



中国认可
国际互认
检测
TESTING
CNAS L0207

报告编号
Reference No. CT17-04178-3

检测报告

Test Report



样品名称 Name of sample	10kV热缩中直接头 10kV heat-shrinkable straight joint
样品型号 Type of sample	JSY10/3.3
委托方 Consigner	永久电力金具有限公司 YONGJIU ELECTRIC POWER FITTING CO., LTD
试验类型 Kind of test	型式试验 Type test

 **TICW** 国家电线电缆质量监督检验中心
CHINA NATIONAL CENTRE FOR QUALITY
SUPERVISION AND TEST OF ELECTRIC WIRE AND CABLE

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国家电线电缆质量监督检验中心检测报告
China National Centre for Quality Supervision and Test of Electric Wire and Cable
Test Report

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试验类型 Kind of test		型式试验 Type test		报告编号 Reference No.	CT17-04178-3
样品名称 Name of sample		10kV热缩中间接头 10kV heat-shrinkable straight joint			
型号规格 Type and Size		JSY10/3.3 3×185		检测日期 Date of test	2017-06-29 ~ 2017-09-29
委托方 Consigner	名称 Name	永久电力金具有限公司 YONGJIU ELECTRIC POWER FITTING CO., LTD			
	地址 Address	浙江省乐清市柳市镇长江路818号 No.818 Changjiang Road Liu Yueqing City, Zhejiang Province			
	电话号码 Tel.	13757776496	邮政编码 P.C.	/	单位编号 Unit No.
					325753
生产单位 Manufacturer	名称 Name	永久电力金具有限公司 YONGJIU ELECTRIC POWER FITTING CO., LTD			
	地址 Address	浙江省乐清市柳市镇长江路818号 No.818 Changjiang Road Liu Yueqing City, Zhejiang Province			
	电话号码 Tel.	13757776496	邮政编码 P.C.	/	单位编号 Unit No.
					325753
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
检测依据 Test standard		GB/T 12706.4—2008 额定电压1kV ($U_m=1.2kV$) 到35 kV ($U_m=40.5kV$) 挤包绝缘电力电缆及附件 第4部分: 额定电压6kV ($U_m=7.2kV$) 到35kV ($U_m=40.5kV$) 电力电缆附件试验要求 Power cables with extruded insulation and their accessories for rated voltages from 1kV($U_m=1.2kV$) up to 35kV ($U_m=40.5kV$) Part 4: Test requirements on accessories for cables with rated voltages from 6kV($U_m=7.2kV$) up to 35kV ($U_m=40.5kV$)			
判定依据 Verdict standard		同检测依据/ Same as test standard.			
检测结论 Conclusion		样品进行了GB/T 12706.4—2008标准要求的全部项目检测, 经检测该样品符合GB/T 12706.4—2008标准要求。All items for the sample have been carried out according to GB/T 12706.4—2008, and the sample is qualified for the requirement of GB/T12706.4—2008			
备注 Note		1. 短路热稳定试验和短路动稳定试验不在本机构认可范围内, 为分包项目, 分包单位为上海电气输配电试验中心有限公司 (CMA资质认定证书号为160008223396)。 Thermal short-circuit test and dynamic short-circuit test are not accredited and are subcontract items. The subcontractor is Shanghai Electric Power Transmission & Distribution Testing Centre Co., Ltd. (CMA Certificate No. 160008223396). 2. 样品名称和型号规格由委托方提供。 The name and type and size of the sample are provided by consigner.			
主检 Tested by	李闯 Li Chuang	审核 Checked by	范玉军 Fan Yujun	批准 Approved by	毛阿兴 Mao Axing
日期 Date	2017.9.29	日期 Date	2017-09-29	日期 Date	2017.9.29

