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检测
CNAS L0223

XIHARI

No. 130030J

检验报告

Test Report

试品型号: C16-1050-IV (ZSW-252/16K-4)
 TYPE

试品名称: 耐污型户外棒形支柱瓷绝缘子
 DESIGNATION Outdoor antipollution-type solid-core post insulators of ceramic material

委托单位: 江西强联电瓷股份有限公司
 CLIENT Jiangxi Qianglian Electric Ceramic Co., Ltd.

制造单位: 江西强联电瓷股份有限公司
 MANUFACTURER Jiangxi Qianglian Electric Ceramic Co., Ltd.

检验类别: 定型试验
 CLASSIFICATION Prototype tests



西安高压电器研究院有限责任公司

XI'AN HIGH VOLTAGE APPARATUS RESEARCH INSTITUTE CO., LTD.

国家绝缘子避雷器质量监督检验中心

CHINA NATIONAL INSULATORS AND SURGE ARRESTERS
QUALITY SUPERVISION & INSPECTION CENTER

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概述 Summary

试品型号及名称 Test object	C16-1050-IV(ZSW-252/16K-4) 耐污型户外棒形支柱瓷绝缘子 C16-1050-IV(ZSW-252/16K-4) Outdoor antipollution-type solid-core post insulators of ceramic material		
委托单位 Client	名称 Name	江西强联电瓷股份有限公司 Jiangxi Qianglian Electric Ceramic Co., Ltd.	
	联系方式 Connection	江西省萍乡市芦溪县电瓷工业园(337200) 电话: 0799-7516815 传真: 0799-7516999 Electric Ceramic Industry Zone, Luxi County, Pingxiang City, Jiangxi Province, P. R. China Postal code: 337200 Tel:+86 799 7516815 Fax: +86 799 7516999	
制造单位 Manufacturer	江西强联电瓷股份有限公司 Jiangxi Qianglian Electric Ceramic Co., Ltd.		
出厂日期 Manufacture date	2013.01		
产品编号 Serial No.	产品/Product: 1~2. 第一元件/First unit: 3~4.		
制造单位规定的试品主要技术参数 Rated value assigned by the client	额定电压/Rated voltage kV	252	
	弯曲破坏负荷/Bending failing load kN	16	
	扭转破坏负荷/Torsion failing load kN·m	7	
	爬电距离/Creepage distance mm	7820	
	产品高度/Height mm	2300	
	雷电冲击干耐受电压/Lightning impulse dry withstand voltage kV	1050	
	操作冲击湿耐受电压/Wet switching impulse withstand voltage kV	750	
	工频湿耐受电压/Power-frequency wet withstand voltage kV	460	
	无线电干扰电压(160kV)/Radio interference voltage (160kV) μV	500	
	可见电晕电压/Visual corona voltage kV	160	
委托单位提供的技术资料 The tested object is guaranteed by the manufacturer	Q/JQL001-2012 户外棒形支柱瓷绝缘子(企业标准)/Outdoor antipollution-type solid-core post insulators of ceramic material (Enterprise standard)		
	SJ-01-2013 耐污型户外棒形支柱瓷绝缘子样品试验大纲/Outdoor antipollution-type solid-core post insulators of ceramic material Test outline		
	C16-1050-IV 耐污棒形支柱瓷绝缘子(产品图样)/Antipollution-type solid-core post insulators of ceramic material (Drawing)		
说明 Note			
委试方代表 Representation of client	刘义敏 Liu yimin		
试品到达日期 Reception date	2013-01-30		
试验日期 Date of tests	起 From	2013-02-18	止 To 2013-04-02

