ELECTRONICS
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MODEL NO.: MGT-12500SPS **SHEET NO.: 1 OF 7**
DESCRIPTION: SWITCHING POWER SUPPLY ISSUED DATE:28/11/2005
REV:A
CONTENTS:

MODEL NO.: MGT-12500SPS **SHEET NO.: 2 OF 7**
DESCRIPTION: SWITCHING POWER SUPPLY **ISSUED DATE: 28/11/2005**
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CONTENTS:

1.0 INPUT REQUIREMENTS

This document specifies (ONE) Voltage (+12VDC)
Power supply for electronic data processing equipment. The power supply will Provide Power to all system components

2.0 INPUT REQUIREMENTS

2.1 Input Voltage range: (90)VAC to (264) VAC

2.2 Line Frequency: (50)HZ to (60) HZ

2.3 In-Rush Current (10) A Max. For two cycle or less under AC240V conditions.
Interruption of the input voltage for duration sufficient to cause the output voltage
To drop below the regulation setting shall cause reactivation of inrush limiting capability

3.0 OUTPUT REQUIREMENTS

3.1 Output Power
The unit total output power from all voltage under steady state conditions will not exceed (6) watts.

3.2 Output Regulation
3.2.1 Input voltage range: (100) VAC to (240) VAC
3.2.2 Line Frequency: (50) HZ to (60) HZ
3.2.3 Static Load

Output#	Voltage	Min Load	Max Load
1	+12VDC	0A	500mA
2			
3			

3.2.4 Output Voltage

The output voltage shall be statically regulated for all combinations of load Line and environment, including cross regulation as shown

Output#	Voltage	Range	Tolerance
1	+12VDC	11.4—12.6V	±5%
2			

TABLE 3.2.4

NOTE: Test measurement will be made at the power supply output cord terminal.

3.2.5 Ripple and Noise

Differential ripple and noise at the power supply output shall be as Shown below when measured under constant load If at least (6) Watts with an oscilloscope bandwidth of 20MHz.

Output#	Voltage	Maximum peak to peak ripple and noise
1	+12VDC	150mV
2		

TABLE

The output ripple and noise measurements are using 3 feet of 20 twisted pair terminated With 10uF and 0.1uF capacitors.

3.3 Transient Response and Deviation

The power supply will meet all specifications and maintain output voltage Regulation within 5% of steady state with up to a current change of 50% of Maximum current in load for the output #2, and maximum current load for The output #2 no output to exceed the maximum ratings stein table 3.2.3

3.4 Turn on

During turn on and turn off, no voltage shall exceed the maximum ratings By mote than 10% and no output will change its polarity with the spec to Its return line

3.5 Efficiency

The efficiency (watts out / watts in) shall be a typical of (60%)under all line conditions and full load.

4.0 PROTECTION

4.1 Input

4.1.1 Input Current

An input fuse with a rating of (2) amps, shall be provided to protect the power supply and the input wiring.

4.1.2 Input Voltage

The power supply shall be self-protecting for any steady or dynamic Variation of the input voltage below the ratings specified in paragraph 2.1. The power supply shall not be damaged by differential input transients of 1.5KV with as energy of 2.5 Joules.

4.2 Output

4.2.1 Output Voltage

The power supply shall shut down all output when any output voltage teaches to its over voltage protection trigger point.

4.2.2 Output Current

Overload conditions shall cause both the output current and the output voltage to decrease. Removal of an output overload conditions shall lead automatic recovery of the output voltage.

4.2.3 Short Circuit Protection

The power supply shall be protected such that a short from any output to return or other output shall cause no damage to the power supply or below primary fuse: The supply may shut down in the event of short circuit and recover power

5.0 ENVIRONMENTAL CONDITIONS

5.1 Non-operating

The power supply shall be capable of withstanding the following environmental conditions for extended periods of time, without sustaining electrical and/or mechanical damage and subsequent operational deficiencies

5.1.1 Ambient temperature:-20℃~+85℃.

5.1.2 Relative Humidity
10%~95%

5.1.3 Altitude
Sea level to 25,000 feet

5.1.4 Vibration and shock
The power supply shall be designed to withstand normal transportation vibration per MIL –STD-810D,Method 514, Procedure X, as it is mounted in the chassis assembly and Packed for shipping.
The power supply shall be designed to withstand handling Shocks per MIL –STD-810D,Method 516, Procedure Y, as it is mounted in the chassis classis and Packed for shipping.

