



报告编号
Reference No



CT23-03654

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 低压平行集束电缆
Low Voltage Service Cable

样品型号
Type of sample Al/PVC/LDPE

委托方
Consigner 河南庆州电缆有限公司
HENAN QINGZHOU 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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试验类型 Kind of test		委托试验 Commission Test		报告编号 Reference No.		CT23-03654	
样品名称 Name of sample		低压平行集束电缆 Low Voltage Service Cable					
型号规格 Type and Size		Al/PVC/LDPE 2×25mm ²		检测日期 Date of test		2023-08-14 ~ 2021-09-08	
委托方 Consigner	名称 Name	河南庆州电缆有限公司 HENAN QINGZHOU CABLE CO., LTD.					
	地址 Address	河南省巩义市竹林镇西工业区 West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China					
	电话号码 Tel.	0371-61176830	邮政编码 P.C.	450000	单位编号 Unit No.	037129	
生产单位 Manufacturer	名称 Name	河南庆州电缆有限公司 HENAN QINGZHOU CABLE CO., LTD.					
	地址 Address	河南省巩义市竹林镇西工业区 West Industrial Park, Zhulin Town, Gongyi City, Henan Province, China					
	电话号码 Tel.	0371-61176830	邮政编码 P.C.	450000	单位编号 Unit No.	037129	
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	2023-08-10	
检测依据 Test standard		参照IEC 60502-1:2021 额定电压1kV(Um=1.2kV)到30kV(Um=36kV)挤包绝缘电力电缆及附件 第1部分: 额定电压1kV(Um=1.2kV)和3kV(Um=3.6kV)电缆 Refer to IEC 60502-1:2021 Power cables with extruded insulation and their accessories for rated voltages from 1kV(Um=1.2kV) up to 30kV (Um=36kV) - Part 1: Cables for rated voltage of 1kV(Um=1.2kV) and 3kV(Um=3.6kV)					
判定依据 Verdict standard		同检测依据 Same as the test standard					
检测结论 Conclusion		该样品所测项目符合IEC 60502-1:2021标准要求。 The items tested for the sample comply with the requirements of IEC 60502-1:2021.					
备注 Note		样品名称和型号规格由委托方提供。 Name, type and size of the sample are provided by the consigner.					
主检 Tested by	李春刚 Li Chungang	审核 Checked by	李娜 Li Na	批准 Approved by	肖继东 Xiao Jidong		
日期 Date	2023.9.8	日期 Date	2023.9.8	日期 Date	2023.9.8		

型号和规格 Type and size		Al/PVC/LDPE 2×25mm ²		报告编号 Reference No.	CT23-03654
序号 No.	检测项目 Test Items	单位 Unit	技术要求 Requirements	检测结果 Test Results	单项 评定 Verdict
	受检绝缘线芯标志 Inspected cores identification		/	红 red 黑 black	N
1	结构尺寸 Construction				
1.1	导体 Conductor				
	—材料 Material		铝 aluminium	铝 aluminium	P
	—单线根数 Number of wires		≥6	7 7	P
1.2	绝缘 Insulation				
	—平均厚度 Average thickness	mm	≥1.2	1.2 1.3	P
	—最薄处厚度 Minimum thickness	mm	≥0.98	1.16 1.16	P
1.3	外护套 Oversheath				
	—平均厚度 Average thickness	mm	/	2.3 2.3	N
	—最薄处厚度 Minimum thickness	mm	≥1.24	1.90 2.07	P
1.4	外形尺寸(宽×高) Overall dimensions (width×height)	mm	/	25.1×13.0	N
2	标志 Marking				
2.1	—成品电缆表面标志 marking on the surface of completed cable		外护套上的标志 应至少包含产地 标志(制造商名称 或商标), 应采用 油墨印刷标志或 压印标志 Marking on oversheath shall contain at least an indication of origin (manufacturer's name or trademark), and marking shall be made by printing, embossing or indenting	成品电缆表面标志为油墨 印刷标志, 标志内容: Marking on oversheath is made by printing: ELECTRIC CABLE VOLTAGE 0.6/1kV 2×25MM ² AL/PVC/PE QINGZHOU CABLE JUL 2023	P