检验结论 Test Conclusion

委托单位: 江西强联电瓷股份有限公司
 Client: Jiangxi Qianglian Electric Ceramic Co., Ltd.
 试品型号及名称: C16-1050-IV(ZSW-252/16K-4)
 耐污型户外棒形支柱瓷绝缘子
 Test object: C16-1050-IV(ZSW-252/16K-4)
 Outdoor antipollution-type solid-core post insulators of ceramic material
 制造单位: 江西强联电瓷股份有限公司
 Manufacturer: Jiangxi Qianglian Electric Ceramic Co., Ltd.
 检验类别: 定型试验
 Test classification: Prototype Tests
 实施的检验项目/Tests have been performed:

逐个试验/Routine test: 外观检查/Visual inspection 高度检查/Height Inspection
 四向弯曲负荷试验/Bending withstand load test in four directions
 抽样试验/Sample test: 尺寸检查/Verification of the dimensions 温度循环试验/Temperature cycle test
 弯曲破坏负荷试验/Bending failing load test 扭转破坏负荷试验/Torsion failing load test
 孔隙性试验/Porosity test 镀层试验/Galvanizing test
 型式试验/Type test: 雷电冲击干耐受电压试验/Dry lightning impulse withstand voltage test
 操作冲击湿耐受电压试验/Wet switching impulse withstand voltage test
 工频湿耐受电压试验/Wet power-frequency withstand voltage test
 人工污秽耐受电压试验/Artificial pollution test
 弯曲破坏负荷试验/Bending failing load test 扭转破坏负荷试验/Torsion failing load test
 特殊试验/Special test: 负荷下偏移试验/Test for deflection under load
 无线电干扰电压试验/Radio interference voltage test
 附加试验/Additional test: 可见电晕电压试验/Visible corona voltage test
 检验依据/Applied standards:

GB/T 8287.1-2008 标称电压高于1000V系统用户内和户外支柱绝缘子 第1部分: 瓷或玻璃绝缘子的试验/Indoor and outdoor post insulators for systems with nominal voltage greater than 1 000 V Part 1: Test on insulators of ceramic material or glass (IEC 60168:2001, MOD)
 GB/T 8287.2—2008 标称电压高于1000V系统用户内和户外支柱绝缘子第2部分: 尺寸与特性/Indoor and outdoor post insulators for systems with nominal voltage greater than 1 000 V Part 2: Dimensions and characteristics (IEC 60273:1990, MOD)

检验结论/Conclusion:

按照检验依据规定的逐个试验、抽样试验、型式试验和特殊试验各项全检, 其结果均符合检验依据的规定; 附加试验的结果符合技术资料规定; 定型试验合格。

All the items of routine tests, sample tests, type tests and special tests as specified by the standard were tested, the results met the requirements of the standards and technical

The results of the additional test met the requirements of the technical specifications.

The results of the prototype tests met the requirements of the standards.

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检验报告专用章

XIHARI

外观检查 (逐个) Visual Inspection (Routine Test)

试验日期/Date: 2013-02-18

4只样品(6只元件)外形规整,釉面光滑,釉色均匀,颜色为棕色,伞形为大小伞结构,商标清晰,附件胶装端正,瓷件表面无超过标准规定的缺陷,金属附件镀锌层连续、无毛刺、锌渣、尖角、针孔等缺陷。符合检验依据规定。

Specimens No.1 ~ No.4 had fair appearance. No defects exceeding standard permission were observed, met the test basis satisfactory.



样品外形/Sample shape
照片/Photograph 1



样品标识/Sample sign
照片/Photograph 2

高度检查 (逐个) Height Inspection (Routine Test)

试验日期/Date: 2013-02-18

单位/Units: mm

Specimen No.	第一元件 First unit	第二元件 Second unit	/	/	/	整柱 Column
1	1149.9	1150.4	/	/	/	2300.3
2	1150.2	1150.2	/	/	/	2300.4
3	1150.6	/	/	/	/	/
4	1150.9	/	/	/	/	/
规定值 Specifications	1150±1	1150±1	/	/	/	2300±3.5

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

四向弯曲负荷试验 (逐个) Bending withstand load test in four directions (Routine Test)

