



ECN. LIST

Rev.	Description of Change		Changed Date	ECN No.
	Before	After		
A	Creation		2018.07.03	---
A1				
A2				
A3				
A4				
A5				
B				
B1				
B2				
B3				
B4				
B5				
C				

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1. SCOPE

The document detail the electrical, mechanical and environmental specifications of a SMPS, the power supply provide **12W** continuous output power.

The power supply shall meet the **RoHS** requirement.

1.1. Description

- SMPS Adaptor(Wall mount)
 SMPS Adaptor(Desk-top)
 Open Frame
 SMPS Unit (With Case)
 Others

2. Input Characteristics

2.1. Input Voltage & Frequency

The range of input voltage is from **90Vac** to **264Vac** single phase.

	Minimum	Nominal	Maximum
Input Voltage	90Vac	100-240Vac	264Vac
Input Frequency	47Hz	50/60Hz	63Hz

2.2. Input AC Current

0.35Amax. @ **100-240Vac** input & Full load

2.3. Inrush Current (cold start

60 Amax. @ **100-240Vac** input

2.4. Average Efficiency

80.18% min. @ Input **115Vac60Hz/230V/50Hz**

2.5. Energy Consumption

Input **115Vac/230Vac** The No-Load power \leq **0.075W**

3. Output Characteristics

3.1. Static Output Characteristics (Vo & R+N)

Output Rate	Rated Load		Output Range	R+N	Remark
	Min. Load	Max. Load			
+6V	0.0A	2A	5.7-6.3V	\leq 200mVp-p	100-240Vac

Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolysis capacitor. (test under the condition of rated input and rated output)

3.2. Line/ Load Regulation

Output Rate	Load Condition		Line Regulation	Load Regulation	Remark
	Min. Load	Max. Load			
+6V	0A	2A	\pm 5%	\pm 5%	

3.3. Turn - on Delay Time

3 S max. @ **100-240Vac** input & Full load

3.4. Hold-up Time

10 ms minimum at **115Vac/60Hz** input at maximum load, and **20** ms minimum at **230Vac/50Hz** input at maximum load.

3.5. Rise Time

100 mS max. @ Rated load

3.6. Fall Time

5 mS min. @ Rated load

3.7. Output Overshoot

10 % max. When the power on or off, when it is the Rated input voltage and Rated load

3.8. Output Load Transient Response

Output voltage within $\pm 10\%$ for load step from 20% to 80%, R/S: 0.5A/uS, frequency: 100Hz duration and 8mS at 80%.

4. Protection Requirements

4.1. Over Current Protection

Over Current Point Limited: $I \leq 4A$ (**100-240Vac**)

The output shall hiccup when the over currents applied to the output rail, and shall be self-recovery when the fault condition is removed

4.2. Short Circuit Protection

The input power shall decrease when the output rail short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed

5. Environment Requirements

5.1. Operating Temperature and Relative Humidity

Operating Temperature: 0°C ~ 40°C

Relative Humidity: 10% ~ 90%

Altitude: Sea level to 2,000 m.

5.2. Storage Temperature and Relative Humidity

Storage Temperature: -30°C to +70°C

10%RH to 95%RH non-condensing @ Sea level shall be low 2000 m

5.3. Drop in

Height: 1m; the product should be fell off on the hardwood with the thickness of 20mm, and the hardwood should be put on the base of the cement or on the ground without flexibility. Apply one times on all surface.

