

SPECIFICATION FOR APPROVAL

CUSTOMER: INCOMP LTD

AC/DC ADAPTER

CUSTOMER DWG./PART NO. 100-240VAC 50/60Hz OUTPUT:5.0VDC3.0A

MODEL NO. HNK050300E

REV.: A ISSUE

Unit Color: Black

White

客户确认		
核准/APPROVED BY:	审核/CHECKED BY:	检测/TESTED BY:

制造商		
核准/APPROVED BY	审核/CHECKED BY	制样/DESIGNED BY

	Switching power supply specification(class B)	
	P/N	CUSTOMER P/N:
	HNK050300E	

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1 GENERAL

1.1 Description

This specification defines the performance characteristics for a class II adapter.,single-phase0.3watts.Single output level power supply.

- Simple design philosophy.
- Overload Latch-off protection during either(a) specified power threshold REQUIREMENTS or(b)short circuit condition.
- Reliability level of30Khours MTBF&0.5% annual field failure rate @25°C.
- DC output voltage must be Safe Extra Low Voltage (SELV)&Limited Power as defined by IEC60950 3rd edition.

The maximum room ambient temperature(Tmra), as mentioned in clause 1.4.12 of IEC60950 3rd edition,for the external power supply is 40°C.

- Cooling:natural convection.

2 INPUT REQUIREMENTS

2.1 Input Conditions

The Supply shall operate over the voltage ranges as follows:

Rated input voltage	100-240Vac
Operating range	90-264Vac
Rated input frequency	50/60Hz +/-3Hz
Rated input current	0.45A max
Maximum input power	20.2W
Power consumption (no loading)	Max.0.5W(input:230VAC 50Hz)
Primary current protection	An adequate internal fuse on the AC input line is provide
configuration	<u>2</u> Conductor

2.2 AC Inrush Current

Peak inrush current shall be limited to30A for a cold start. Under both cold & warm start conditions, there shall be no immediate damage or long term impact on the reliability of the Supply. The conformance test for this requirement shall be performed at +12.5% of the rated input voltage. Voltage and current waveforms will be observed on an oscilloscope following closure of the external power switch. Switch closure will be repeated until the waveforms show coincident with a voltage peak. The current measured during this occurrence will be defined as the peak inrush current.

3 OUTPUT REQUIREMENTS

3.1	Nominal dc output voltage	+5.0V
3.2	Minimum load current	0.00A
3.3	Rating load current	3A
3.4	Peak load current	/

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3.5	Rating output power	15W
3.6	Line regulation	The line regulation is less than $\pm 5\%$ while measuring at rated and +/-10% of input voltage changing.
3.7	Load regulation	The load regulation for $+5.0V$ is less than $\pm 5\%$, at measured output load from 10% to 100% rated load.
3.8	Peak load regulation	The peak load regulation for $+5.0V$ is less than $\pm 5\%$ at measured output load from 30% to 100% rated load.
3.9	Ripple and noise	120mVpp Max
		At 20MHz, and output parallel with a 100nf ceramic capacitor and a 10 μ F electrolytic capacitor to ground temperature at 25°C, and nominal AC input voltage
3.10	Switching efficiency	<u>74%</u> minimum
		At nominal input voltage and full load
3.11	Turn on delay time	<u>200mS</u> At nominal input AC voltage and full load
3.12	Rise time	The Supply shall have a start-up rise time of less than <u>20mS</u> to rise to within regulation limits for all DC outputs.
3.13	Hold up time	<u>12mS</u> minimum At nominal input AC voltage and full load
3.14	Temperature coefficient	Output voltage temperature coefficient $\pm 0.15\%/^{\circ}C$
3.15	LED indication function	Green
3.16	Protection function	
3.17	Short-circuit protection	ok
	Over current protection	The power supply will be protection when output power over

4 MECHANICAL

4.1 Enclosure And Layout

Plastic case: Horizontal type

Dimensions: 71*28*41MM

Colour: black

4.2 Input and Output Configuration

Input pin: European Pin

Output connector: dc plug type DC2.1*5.5*10mm

Polarity: inside”+” outside:”-”

Cable: (1500mm) VW-1SC 80°C 300V 2468 2C BLACK

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5 REGULATORY COMPLIANCE

5.1 Safety Requirements and Certification

5.1.1 Additional Safety Requirements

- ✧ Dielectric Withstand Voltage, Primary(input AC short)-to-Secondary(output DC short):**3000 Vac,5m A, 1 minute.**
- ✧ Insulation Resistance,Input to output: **10M Ω at 500VDC.**
- ✧ **Reinforced insulation system,Primary-to-Ground and Primary-to-Secondary.**
- ✧ The leakage current shall not exceed **0.25m A.**