试验日期/Date: 2013-02-18

样品编号 No.	四向施加弯曲负荷值 Load applied kN	每向持续时间 Duration s	样品状况 Result
1	8.0	3	未损坏 No damage
2	8.0	3	未损坏 No damage
3	8.0	3	未损坏 No damage
4	8.0	3	未损坏 No damage
/	/	/	未损坏 No damage
/	/	/	未损坏 No damage
规定值 Specifications	8.0, (50%×16)	≥3	不应损坏 No damage

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

尺寸检查 (抽样、型式) Verification of the Dimensions (Sample Test、Type Test)

试验日期/Date: 2013-02-18

单位/Units: mm

1 尺寸检查/Verification of the dimension

样品编号 No.	杆径 Diameter of core	伞径 Diameter of shed	安装孔中心距 (上/下) Distance between fixing holes (top/bottom)	爬电距离 Creepage distance
1-1	165.0	L: 309.8 S: 279.5	250/275	3991
2-1	165.1	L: 309.7 S: 279.9	250/275	3984
3	165.8	L: 309.3 S: 279.8	250/275	3983
4	165.5	L: 309.7 S: 279.7	250/275	3988
规定值 Specifications	165±8.1	L:310±13.8 S:280±12.7	/	3910±157.9
1-2	184.6	L: 338.5 S: 308.7	275/300	4008
2-2	185.1	L: 339.1 S: 308.9	275/300	4001
规定值 Specifications	180±8.7	L:340±14.5 S:310±13.8	/	4100±165.5

1号~2号整柱产品的爬电距离分别为7999mm、7985mm, 均满足 (7820^{+629}_{-0}) mm的规定。

The creepage distance of No.1 ~ No.2 were 7999mm and 7985mm, met the requirement of (7820^{+629}_{-0}) mm.

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

2 形位偏差检查/Form and assembly position

样品编号 No.	上下附件端面平行度 Parallelism between the flanges	轴线直线度 linearity	上下附件安装孔中心圆轴 线偏移 Eccentricity between flanges	上下附件安装孔偏移 (°) Angle deviation of fixing holes (°)
1-1	0.45	1.6	1.3	0.27
2-1	0.35	1.6	1.4	0.33
3	0.40	2.5	1.7	0.39
4	0.45	1.1	1.3	0.22
规定值 Specifications	≤ 0.6	≤ 10.7	≤ 4.3	≤ 1.0
1-2	0.50	1.3	1.7	0.30
2-2	0.45	3.0	1.1	0.29
规定值 Specifications	≤ 0.6	≤ 10.7	≤ 4.3	≤ 1.0

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

温度循环试验 (抽样、型式)
Temperature Cycle Test (Sample Test、Type Test)

试验日期/Date: 2013-02-26

样品编号 No.	冷水温度 The temperature of cold water ℃	热水温度 The temperature of hot water ℃	温差 Difference in temperature K	冷热水中停留 时间 Duration min	循环次数 Cycle Time	样品检查 Inspection	样品状况 Result
1-1	12	62	50	30	3	经检查均 无开裂和 机械破损 Specimens were examined.	未损坏 No damage
1-2	12	62	50	30	3		未损坏 No damage
2-1	12	62	50	30	3		未损坏 No damage
2-2	12	62	50	30	3		未损坏 No damage
3	12	62	50	30	3		未损坏 No damage
4	12	62	50	30	3		未损坏 No damage
规定值 Specifications	12	≥ 60	50	30	3		/

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

弯曲破坏负荷试验 (抽样) Bending Failing Load Test (Sample Test)

试验日期/ Date : 2013-04-02

1 弯曲耐受负荷试验/Bending withstand load test

样品编号 No.	施加负荷值 Load applied kN	样品状况 Result
1	16.0	未损坏 No damage
/	/	/
规定值 Specifications	16.0	不应损坏 No damage

