**

Amplitude of vibration is 0.35mm, vibration frequency 10~50~10Hz for one cycle. Each cycle is 1 minute on vertical direction. Testing is carried out for 30 minutes.

Product shell is undamaged and electrical performance is normal (Refer to IEC 60065).

**Drop test**

Drop a charger from a height of 76cm onto a flat hardwood floor, once on each of the 3 sides. After the drop, no damage to the casing, no breakage, no openings, and normal electric performance (Refer to IEC 60950).

### 6. Safety and EMC Requirement

**Safety**

EN 61558-1                      EN 61558-2-16

**EMC**

EN 55014-1                      EN 61000-3-2  
EN 55014-2                      EN 61000-3-3

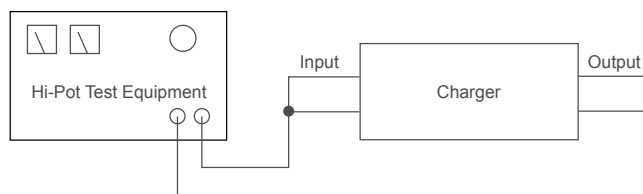
**ROHS**

IEC 62321-3-1                    IEC 62321-7-1  
IEC 62321-4                      IEC 62321-7-2  
IEC 62321-5                      IEC 62321-8  
IEC 62321-6

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### Hi-Pot. Test

Apply 3.0KVC between primary and secondary, and between primary and case for 1 minute, no abnormal occur and the leakage current is 5mA maximum.



### Insulation resistance

Apply DC 500V for 60 seconds between primary and the secondary and between primary and case. The insulation resistance is more than 50MΩ.

### AC Leakage current

Maximum 0.25mA at 240VAC/50HZ

## 7. Mechanical requirement

### Enclosure

Material: PC

The power supply size (L\*W\*T, Unspecified tolerance ±3mm): 85.54 x 50.61 x 34.8mm.

### Input connector

AC input Europlug Type.

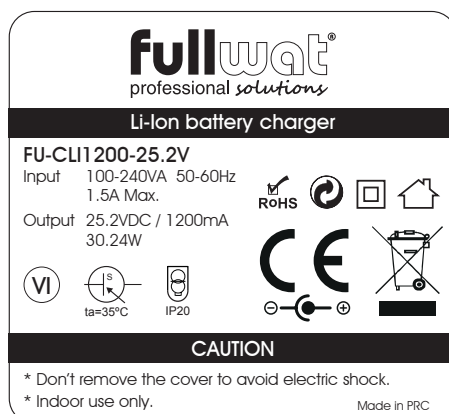
### Output lines

DC wire: 2464 20AWG\*2C, VW-1,80°C, FT1, 300V, lettering on wire, total 1.0M no loop.

DC plug: 5.5 x 2.1 x 10mm.

## 8. Label

The nameplate as the below, is laser printed.



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**9. Packing**

**Export carton**

	Length	Width	Height
Size (mm)	460	390	250
Tolerance	±2	±2	±2
QTY (pcs)	84pcs/box		
G.W. (Kg)	15kg		

**Packing material**

PE bag

White box

Cartoon