6 ENVIRONMENTAL REQUIREMENTS

6.1 Temperature

- ✧ Operating: **0°C+45°C**
- ✧ Non-Operating: **-20°C+65°C**

6.2 Humidity

- ✧ Operating: 10%~90%(Non Condensing)
- ✧ Non-Operating: 10%~90% (Non Condensing)

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7 APPEARANCE DRAWING:(Unit:mm)



SIZE: 71*28*41MM

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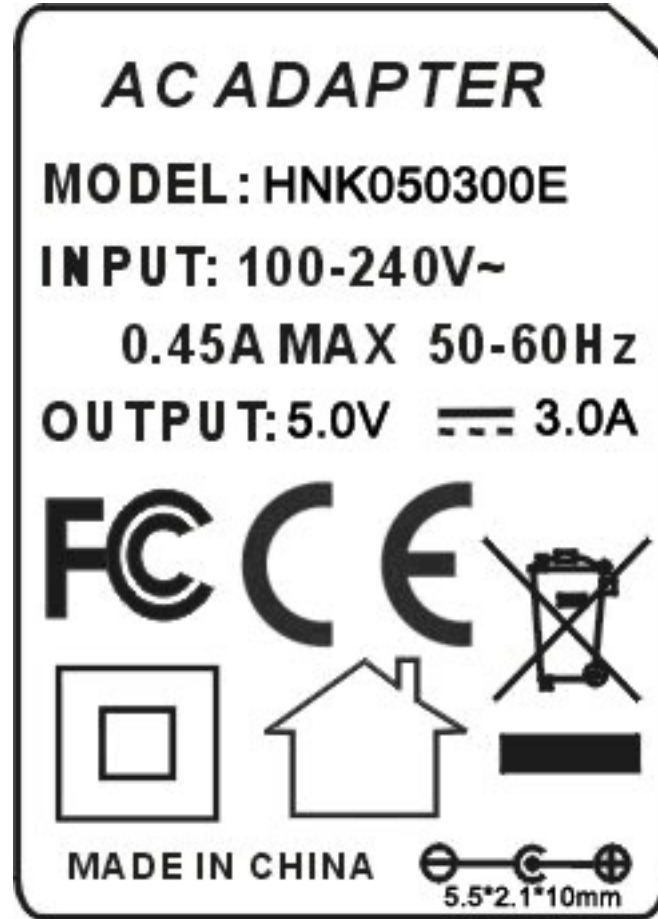
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8 NAME PLATE:



Note:1.MATERIAL:POLYESTER+PET; COATING:0.25+-0.05mm

2.White characters Black background

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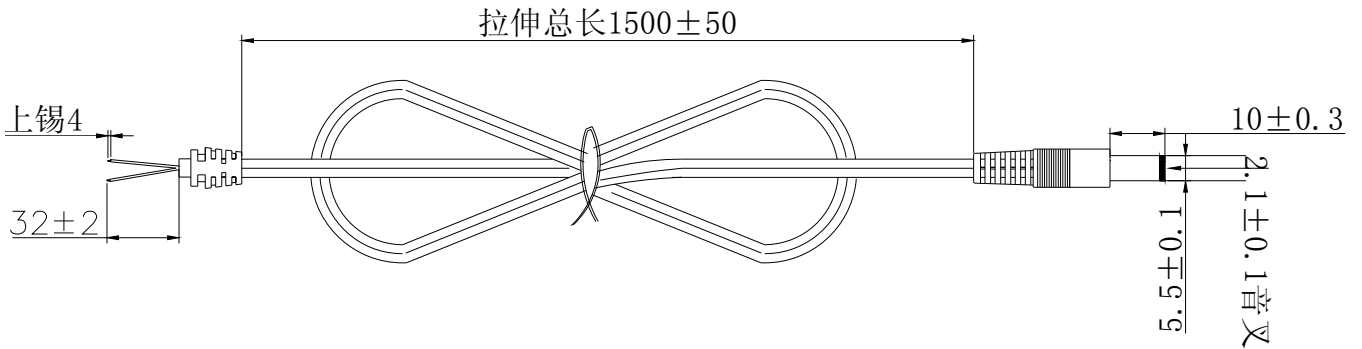
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9 DIMENSION OF OUTPUT PLUG&DC CORD (Unit:mm)



NOTE:1WIRE TYPE: 1500mm VW-ISC 80°C 300V 2468 2C BLACK

2.WIRE jacket material:pvc (94V-0)

3.THE POLARITY: inside"+ " outside:"- "



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