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1.Revision History

NO.	Date	Revision History	Rev.	Page
1	Jun.22.2018	~1st sample	A0	
2	Dec.22.2019	Update label (add power)	A1	
3	Nov.16.2020	Update case.	A2	
4	Mar.08.2021	Add UKCA mark on the label.	A3	
5	Jun.23.2022	Update laser(Add the SAA certificate number).	A4	
6	Aug.07.2024	Update label drawing.	A5	
7	Oct.10.2025	Update label(Update UL-IRAM and UL marks, add UL production plant code "01")	A6	

CHANGE ITEM

Before (Rev.)	After (Rev.)	Change Reason	Remark
 <p>I.T.E. Power Supply E221556 4JN6</p>   <p>中國製造/中国制造</p>	 <p>I. T. E. Power Supply E221556</p>  <p>中國製造/中国制造 01</p>	<p>Honor request</p>	<p>A6</p>

2. Electrical Specification

2-1. General Spec

Product Description

: This Specification defines the input, output, performance characteristics, environment, noise and safety requirements for power supply.

Parameter Specification

: Unless specification otherwise, all parameters must meet over the limit of temperature load, and input voltage.

: All measurements shall be taken at $25^{\circ}\text{C}\pm 5^{\circ}\text{C}$ ambient unless otherwise noted.

2-2. Electrical Requirements

2-2-1. Input Voltage

2-2-1-1. Input Voltages

Normal voltage: 100 to 240VACrms

Voltage range: 90 to 264VACrms

2-2-1-2. Inrush Current(Cold Start)

Inrush current should be lower than 50/80 A under cold start and 1st half cycle of 115/230 Vrms input voltage.

2-2-1-3. Input Fuse

The input fuse shall not blow up.

2-2-1-4. Input Current

$\leq 1.5\text{Arms}$ at 100 to 240Vac input and full load.

2-2-1-5. Frequency

Normal frequency :50Hz - 60Hz

Frequency range : 47Hz - 63 Hz

2-2-1-6. Efficiency

The average efficiency shall not be less than 87.77%(Expressions:[$0.071*\ln(\text{Pout})-0.0014*\text{Po}+0.67$])

- . According to DoE-VI.
- . Both 115Vac(60Hz) and 230Vac(50Hz) input voltage condition.
- . Average (25%+50%+75%+100%)/4
- . The DC power supply shall be operated at 100% of nameplate current output for at least 30 minutes immediately prior to conducting

2-2-1-7. Primary Over Current Protection

An adequate internal fuse on the AC input line shall be provided.

2-2-1-8.Power Loss (Minimum Load Power Consumption)

CONDITION		RESULT(SPEC)
INPUT VOLTAGE	230VAC	0.10W MAX (INPUT POWER)
OUTPUT VOLTAGE	+12 V / No Load	AT 230Vac/50Hz

2-2-1-9.Input Configuration

3 Conductors (Live, Neutral, Earth)

2-2-2.Output Requirements

2-2-2-1.Maximum Output Power: 48 Watts

2-2-2-2.Output Voltage and Current

OUTPUT VOLTAGE	MINIMUM VOLTAGE	MAXIMUM VOLTAGE	OUTPUT CURRENT	INPUT VOLTAGE
+12.00VDC	+11.64VDC	+12.84VDC	0.00A~ 4.00A	100Vac-240Vac

table 1

2-2-2-3.Output Load Regulation

The output voltage regulation shall meet above table 1, including the effects of line voltage variations, load current, ripple and noise, and the AC component of the load current . The effect of dynamic load changes is not included in this limit.

2-2-2-4.Ripple and Noise

A	B
12Vdc	0.20Vp-p(200mV)

Column A : Output Voltage.

Column B: Switching Ripple and Noise

Measured methods:

1. Performed by 20M Hz bandwidth in oscilloscope.
2. Applied 0.1uF high frequency capacitor and 47uF electrolytic capacitor across the end of DC cable.
3. Measured at the end of DC cable.
4. Tested at 115Vac(60Hz) and 230Vac(50Hz).

2-2-2-5.Line Regulation $\pm 3\%$ (Output current: 2.0A load)

Line Regulation= $\Delta V/V_{nor} \times 100\%$

$\Delta V: V_{max}-V_{nor}$ or $V_{min}-V_{nor}$

Note: V_{max} :The maximum output voltage when the input voltage changes;

V_{min} :The Minimum output voltage when the input voltage changes;

V_{nor} :Rated output voltage.