符合检验依据规定, 合格。

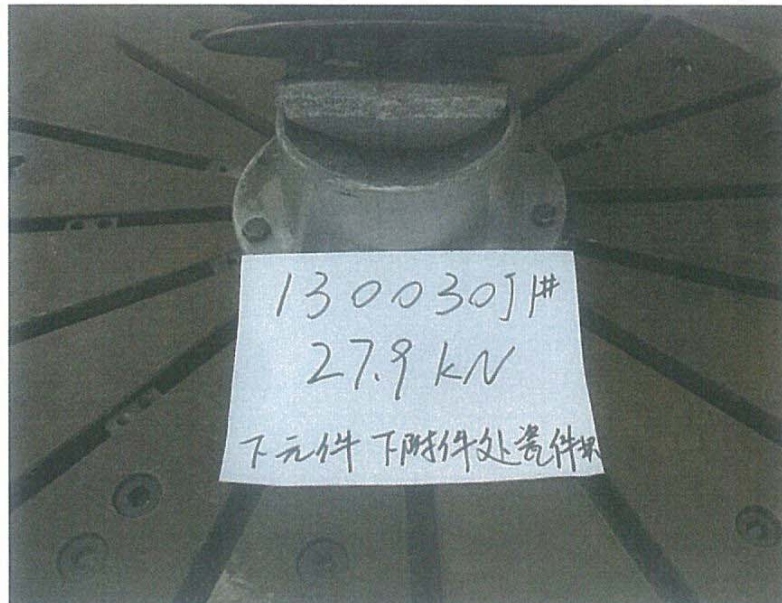
The result met test standard and the technical specifications.

2 弯曲破坏负荷试验/Bending failing load test

样品编号 No.	施加负荷值 Load applied kN	样品状况 Result
1	27.9	下元件下附件处瓷件坏 Ceramic breakage near bottom flange of bottom unit
/	/	/

提供实测数据。

Provide datum only.



1号样品破坏部位/failure spot of No.1 sample

照片1/Photograph 1

扭转破坏负荷试验 (抽样)
Torsion Failing Load Test (Sample Test)

试验日期/ Date : 2013-02-27

1 扭转耐受负荷试验/Torsion withstand load test

样品编号 No.	施加负荷值 Load applied kN·m	样品状况 Result
3	7.0	未损坏 No damage
/	/	/
规定值 Specifications	7.0	不应损坏 No damage

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

2 扭转破坏负荷试验/Torsion failing load test

样品编号 No.	施加负荷值 Load applied kN·m	样品状况 Result
3	15.0	未损坏 No damage
/	/	/

提供实测数据。

Provide datum only.

镀锌试验 (抽样) Galvanizing Test (Sample Test)

试验日期/Date: 2013-02-18

采用磁力测层法测量。

 单位/Units: μm

样品编号 No.	单个样品最小值 The min. value of single specimen		单个样品平均值 The Average Value of single specimen		全部样品平均值 The average value of all specimens	
	上附件 Top fittings	下附件 Bottom fittings	上附件 Top fittings	下附件 Bottom fittings	上附件 Top fittings	下附件 Bottom fittings
1-1	134	136	166	160	168	165
2-1	135	131	172	165		
3	132	133	164	164		
4	130	131	171	170		
1-2	132	126	172	166	165	165
2-2	131	125	158	164		
规定值 Specifications	≥ 60		≥ 72		≥ 86	

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

孔隙性试验 (抽样) Porosity Test (Sample Test)

试验日期/Date : 2013-04-03

经机械破坏负荷试验样品上取瓷块6块。
Ceramic fragments from the mechanical failing load test.