5.2 Operating

The power supply shall be capable of operating continuously in any mode Without performance deterioration in the following environmental conditions:

5.2.1 Ambient Temperature 0℃ ~ 40℃.

5.2.2 Relative Humidity:10% ~ 95%.

5.2.3 Altitude: Sea level to 12,000 feet.

5.2.4 Vibration

1. 0mm, 10 – 25Hz,15 minutes per cycle for each axis (X, Y, Z)

6.0 EMI EMISSIONS

7.0 RELIABILITY AND QUALITY CONTROL

7.1 MTBF

When the supply is operational within any of the limits of this specification the MTBF shall be at least (50,000) hours at 25℃

7.2 Bum - in

The power supply will be performed a minimum of a (4) hours burn – in at 40 degrees centigrade under full load on all power supplies.

8.0 MECHANICAL

8.1 Introduction

The power supply will provide output power connectors show as on Table 6.1.

Table 6.1 pin out for DC Connectors

PLN#	Output Voltage
Outside	RTN
Inside	+12VDC

FRONT VIEW OF OUTPUT CONNECTOR

8.2 General Requirements

The power supply must not exceed an audible noise level of 32 db while Operating under any combination of specified load and input voltages and Frequencies. This noise level shall be measured according to IEC standards 651 type 1 with the sound level meter pointed directly at the power supply in a free – field condition, at a distance of 1 meter and by selecting nominal "A" weighting frequency attenuation.

8.3 Power Supply Dimensions

- The dimensions of the power supply are shown in figure

8.4 Input / Output Connection

AC INPUT	
DC OUTPUTS	

MODEL NO.: MGT-12500SPS **SHEET NO.: 7 OF 7**
DESCRIPTION: SWITCHING POWER SUPPLY **ISSUED DATE: 28/11/2005**
REV:A

9.0 SAFETY

The power supply must be certified or meet of the following international safety Standards:

	Certified	Meet
UL	*	
CSA		
TUV		
CE		
T-MARK		
NLRDIC (SFLND)		

9.0.1 Leakage Current: less then 0.25 mA 240Vac 50HZ.

9.0.2 Safety Requirement:

Input Voltage range: 100VAC to 240VAC , -10% /+6%.

Line Frequency: 50Hz to 60Hz.

9.1 Dielectric Strength (Hi – pot) Test

System:

Withstand (3000VAC,10mA) ,for 2 seconds, primary to secondary.

Transformer:

Withstand (AC3750) V ,60Hz for l minute, primary to secondary

Withstand (DC2500) V ,60Hz for l minute, primary to Core.

9.2 Insulation Resistance:

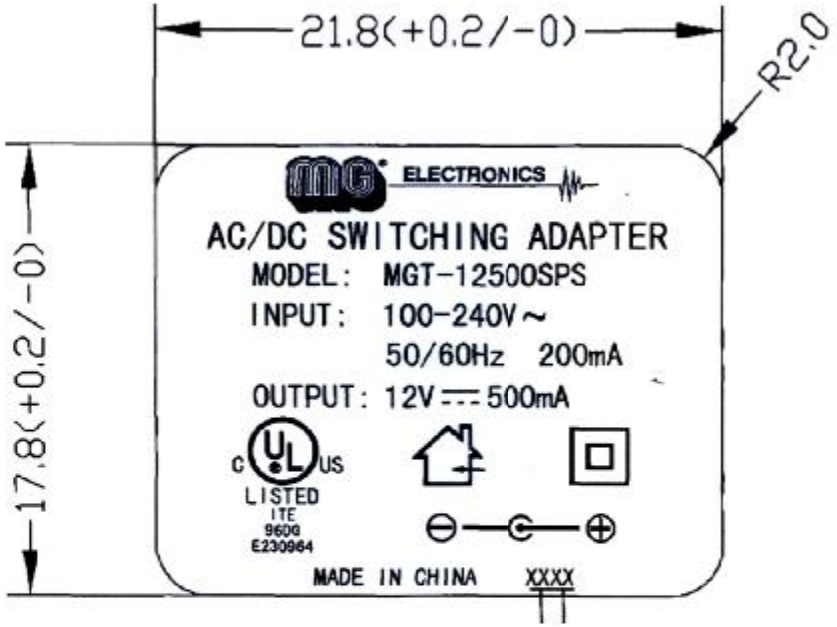
Primary to secondary :(100 MOHM) at (500 VDC)