2-2-2-6.Hold Up Time

10mS min.@115VAC input and full load

20mS min.@230VAC input and full load

2-2-2-7.Turn On Delay Time

5S max@ 100Vac to 240Vac input and output Max.Load.

2-2-2-8.Rise Time

DC output rise time from 10% to 90% of output voltage shall be less than

30ms @100Vac to 240Vac input and output Max.Load.

2-2-2-9.Overshoot

The output overshoot at turn-on shall not exceed +10%(V) of output voltage at no load and full load connected.

2-2-2-10.Dynamic Load Response

Condition:load step from 20% to 80% to 20%,R/S: 0.10A/uS,

Transient Response Recovery Time : ≤ 30 mS

Result:output voltage $\pm 10\%$

2-3. Protection Requirements

2-3-1.Over Current Protection

≥ 6.0 A @input 100~240Vac 50/60 Hz

2-3-2.Short Circuit Protection

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

2-3-3.Over Voltage Protection

The power supply shall protection when the output over voltage,the power supply shall no damage.

2-4. Safety and EMC Requirements

2-4-1.Earth Leakage Current.

3.5mA Max (264V, 50Hz)

2-4-2.Hi-Pot test

1).Hi-Pot test (Dielectric withstand voltage)-CLASS II

: leakage(cutoff) current 10mA

: Safety Standard Condition:

Primary To Secondary : 3000Vac ,1 minute for type test

: Mass Production Condition:

Primary To Secondary : 3600Vac ,keeping 2 seconds for production

* Test methods:Input test voltage beginning from zero to 3600Vac in 0.5s.We move plug after discharge display 0V.

* Test point : Primary Live and Natural Short ↔ Secondary

2).Hi-Pot test (Dielectric withstand voltage)-CLASS I

: leakage(cutoff) current 10mA

: Safety Standard Condition:

Primary To GND : 1500Vac ,1 minute for type test

Primary To Secondary : 3000Vac ,1 minute for type test

: Mass Production Condition:

Primary To GND : 1800Vac ,keeping 2 seconds for production

Primary To Secondary : 3600Vac ,keeping 2 seconds for production

* Test methods:Input test voltage beginning from zero to 3600Vac in 0.5s.We move plug after discharge display 0V.

* Test point : Primary Live and Natural Short ↔ Ground

2-4-3.Insulation Resistance

Insulation resistance shall be more than 10 MΩ at 500Vdc between primary live, primary neutral and secondary.

2-4-4.RFI/EMI/EMC Standards

The adapter shall comply with a following RFI/EMI standards when tested in an system configuration.

2-4-5.EMS Standards

2-4-5-1.EN61000-4-2(IEC61000-4-2:2001 IEC801-2):Electrostatic Discharge ESD

Electrostatic Discharge:±8KV(Air) ±6KV(Contact)

2-4-5-2.EN61000-4-3(IEC61000-4-3:2002 IEC801-3):Radiated Immunity RS

Radiated Susceptibility: 3V/m

2-4-5-3.EN61000-4-4(IEC61000-4-4:1995+A1:2000+ A2:2001 IEC801-4): EFT

Transient Test: ±1KV(EFT)

2-4-5-4.EN61000-4-6(IEC61000-4-6:1996+A1:2000)Conducted Radio Frequency

Injected Current Susceptibility: 3Vrms

2-4-5-5. Lightning Surge

The power supply must satisfy Table's Lightning Surge Spec.

Products	Test Voltage	Test Point & Test Mode	Output Load
Adapter	± 1 KV	Line to Line : C-Mode	Rated Load
	± 2 KV	Line to Gnd : CR-Mode	

Measured methods:

- Environment Requirements: temperature :15~35°C; humidity :10%~75%RH;
- Surge voltage is applied to the phase: 0° 90° 180° 270°;
- Surge voltage is applied: for each polarity voltage of each repeated 5 times, a phase done; 10 times, each applied voltage interval of 60 seconds.

2-4-6. Safety Standards

The adapter shall be certified with the following safety standards:

The adapter should be sold in the country(ies) certified and specified in this specification.

