

ZA SPD01012

The purpose of the document is to specify the functional requirements of 12W switching power supply.

## 1. INPUT CHARACTERISTICS

### 1.1 Input Voltage:

Rated Voltage:100-240Vac

Variation Range: 90-264Vac

### 1.2 Input Frequency:

Rated Frequency: 50/60Hz.

Variation Frequency:47-63Hz

1.3 Input Current: 0.3Amps max At any input voltage and rated, DC output rated load.

1.4 Inrush Current: 40Amps Max. Cold start at 240Vac input, with rated load and 25°C ambient.

1.5 Ac Leakage Current: 0.25mA Max.At264Vac input

## 2. OUTPUT CHARACTERISTICS:

## 2.1 Power output

Voltage	Min. Load	Rated Load	Peak current	Output power
12Vdc	0.00A	1.0A		12W

## 2.2 Combined Load/Line Regulation

Voltage	Min. Load	Rated Load	Line Regulation	Load Regulation
12Vdc	0.00A	1.0A	±3%	±5%

### 2.3 Ripple and Noise:

Under nominal voltage and nominal load, the ripple and noise are as follows when measured with Max. Bandwidth of 20MHz and Parallel 47uF/0.1uF, crossed connected at testing point.

Voltage	Ripple and Noise(Max.)
+12Vdc	<120Mv p-p

2.4 Turn on delay time: 3Second Max.at 100Vac input and output Max.load.

2.5 Rise time: 40 MS Max.at 100Vac input and output Max load.

2.6 Hold up time: 5 MS Min.at 100Vac input and output Max.Load.

**2.7 Efficiency:** 72% Min. at 115Vac input and output Max.Load.

72% Min. at 230Vac input and output Max.Load.

### 3. PROTECTION FUNCTION:

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.

#### 4. ENVIRONMENTAL REQUIREMET:

4.1 Operating Temperature: 0°C to 40°C, Full load, Normal operation.

4.2 Storage Temperature: -10°C to 80°C with package

4.3 Relative Humidity: 5%(0°C)~75%(40°C)RH,72Hrs,Full load, Normal operating

## 5. SAFETY AND EMI REQUIREMENT:

5.1 Safety:accord with EN60950.

## 5.2 DIELECTRIC STRENGTH Hi-Pot:

Primary to secondary, 3000Vac/15mA/3s.

Primary to Case, 3000Vac/5mA/3s.

5.3 EMI STANDARD: Meets the Limits of <1>.EN55022 class A rules

#### 6. MECHANICAL REQUIREMENT:

6.1 Enclosure: The power supply size: L64 x W35 x H27mm

