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报告编号
Reference No



CT22-04266-1

中国认可
国际互认
检测
TESTING
CNAS L0207

检测报告

Test Report

| | |
|------------------------|---|
| 样品名称 Name of sample | 同心电缆 Concentric Cable |
| 样品型号 Type of sample | ALUMINUM CONCENTRIC CABLE |
| 委托方 Consigner | 杭州益睿电线电缆有限公司 Hangzhou Easy Electric Wire and Cable Co., Ltd. |
| 试验类型 Kind of test | 委托试验 Commission Test |



上海国缆检测股份有限公司

SHANGHAI NATIONAL CENTER OF TESTING AND INSPECTION
FOR ELECTRIC CABLE AND WIRE CO., LTD

国家电线电缆质量检验检测中心

CHINA NATIONAL CENTRE OF TESTING AND INSPECTION
FOR ELECTRIC CABLE AND WIRE

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上海国缆检测股份有限公司/国家电线电缆质量检验检测中心
检测报告

Shanghai National Center of Testing and Inspection for Electric Cable and Wire Co., Ltd
China National Centre of Testing and Inspection for Electric Cable and Wire
Test Report

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| 样品名称 Name of sample | | 同心电缆 Concentric Cable | | | | | |
| 型号规格 Type and Size | | ALUMINUM CONCENTRIC CABLE 2×8AWG | | 检测日期 Date of test | | 2022-11-29 ~ 2023-01-28 | |
| 委托方 Consigner | 名称 Name | 杭州益睿电线电缆有限公司 Hangzhou Easy Electric Wire and Cable Co., Ltd. | | | | | |
| | 地址 Address | 浙江省杭州市余杭区余杭街道凤新路380号2幢305室 Room 305, Building 2, No. 380 Fengxin Road, Hangzhou, China | | | | | |
| | 电话号码 Tel. | 19560490934 | 邮政编码 P.C. | 311121 | 单位编号 Unit No. | 057129 | |
| 生产单位 Manufacturer | 名称 Name | 杭州益睿电线电缆有限公司 Hangzhou Easy Electric Wire and Cable Co., Ltd. | | | | | |
| | 地址 Address | 浙江省杭州市余杭区余杭街道凤新路380号2幢305室 Room 305, Building 2, No. 380 Fengxin Road, Hangzhou, China | | | | | |
| | 电话号码 Tel. | 19560490934 | 邮政编码 P.C. | 311121 | 单位编号 Unit No. | 057129 | |
| 来样方式 Delivering mode | | 送样 Supplied by consigner | 接收状态 Sample state at receiving | 正常 Normal | 收样日期 Receiving date | 2022-11-17 | |
| 检测依据 Test standard | | 见第2页 See page 2 | | | | | |
| 判定依据 Verdict standard | | 见第2页 See page 2 | | | | | |
| 检测结论 Conclusion | | <p>绝缘和护套的加速吸水试验仅提供检测结果；导体拉断力符合ASTM B801-18的标准要求；绝缘老化前后机械性能符合UL 854：2020的标准要求；其余所测项目符合UL 44：2018的标准要求。</p> <p>The accelerated water absorption test of insulation and sheath just provide the test results; the strength of the conductor complied with the requirements of ASTM B801-18; the mechanical properties before and after ageing in air oven of insulation complied with the requirements of UL 854：2020, other items tested complied with the requirements of UL 44：2018.</p> | | | | | |
| 备注 Note | | / | | | | | |
| 主检 Tested by | 李娜 Li Na | 审核 Checked by | 杨立志 Yang Lizhi | 批准 Approved by | 肖继东 Xiao Jidong | | |
| 日期 Date | 2023.1.29 | 日期 Date | 2023.1.30 | 日期 Date | 2023.1.30 | | |

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检测依据:

Test standard:

1. UL 2556:2015 电线电缆试验方法 Wire and Cable Test Methods
2. ASTM B 557-15 锻造和铸造的铝和铝镁合金产品拉伸试验方法 Standard Test Methods for Tension Testing Wrought and Cast Aluminum and Magnesium-Alloy Products
3. ICEA T-27-581-2016 挤包绝缘电力电缆、控制电缆、仪表电缆和移动用电缆测试方法 Standard Test Methods for Extruded Dielectric Power, Control, Instrumentation, and Portable Cables for Test

判定依据:

Verdict standard:

1. ASTM B801-18 用于后续包覆或绝缘的同心绞合 8000 系列铝合金导体标准规范 Standard Specification for Concentric-lay-Stranded Conductors of 8000 Series Aluminum Alloy for Subsequent Covering or insulation
2. UL 854: 2020 引入电缆 Service-Entrance Cables
3. UL 44: 2018 热固性绝缘电线和电缆 Thermoset-Insulated Wires and Cables

