浙江联和电子有限公司
ZHEJIANG LIANHE ELECTRONICS CO., LTD.

承　认　书
SPECIFCATION FOR APPROVAL

客户名称 CUSTOMER: _____

品名 DESCRIPTION: C3504系列连接器

料号 CUSERTOMER PART NO: C3504

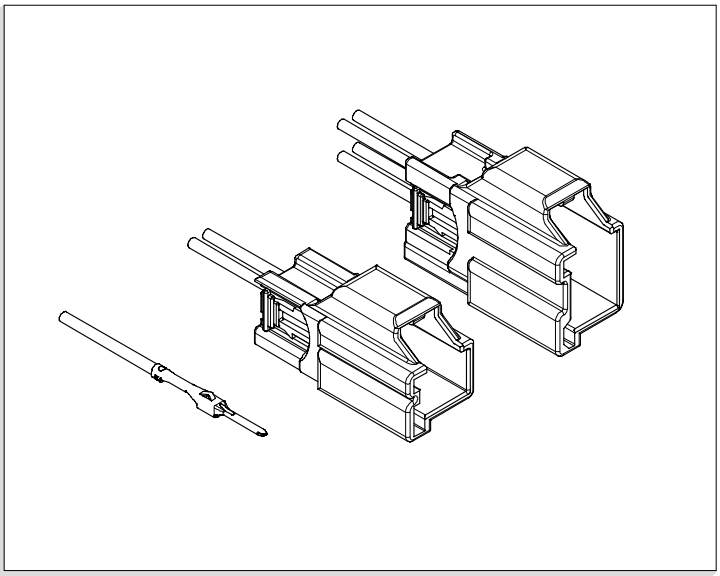
客户确认 APPROVED SIGNATURES

核准 APPROVAL: _____　　日期 DATE: _____

工程 ENGINEERING: _____　　日期 DATE: _____

品管 QC: _____　　日期 DATE: _____

承认结果: ☐ 承认　☐ 不承认　☐ 重新送样



规格 Specifications

1. 极数 Poles: 2 to 2X2P
2. 额定电流 Current rating: 15A AC,DC
3. 额定电压 Voltage rating: 12V AC,DC
4. 温度范围 Temperature range: -25℃ to +105℃
   (含通电温度上升值)
   (Including temperature rise in applying electrical current)
5. 接触电阻 Contact resistance: 初期 Initial value / ≤8mΩ
   环境测试后 After environmental testing / ≤16mΩ
6. 绝缘电阻 Insulation resistance: ≥100MΩ
7. 耐电压 Withstanding voltage: 1000V AC/minute
8. 适用线规 Applicable wire: AWG #22 to #18