6. Reliability Requirements

6.1. Burn-in

The power supply shall be burn-in for 2 Hours under normal input and 100% rated load at 35- 40°C

6.2. MTBF Qualification

The MTBF shall be at least 30,000hours at 25°C, 80% for Full load and 115/230V input condition

7. EMI/EMS Standards

7.1. EMI Standards

EN 55032
FCC part 15 B

8. Safety Standards

8.1. Dielectric Strength(Hi-pot)

Primary to Secondary: **3000Vac / 5.0 mA** Max / 60 second (3second for production)

8.2. Leakage Current

0.25mA max. at **100-240Vac / 50/60Hz**

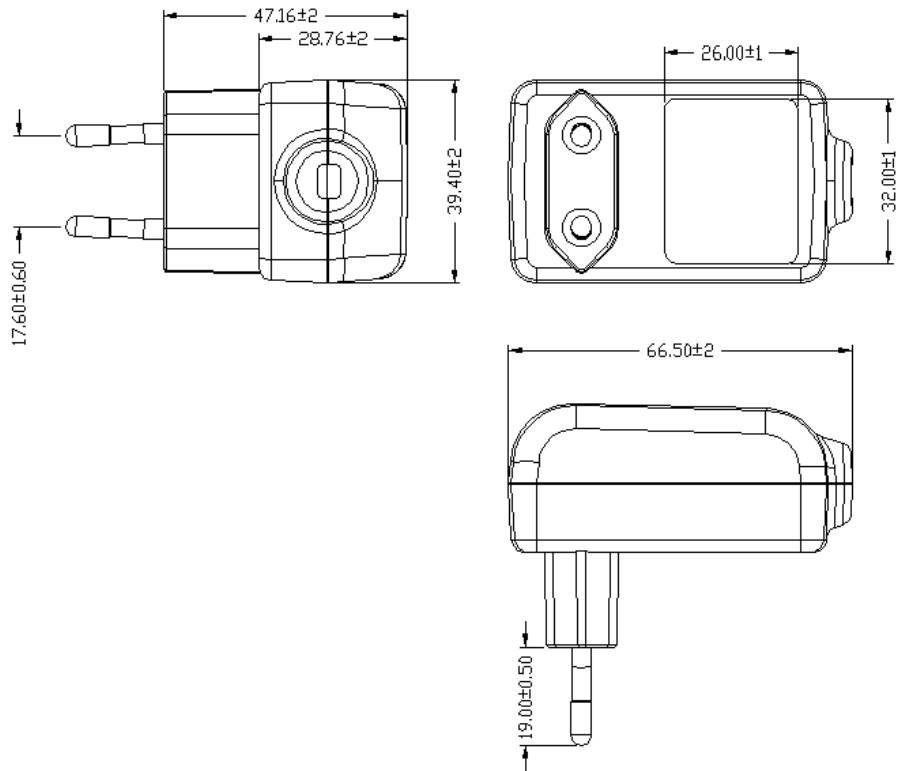
8.3. Insulation Resistance

10 MΩ min. at primary to secondary add 500Vdc test voltage

8.4. Regulatory Standards

Type	Country	Standard	Statue	Mark
CE	Europe	EN60950		
BS	Europe	EN60950		
ETL	USA	UL60950		
CETL	Canada	CSA C22.2 No. 60950		
UL	USA	UL 60950		
CUL	Canada	CSA C22.2 No. 60950		
GS	Europe	EN60950		
CE	Europe	EN60950	Approved	
PSB	Singapore	IEC60065		
PSE	Japan	J60065		
EK	Korea	K60065		
BSMI	TaiWan	IEC60065		
SAA	Australia	AS/NZS 60950		
INMETRO	Brazil	EN60065		
IRAM	Argentina	IEC60065		
CCC	CHINA	GB4943		

