SPECIFICATION

High Quality
Desktop Power Adapter

Universal AC Input
36W 12VDC Output

P/N: A120030SM1

*** Specification Approval ***

This specification (total pages including cover page) in its entirety is approved by:

Company Name	Print Name	Signature	Date

Specification subject to change without prior notice.

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1. General

This specification defines the performance characteristics of a 12V/3A output AC-DC power supply. This specification also defines the worldwide safety requirements and EMC requirements.

2. Input Characteristics

AC Input Voltage

The adapter will operate over the entire input voltage range (90-264 VAC).

Minimum	Maximum	Nominal/Rated
90 VAC	264 VAC	110/220 VAC

Frequency

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

Input Current

The input current will not exceed 1.5Amp(rms.) for 90 VAC.

Efficiency

The power efficiency (watts output/watts input) will not be less than 78% typically at full load condition.

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 VAC /60Hz, normally line, 25C ambient temperature.

3. Output Characteristics

DC Load Characteristics

Output Voltage	Minimum Current	Regulation Tolerance	Maximum Current
12V	0A	5%	3A

Ripple & Noise

The power noise will be less than 120mV(V2).

Note: A 0.luF Ceramic and 10uF 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 normal line.

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:

Primary (Input) Protection

The input power line will be fused with a fuse 2.0A, 250 VAC.

Over Current (OC) Protection

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

Over Voltage (OV) Protection

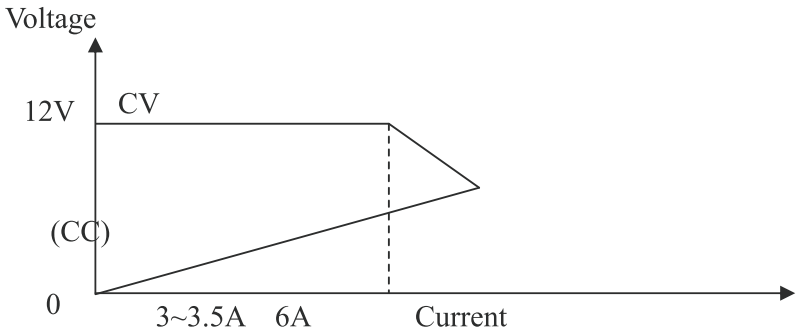
If an over-voltage fault occurs on the adapter output, the power will shutdown before the output exceeds 17V (power latch is not allowed). The occurrence of an over-voltage on the output and the subsequent shutdown will not cause damage to the power supply.

Short Circuit Protection

The power supply 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 supply. Power latch is not allowed.

5. CV & CC Output Characteristics:

Following is summary of output characteristics (115 VAC or 230 VAC)



6. Power Supply Sequencing

AC Power On

When proper AC power is applied, the output will reach its regulation limits within 2.0 seconds at 110 VAC.

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. E.M.I. for Conduction and Radiation

Standards	Specification
FCC	Part15, class B
VCCI	J55001
CISPR	22/1997
BSMI	CNS 13438

8. Safety Characteristics

Safety Approvals

Safety	Standards
CB	IEC60950
TUV	EN60950
cUL	UL60950 Third Edition
DFT	IEC60950
JET/PSE	J60950
PSB	IEC60950
CCC	GB4943

Withstand Voltage

Primary to secondary: 3000VAC 10mA for 1 seconds.

Inrush Current

The adapter inrush current is less than 60Amps(peak to peak) at the time of cold start at 230 VAC Condition.

9. Environment

Operating

The power operating temperature is 0C to 40C.

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

Storage

The power storage temperature is -40C to 70.

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

11. Dimension

114L x 48W x 29H mm MAX.