	Country	Certified Status	Standard
CB	IEC	certified	IEC 62368-1
CE	Europe	certified	IEC/EN62368-1
UL	US, Canada	certified	UL 60950-1;CAN/CSA C22.2 No. 60950-1
FCC	USA	certified	FCC part 15 subpart B class B
BSMI	Taiwan	certified	CNS13438,CNS14408, CNS15663
RCM	Australia&New Zealand	certified	AS/NZS CISPR22;AS/NZS60950.1
CCC	China	certified	GB 8898:2011;GB/T13837-2012;GB17625.1-2012
EAC	Russia	certified	GIEC/EN60950-1,EN55022/EN55024
IRAM	Argentina	certified	IEC 60950-1:2005+A1+A2
PSE	Japan	certified	J 60950;J 55022;J55013
KC Mark	Korea	certified	K60950-1;K00022;K00024
K-MEPS		certified	MKE's Notification 2008-99

2-4-7. EMI: 3dB margin(ClassB)

2-5. Reliability Requirement

2-5-1. Mean Time Between Failures (MTBF)

Output Voltage	Min Voltage	Max Voltage	Current	MTBF	Load Condition
+12.00Vdc	+11.64Vdc (-3%)	+12.84Vdc (+7%)	4.00A	> 50,000 Hr	100%

*Standard: TELCORDIA SR-332 issue 02 (2006)

*Environment temperature: 25°C

Voltage: 115Vac/60Hz and 230Vac/50Hz.

2-5-2.E-cap Lifetime

The life estimation of aluminum capacitor must achieve 26280 hours at 25°C.

Standard: Life Time= $L_r * 2^{(T_o-T_x)/10} * 2^{(\Delta T_o-\Delta T)/5}$

$$(\Delta T_o-\Delta T)/5=1-[I_a/(I_s * T_f * F_f)]^2$$

Note-3 CE Capacitor Life time ΔT_o : Self Heat Coefficient (85°C =10, 105°C = 5)

L_r : Capacitor Life Spec I_a : Measured Ripple Current

T_o : Capacitor Temp Spec I_s : Ripple Current spec

T_x : Capacitor case Temp F_f : Frequency Factor

ΔT : Capacitor Self Heat T_f : Temperature Factor

2-5-3.Drop Test

Unit shall survive drops on all 6 faces from a height of 1m onto hard wood (Total 1 times/face)

No surface crack, function are normal, can be passed dielectric strength and insulation resistance test.

Test bench requirements: 13mm thick hard wood glued in the middle of 19mm-20mm thick plywoods

2-5-4.Random Vibration Test (non-operating)

Vibrating Amplitude :1.5mm(Max.) ;Frequency range: from 10Hz to 55Hz, Constantime:10-55-10Hz (1 minute); Direction: vibration X, Y and Z-axis, at least 30 min/axis. Normal performance after test condition is removed.

2-5-5.Hearing Noise

The noise generated by the adapter supplied under 100-240Vac of no load and full load shall be lower than 30dBA,measure 5cm from the nameplate.

2-5-6.Hot Burn-In

Condition		Result(Spec)
Input Voltage	100Vac / 240Vac	NO Defect, Normal Operating
Output Current	80%~100% load	
Temperature	40°C ± 5°C	
Test Time	4HR ± 1HR	

2-6.Environment Requirements

2-6-1.Operating Temperature

→ -10 °C ~ 55°C (-20°C can be start-up)

2-6-2.Operating Humidity

→ 10 % ~ 90% RH (Condensation : NOT REQUIRED)

2-6-3.Storage Temperature

→ -20°C ~ 80°C

2-6-4.Storage Humidity

→ 5 % ~ 95 % RH (Condensation : NOT REQUIRED)

2-6-5.Operation Altitude

→0- 5000m

2-7. Mechanical Features

When the internal components of the wire DC head contain IC, resistor, capacitor, diode, PCB and so on, it needs to be tested.

2-7-1.Physical Size(Unit:mm): 111(L)* 56(W)* 31.5(H)