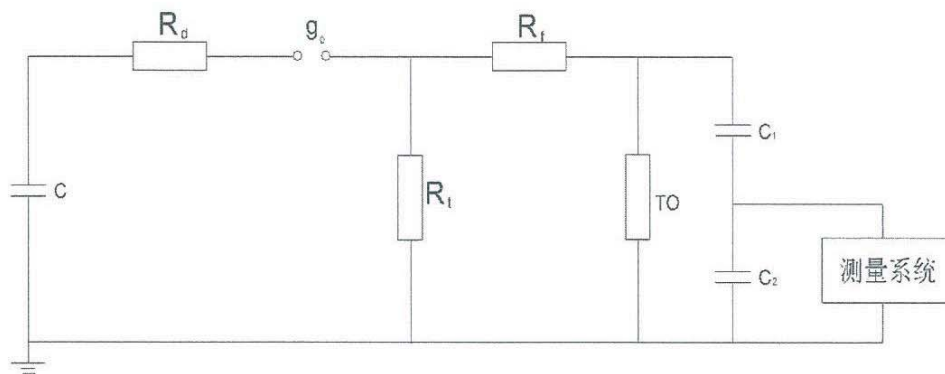
样品编号 No.	溶液浓度 Percentage concentration %	施加压力 Pressure MPa	持续时间 Duration h	压力×时间 Pressure × duration MPa·h	样块断面状况 Result
1-1	3%	20	9	180	未呈现渗透现象 No dye penetration
2-1	3%	20	9	180	未呈现渗透现象 No dye penetration
1-2	3%	20	9	180	未呈现渗透现象 No dye penetration
2-2	3%	20	9	180	未呈现渗透现象 No dye penetration
3	3%	20	9	180	未呈现渗透现象 No dye penetration
4	3%	20	9	180	未呈现渗透现象 No dye penetration
/	/	/	/	/	/
/	/	/	/	/	/
规定值 Specifications	3%	≥ 15	/	≥ 180	不应呈现渗透现象 No dye penetration

符合检验依据规定, 合格。
The result met test standard and the technical specifications.

雷电冲击干耐受电压试验 (型式) Dry Lightning Impulse Withstand Voltage Test (Type Test)

试验回路图/Test circuit diagram: XGJT04

1200kV 冲击试验回路图
(Diagram of 1200kV impulse voltage circuit)



C: 冲击发生器主电容 (Capacitor of impulse voltage generator)

R_f : 发生器并联电阻 (Generator parallel resistor)

R_d : 阻尼电阻 (Damp resistor)

R_t : 发生器串联电阻 (Generator series resistor)

C_1 : 分压器高压臂电容 (High voltage capacitor for voltage divider)

C_2 : 分压器低压臂电容 (Low voltage capacitor for voltage divider)

TO: 试品 (Tested object)

试验所用设备主要参数

(Main parameters of testing equipment)

波形 (Waveshape)	U_e (kV)	R_f (Ω)	R_t (Ω)	C_1 (pF)	C_2 (pF)
雷电波 (Lightning impulse)	1200	可调 (Adjustable)	可调 (Adjustable)	398	0.491

**雷电冲击干耐受电压试验 (型式)
Dry Lightning Impulse Withstand Voltage Test (Type Test)**

试验日期/Date: 2013-02-20

干球温度 $t_d=7.0^{\circ}\text{C}$, 湿球温度 $t_w=5.0^{\circ}\text{C}$, 大气压 $P=97.8\text{kPa}$, 电弧距离/The arc distance $L=2023\text{mm}$ 规定值/Specifications: 1050 kV. 电压校正系数/Correction coefficient $K_t=0.957$