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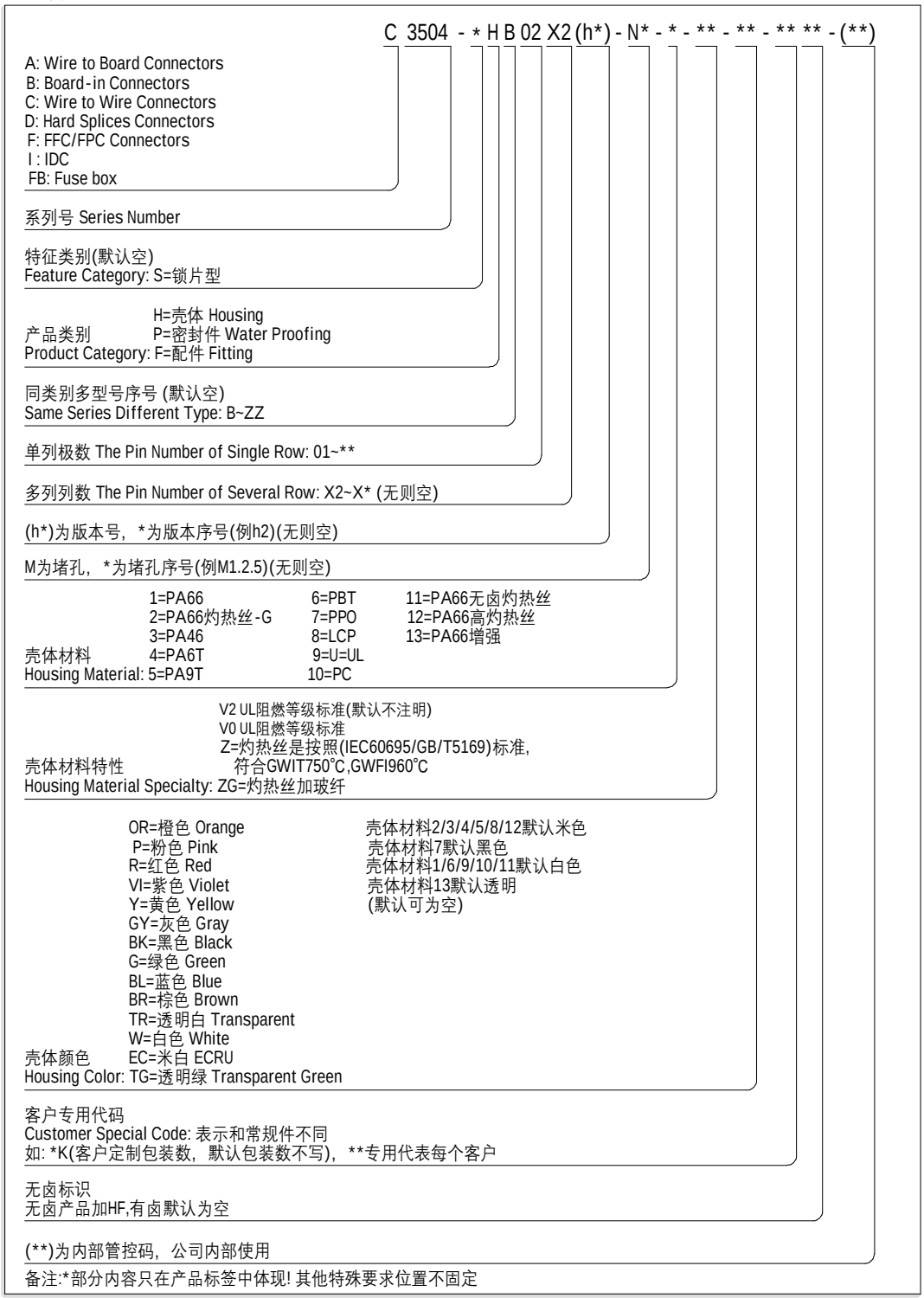
制订 Edit: 石斛 日期 DATE: 2026-07-24

