ZECK®

Zecks Power Co., Ltd.

7F, NO.1-1, Ln.530, Zhongzheng N. Rd., Sanchong City, Taipei, Taiwan, R.O.C.

Tel：886-2-29836088　Fax：886-2-29838388　E-mail：zecks@seed.net.tw

Specification
of
ATX Switching Power Supply

Model No. ZKS-550WX

【Total Wattage 550W】

With Auto Switching (Full Range)

Prepared By	Designed By	Approved By	Issued By

1. INPUT

1.1 AC Input：90VAC ~ 265VAC (Auto Switch)

Voltage by auto switches

>>> Active PFC 115V / 230V automatic sense <<<

1.2 AC Input Current：115Vrms / 14A ； 230Vrms / 7A

(@ without AC Outlet)

1.3 Brown Out Voltage：95VAC max. @ 60Hz.

1.4 Inrush Current：70A max. / 115V , 140A max. / 230V

(at 25℃ ambient cold start)

2. DC OUTPUT：

◆◆◆◆◆◆	V1	V2	V3	V4	V5	V6
Output Voltage	+3.3V	+5V	+12V	-5V	-12V	+5Vsb
Max. Current	40A (I1)	50A (I2)	22A (I3)	1A	1A	3A
Min. Current	0A	2A	0A	0A	0A	0.1A
Load Regulation	5%	5%	5%	10%	10%	5%
Line Regulation	1%	1%	1%	2%	2%	1%
Ripple & Noise	50mv	50mv	50mv	100mv	120mv	50mv
Total Output	275W Max.		264W	5W	12W	15W

(V1*I1)+(V2*I2)+(V3*I3) < 518W

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

3. OVERALL PERFOMANCE

3.1 Total Output Power：550W

3.2 Efficiency：78% min. at full load (AC input 230V)

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℃

3.9 PS on Signal：TTL compatible signal (active low)

4. PROTECTION FEATURES

4.1 Over Voltage Protection：

DC +3.3V output from 3.8V ~ 4.3V

DC +5V output from 5.7V ~ 7.0V

DC +12V output from 13.4V ~ 15.6V

4.2 Over Load Protection : Total output 135% Min. ~ 165% Max.

4.3 Short Circuit：Latch off

5. ENVIRONMENTAL

5.1 Operation Temperature：0℃ ~ 50℃

5.2 Cooling：Forced air ventilation by DC fan.

5.3 Fan type：Ball Bearing FAN

5.4 Fan status monitoring：Optional.

5.5 Humidity：10% ~ 90% RH

5.6 Storage Temperature：-20℃ ~ 80℃

5.7 Storage Humidity：5% ~ 90% RH

5.8 Altitude：10,000 ft max.

6. SAFETY APPROVAL：meet

UL 1950 , cUL , TUV EN60950 , CSA , CB , CE Report

7. ELECTROMAGNETIC COMPATIBILITY：meet

7.1 Electromagnetic Interference (EMS)：

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

7.2 Electrostatic Discharge (ESD)：Comply with IEC801-2.

7.3 Radiated Susceptibility (RS)：Comply with IEC801-2.

7.4 Harmonics：meet EN61000-3-2 class A (@ PC system)

>>> Optional Active PFC Harmonics class D at full load <<<

8. DIELECTRIC WITHSTAND (HI-POT) TEST

8.1 Primary to Secondary：1800VAC -- 3 Sec. (5mA cut - off)

8.2 Primary to Ground：1800VAC -- 3 Sec. (5mA cut - 0ff)

8.3 Leakage Current < 3.5mA at INPUT 230V~ 60Hz

8.4 Ground Continuity：100mΩ max. when the test current is at 25A

9. INSULATION RESISTANCE

Input to output：20MΩ min. ； Input to Ground：20MΩ min.

10. RELIABILITY： MTBF 20,000 hours @ 25℃ ambient.

11. SHOCK AND VIBRATION

The power supply will withstand the following imposed conditions without experiencing non-recoverable failure or deviation form 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/mine. Fifteen-minaret dwell at all frequencies at which the device under test experience excursions two times large than non-resonant excursions.

12. MECHANICAL：L150＊W140＊H86 mm

(See drawing ZKS-PS2-ATX.pdf)