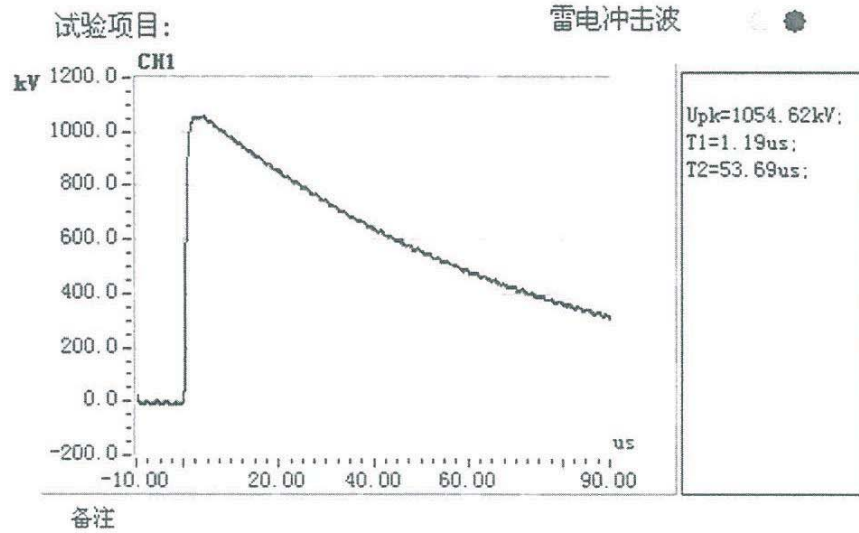
样品编号 No.	施加电压次数 Times applied	实际施加电压值 Voltage applied kV	校正后电压值 Corrected voltage kV	耐受结果 Result
2	正极性15次 Positive polarity 15 shots	1050 ~ 1056	1097 ~ 1103	均未闪络 No flashover
	负极性15次 Negative polarity 15 shots	1051 ~ 1056	1098 ~ 1103	均未闪络 No flashover
规定值 Specifications	15	/	1050	闪络次数 ≤ 2 Flashover less than 2 shots

符合检验依据规定, 合格。

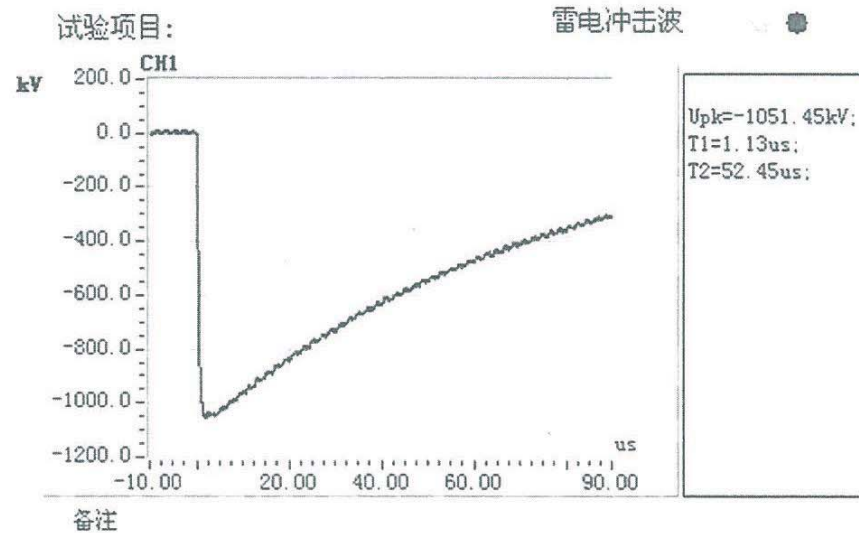
The result met test standard and the technical specifications.

雷电冲击干耐受电压试验 (型式) Dry Lightning Impulse Withstand Voltage Test (Type Test)

雷电冲击干耐受电压试验典型示波图/Typical oscillogram of dry lightning impulse withstand voltage test



No.2-1 (正/Positive)