审核 Check: 天琴 日期 DATE: 2026-07-24

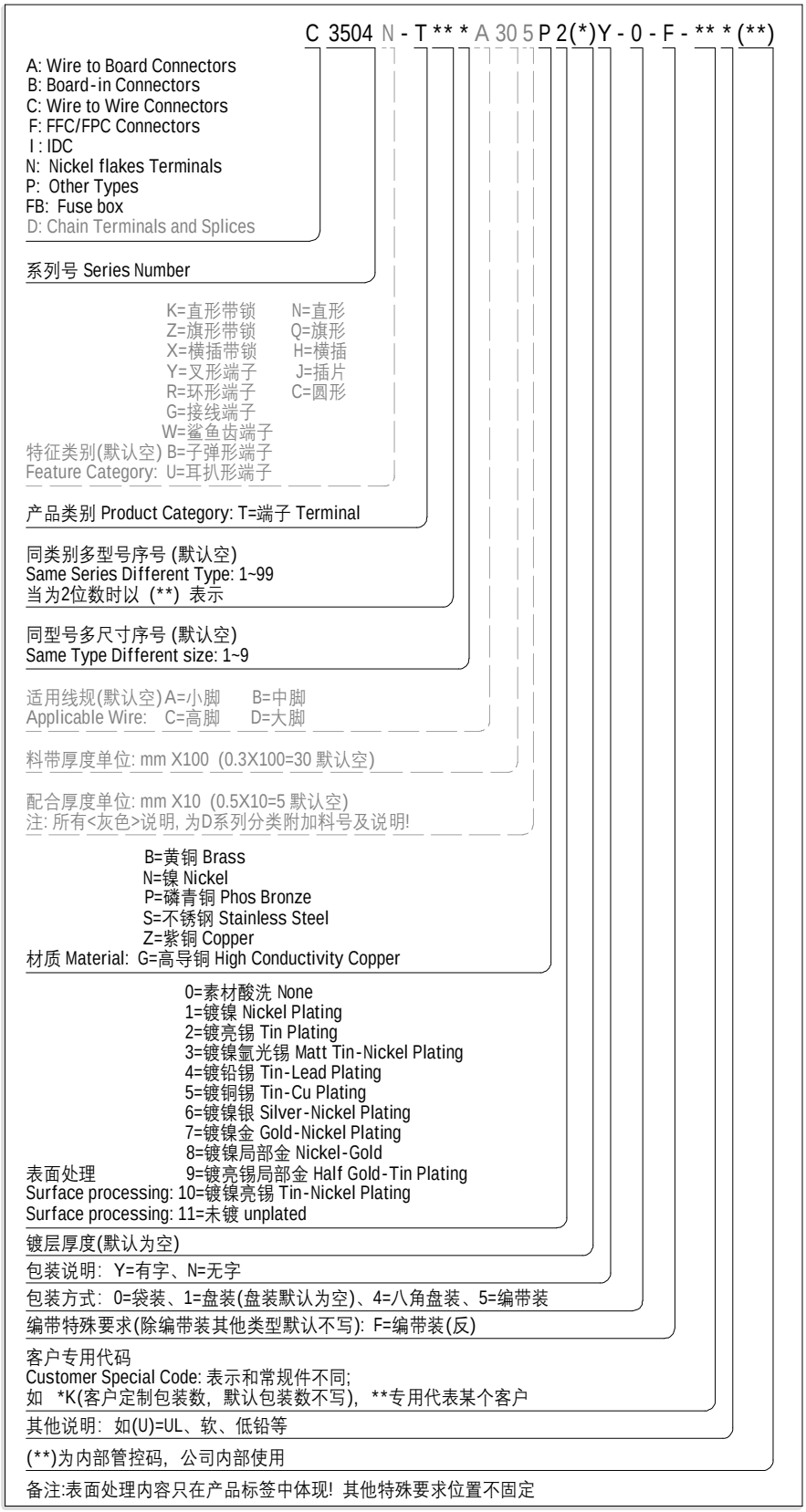
批准 Approval: 季育文 日期 DATE: 2026-07-24

壳体料号说明 HOUSING

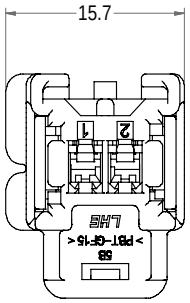


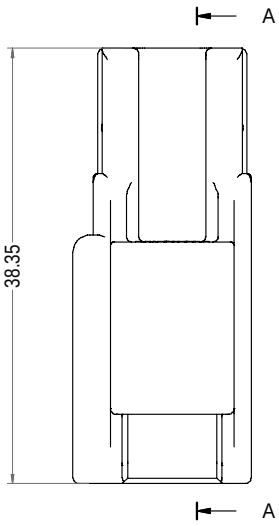
C3504料号说明 Description of item number

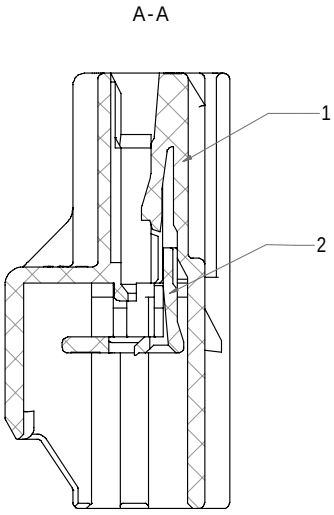
端子料号说明 TERMINAL

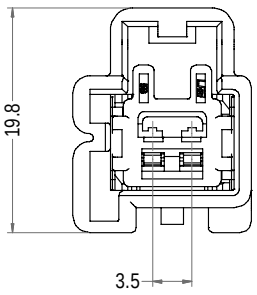


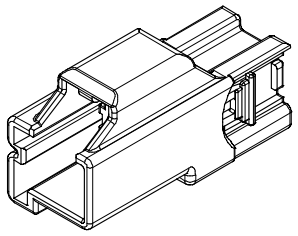
序号	名　　称	材　　料	数量	附　　注
1	基座 Housing	PBT	1	绿色
2	TPA	PBT	1	白色