2-7-2.AC Input Connector: C14 INLET

2-7-3.Output Plug

DC Plug: Straight Φ 5.5* Φ 2.1*10mm

DC Cable: 18AWG 1185 1.2M BLACK

2-7-4.LED Light: NO

2-7-5.Weight : About 236.5g

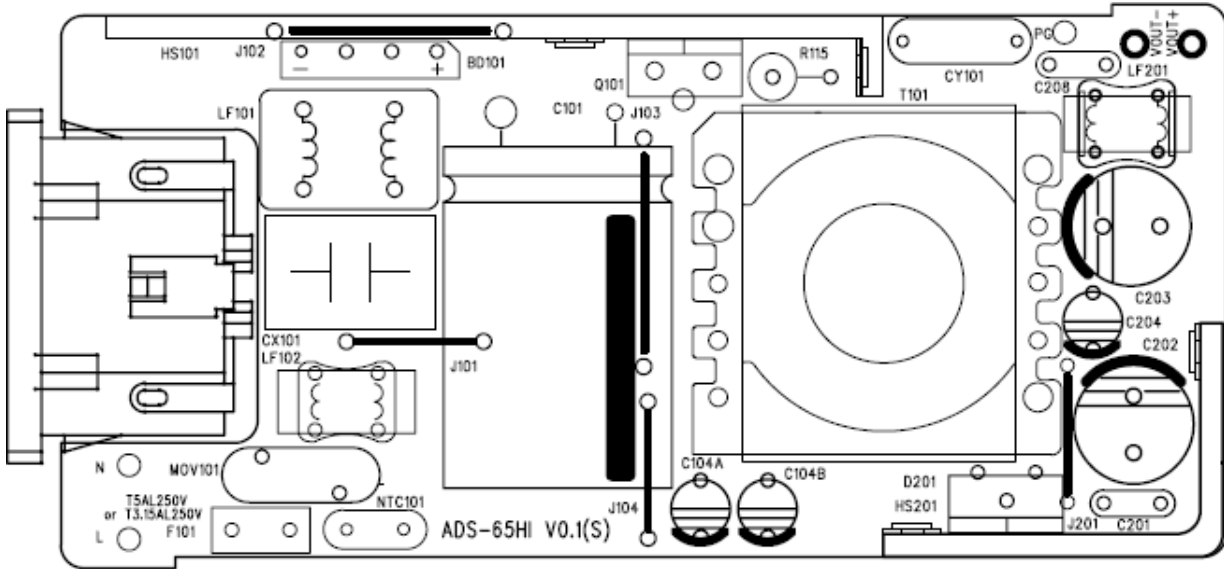
2-7-6.Case Color: BLACK

3. Circuit Drawing

4. PCB Drawing

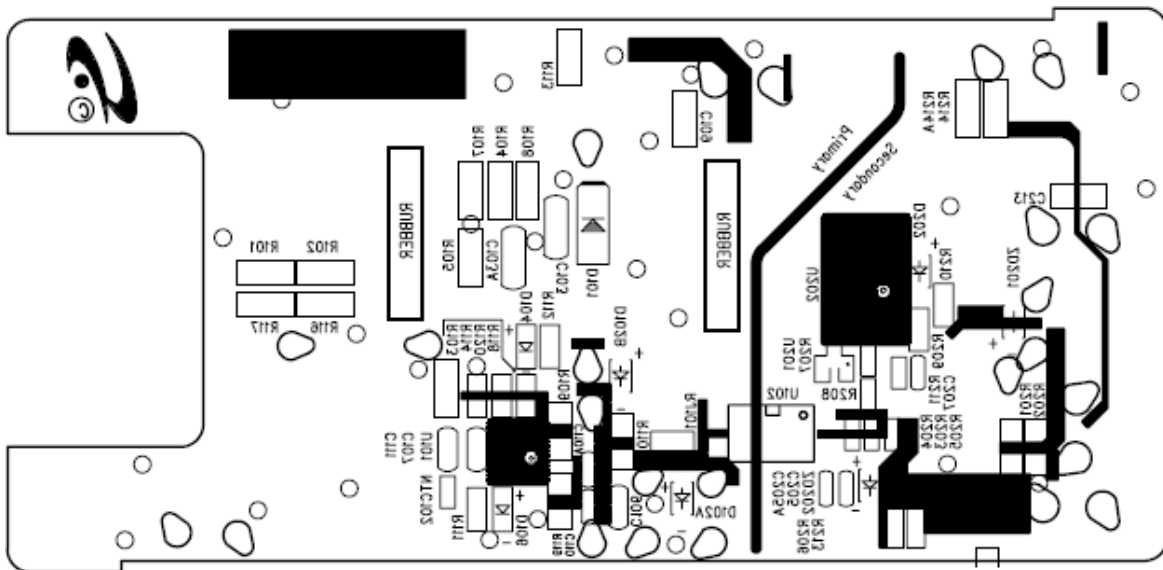
TOP SILK

Pictures as below just for reference, according with the latest PCB edition.



BOTTOM SILK

Pictures as below just for reference, according with the latest PCB edition.