10.0 PACKAGING

Egg crate / with bubble bag

APPROVED BY: CHECKED BY: ISSUE BY:苏全永

MARK	REV.	DESCRIPTION	ECO#	ECN#	BY	DATE
	A					



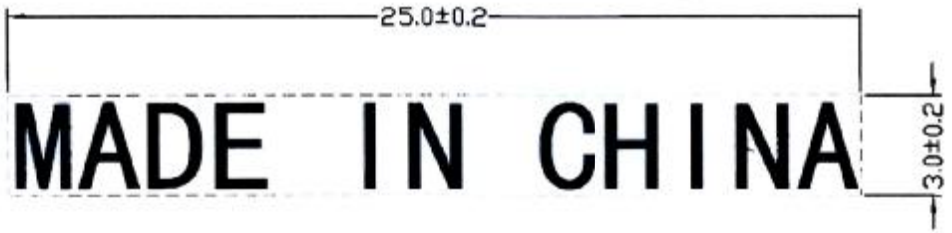
1.
2. 10° - 90°
3.
4. 94V0
5.

NAME	LABEL	CUSTOMER		MG	
MODEL		SIZE	A4	DIM	
PART NO.	320-00278-Axx	THIRD	1 OF 1	SCALE	
APPROVED	CHECKED	DRAWN	THIRD ANGEL PROJECTION:		
		TACTIC			

MARK	REV.	DESCRIPTION	ECO#	ECN#	BY	DATE
	A					

MADE IN CHINA

SCALE=1: 1

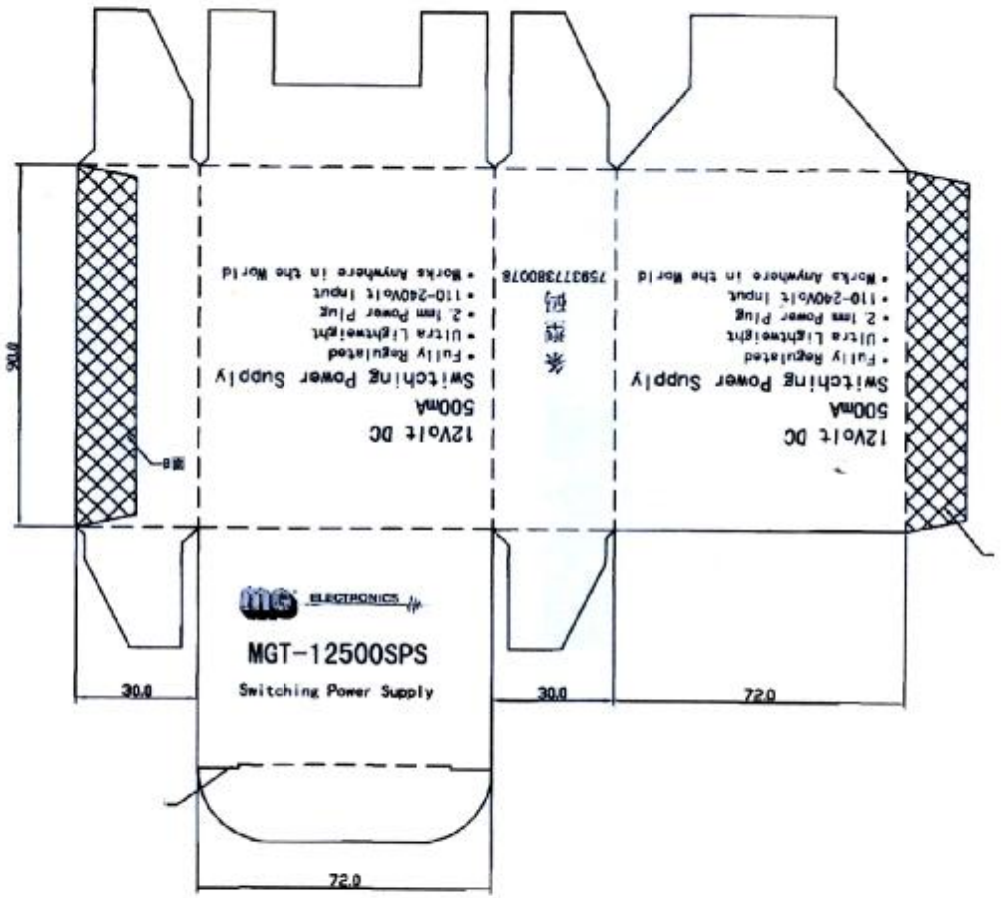


NOTE

1. T=0.1mm
2.
3.
4.
5. 94V0

NAME	LABEL	CUSTOM		MG	
MODEL		SIZE	A4	DIM	m
PART NO.	320-00182-Axx	THIRD	1 OF 1	SCALE	1:
APPROVED	CHECKED	DRAWN	THIRD ANGEL PROJECTION:		
		TACTIC			

