

产品描述：KLNE1-S

Product Description: KLNE1-S

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1. 更改履历 Change History

序号 No.	版本号 Version No.	更改前描述 Description Before Modification	更改后描述 Description After modification	更改人/日期 Reviser/Date
1	V1.2	产品性能、电气性能要求修改,型号修改		倪荣伟 25/7/9
2	V1.3	绝缘电压试验内容修改		丁全义 25/11/19
3	V1.4	KLNE1-S 系列名称	KLN 系列	倪荣伟 26/4/25
4				
5				

2. 适用范围 Scope

本产品规格书适用于浙江瑞辉电气有限公司生产的 PCB 连接器，产品名称：KLNE1-S。

This product specification covers the requirement for PCB connector, which are designed and manufactured by ZHEJIANG REWIN ELECTRIC CO.,LTD. P/N: KLNE1-S.

3. 产品命名规则及描述 Product Naming Rules and Description

KLN 系列产品为 PCB 连接器，产品命名规则及部件描述如下：
The KLN series connector designed for PCB connector. Naming rules and part description as following form:

产品命名规则

Products Naming Rules

示例

Example:

KLNE1-P-5.0-V-1-GY

系列名称

Series name:

KLN

应用

Application:

R=轨装式接线端子 Rail-Mount Terminal Blocks
C=建筑布线用端子 Installation Terminal Blocks and Connectors
E=PCB接线端子 PCB Terminal Blocks

编号

No.:

1

类别

Sort:

P=插拔式插头 Plug
RP=插拔式反向插头 Reverse Plug
S=插拔式插座 Socket
F=固定式插座 Fixed Socket
PL=插头带锁扣 Plug with Lock
A=配件 Accessory

间距

Pitch:

5.0=5.0 间距 Pitch

方向

Direction:

H=0度卧式 0°Horizontal
V=90度立式 90°Vertical
W=180度卧式 180°Horizontal
U=通用式 Unicersal
L=左侧 Left
M=中间 Mid
R=右侧 Right

极数

Pin:

1=1 Pin

颜色

Color:

BK=黑色Black
GY=灰色Gray
OL=本色Original
RD=红色Red
WH=白色White
TT=透明Transparent
YE=黄色Yellow
BU=蓝色Blue
OG=橙黄Orange
GN=绿色Green
OT=其他Other

系列名称

应用

编号

类别

间距

方向

极数

颜色

KLN

E

1

-

P

-

5.0

-

V

-

1

-

GY

塑料件命名规则
Plastic Parts Naming Rules

示例 Example:	KLNE1-P-5.0-V_HO-1-GY-V0	系列名称 KLN	应用 E	编号 1	类别 P	间距 5.0	方向 V	部件 HO	材料编号 1	颜色 GY	防火等级 V0
系列名称 Series name:	KLN										
应用 Application:	R=轨装式接线端子 Rail-Mount Terminal Blocks C=建筑布线用端子 Installation Terminal Blocks and Connectors E=PCB接线端子 PCB Terminal Blocks										
编号 No.:	1										
类别 Sort :	P=插拔式插头 Plug RP=插拔式反向插头 R-verse Plug S=插拔式插座 Socket F=固定式插座 Fixed Socket PL=插头带锁扣 Plug with Lock A=配件 Accessory										
间距 Pitch:	5.0=5.0 间距 Pitch										
方向 Direction:	H=0度卧式 0°Horizontal V=90度立式 180°Vertical W=180度卧式 180°Horizontal U=通用式 Unicersal L=左侧 Left M=中间 Mid R=右侧 Right										
部件 Parts:	HO=外壳 Housing CO=盖子 Cover LE=操作杆 Lever LR=锁扣杆 Lock Rod FL=法兰 Flange CL=卡扣 Clip										
材料编号 Material No.:	1=PA66 2=PA66+GR 3=PBT 4=PBT+GR 5=PC 6=POM										
颜色 Color:	BK=黑色 Black GY=灰色 Gray OL=本色 Original RD=红色 Red WH=白色 White TT=透明 Transparent YE=黄色 Yellow BU=蓝色 Blue OG=橙黄 Orange GN=绿色 Green OT=其他 Other										
防火等级 Flammability:	HB=UL94HB V0=UL94V-0 V1=UL94V-1 V2=UL94V-2										