5. Mechanical Specification

5-1. Case Drawing

5-2. Cable Drawing

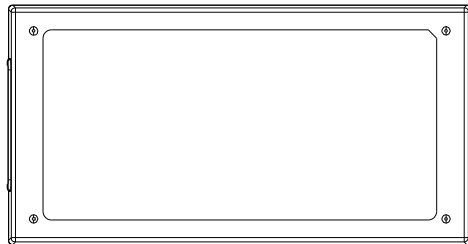
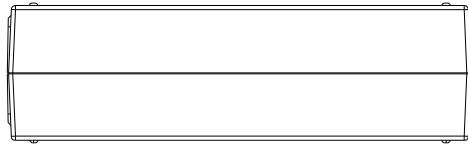
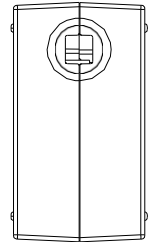
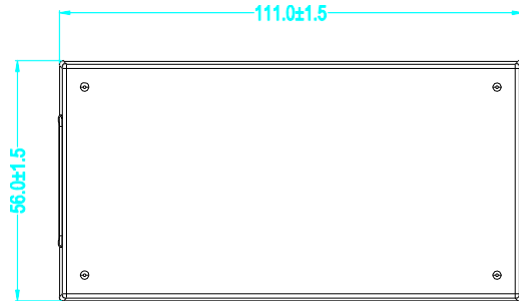
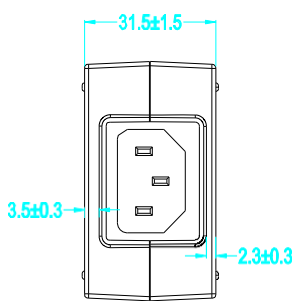
5-3. Label Drawing

5-4. Barcode Label

5-5. Packing Drawing

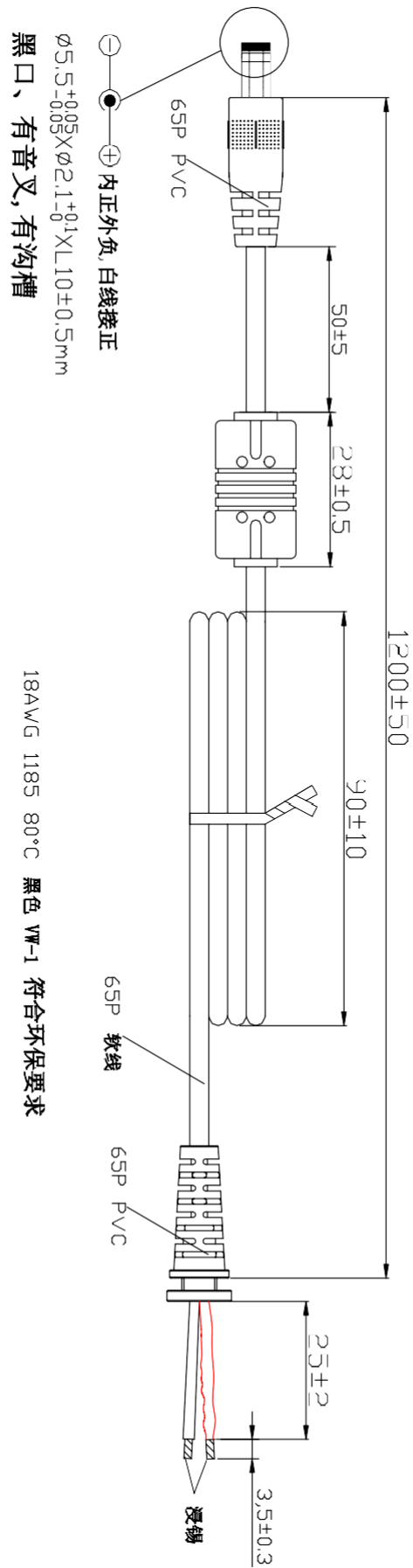
5-1. Case Drawing

Unit: mm



5-2. Cable Drawing

Unit: mm



43.7 mm

3-R2.0

93.7 mm

欧陆通 SWITCHING ADAPTER
HONOTO 电源供应器/电源适配器

MODEL (型号/型号): ADS-65HI-12N-1 12048E
INPUT (输入/输入): 100-240V~ 50/60Hz
1.5A max. (最大/最大)
OUTPUT (输出/输出): 12.0V 4.0A 48.0W

I. T. E. US Power Supply E221556
UK CA
EAC
CE
10

전기용품안전 관리법에 의한 표시
제품명: 开关电源
모델명: ADS-65HI-12N-1 12048E
입력전압: 100-240V~ 50/60Hz 1.5A
출력전압: 12V 4.0A
제조사: Shenzhen Honor Electronics Co., Ltd.
제조국가: 중국(China)
제조연월: 2025.10
A/B 연락처: 070-4118-8899
안전인증번호: HU10480-10077
MGP-REM-HR8-ADS-65HI12080E