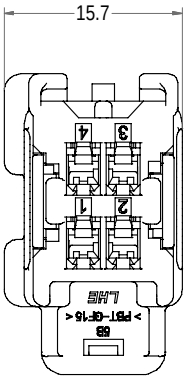


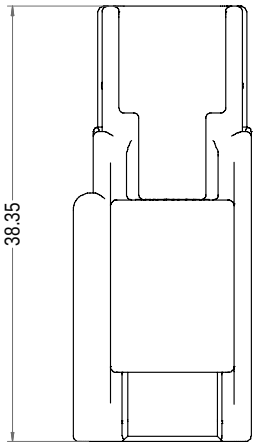


3D图示

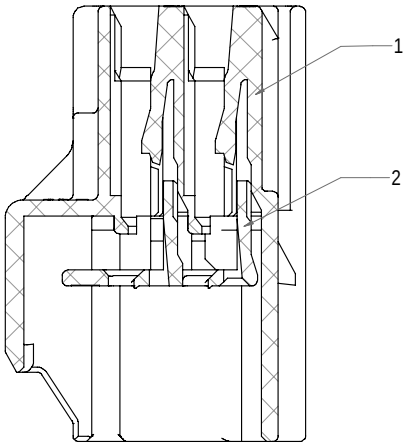
LHE® 浙江联和电子有限公司			
品名	C3504-2AB	比例	3 : 2
料号	C3504-HB02X2	未注公差(mm)	
图号	LHE\GC-4	>0~3	±0.12
材料	PBT	>3~18	±0.15
制图	石 2026-07-22	>18~50	±0.3
审核	天琴 2026-07-22	>50~120	±0.5
批准	季育文 2026-07-22	X°	±3°
视角		X.X°	±0.5°

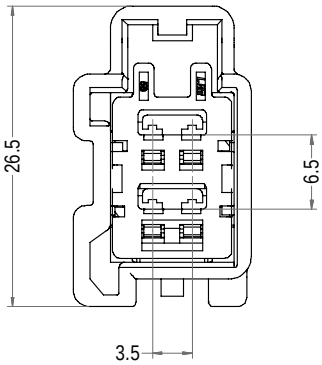
序号	名　　称	材　　料	数量	附　　注
1	基座 Housing	PBT	1	灰色
2	TPA	PBT	1	白色

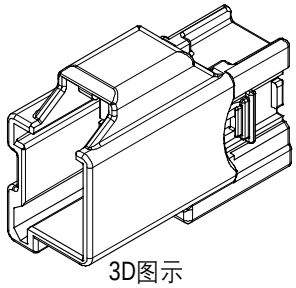




A-A





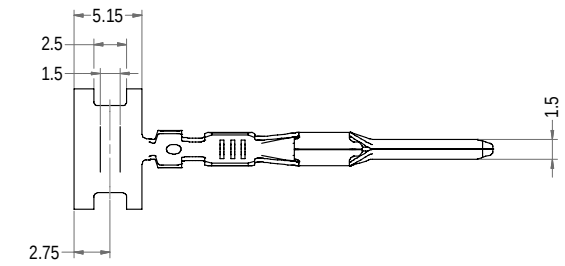


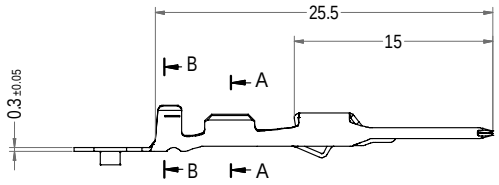
3D图示

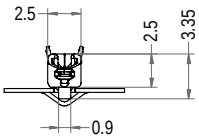
LHE® 浙江联和电子有限公司			
品名	C3504-2X2AA	比例	3 : 2
料号	C3504-HA02X2	未注公差(mm)	
图号	LHE\GC-5	>0~3	±0.12
材料	PBT	>3~18	±0.15
制图	石 2026-07-22	>18~50	±0.3
审核	天琴 2026-07-22	>50~120	±0.5
批准	季育文 2026-07-22	X°	±3°
视角		X.X°	±0.5°

