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# Specification of AT Switching Power Supply

**Model No. ZKS-910T**  
**【Total Wattage 100W】**

Prepared By	Designed By	Approved By	Issued By

## 1. INPUT

1.1 AC Input Voltage : 115V (90V ~ 135V) ; 230V (180V ~ 265V)

Voltage selector by slide switches

1.2 AC Input Frequency : 47Hz ~ 63Hz Single Phase.

1.3 AC Input Current : 115Vrms / 2A ; 230Vrms / 1.5A

(@ without AC Outlet)

1.4 Brown Out Voltage : 95V ~ max. @60Hz.

1.5 Max. Inrush Current : 25A @ cold start.

## 2. OUTPUT

◆ ◆ ◆ ◆	V1	V2	V3	V4
DC Output	+5V	+12V	-5V	-12V
Max. Current	10A	4A	0.3A	0.3A
Min. Current	1A	0.4A	0A	0A
Load Regulation	5%	5%	10%	10%
Line Regulation	1%	1%	2%	2%
Ripple & Noise	50mV	50mV	150mV	150mV

\*\* Note : A low pass filter shall be added to outputs during measurement.( EXP.: 0.47uF Tan-cap. & 0.1uF Ceramic-cap)

## 3. OVERALL PERFORMANCE

3.1 Total Output Power : 100W

3.2 Efficiency : 70% min.

3.3 Power Up Time : < 20ms for +5V output voltage.

3.4 Hold Up Time : 16 ms min.

3.5 Power Good Time : The PWR-GOOD signal will not be higher than 100 - 500 ms after the +5V output stabilizes at its operating value when the unit is turn on.

3.6 Power Fail Signal : The TTL compatible signal will go down at least 1 ms before +5V below 4.75V

3.7 Switching Frequency : 30KHz Typical.

3.8 Temperature coefficient : +0.05% per°C

## 4. PROTECTION FEATURES

4.1 Over Voltage Protection : DC +5V output from 5.5V ~ 6.9V

DC +12V output from 13.8V ~ 15.6V

4.2 Over Load Protection : Total output from 110% Min. to 150% Max.

All output equipped w/short circuit protection. The outputs shall

shutdown if shorted to zero volts output.

## 5. ENVIRONMENTAL

5.1 Operation Temperature : 0°C ~ 50°C (at 80% load, input 230V)

5.2 Cooling : Forced air ventilation by DC fan.

5.3 Fan type : Ball Bearing FAN.

5.4 Humidity : 20 % ~ 90 % RH

5.5 Storage Temperature : -10°C ~ 70°C

5.6 Storage Humidity : 10 % ~ 98 % RH

5.7 Altitude : 10,000 ft max.

## 6. SAFETY APPROVAL

Meet : UL 1950 , TUV EN60950 , Nemko

## 7. ELECTROMAGNETIC COMPATIBILITY

Meet : FCC Part 15, subjecting, class B ; CISPR-22, class B

## 8. DIELECTRIC WITHSTAND (HI-POT) TEST

8.1 Primary to Secondary : 3000VAC ~ 3 Sec. ( 5mA cut - off )

8.2 Primary to Ground : 1800VAC ~ 3 Sec. ( 5mA cut - Off )

8.3 Leakage Current < 3.5mA at input 230VAC 60Hz

## 9. INSULATION RESISTANCE

Input to Output : 100MΩ min. ; Input to Ground : 100MΩ min.

## 10. RELIABILITY : MTBF 100,000 hours @ 25°C ambient.

## 11. SHOCK AND VIBRATION :

The power supply will withstand the following imposed conditions without experiencing non-recoverable failure or deviation from specified output characteristics.

Storage -40G, 11mSec. half-sine wave pulse in both directions on three mutually perpendicular axes.

Operating -10G, 11mSec. half-sine wave pulse in both directions on three

mutually perpendicular axes.

Vibration Operation-Sine wave excited, 0.25G maximum acceleration, 10 - 250Hz, swept at one octave/minute. Fifteen minute dwell at all frequencies at which the device under test experience excursions two times large than non-resonant excursions.

12. MECHANICAL : L175\*W105\*H55 mm (See drawing)