型号和规格 Type and size	JSY10/3.3 3×185	报告编号 Reference No.	CT17-04178-3
<p>1. 样品描述 Sample description</p> <p>本试验共有两个试验回路，具体如下 Tests are carried out on two test loops, and details as follows:</p> <p>1.1 试验回路1 Test loop 1</p> <p>试验回路1包含一套10kV热缩中间接头(一套测试样品)，一套10kV热缩户外终端，一套10kV热缩户内终端和一根三芯长度10米的电力电缆，电缆的型号规格为YJV-8.7/15 3×185。 The test loop 1 comprises one 10kV heat-shrinkable straight joint (one test sample), one 10kV heat-shrinkable outdoor termination, one 10kV heat-shrinkable indoor termination and a 10m three cores power cable. Type and size of the cable is YJV-8.7/15 3×185.</p> <p>1.2 试验回路2 Test loop 2</p> <p>组成同试验回路1(一套测试样品)。 Assembled same as test loop 1 (one test sample).</p> <p>2. 试验程序 Test sequences</p> <p>2.1 试验回路1和试验回路2均按GB/T 12706.4—2008中表5规定的终端试验程序2.1进行试验。 Test loop 1 and test loop 2 are tested according to test sequence 2.1 of termination given in table 5 of GB/T 12706.4—2008.</p> <p>2.2 试验回路1完成中间接头试验程序2.1后，再按试验程序2.2和2.3进行试验。 Test loop 1 is tested according to straight joint test sequences 2.2 and 2.3 after completing straight joint test sequence 2.1.</p> <p>2.3 试验项目中检测项目结果“无异常”，是指试验后无以下任一现象： The “no abnormality” in test result of examination in test item means the any of following phenomena shall not appear after testing:</p> <ul style="list-style-type: none">(I) 填充物和/或带材或管件有裂纹； cracking in the filling media and/or tape or tube components;(II) 主要密封部位有贯穿性潮湿通道； a moisture path across a primary seal;(III) 腐蚀和/或漏电痕迹、电蚀，最后导致附件的损坏； corrosion and/or tracking and/or erosion which would, in time, lead to failure of the accessory;(IV) 任何绝缘材料渗漏。 leakage of any insulating material.			

型号和规格 Type and size		JSY10/3.3 3×185		报告编号 Reference No.	CT17-04178-3
序号 CL	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
1	试验程序 Sequence 2.1				
1.1	交流耐压试验(39kV, 5min) AC voltage test (39kV, 5min)		不击穿 No breakdown	未击穿 No breakdown	P
1.2	局部放电试验(15kV) Partial discharge(15kV)	pC	≤10	≤5.8 (灵敏度Sensitivity: 1.0)	P
1.3	冲击电压试验 (95~100℃, 95kV, 正负极性各 10 次) Impulse voltage test (95~100℃, 95kV, 10 impulses of each polarity)		不击穿 No breakdown	未击穿 No breakdown	P
1.4	空气中恒压负荷循环试验 (22kV. 加热循环至少 8h, 95℃~ 100℃至少 2h, 自然冷却至少 3h, 共 30 次热循环) Heating cycles test in air (22kV. Heating cycle at least 8h, 95℃~100℃ at least 2h, natural cooling at least 3h, total 30 heating cycles)		不击穿 No breakdown	未击穿 No breakdown	P
1.5	水中负荷循环试验 (22kV. 加热循环至少 8h, 95℃~ 100℃至少 2h, 自然冷却至少 3h, 共 30 次热循环) Heating cycles test under water (22kV. Heating cycle at least 8h, 95℃~100℃ at least 2h, natural cooling at least 3h, total 30 heating cycles)		不击穿 No breakdown	未击穿 No breakdown	P
1.6	局部放电试验 Partial discharge				
1.6.1	局部放电试验(15kV, 95~100℃) Partial discharge(15kV, 95~100℃)	pC	≤10	≤5.9 (灵敏度Sensitivity: 1.0)	P
1.6.2	局部放电试验(15kV,环境温度) Partial discharge(15kV, ambient temperature)	pC	≤10	≤6.0 (灵敏度Sensitivity: 1.0)	P
1.7	冲击电压试验 (室温, 95kV, 正负 极性各 10 次) Impulse voltage test (ambient temperature, 95kV, 10 impulses of each polarity)		不击穿 No breakdown	未击穿 No breakdown	P

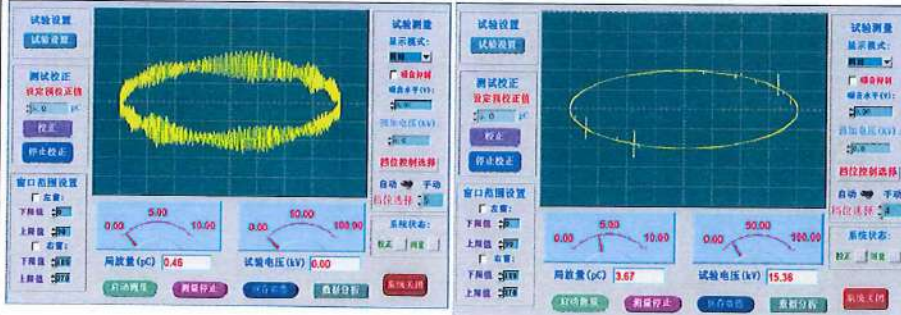
注：“单项评定”符号含义：P：检测结果符合要求；F：检测结果不符合要求；N：检测结果不要求判定。
Note: "P" means this item does meet the requirement, "F" means this item does not meet the requirement, "N" means this item does not require to the verdict.

