

TOD0851212 A Specification

1. General

This specification defines the performance characteristics of, 12.5V/ 5.2A 12.5V/1.6A dual -output Open Frame Power Supply. This specification also defines the worldwide safety requirements and EMC requirements.

2. Input Characteristics

a. AC Input Voltage

The power will operate over the entire input voltage range (90-264 V_{AC}).

Minimum	Maximum	Nominal/Rated
90 V _{AC}	264 V _{AC}	110/220 V _{AC}

b. Frequency

The input frequency range will be 47Hz to 63Hz.

c. Input Current

The input current will not exceed 2.0Amp(rms.) for 90 V_{AC}.

d. Efficiency

The power efficiency (watts output/watts input) will not be less than 75% typically at full load condition.

e. Hold Up Time

The output hold up time (measured at the 90% point of normal voltage output) will be guaranteed 8msec at test condition which is full load, 115 V_{AC} /60Hz, normally line, 25 Ambient temperature.

f. Power Factor Correction > 0.9

3. Output Characteristics

a. DC Load Characteristics

Output Voltage	Minimum Current	Regulation Tolerance	Maximum Current
V1 12.5V	0.5A	±5%	5.2A
V2 12.5V	0.5A	±5%	1.6A

b. Ripple & Noise

The power noise will be less than 200mV(V1) & 200mV(V2)

Note: A0.1 μ F Ceramic and 10 μ F Tantalum capacitors should be put across output terminals during ripple & noise test. The oscilloscope bandwidth is set at 20MHz and co-axial probe will be used to measure it. The test condition is max. load and normally line.

c. Overshoot

The power use in overshoot at turn on or turn off AC input will be less than 10% of the nominal value and will decay itself within the regulation band in less than 50m sec.

4. Protection:

a. Primary (Input) Protection

The input power line will be fused with a fuse 3.15A, 250 V_{AC}.

b. Secondary (Output) protection

b.1. Over Current (OC) Protection

When an internal fault occurs, or an external fault is applied to the power, such that an overload or short circuit is applied to the output, the power will be shutdown. Power latch is not allowed.

b.2 Over Voltage (OV) Protection

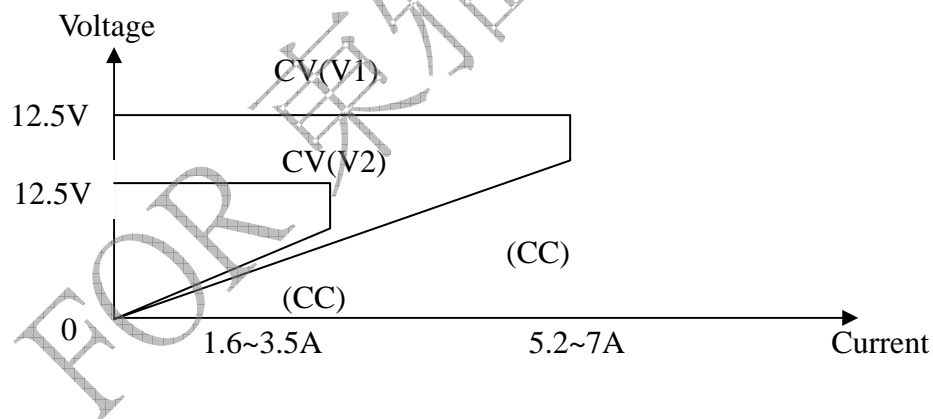
If an over-voltage fault occurs on the adapter output, the power will shutdown before the output exceeds 18V power latch is not allowed. The occurrence of an over-voltage on the output and the subsequent shutdown will not cause damage to the power.

b.3 Short Circuit Protection

The power will protect itself, and shut down, if a short circuit is placed between DC return and the output. This condition will cause no damage to the power. Power latch is not allowed

5. CV & CC Output Characteristics:

Following is summary of output characteristics.(115 V_{AC} or 230 V_{AC})



6. Power Supply Sequencing

a. AC Power On

When proper AC power is applied, the output will reach its regulation limits within 2.0 Second at 110 V_{AC}.

b. Output Rise Time

The output rise time (measured from the 10% point to the 90% point on the waveform) will be greater than 1m sec and less than 20m sec.

7. Meet E.M.I.

a. Conduction

The power will conform to FCC Class B, VCCI Class B, and CISPR Class B.

b. Radiation

The power will conform to FCC Class B, VCCI Class B, and CISPR Class B.

8. Safety Characteristics

a. Safety Meet Requirements

UL : UL60950 Third Edition & UL6500

cUL : CSA 22.2 No.60950 & E60065

TUV : EN60950 & EN60065

CCC : GB4943 & GB8898

CB : IEC60950 & IEC60065

b. Withstand Voltage

Primary to secondary : 1500V_{AC} 10mA for 3 seconds.

c. Provisions for Protective Earthing

While 12V/25A applied on between primary and secondary side together and provisions for protective earthing is less than 0.1 ohm for 3 seconds.

d. Inrush Current

The power inrush current is less than 80Amps(peak to peak) at the time of cold start at 230 V_{AC} Condition.

9. Environment

a. Operating

The power operating temperature is 0 to 40 .

The power operating relative humidity is 20% to 85%.

b. Storage

The power storage temperature is -40 to 70 .

The power storage relative humidity is 10% to 95%.

10. Life

a. On – off Life

To verify the power supply withstand 10,000 time on-off repetition of primary power without failure or damage at 115/230Vac input.

b. Operational life

The power will be designed for a minimum life of 50,000 power-on hours at 25 Ambient temperature.

11. Dimension

180 mm(L) x 80 mm (W) x 30 mm (H)MAX