金属件命名规则
Metal Parts Naming Rules

示例	系列名称	类别	编号	材质	处理工艺	送料方式	
Example:	KLN-SP-01-S-13-P	KLN	SP	01	S	13	P
系列名称 Series name:	KLN						
类别 Sort:	SP=弹簧 Spring CM=接触件 Contact Material NU=螺母 Nut SC=螺丝 Screw GA=垫片 Gasket						
编号 No.:	01						
材质 Material:	B=黄铜 Brass P=磷铜 Phosphor Bronze S=不锈钢 Stainless Steel N=洋白铜 Nickel Silver Alloy R=紫铜 Red Copper C=镁铜 Copper Magnesium Alloy L=铝 Aluminium A=铍铜 Beryllium Bronze F=铁 Ferrum						
处理工艺 Processing:	01=无 None 02=镀镍 Nickel Plating 03=镀镍银 Silver-Nickel Plating 04=镀镍金 Gold-Nickel Plating 05=镀镍局部金 Half Gold-Nickel Plating 06=镀亮锡局部金 Half Gold-Tin Plating 07=镀雾锡 Matte Tin Plating 08=镀亮锡 Bright Tin Plating 09=镀镍雾锡 Matte Tin-Nickel Plating 10=镀铅锡 Tin-Lead Plating 11=镀铜锡 Tin-Cu Grinding 12=化学研磨 Chemical Grinding 13=热处理 Heat Treatment						