型号和规格 Type and size		JSY10/3.3 3×185		报告编号 Reference No.	CT17-04178-3	
序号 Cl.	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	
1.8	交流耐压试验(22kV, 15min) AC voltage test (22kV, 15min)		不击穿 No breakdown	未击穿 No breakdown	P	
1.9	检验 Examination		/	样品无异常 No abnormality on the sample	N	
2	试验程序 Sequence 2.2+2.3					
2.1	交流耐压试验(39kV, 5min) AC voltage test (39kV, 5min)		不击穿 No breakdown	未击穿 No breakdown	P	
2.2	短路热稳定试验 (导体, 23.7kA, 2s, 2次) Thermal short-circuit test (conductor, 23.7kA, 2s, two short-circuits)		无可见损伤 No visible deterioration	样品未见损伤 No visible deterioration for the sample (环境温度 ambient temperature: 20°C)	P	
2.3	短路动稳定试验 (83.9kA, 至少 10ms, 1次) Dynamic short-circuit test (83.9kA, at least 10ms, One short-circuit)		无可见损伤 No visible deterioration	样品未见损伤 No visible deterioration for the sample (环境温度 ambient temperature: 20°C)	P	
2.4	冲击电压试验(室温, 95kV, 正负极性各 10次) Impulse voltage test (ambient temperature, 95kV, 10 impulses of each polarity)		不击穿 No breakdown	未击穿 No breakdown	P	
2.5	交流耐压试验(22kV, 15min) AC voltage test (22kV, 15min)		不击穿 No breakdown	未击穿 No breakdown	P	
2.6	检验 Examination		/	样品无异常 No abnormality on the sample	N	
以下为试验图形和照片 Following oscillograms and photos about testing						

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。
 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 to the verdict.

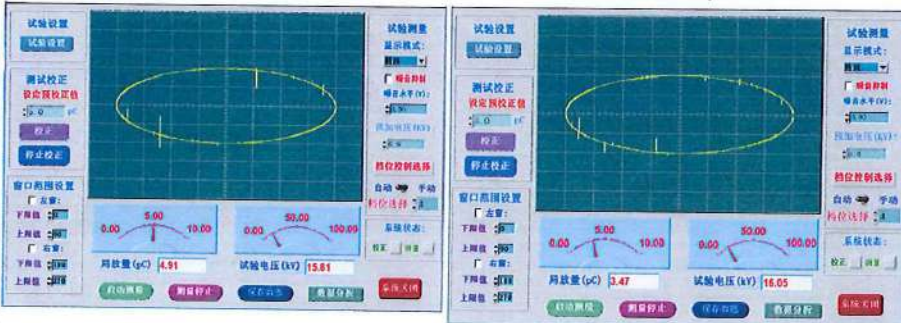
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附录A 恒压负荷循环试验后局部放电试验图形
Annex A Oscillograms of partial discharges on the sample after heating cycles test



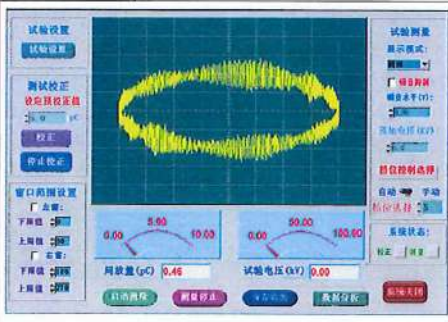
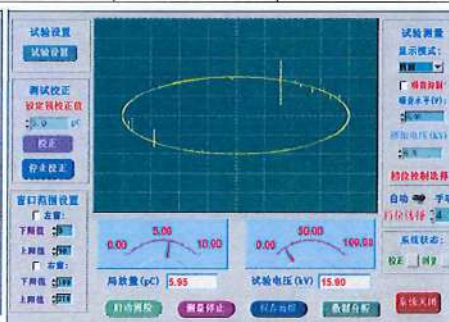
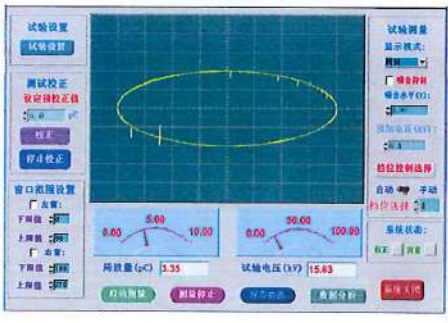
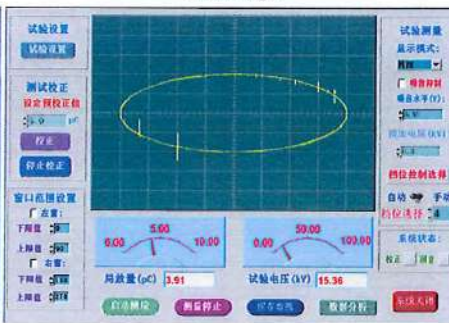
A1: 试验回路1局部放电试验背景噪声
The background noise during partial discharge test on test loop 1