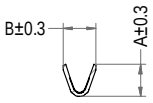
C3504型连接器承认书图面

名　　称	材　　料	附　　注
端子 Terminal	Phosphor Bronze	

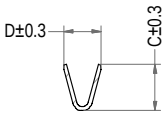




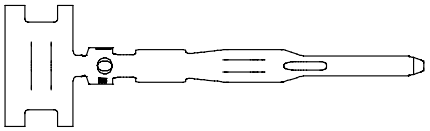


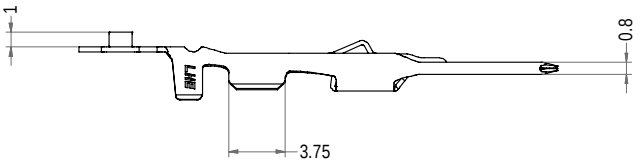


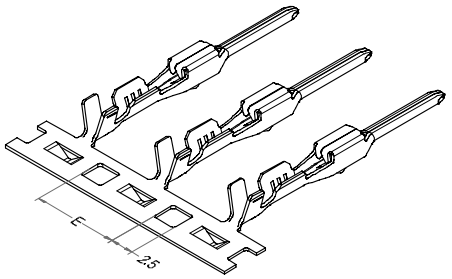
A-A

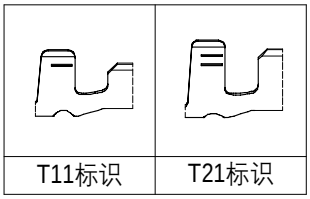


B-B









T11标识	T21标识

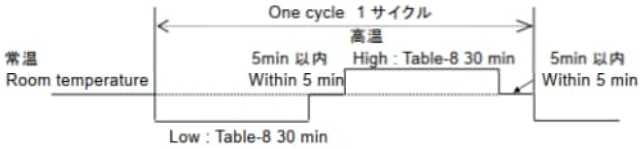
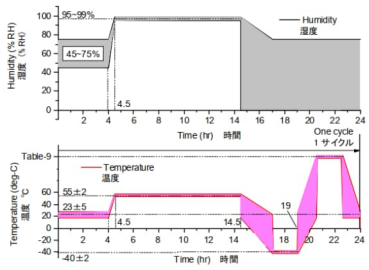
Prat No.	Descripiption	A	B	C	D	E	Qty/reel
C3504-TG	C3504-T11	2.40	2.50	3.50	2.80	9.10	/
C3504-T21G	C3504-T21	3.25	3.30	4.10	3.40	9.90	/

Prat No.	Descripiption	Wire Range	Section Area mm²	Finish
C3504-TG	C3504-T11	AWG #22 to #20	0.3~0.5	Tin-plated
C3504-T21G	C3504-T21	AWG #20 to #18	0.6~1.25, 0.35+0.35, 0.35+0.5	Tin-plated

LHE® 浙江联和电子有限公司			
品名	C3504-AT	比例	7 : 4
料号	C3501-T	未注公差(mm)	
图号	LHE\GC-6	>0~10	±0.3
材料	Phosphor bronze	>10~50	±0.5
制图	石 尉 2026-07-22	>50~100	±0.8
审核	天琴 2026-07-22	>100~250	±1.4
批准	季育文 2026-07-22	X°	±3°
视角		X.X°	±0.5°