送料方式 Feeding Way:	P=散件 Parts T=料带 Tape						

塑料件 Plastic parts		
名称 Name	部件型号 Part Model	备注 Notes
插座左壳 Left female plug housing	KLNE1-S-5.0-L_HO-1-GY-V0	PA66 UL94-V0
插座中壳 Middle female plug housing	KLNE1-S-5.0-M_HO-1-GY-V0	PA66 UL94-V0
插座右壳 Right female plug housing	KLNE1-S-5.0-R_HO-1-GY-V0	PA66 UL94-V0

金属件 Metal parts		
名称 Name	部件型号 Part Model	备注 Notes
直针 Straight pin header	KLN-CM-6-R-7-P	T2 - Matte Tin Plating (4-8um)
弯针 Curved pin header	KLN-CM-7-R-7-P	T2 - Matte Tin Plating (4-8um)

4. 相关标准 Related Standards

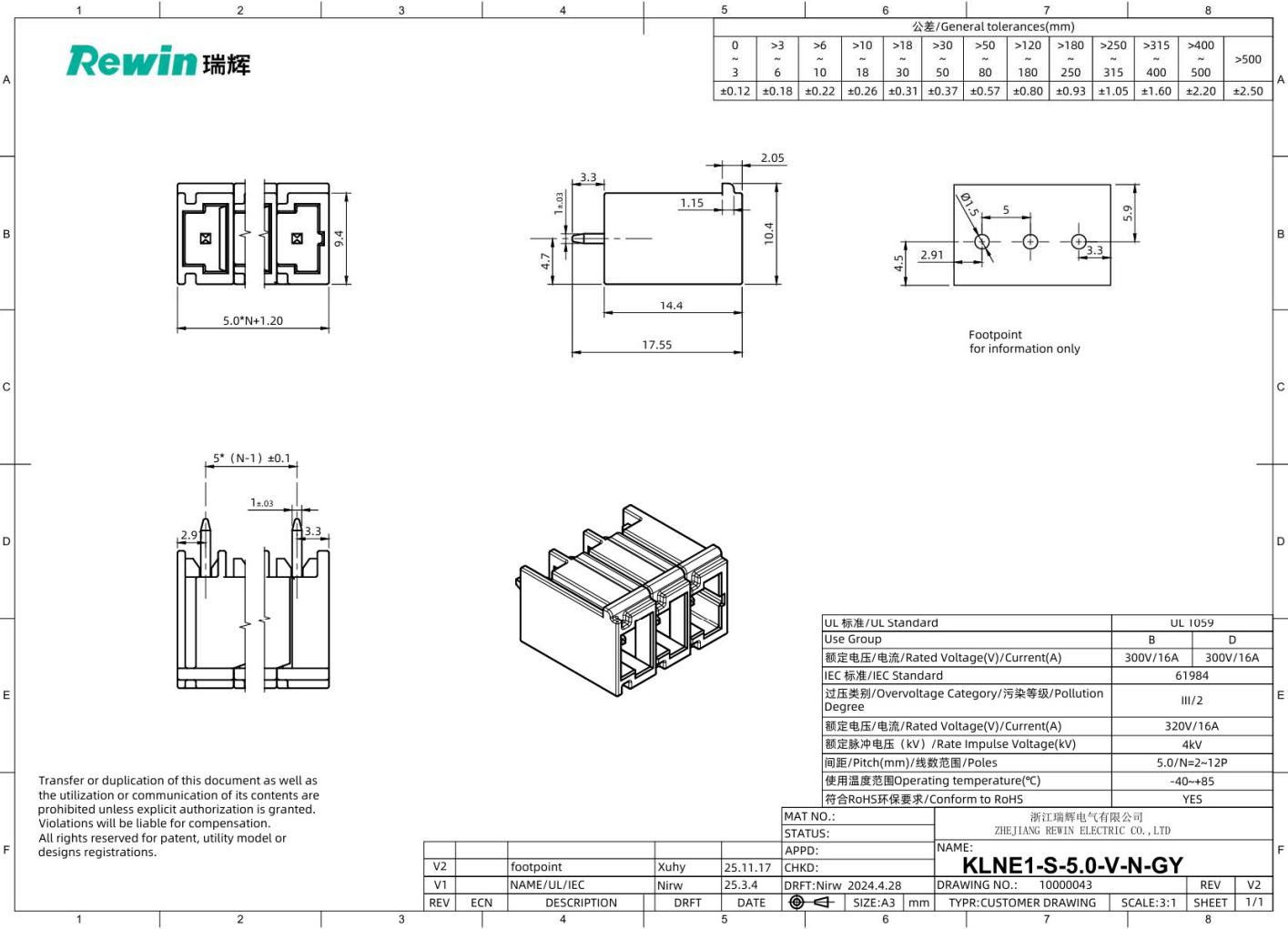
以下参考文件是本规格书的一个组成部份。若本规格书中的要求与产品图纸发生冲突，则产品图中的要求为优先；若本规格书中的要求与参考文件中的要求冲突，则本规格书为优先。