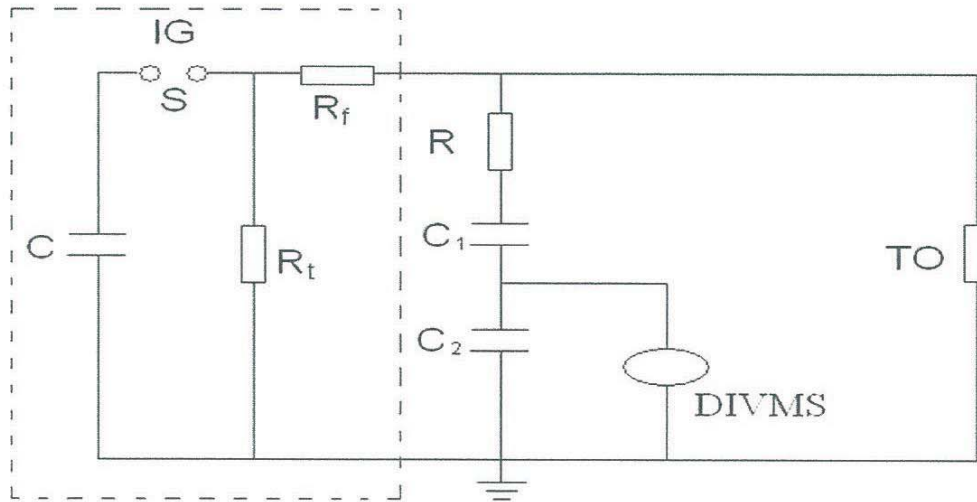


No.2-1 (负/Negative)

操作冲击湿耐受电压试验 (型式) Wet Switching Impulse Withstand Voltage Test (Type Test)

试验回路图/Test circuit diagram

冲击试验原理接线图
(Diagram of impulse voltage circuit)



C——冲击发生器主电容(IG capacitance)

R_f ——波头电阻(front resistance)

R_t ——波尾电阻(Tail resistance)

S——冲击点火球隙(Sphere gap)

R——阻尼电阻(Damping resistance)

C_1 ——高压臂电容(H.V arm capacitance)

C_2 ——低压臂电容(L.V arm capacitance)

CG——截波球隙(Chopping gap)

TO——试品(Tested object)

DIVMS——数字冲击电压测量系统(Digital impulse voltage measuring systems)

试验所用设备主要参数

(Main parameters of testing equipment)

U(kV)	$C(\mu\text{F})$	$R_f(\text{k}\Omega)$	$R_t(\Omega)$	$C_1(\mu\text{F})$	$C_2(\mu\text{F})$
1300	0.091	71.5	38.5	300	0.9

扩展不确定度(Expanded uncertainty): $U < 2\%$, ($k=2$)。

操作冲击湿耐受电压试验 (型式) Wet Switching Impulse Withstand Voltage Test (Type Test)

试验日期/Date: 2013-04-02

 $t = 18.3^{\circ}\text{C}$, $\text{RH} = 38\%$, $P = 97.3\text{kPa}$

 雨水温度 $t_{\text{water}} = 16.7^{\circ}\text{C}$, 实测雨水电导率/Conductivity of water $\sigma = 103.4\mu\text{S/cm}$

降雨量/Precipitation rate: 水平分量为/Horizontal component is 1.5mm/min, 垂直分量为/vertical component is 1.4mm/min.

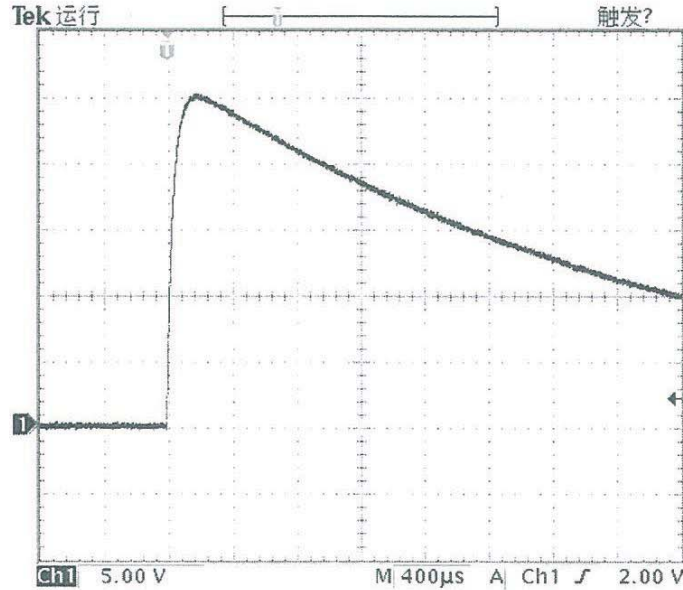
 规定值/Specifications: 750 kV. 电压校正系数/Correction coefficient $K_t = 0.966$