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| 序号 No. | 检测项目 Test Items | 单位 Unit | 技术要求 Requirements | 检测结果 Test Results | | 判定 Verdict |
| | 受检绝缘线芯标志 inspected cores identification | | / | 黑black | | N |
| 1 | 电性能 Electrical requirements | | | | | |
| 1.1 | 导体直流电阻 conductor D.C resistance (20℃) | MΩ/m | ≤3.52 | 3.43 | | P |
| 1.2 | 同心导体的导体直流电阻 concentric conductor D.C resistance (20℃) | MΩ/m | ≤3.52 | 3.03 | | P |
| 1.3 | 交流耐压试验 A.C voltage test (3.5kV,60s) | | 不击穿 no breakdown | 未击穿 no breakdown | | P |
| 1.4 | 绝缘电阻 insulation resistance test(15℃) | GΩ·m | ≥810 | 1.25×10 ⁵ | | P |
| 1.5 | 绝缘加速吸水试验 Accelerated water absorption Test of insulation (75℃) | | | | | |
| 1.5.1 | 介电常数(浸水24h后) Dielectric constant (after immersed 24h) | | / | 3.6 | | N |
| 1.5.2 | 电容增率 Increase in capacitance | | | | | |
| | — 1-14天 day((C ₁₄ -C ₁)/C ₁) | % | / | -8 | | N |
| | — 7-14天 day((C ₁₄ -C ₇)/C ₇) | % | / | -3 | | N |
| 1.5.3 | 浸水1天与浸水14天后稳定因数变化 Stability factor difference between immersed 1day and 14days | | / | -0.57 | | N |
| 1.6 | 护套PVC加速吸水试验 (同心导体与水间, 75℃) Accelerated water absorption Test of insulation (between the concentric conductor and water, 75℃) | | | | | |

Note: "P" means this item does meet the requirement, "F" means this item does not meet the requirement, "N" means this item does not require verdict.

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| 1.6.1 | 介电常数 (浸水 24h 后) Dielectric constant (after immersed 24h) | | / | 8.7 | | N |
| 1.6.2 | 电容增率 Increase in capacitance | | | | | |
| | — 1-14 天 day((C ₁₄ -C ₁)/C ₁) | % | / | -1.6 | | N |
| | — 7-14 天 day((C ₁₄ -C ₇)/C ₇) | % | / | -1.5 | | N |
| 1.6.3 | 浸水 1 天与浸水 14 天后稳定因数变化 Stability factor difference between immersed 1day and 14days | | / | 0.26 | | N |
| 2 | 绝缘性能 INSULATION TEST REQUIREMENTS | | | | | |
| 2.1 | 原始机械性能 Initial mechanical properties | | | | | |
| | — 抗张强度 tensile strength | MPa | ≥10.3 | 22.9 | | P |
| | — 断裂伸长率 Ultimate elongation | % | ≥150 | 800 | | P |
| 2.2 | 空气箱老化试验 Mechanical properties after ageing in an air oven (121°C,168h) | | | | | |
| | — 抗张强度保留率 Percent of unaged value of tensile strength | % | ≥70 | 85 | | P |
| | — 断裂伸长率保留率 Percent of unaged value of elongation at rupture | % | ≥70 | 82 | | P |
| 3 | 外护套性能 OVERSHEATH TEST REQUIREMENTS | | | | | |
| 3.1 | 原始机械性能 Initial mechanical properties | | | | | |
| | — 抗张强度 tensile strength | MPa | ≥10.3 | 18.8 | | P |
| | — 断裂伸长率 Ultimate elongation | % | ≥100 | 320 | | P |

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| 序号 No. | 检测项目 Test Items | 单位 Unit | 技术要求 Requirements | 检测结果 Test Results | 判定 Verdict |
| 3.2 | 耐日光试验 (氙灯法,720h) sunlight resistance test(Xenon-Arc weather-O-meter,720h) | | | | |
| | — 抗张强度保留率 Percent of unaged value of tensile strength | % | ≥80 | 104 | P |
| | — 断裂伸长率保留率 Percent of unaged value of elongation at rupture | % | ≥80 | 87 | P |
| 4 | 导体拉断力 strength of the conductor | | | | |
| | — 导体拉断力 strength of conductors | N | 832-1270 | 1099 | P |
| | — 导体断裂伸长率 elongation at break of conductor | % | / | 10 | N |
| 5 | 电缆燃烧试验 Cable flame test(VW-1) | | | | |
| | — 标志旗损坏百分比 Percent of the indicator flag burned away or charred | % | ≤25 | 0 | P |
| | — 滴落物检查 Glowing particles or flaming drops | | 不引燃棉花 Shall not ignite the cotton | 不引燃棉花 Not ignite the cotton | P |
| | — 每次供火后火焰自熄时间 time for flaming of the specimen to self- extinguish after the end of each application of the burner flame | s | ≤60 | 2 | P |
| 以下空白 following blank | | | | | |

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