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

EFFICIENCY LEVEL: VI L.P.S.
MADE IN CHINA 中國製造/中国制造 01
SHENZHEN HONOR ELECTRONIC CO., LTD. 4125
深圳歐陸通電子股份有限公司/深圳欧陆通电子股份有限公司

CAUTION / Avertir / 警告 / 警告:
- INDOOR USE ONLY
- DANGEROUS VOLTAGE INSIDE, DO NOT OPEN
- Pour une utilisation en intérieur uniquement
- Tension dangereuse à l'intérieur, veuillez ne pas démonter
- 仅供室内使用 / 仅供室内使用
- 内有危险电压, 请勿拆开 / 内有危险电压, 请勿拆开

放大图

2.0*2.0

欧陆通 SWITCHING ADAPTER
HONOTO 电源供应器/电源适配器

MODEL (型号/型号): ADS-65HI-12N-1 12048E
INPUT (输入/输入): 100-240V~ 50/60Hz
1.5A max. (最大/最大)
OUTPUT (输出/输出): 12.0V 4.0A 48.0W

I. T. E. US Power Supply E221556
UK CA
EAC
CE
10

전기용품안전 관리법에 의한 표시
제품명: 开关电源
모델명: ADS-65HI-12N-1 12048E
입력전압: 100-240V~ 50/60Hz 1.5A
출력전압: 12V 4.0A
제조사: Shenzhen Honor Electronics Co., Ltd.
제조국가: 중국(China)
제조연월: 2025.10
A/B 연락처: 070-4118-8899
안전인증번호: HU10480-10077
MGP-REM-HR8-ADS-65HI12080E

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

EFFICIENCY LEVEL: VI L.P.S.
MADE IN CHINA 中國製造/中国制造 01
SHENZHEN HONOR ELECTRONIC CO., LTD. 4125
深圳歐陸通電子股份有限公司/深圳欧陆通电子股份有限公司

CAUTION / Avertir / 警告 / 警告:
- INDOOR USE ONLY
- DANGEROUS VOLTAGE INSIDE, DO NOT OPEN
- Pour une utilisation en intérieur uniquement
- Tension dangereuse à l'intérieur, veuillez ne pas démonter
- 仅供室内使用 / 仅供室内使用
- 内有危险电压, 请勿拆开 / 内有危险电压, 请勿拆开

1:1

2025.10

日期码, 随着周期变化
“2025”表示生产年, “10”表示生产月

4125

日期码, 随着周期变化
“41”表示生产周, “25”表示生产年



h2>5mm, 长宽按比例缩放



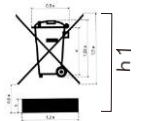
h3>3mm, 长宽按比例缩放

Note:

- 1:material quality: 100# PET底格纹+光膜
- 2:black bottom and white words,clearly
- 3.one side with glue and stick well
- 4.temperature-resistant of more than 80 degree
- 5.straight of sarap edge , without burr, colour and letterform refer to the latest sample.



®: R高度小于1.19mm, 无需印刷
字体大小一致, 字体为“HELVETICA CONDENSED BLACK”