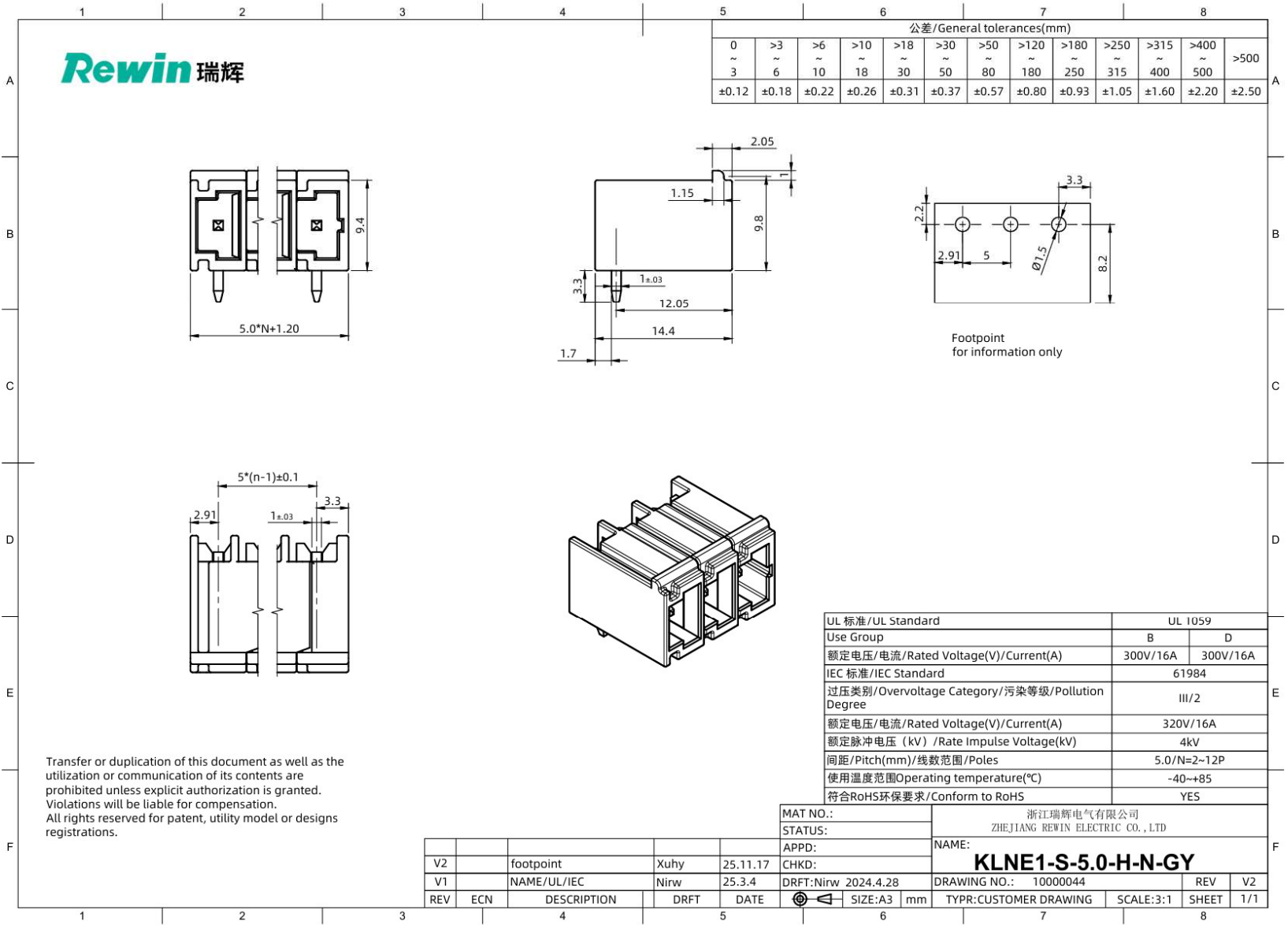
The following documents form a part of this specification. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