9. Mach. Outline Drawing



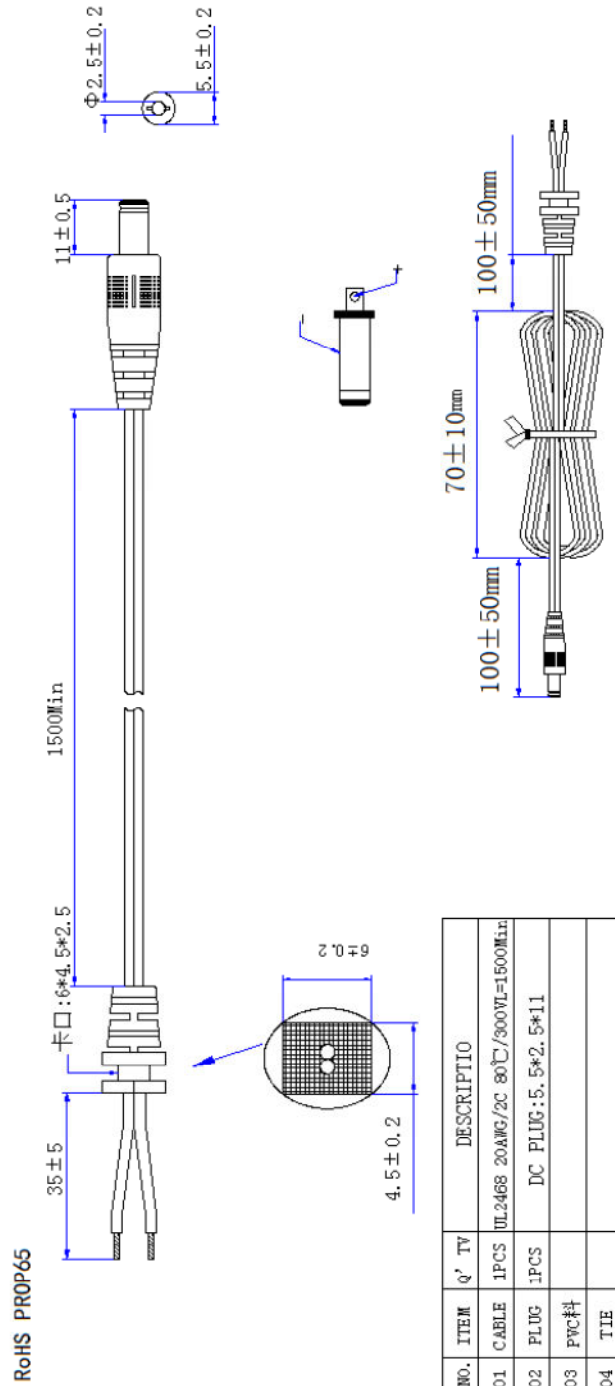
Enclosure Type: PC Temperature: 120°C

Remark: PC material conform to the requirements of the ball pressure test

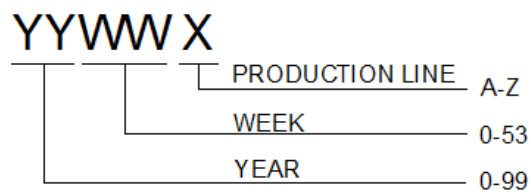
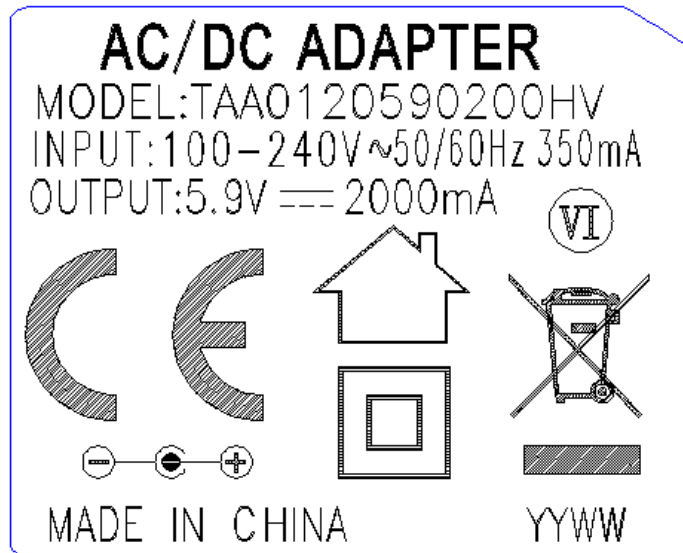
No display tolerance: ± 0.12