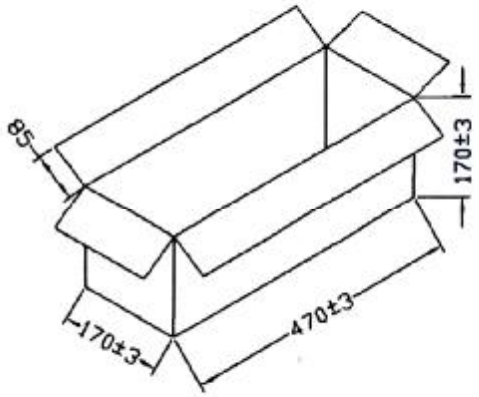
MARK	REV.	DESCRIPTION	ECO#	ECN#	BY	DATE
	A					



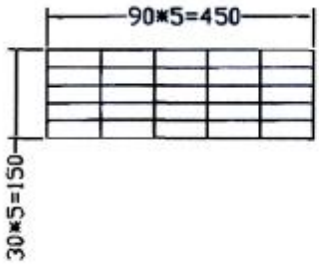
1. L72*W30*H90mm. 350g
2. B

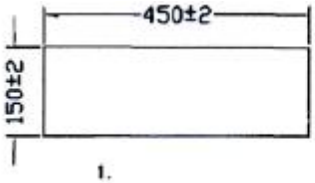
NAME	PAPER BOX	MAT'L		Q'TY	
MODEL	Adapter	SIZE	A4	DIM	
PART NO.	250-00198-Axx	THIRD	1 OF 1	SCALE	
APPROVED	CHECKED	DRAWN	THIRD ANGEL PROJECTION:		
		TACTIC			

MARK	REV.	DESCRIPTION	ECO#	ECN#	BY	DATE
	A					



1.
2. 470*170*170mm
3. B=C
4. 1PCS





1.
2. 450*150*3mm
3. B33
4. 3PCS

1. (5*5=) 25Pcs (25*2=) 50Pcs
2.

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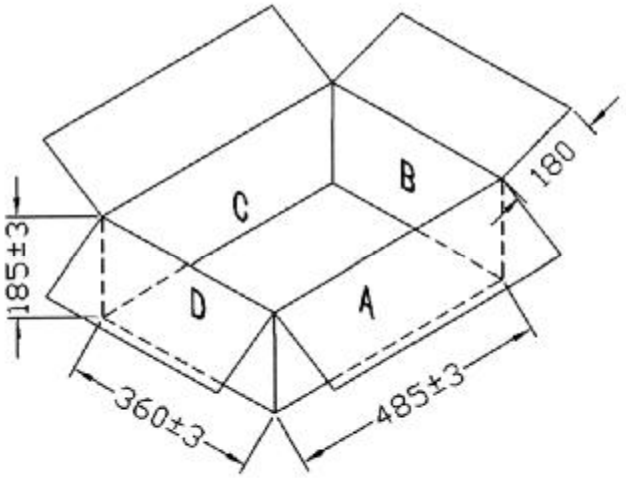
NAME	MGT-12500SPS	MAT'L	B=C	Q'TY	
MODEL		SIZE	A4	DIM	
PART NO	250-00196-Axx	THIRD	1 OF 1	SCALE	
APPROVED	CHECKED	DRAWN			
		TACTIC			

MARK	REV.	DESCRIPTION	ECO#	ECN#	BY	DATE
	B					



1.
2. : 485*360*185mm
3. : B=B
4. : 1PCS

MG ELECTRONICS

MADE IN CHINA

1. (50*2=) 100Pcs
2.
"PO" (B,D)

(B,D)