注: “单项评定”符号含义: P: 检测结果符合要求; F: 检测结果不符合要求; N: 检测结果不要求判定。
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型号和规格 Type and size		Al/PVC/LDPE 2×25mm ²		报告编号 Reference No.	CT23-03654	
序号 No.	检测项目 Test Items	单位 Unit	技术要求 Requirements	检测结果 Test Results		单项 评定 Verdict
3	电性能 Electrical properties					
3.1	导体直流电阻 Conductor resistance (20℃)	Ω/km	≤1.20	1.17	1.17	P
3.2	绝缘电阻测量 Insulation resistance measurement					
3.2.1	体积电阻率 Volume resistivity					
	—20℃	Ω·cm	≥10 ¹³	2.2×10 ¹³	1.9×10 ¹³	P
	—70℃	Ω·cm	≥10 ¹⁰	7.5×10 ¹⁰	5.9×10 ¹⁰	P
3.2.2	绝缘电阻常数 Insulation resistance constant					
	—20℃	MΩ·km	≥36.7	82.2	69.6	P
	—70℃	MΩ·km	≥0.037	0.274	0.215	P
3.3	4h 电压试验 Voltage test for 4h (4U ₀)		不击穿 No breakdown	未击穿 passed	未击穿 passed	P
4	绝缘物理机械性能 Mechanical properties of insulation					
4.1	原始性能 Without ageing					
	—抗张强度 Tensile strength	N/mm ²	≥12.5	22.3	20.2	P
	—断裂伸长率 Elongation at break	%	≥150	320	310	P
4.2	空气烘箱老化试验 After ageing in air oven (100℃,168h)					
	—抗张强度 Tensile strength	N/mm ²	≥12.5	20.7	19.0	P
	—断裂伸长率 Elongation at break	%	≥150	280	290	P
	—抗张强度变化率 Variation of tensile strength	%	≤±25	-7	-6	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		单项 评定 Verdict
4.3	—断裂伸长率变化率 Variation of elongation at break	%	≤±25	-13	-6	P
	成品电缆段的附加老化试验 After additional ageing test on pieces of completed cable (80℃,168h)					
4.4	—抗张强度变化率 Variation of tensile strength	%	≤±25	-2	-1	P
	—断裂伸长率变化率 Variation of elongation at break	%	≤±25	-3	-3	P
4.4	高温压力试验 Pressure test at high temperature (80℃,4h)					
	—压痕深度/平均厚度 Maximum indentation value	%	≤50	18	17	P
4.5	热冲击试验 Heat shock test(150℃,1h)		无裂纹 no cracks	无裂纹 no cracks	无裂纹 no cracks	P
4.6	低温卷绕试验 Bending at low temperature(-15℃)		无裂纹 no cracks	无裂纹 no cracks	无裂纹 no cracks	P
4.7	吸水试验 Water absorption (DC 1000V,70℃,240h)		不击穿 no breakdown	未击穿 passed	未击穿 passed	P
5	护套物理机械性能 Mechanical properties of sheath					
5.1	原始性能 Without ageing					
	—抗张强度 Tensile strength	N/mm ²	≥10.0	20.6		P
5.2	—断裂伸长率 Elongation at break	%	≥300	750		P
	空气烘箱老化试验 After ageing in air oven (100℃,240h)					
	—抗张强度 Tensile strength	N/mm ²	/	18.8		N

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5.3	—断裂伸长率 Elongation at break	%	≥300	780	P
	—抗张强度变化率 Variation of tensile strength	%	/	-9	N
	—断裂伸长率变化率 Variation of elongation at break	%	/	4	N
	成品电缆段的附加老化试验 After additional ageing test on pieces of completed cable (80℃,168h)				
	—抗张强度变化率 Variation of tensile strength	%	/	-1	N
5.4	—断裂伸长率变化率 Variation of elongation at break	%	/	1	N
	收缩试验 (80℃,5h,5循环) Shrinkage test (80℃, 5h, 5 cycles)				
	—收缩率 Shrinkage	%	≤3	1	P
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