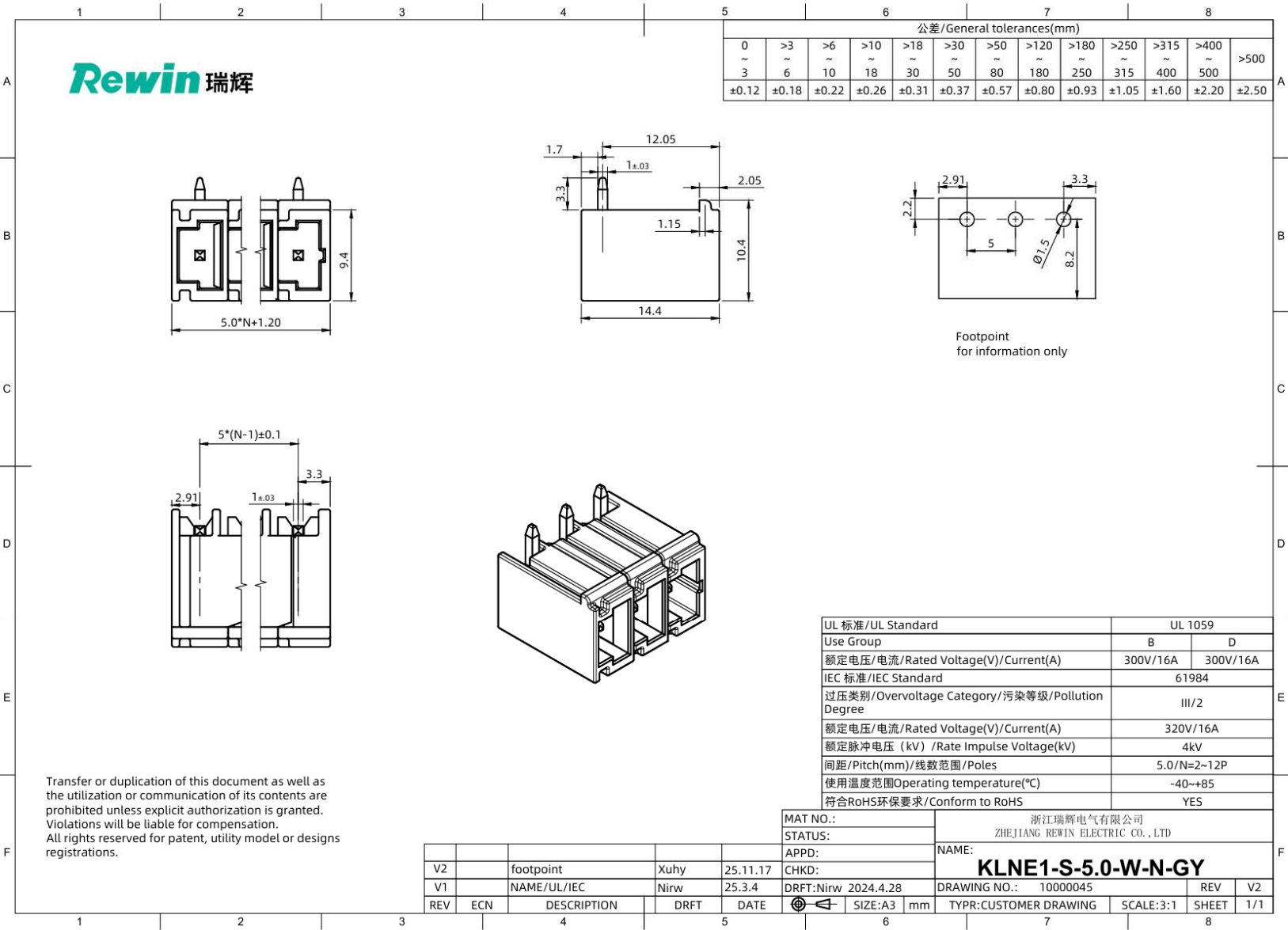
《UL 标准: UL1059》

《IEC 标准: IEC 61984》

5. 参数范围 Parameter Ratings:







KLN 插座参数 KLN PCB Socket headers parameter ratings		
UL 标准 UL Standard	UL1059	
Use Group	B	D
额定电压 / 电流 Rated Voltage(V) / Current(A)	300V/16A	300V/16A
IEC 标准 IEC Standard	IEC 61984	
过压类别 / 污染等级 Overvoltage Category / Pollution Degree	III/2	
额定电压 / 电流 Rated Voltage(V) / Current(A)	320V/16A	
额定脉冲电压(kV) Rate Impulse Voltage(kV)	4kV	
间距 / 线数范围 Pitch(mm) / Poles	5.0/N, 2~12P	
使用温度范围 Operating Temperature(°C)	-40~+85°C	
符合 RoHS 环保要求 Conform to RoHS	YES	

6. 产品性能测试 Performance test

序号 No.	项目 Item	测试条件 Test Condition	规格 Requirement
6.1.1	外观 Appearance	目测 Visual inspection 视力: 1.0 以上 Visual acuity: 1.0 or above 照明: (200 ~ 300) lx Lighting: (200-300) lx 目测距离: (0.3 ~ 0.5) m Visual inspection distance: (0.3-0.5) m	1.塑料件表面应无明显疤痕、凹陷、开裂及影响使用的变形。 The surface of the plastic parts should be free from obvious scars, dents, cracks, and deformations that affect usability. 2. 金属件表面无锈蚀、氧化、无明显的机械损伤及电镀层脱落等缺陷。 The surface of the metal parts should be free from rust, oxidation, obvious mechanical damage, and defects such as peeling of the plating layer.
6.1.2	跌落试验 Drop Test	将产品从 2 米的高度自由下落, 重复 5 次。 The product shall be dropped freely from a height of 2 meters. This test shall be repeated 5 times.	产品结构正常, 功能良好。 The product shall retain normal structure and proper functionality.
6.1.3	间距检验 Pitch Inspection	视觉检测仪测量产品间距。 The product pitch shall be measured using a vision measuring system.	尺寸在要求范围内, 间距: 5.0 ± 0.10 mm。 Dimensions shall be within specified limits. Pitch: 5.0 ± 0.10 mm.