A2: 试验回路1红芯在15kV下局部放电试验图形
The oscillogram of partial discharge of red core at 15kV on test loop 1



A3: 试验回路1黄芯在15kV下局部放电试验图形
The oscillogram of partial discharge of yellow core at 15kV on test loop 1

A4: 试验回路1绿芯在15kV下局部放电试验图形
The oscillogram of partial discharge of green core at 15kV on test loop 1

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<p>A5: 试验回路2局部放电试验背景噪声 The background noise during partial discharge test on test loop 2</p>	<p>A6: 试验回路2红芯在15kV下局部放电试验图形 The oscillogram of partial discharge of red core at 15kV on test loop 2</p>		
			
<p>A7: 试验回路2黄芯在15kV下局部放电试验图形 The oscillogram of partial discharge of yellow core at 15kV on test loop 2</p>	<p>A8: 试验回路2绿芯在15kV下局部放电试验图形 The oscillogram of partial discharge of green core at 15kV on test loop 2</p>		

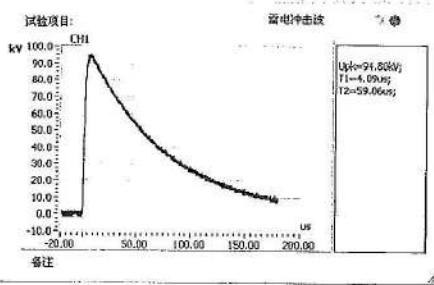
型号和规格 Type and size	JSY10/3.3 3×185	报告编号 Reference No.	CT17-04178-3
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附录B 恒压负荷循环试验后样品冲击电压试验实际耐受电压值及其波形图(95kV, 允许±3%偏差)
Annex B The values and oscillograms of impulse voltages test on samples after heating cycles voltage test (95kV, ±3% tolerance)

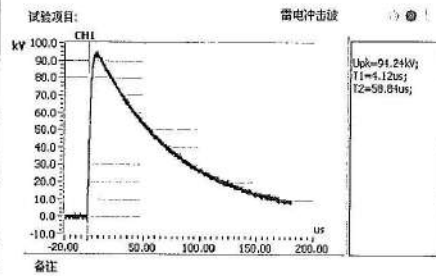
温度: 30°C, 相对湿度: 56%, 大气压力: 102.4kPa
Ambient temperature:30°C, Relative humidity: 56%, Atmosphere: 102.4kPa

	+	94.08	95.12	94.90	94.33	94.55	95.06	94.29	94.84	94.96	94.24
	-	95.65	94.75	94.60	95.11	95.29	94.47	94.33	94.75	94.73	94.98

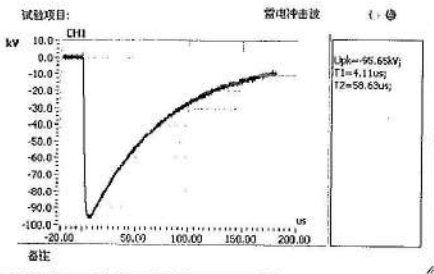
kV



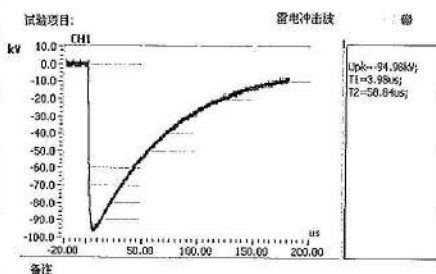
B1: 正极性第1次
The 1st positivity lightning impulse waveform