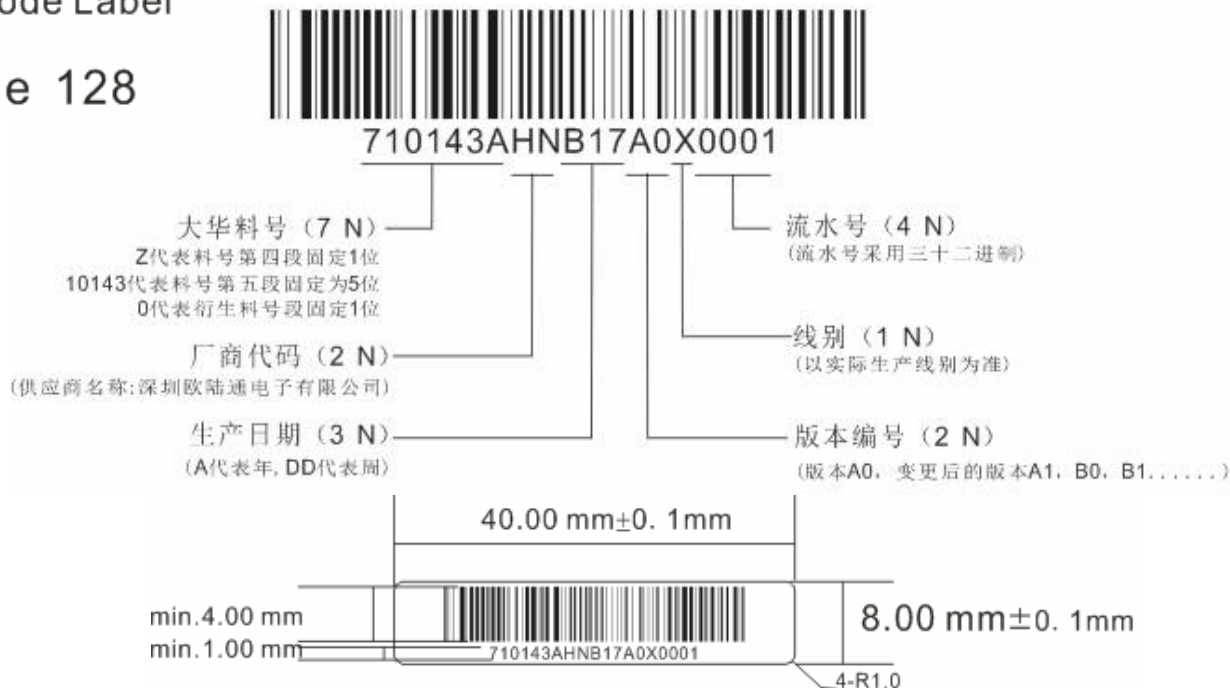
h高度必须大于0.3a或1mm
h1>7mm, 长宽按比例缩放

TOLERANCES UNLESS NOTED OTHERWISE	DESIGNER	梁丽娟	2025.10.10	DRAWING NAME	LABEL, DESIGNATION	
	CHECK			MODEL NO.		
X. :+0/-0.2	APPROVAL			SIZE	DRAWING NO.	REV.
XX. :+0/-0.2				A4		A0
XXX. :+0/-0.3						
ANGLE:±2°	UNIT mm		SCALE N /S	SHEET 1 OF 1		