Unit: mm

10. DC Cord Drawing



11. Marking Drawing



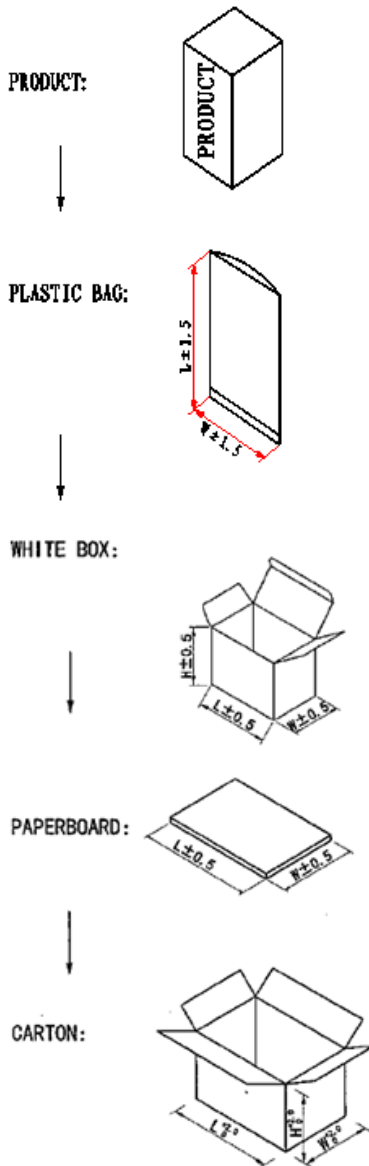
Material: Laser engraving

Color: originally

Tolerance: ± 0.1 mm

Hazardous Substances: RoHS

12. Package Drawing



DIMENSION(UNIT IN cm):

	L	W	H
WHITE BOX	7.5	5.3	8.5
PLASTIC BAG	20	13.8	
PAPERBOARD	38	32	
CARTON	40	33	37

PACKING METHOD :

PAPERBOARD PLACEMENT METHOD	PUT A PAPERBOARD OVER AND UNDER THE PRODUCTS OF EACH LAYER, TOTAL 5PCS.
PACKING METHOD	30PCS/LAYER X 4 LAYERS
QTY	120PCS
N.W./PC	79g
G.W./CARTON	11.48Kg

REMARK:

1.STORAGE CONDITION

TEMPERATURE: -10°C ~ +60°C

RELATIVE HUMIDITY: 30%~80%

2.STORAGE PERIOD: 6 MONTHES

3.ANLISTATIG: NO REQUIREMENT

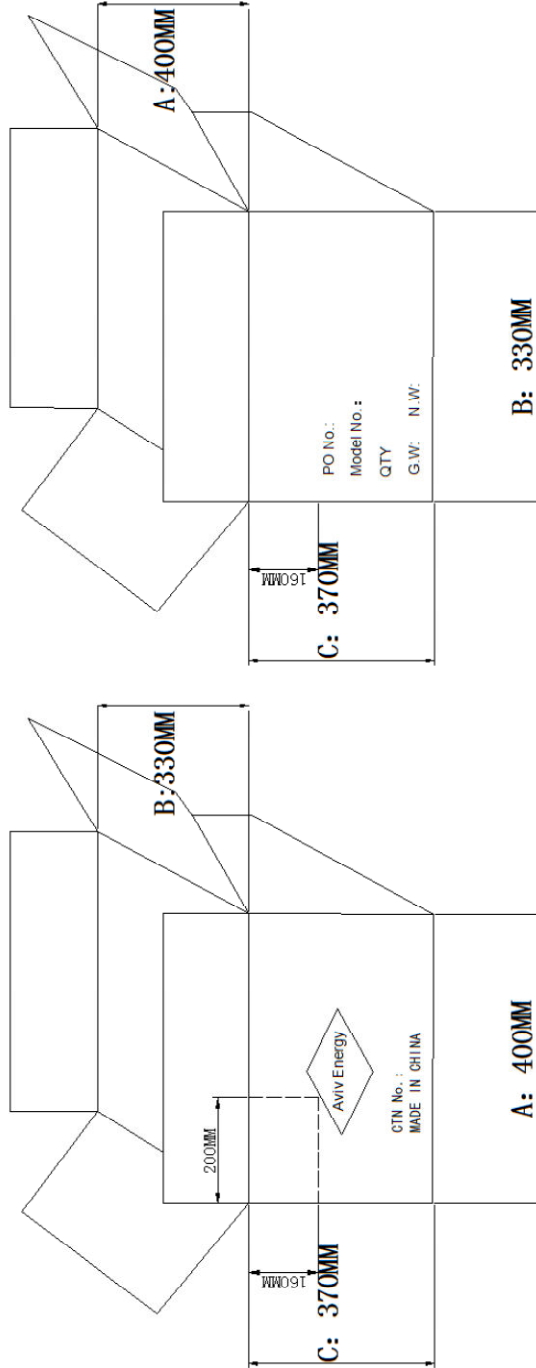
4.PLEASE ADVISE IF ANY COMMENTS ABOUT THE PACKING INFORMATION.