6.2 电气性能测试 Electrical test

序号 No.	项目 Item	测试条件 Test Condition	规格 Requirement
6.2.3	绝缘电压 Insulation voltage	额定绝缘电压 1800V , 试验电压 1800V, 频率 50Hz, 1min。 Testing parameters: Rated insulation voltage: 1800V; testing voltage: 1800V; frequency: 50 Hz; duration: 1 minute. 试验期间, 不得出现闪络或击穿。 a.所有连接在一起的夹紧件与无固定装置的连接器件 的本体或所有连接在一起的夹紧件与有固定装置的连 接器件的安装底座上的夹紧件之间; During the test, there should be no occurrence of flashover or breakdown between the clamping parts of all connected components without fixing devices, such as the body of connectors, and between the clamping parts on the mounting base of connectors with fixing devices.	无击穿、闪络和飞弧现象 No breakdown, flashover, or arcing should be observed during the test.
6.2.4	温升 Temperature rise	额定电流(Rated current): 16A; 线径(wire diameter): 2.5mm² 试验力矩(Testing torque): ——N·m	1h 或热稳定后, 温升 ≤45K Temperature rise shall be ≤45K after 1h or after thermal stability is achieved.
6.3.5	盐雾 Salt spray test	把试验样品从试验箱顶悬挂下来, 采用浓度为(5±1)%(质量百分比)的氯化钠溶液, 在(35±2)℃温度下连续雾化 48h;试验后用流动的蒸馏水轻轻洗去表面沉积物。在常温常湿条件下恢复 1~2h。 Suspend the test sample by hanging it from the top of the test chamber. Apply a sodium chloride (NaCl) solution with a concentration of (5±1)% (by mass percentage). Maintain continuous spray for 48 hours at a temperature of (35±2)°C. After the test, gently rinse off the surface deposits using flowing distilled water. Allow 1-2 hours of recovery of the sample under normal temperature and humidity conditions.	外观: 无损伤(五金件应无露出底金属的严重锈蚀;使用预镀好的型材, 其落料面允许有不影响其性能的轻微腐蚀。) Appearance: No damage should be observed (Metal parts should not have severe exposed metal corrosion; pre-plated profiles may have slight corrosion on cut surfaces that does not affect their performance).

产品规格书



Product specification

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		产品包装材质 Packaging material		产品包装尺寸（长*宽/mm） Packaging dimensions (L*W/mm)			
		标签尺寸 mm Label dimensions (mm)	无 N/A	数量/包 pcs/box			
		标签材质 pcs/box	无 N/A	中文字体 Chinese font	无 N/A	英文字体 English font	无 N/A
	独立包装袋 Individual packaging bag						

产品规格书



Product specification

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内包装盒 & 包装规范 Inner box/Packa ging specs	内包装标签 Inner packing label	内包装材质 Inner packing material		内包装尺寸 (长*宽*高/mm) Packaging dimensions (L*W/mm)		
		标签尺寸 mm Label dimensions		数量/盒 pcs/pack		
		标签材质 Label material		中文字体 Chinese font		英文字体 English font
	内包装盒 & 标签位置 Inner box/label position					

产品规格书



Product specification

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外箱 & 包装规范 Outer carton/pac kaging specs	外箱 & 外箱标签位 置 Outer carton/Cart on label position	包装箱 Packing carton	外箱材质 Outer carton material	☒ BC 五层板（中性包装无印刷） ☒ BC five-layer board (neutral packaging without printings)			
			外尺 (长*宽*高 /mm) Outer dimensions (L*W*H/mm)		装箱数量 Packing quantity		
		标签材质 Label material	☒ 机打标签（不干胶） ☐ 印刷标签 ☒ Computer-printed labels (self-adhesive sticker) ☐ Printed labels		标签尺寸 mm dimensions		
		其它 Others	包装打包带 Packing tape	☐ 井字 Cross-pattern strapping tapes ☐ Parallel tapes ☒ 无需求 No special requirements			
			封口胶带 Sealing tape	☒ 透明无字 Transparent, without words			
		标签印刷工艺 Label printing techniques	印刷标签 Printing labels	中文字体 Chinese font	黑体 Black	英文字体 English font	黑体 Black

产品规格书



Product specification

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技术负责人 Technical head		审核 Reviewed by		批准 Approved by	
客户(简称)确认 Customer (in short name) confirmation			内部签审 Internal signed review		
确 认 者 Confirmed by			批 准 Approved by	年 月 日 YYYY MM DD	
部 门 Dept.			销售代表 Sales representative	年 月 日 YYYY MM DD	
日 期 Date	年 月 日 YYYY MM DD		制 定 Prepared by	年 月 日 YYYY MM DD	
特别注明： 整份文件提交客户确认，客户在末页签字确认。若客户未会签可由销售代表代签，但必须提供相关佐证资料（如包装交付客户检验的合格记录等）。 Special notes: The entire document is to be submitted for customer confirmation, and the customer may choose to sign and confirm on the last page. In case the customer is unable to give the signature, the sales representative may sign on their behalf, but relevant supporting documents (such as records of qualified inspection upon delivery to the customer) must be provided as evidence.					