项目 Item	测试条件 Test Condition	规格要求 Requirement	
1.外观 Appearance	对于目视检查，应在适当距离和适宜光照条件下直观观察其是否符合要求性能。通过目视观察及触觉检查来进行。 For the visual examination, check visually the required performance from an appropriate distance and in proper light. GB/T 5095.1 Method 1a	目视检查: 不得存在任何危险裂纹、变色或变形现象。 性能要求: 产品表面不得存在任何可能影响其正常功能的异常现象，例如裂纹、锈蚀、凹陷、划痕或变形等。 Visual examination: No hazardous crack, discoloration or deformation are allowed.	
2. 端子插入力 Terminal insertion force (Terminal - Housing	固定外壳，将压接在端子上的电线以25~100mm/min的速度沿轴向推入,测量至外壳正常位置的插入负荷。测量时应注意避免电线发生弯曲。 For the terminal insertion force, measure the insertion load up to thenormal housing position of the terminal with a cable crimped. Take carenot to cause buckling of the cable, and perform measurement at aconstant speed between 25 and 100 mm/min.	≤30N	
3. 壳体/端子固定力 Terminal/Housing Retention Force	针对外壳内的端子固定力，将带有电缆压接至正常外壳位置的端子插入。随后，以25至100毫米/分钟的恒定速度拉伸，并在端子锁扣部分、端子压接部分或电缆发生损坏或断裂时测量载荷值。 For the connector mating force, perform mating operations at aconstant speed between 25 and 100 mm/min, and measure theload at that time. GB/T 5095.8 Method 15d/EIA-364-29B	≥100N	
4. 连接器对接力 Connector Mating Force	将端子及连接器以轴向方向、速度为25至100mm/min的方式进行压缩，并测量其插入力。 For the connector mating force, perform mating operations at aconstant speed between 25 and 100 mm/min, and measure theload at that time.	≤75N	
5. 连接器分离力 Connector unmating force	以轴向方向为基准，以25至100毫米/分钟的速度对端子及连接器进行拉伸试验，并测量其脱离力;测量时需确保锁定装置处于未受力状态。 For the connector unmating force, perform unmating operations at aconstant speed between 25 and 100 mm/min, and measure the load atthat time. The unmating force shall be measured when the housing lockremains released.	≤75N	
6. 外壳固定强度 Housing Lock Strength	在壳体及连接器均已锁定的状态下，固定其中一个部件，以轴向方向为基准以25至100mm/min的速度拉伸另一个部件，并测量锁定装置松脱或损坏时所承受的载荷值。 The male and female housings are mated, one is fixed with the lockapplied, and pull the other side at a constant speed between 25 and 100mm/min, and measure the load when the housing lock is unmated ordamaged.	≥100N	
7. 压着部位抗拉强度 Crimping Pull Out Force	在试验装置夹头中固定测试样品, 在连接的轴线方向施加拉力; 速度不大于25mm/min。 Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of not more 25mm/min. GB/T5095.8 Method 16d/EIA-364-08B	1.25 mm²	≥180N
		1 mm²	≥140N
		0.85 mm²	≥130N
		0.75 mm²	≥117N
		0.5 mm²	≥90N
		0.35 mm²	≥50N
		0.3 mm²	≥60N

项目 Item	测试条件 Test Condition	规格要求 Requirement	
8.接触电阻 (电压降) Contact Resistance (Voltage Drop)	为防止端子绝缘膜损坏，在开路状态下，应确保直流电压或交流电压峰值不超过20mV，且电流值不超过10mA;测量应在导线接触部位至指定位置之间进行，并随后计算导线电阻值。 To avoid destruction of insulating films on the terminals, as themeasurement voltage, use DC voltage or AC voltage of which thepeak value does not exceed 20 mV when the circuit is open. Performmeasurement when the current does not exceed 10 mA. Theconnection resistance shall be obtained by subtracting the wireresistance between the measurement point and the measurementreference point from the value obtained between the measurement points	初期 Initial value： ≤8mΩ 环境测试后 After environmental testing： ≤16mΩ	
9.绝缘电阻 Insulation Resistance	在连接器处于闭合状态的情况下，使用直流500伏绝缘电阻计分别测量相邻端子之间的绝缘电阻，以及所有端子相连的导线与外壳(表面覆有金属箔)之间的绝缘电阻。 For the insulation resistance, apply voltage of 500 V DC between thecable to which all the terminals are connected and the metal foilwrapped around the housing, and measure the value. For safetyreasons, ground the metal foil. In the same manner, apply the samevoltage between all the adjacent terminals, and measure the value.	≥100MΩ	
10. 耐电压 Dielectric Strength	在连接器处于闭合状态的情况下，分别检测相邻端子之间的连接情况，以及所有端子均相互連接的导线之间的连接状况。在两个外壳之间(即缠绕有金属箔的区域)施加频率为商业标准、电压为1000V的交流电，持续时间为1分钟。 For the withstand voltage, apply AC voltage of effective value of 1000V(50 Hz or 60 Hz) for 1 minute between the cable to which all theterminals are connected and the metal foil wrapped around the housing,and check for dielectric breakdown. For safety reasons, ground themetal foil. In the same manner, apply the same voltage between all theadjacent terminals, and check for dielectric breakdown.	无击穿和飞弧现象 No Breakdown	
11. 温度上升 Temperature Rise	在常温无风环境中对所有电极通电，并测量达到饱和状态时各端子接触部位的表面温度。通电电流应采用表5中的数值;对于多极结构，则需应用表6中的减小系数。 Apply current to all poles in a room temperature no wind room, andmeasure the surface temperature of the crimped portion of the terminalat saturation. The conduction current is shown in Table-5, and in thecase of multiple poles, the reduction coefficients in Table-6 are applied.	目视检查： 不得存在任何危险裂纹、变色或变形现象。 温度最大上升 Temperature Rise：≤60°C	
13. 耐高温 Heat Resistance	对于高温测试，将试样置于测试箱中，保持120±2℃测试温度，并以水平无负载状态放置120小时。 Mated connectors are exposed to a temperature of +120℃±2℃ for 120 hours. GB/T 5095.6 Method 11i /EIA-364-17B	外观 Appearance	无损伤 No Damage
		外壳固定强度 Housing Lock Strength	≥100N
		端子保持力 Terminal retention force in housing	≥100N
		接触电阻 (电压降) Contact Resistance (Voltage Drop)	≤16mΩ