OTHERWISE, THIS INFORMATION IS DEFAULTED AS CUSTOMER APPROVAL, AND WILL BE APPLIED TO PRODUCTION.

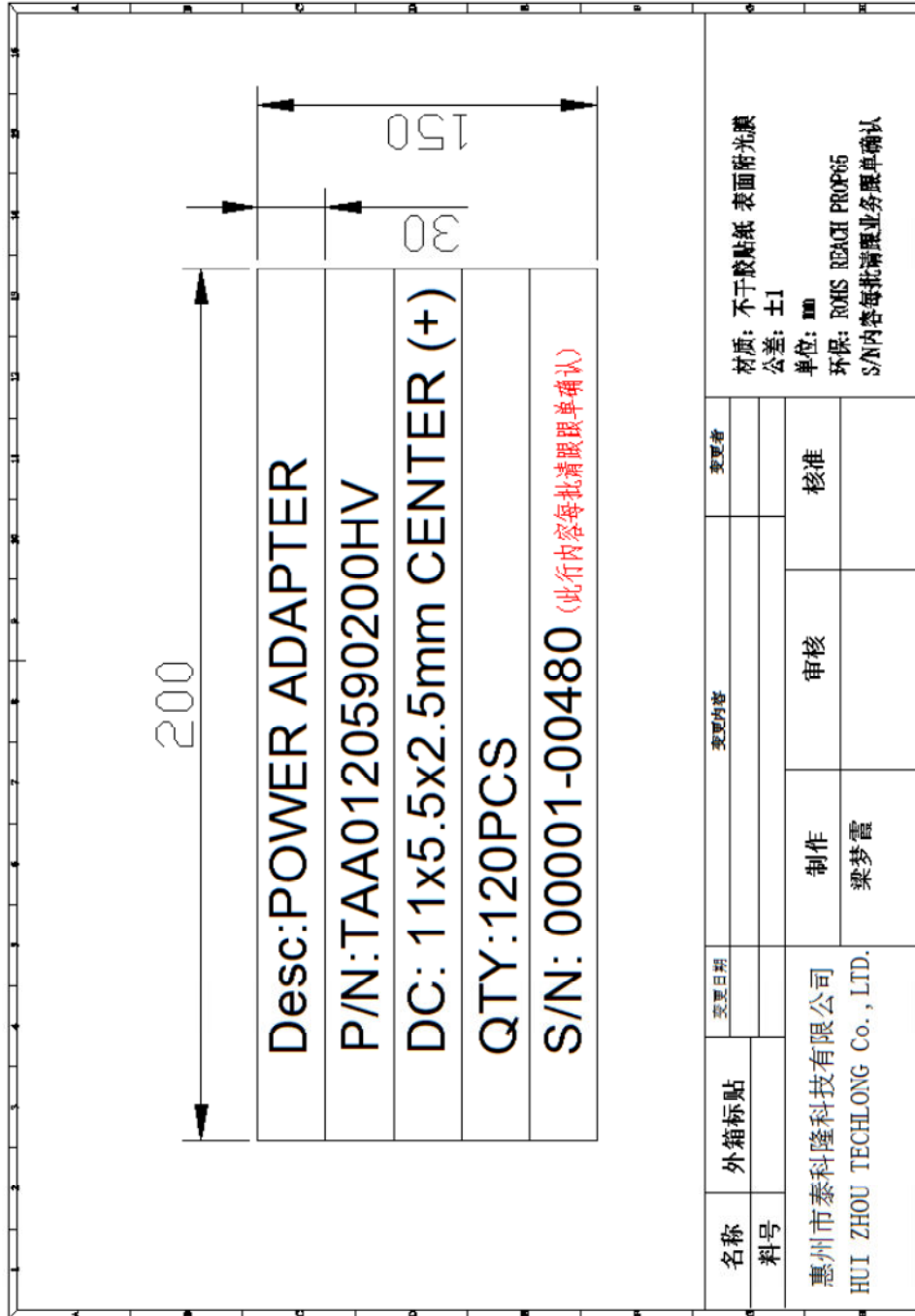