5-4. Barcode Label

Barcode Label

Code 128

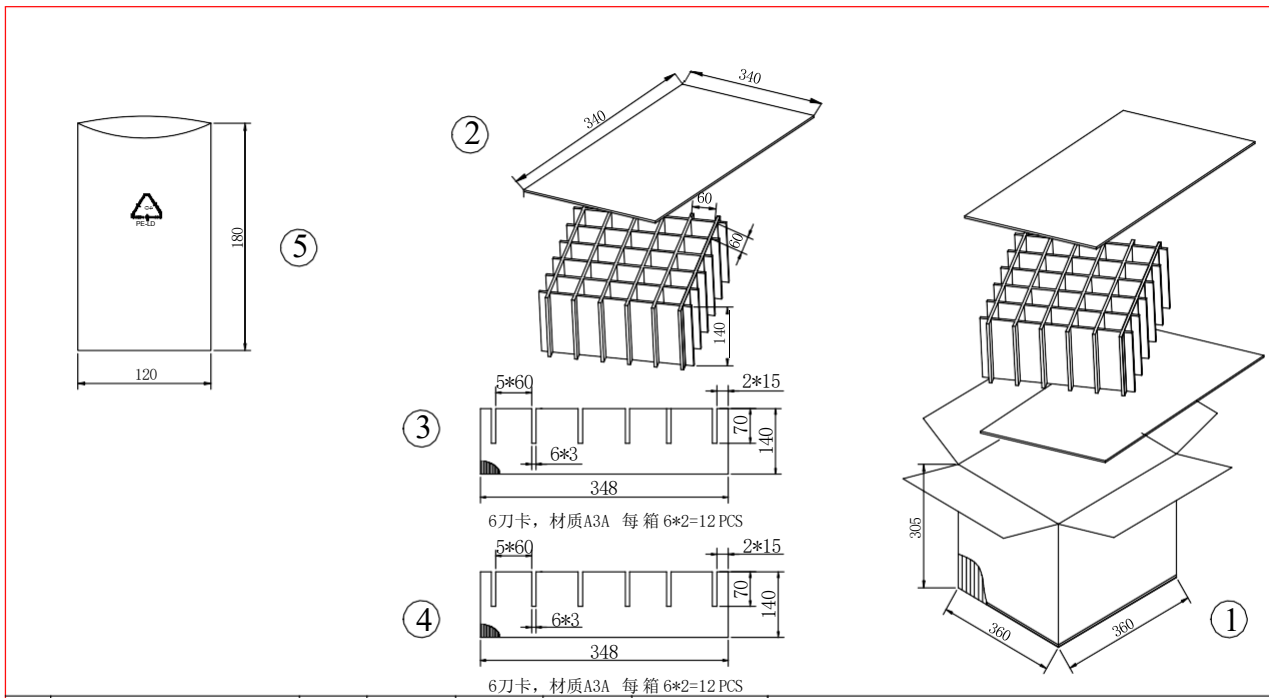


材质: 空白白底PET+透明PET+底格纹+耐擦

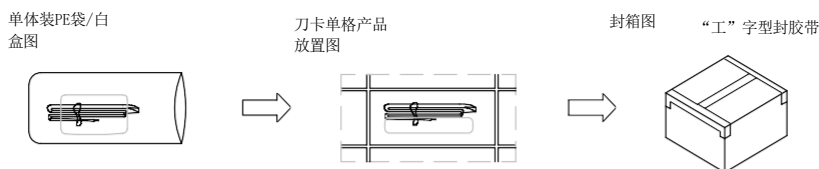
代码	名称	注释
Z	大华料号第四段	大华料号第四段固定2位;例如大华料号为:1.2.19.99.0016, 此处编码为Z, 1.2.19.01.10002,此处编码为1, 1.2.19.02.10003,此处编码为2; 以此类推...
XXXXX	大华料号第五段	大华料号第五段固定为5位,若此段为4位,则前面加数字“0”; 例如大华料号为:1.2.19.99.0016, 此处编码为00016, 1.2.19.01.10002,此处编码为10002, 以此类推...
0	衍生料号段	衍生料号段,若无衍生料号,此处编码为0; 若有衍生料号,取3位衍生料号的后2位;例如1.2.19.17.10026-001, 此处对应编码为A; 1.2.19.17.10005-002, 此处对应编码为B; 以此类推...(由于0和O相同, 故O去掉)
HN	供应商代码	深圳欧陆通电子有限公司 (Honor)
ADD	生产日期	A表示年份 (如2017年用A表示,2018年用B表示, 2019用C表示, 按照26个大写英文字母依序排列) DD表示周(如18表示第18周,以此类推...
A0	版本编号	版本编号: 如初始版本A0, 变更后的版本A1, B0, B1...
X	线别	第一位是线别号 (以实际生产线别为准)
XXXX	流水号	流水号4位: 采用三十二进制(0 1 2 ~ 9, ABCDEFGHJKLMNPRSTUVWXY) 如: 0001, 0002...0009, 000A...000Y, 0010...001Y...YYYY



5-5. Packing Drawing



RevNO	Revision note	Date	Signature	Checked	ECN NO.		SHENZHEN HONOR ELECTRONIC CO., LTD				
							Unit: mm Dim Tolerances: *. *: ±0.20 *. **: ±0.10 *. ***: ±0.05 Angle: ±0.5°	Model ADS-65HI			
							Modification	Name	Date	Part Name	包材组件
							Designed by	方铿春	15.11.20	Part NO	
							Checked by			DWG NO	
							Approved by			Rev	Scale



- 备注:**
- 1、材质: 外箱:K,K, 五层瓦楞纸, 厚度:6.0mm Min. (外箱材质可根据订单而改变)
 - 2、外观: 光洁, 无污点, 黄白色且无色差, 交接处无裂缝。
 - 3、尺寸: 以上尺寸为箱内尺寸, 公差为±5mm。
 - 4、数量: 50PCS, (1层装25PCS)分2层装, 3块单坑平板。

5	PE袋	120*180*0.04mm	1	PCS
4	刀卡2	348*140 13A	0.24	PCS
3	刀卡1	348*140 13A	0.24	PCS
2	平板	340*340 13B	0.06	PCS
1	外箱	360*360*305 1-4	0.02	PCS
NO.	Part NO.	Name	Specification	QTY Unit

RevNO	Revision note	Date	Signature	Checked	ECN NO.		SHENZHEN HONOR ELECTRONIC CO., LTD				
							Unit: mm Dim Tolerances: *. *: ±0.20 *. **: ±0.10 *. ***: ±0.05 Angle: ±0.5°	Model ADS-65HI			
							Modification	Name	Date	Part Name	包材组件
							Designed by	方铿春	15.11.20	Part NO	
							Checked by			DWG NO	
							Approved by			Rev	Scale