项目 Item	测试条件 Test Condition	规格要求 Requirement	
14.温度冲击试验 Thermal Shock Test	针对匹配的连接器，-40±2℃，30分钟，高温85±2℃，30分钟，中间转换时间不超过5分钟为一个循环的冷热循环模式进行1000个周期。之后取出并在室温下放置2小时以上。 Conduct 1000 thermal cycling cycles on mated connectors: -40±2℃ for 30 min, 85±2℃ for 30 min, with transition time ≤5 min per cycle. Upon finishing, take out specimens and rest at room temperature for minimum 2 hours. 	外观 Appearance	无损伤 No Damage
		外壳固定强度 (Housing Lock Strength)	≥100N
		端子保持力 Terminal retention force in housing	≥100N
		接触电阻 (电压降) Contact Resistance (Voltage Drop)	≤16mΩ
15.温湿度循环测试 Temperature and Humidity Cycling Test	将配对插接状态的连接器按下列流程进行温湿度循环试验，共完成 10 个循环；试验结束后取出样品，在室温下放置 2 小时及以上。 a)温度23±5℃、湿度45%~ 75%，保持4小时。 b)在30 分钟内温度提升至55±2℃，湿度提升至95-99%的范围内。 c)在温度 55±2℃、湿度95-99%，保持10小时。 d)在2.5小时内温度降低至-40+2℃ e)温度-40±2℃，保持2小时。 f)在1.5小时内温度提升至85±2℃，保持2小时 g) 在1.5小时内温度恢复至23±5℃ d)、e)、f)和g)期间的湿度未作规定。 Subject the mated connectors to 10 cycles of temperature -humidity cycling test in accordance with the following procedure. After testing, take out the specimens and store them at ambient temperature for no less than 2 hours. a) Maintain at 23±5℃ and relative humidity of 45% ~ 75% for 4 hours. b) Raise the temperature to 55±2℃ and relative humidity to 95% ~ 99% within 30 minutes. c) Maintain at 55±2℃ and relative humidity of 95% ~ 99% for 10 hours. d) Lower the temperature to -40±2℃ within 2.5 hours. e) Maintain at -40±2℃ for 2 hours. f) Raise the temperature to 85±2℃ within 1.5 hours and hold for 2 hours. g) Restore the temperature to 23±5℃ within 1.5 hours. No humidity requirements are specified during stages d), e), f) and g).	外观 Appearance	无损伤 No Damage
		外壳固定强度 (Housing Lock Strength)	≥100N
		端子保持力 Terminal retention force in housing	≥100N
		接触电阻 (电压降) Contact Resistance (Voltage Drop)	≤16mΩ
		绝缘电阻 Insulation Resistance	≥100MΩ
		耐电压 Withstand voltage	无击穿和飞弧现象 No Breakdown
			

制订 Edit: 石斛 日期 DATE: 2026-07-24

审核 Check: 天琴 日期 DATE: 2026-07-24

批准 Approval: 季育文 日期 DATE: 2026-07-24