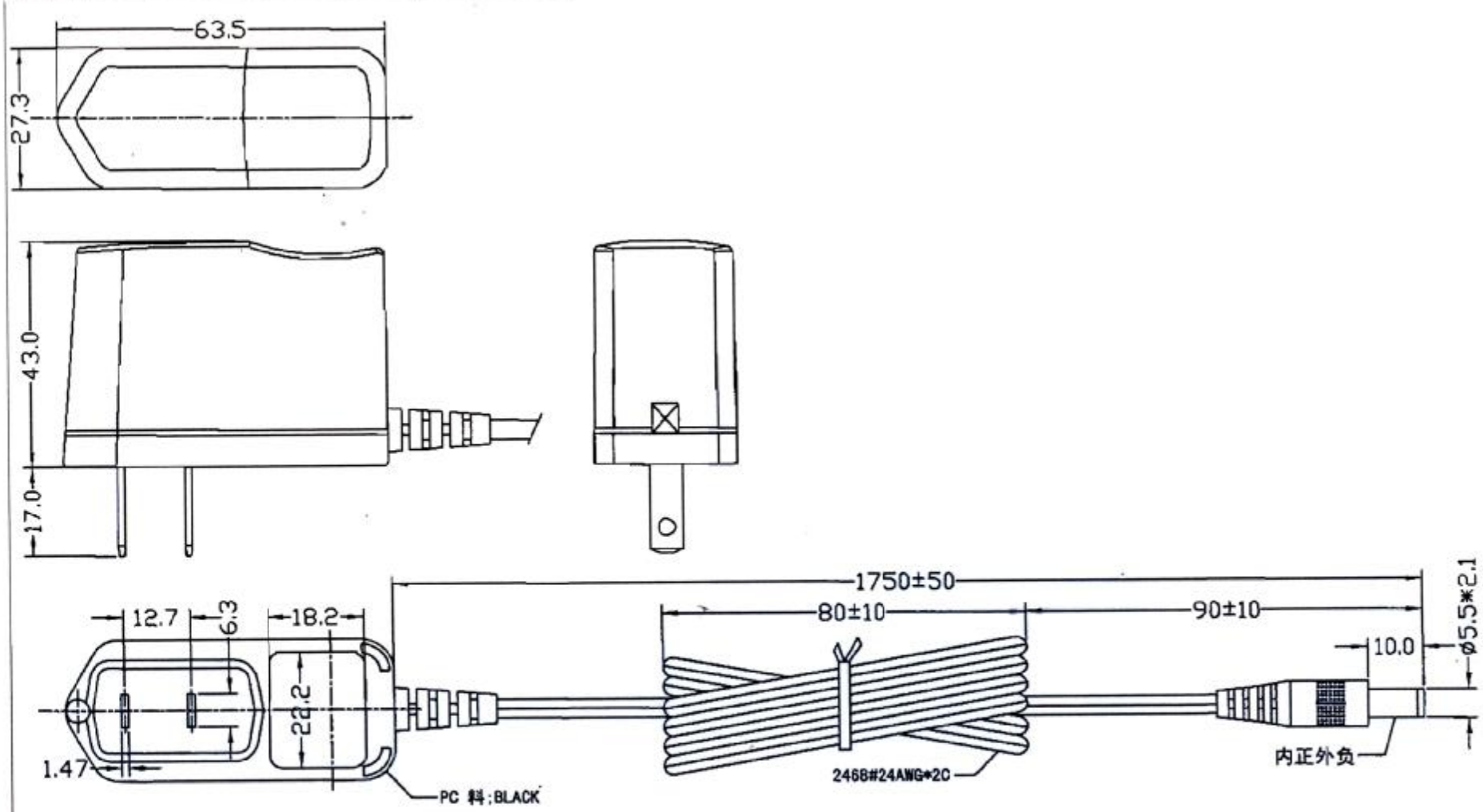
759377380078

ELECTRONICS

NAME	MGT-12500SPS	MAT'L	B=B	Q'TY	
MODEL		SIZE	A4	DIM	
PART NO	250-00197-Axx	THIRD	1 OF 1	SCALE	

APPROVED	CHECKED	DRAWN
		TACTIC

RK	REV.	DESCRIPTION	ECO#	ECN#	BY	DATE
	A					



NAME	MGT-12500SPS	CUSTOMER		MG	
MODEL		SIZE	A4	DIM	mm
PART NO.	340-00246-Axx	THIRD	1 OF 1	SCALE	
APPROVED	CHECKED	DRAWN	THIRD ANGEL PROJECTION:		
		TACTIC			