B2: 正极性第10次
The 10th positivity lightning impulse waveform



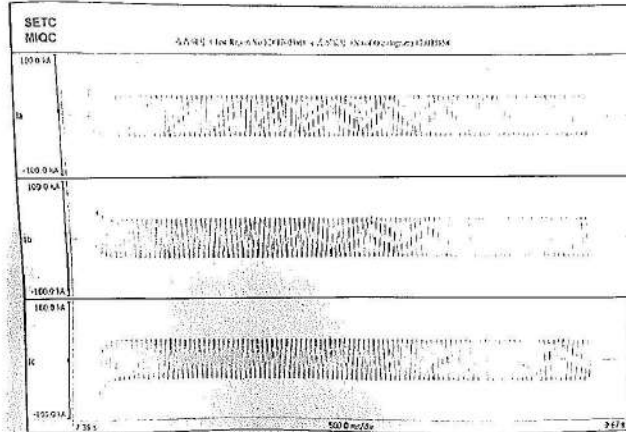
B3: 负极性第1次
The 1st negative lightning impulse waveform



B4: 负极性第10次
The 10th negative lightning impulse waveform

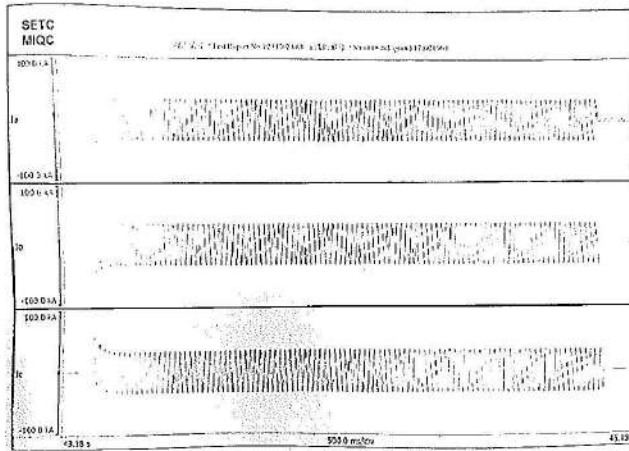
型号和规格 Type and size	JSY10/3.3 3×185	报告编号 Reference No.	CT17-04178-3
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附录C: 短路热稳定(导体)电流曲线图
Annex C The graphs of thermal short-circuit (conductor) current



C1: 第1次 The 1st

短路电流有效值
R.M.S.
value of short-circuit
current:
I_A: 24.1kA
I_B: 24.2kA
I_C: 23.9kA
持续时间
Duration time:
t: 2.01s

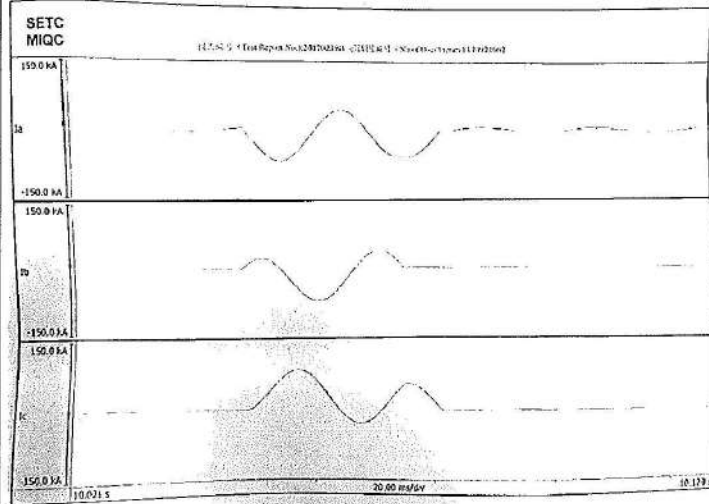


C2: 第2次 The 2nd

短路电流有效值
R.M.S.
value of short-circuit
current:
I_A: 24.1kA
I_B: 24.2kA
I_C: 23.9kA
持续时间
Duration time:
t: 2.03s

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附录 D 短路动稳定电流曲线图
Annex D The graphs of dynamic short-circuit current



短路电流峰值 Peak value of short-circuit current:
I_A: 65.6kA
I_B: 71.4kA
I_C: 85.2kA
持续时间 Duration time:
t: 35.0ms

D1: 短路动稳定电流曲线图 The graphs of dynamic short-circuit current

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附录E 试验照片
Annex E Photos about testing



E1: 样品外观 The appearance of the sample



E2: 样品局部放电试验及交流耐压试验
Partial discharge test and AC voltage test on the sample



E3: 冲击电压试验 Impulse voltage test