

DATA SHEET TR8136 – 12.6v 1.65A LIPO CHARGER

1) INPUT CHARACTERISTICS

1. **Rated Voltage**

It is normal for 100Vac to 240Vac input AC voltage.

2. **Rated Frequency**

It is normal for 50Hz or 60Hz and single phase.

3. **Frequency Range**

The adapter shall operate with an input frequency from 47 Hz to 63 Hz.

4. **Rated AC Current**

Maximum steady state input current is less than 1.0A rms. Measured at 90Vac input and maximum load.

5. **Peak Inrush Current**

With cold starting, the peak inrush current should be less than 60A.

6. **Power Consumption on Power Saving Mode**

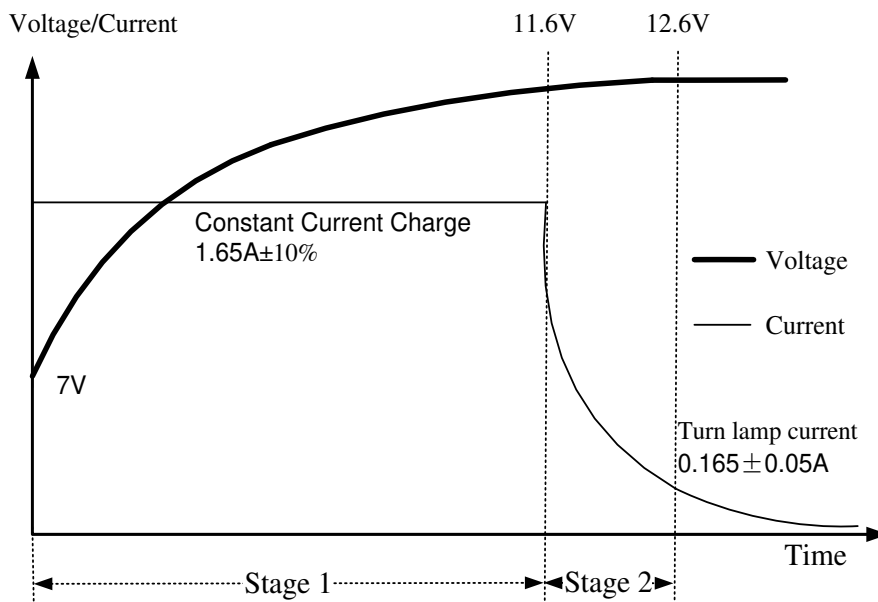
LOAD	INPUT CONDITION	INPUT POWER REQUIREMENT
0A	110 VAC 60 Hz	0.5W maximum
0A	220 VAC 60 Hz	1W maximum

2) OUTPUT REQUIREMENT

2.1	No-load voltage	12.6V \pm 0.15V
2.2	Constant Current	1.65A \pm 10%
2.3	Constant voltage Range	7.5V~11.5V
2.4	LED-alter Current	\leq 0.2A
2.5	Output power	30W Max
2.6	Efficiency	80% minimum At 100Vac input voltage and full load
		80% minimum At 220Vac input voltage and full load
2.7	Startup Delay Time	4 S maximum
		At nominal input voltage and full load
	Short-circuit Protection	The charger will auto-cut off in case of short-circuit and no damage to the charger. It will recover charging after short-circuit fault removed.

2.8	Reverse Polarity Protection	The charger will auto-cut off in case of reverse polarity and no damage to the charger. It will recover charging after correct connection.
2.9	Reverse Leakage Current	Reverse leakage current $\leq 5\text{mA}$ (No AC input)
2.10	Status display LED	Constant Charging: Red LED
		Full Charged : Green LED
		Reverse Polarity and Short-circuit: Green LED

3) CHARGER CHARACTERISTICS



4) RELIABILITY TERMS

1) **HI-POT test**

Short circuit all the primary and secondary circuits in the charger, apply a 3000Vac 50/60HZ sinusoidal voltage, leakage current 10mA; Then test for 1 min without breakdown or flashover.

2) **Insulation Resistance**

DC 500V 1min input to DC-plug $10\text{M}\Omega$ or more

3) **Leakage Current**

0.25mA maximum, at nominal AC input voltage and frequency

4) **Temperature Rise**

With the rated voltage charged to the primary an rated load (load out=2.0A) on the secondary, every parts of the case surface 50°C or less.

5) ENVIRONMENTAL REQUIREMENT

- 1) **Operating Temperature**
-0°C TO 40°C
- 2) **Storage Temperature**
-20°C TO +70°C
- 3) **Operating Humidity**
35~85% RH. Non-condensing
- 4) **Storage Humidity**
5 ~ 80% RH. Non-condensing

6) MECHANICAL REQUIREMENT

- 1) **Dimension**
EU: 100 (L) *52(W)*81.7 (H) mm; US: 100 (L) *52(W)*62.2 (H) mm;
UK: 100 (L) *52(W)*70 (H) mm; AUS: 100 (L) *52(W)*67.5 (H) mm
- 2) **Weight**
Net: EU: 184g; US: 176g; UK: 182g; AUS: 179.
- 3) **Vibration Test Requirement**
(Non-operating, with packing) Reference to IEC publ. 68-2-6

Test conditions		Acceptance Criteria
Frequency	10~55Hz	Nominal functional test should be satisfied after the test
Sweep	2hours, For each axis(X,Y, Z)	
Acceleration	0.6G (5~50Hz, peak-peak), 1.5G (50~55 Hz, peak-peak)	
Displacement	0.3m (5~50Hz)	

- 4) **Drop Test**
Drop the adapter from a height of 100cm onto a hardwood floor, hitting the adapter for 6 times, no mechanical damages or other failures, no electrical deterioration and other failures comparing to before test condition.

7) MECHANICAL CHARACTERISTICS

- 1) **Appearance**
Visual inspection the case have no visual abnormality, no obvious nick, burr and other mechanical damage, outer metal have no rust. Use limit sample to check for any failures.
- 2) **Case/Resin materials**
Flame resistance applies to UL94V-0 or more

8) ENVIRONMENTAL PERFORMANCE

1) **Operating at the lower temperature**

Put the product in $0\pm 2^{\circ}\text{C}$ environment for 2 hours, its output characteristics comply with the specification requirement in normal input condition.

2) **Operating at the higher temperature**

At $40\pm 2^{\circ}\text{C}$, with the rated voltage charged to the primary and full loaded on the secondary. No abnormality in electric and mechanical characteristic after 2 hours recovery at the room temperature.

3) **Storage at the lower temperature**

At $-20\pm 2^{\circ}\text{C}$, test of non-operated, No abnormality in electric and mechanical characteristic after 2 hours recovery at the room temperature.

4) **Storage at the higher temperature**

At $70\pm 2^{\circ}\text{C}$, test of non-operated, No abnormality in electric and mechanical characteristic after 2 hours recovery at the room temperature.

5) **Storage at high temperature and high humidity with the adaptor turned on.**

At 40°C , 90~95%RH, operating at power supplied, no abnormality in electric and mechanical characteristic, after 2 hours recovery at the room temperature.

6) **Storage at low temperature and low humidity with the adaptor turned on.**

At -20°C , 10%~40%RH, operating at power supplied, no abnormality in electric and mechanical characteristic, after 2 hours recovery at the room temperature.