13. Carton drawings

Front side:

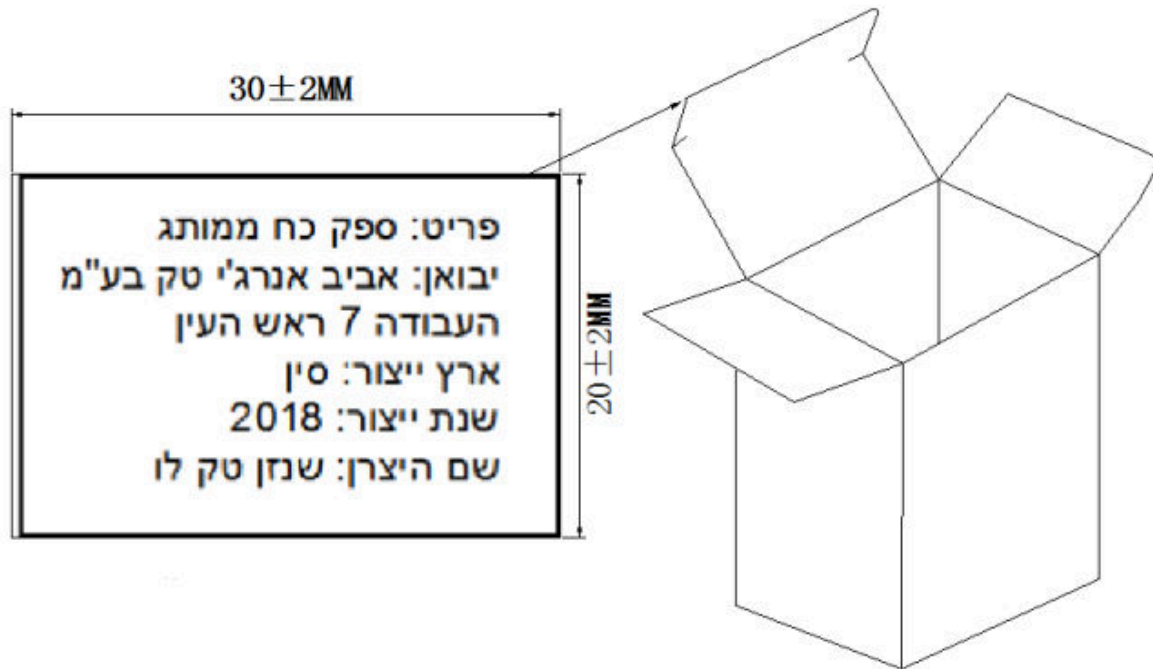
side face:



14. Carton label



15.White box stickers



16. Safety Instruction