样品编号 No.	施加电压次数 Times applied	实际施加电压值 Voltage applied kV	校正后电压值 Corrected voltage kV	耐受结果 Result
1	正极性15次 Positive polarity 15 shots	721.4 ~ 728.2	746.8 ~ 753.8	未闪络、未击穿 No flashover, No punctured
	负极性15次 Negative polarity 15 shots	721.4 ~ 728.4	746.8 ~ 754.0	未闪络、未击穿 No flashover, No punctured
规定值 Specifications	15	/	750	闪络次数 ≤ 2 Flashover less than 2 shots

符合检验依据规定, 合格。
The result met test standard and the technical specifications.

操作冲击湿耐受电压试验 (型式) Wet Switching Impulse Withstand Voltage Test (Type Test)

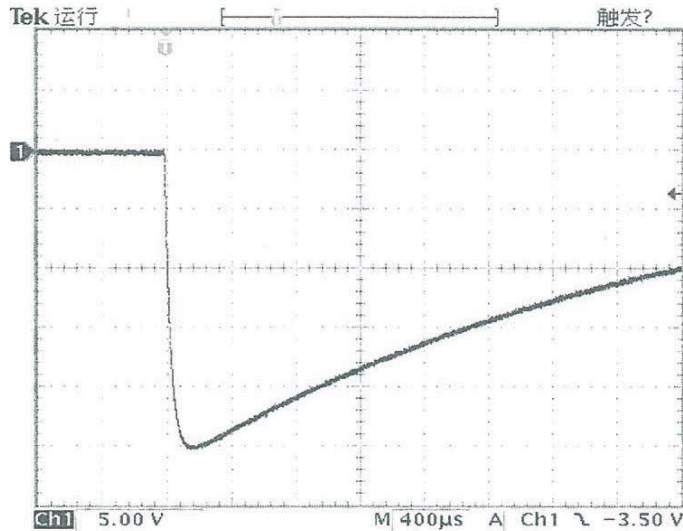
操作冲击湿耐受电压试验典型示波图/Typical oscillogram of wet switching impulse withstand voltage test



19.80 %

24月 2013
10:27:22

IPVBT130030J-001



19.80 %

24月 2013
09:26:10

IPVBT130030J-002

工频湿耐受电压试验 (型式)
Wet Power-frequency Withstand Voltage Test (Type Test)

试验日期/Date: 2013-02-20

干球温度 $t_d=7.0^{\circ}\text{C}$, 湿球温度 $t_w=5.0^{\circ}\text{C}$, 大气压 $P=97.8\text{kPa}$, 电弧距离/The arc distance $L=2023\text{mm}$

雨水温度 $t_{\text{water}}=6.0^{\circ}\text{C}$, 实测雨水电导率/Conductivity of water $\sigma=98.3\mu\text{S/cm}$

降雨量/Precipitation rate: 水平分量为/Horizontal component is 1.29mm/min , 垂直分量为/vertical component is 1.39mm/min .

规定值/Specifications: 460kV . 电压校正系数/Correction coefficient $K_t=1.002$

样品编号 No.	施加电压值 Voltage applied kV	校正后电压值 Corrected voltage kV	耐受时间 Duration s	样品状况 Result
2	462	461.1	60	未闪络 No flashover
规定值 Specifications	/	460	60	不应闪络 No flashover

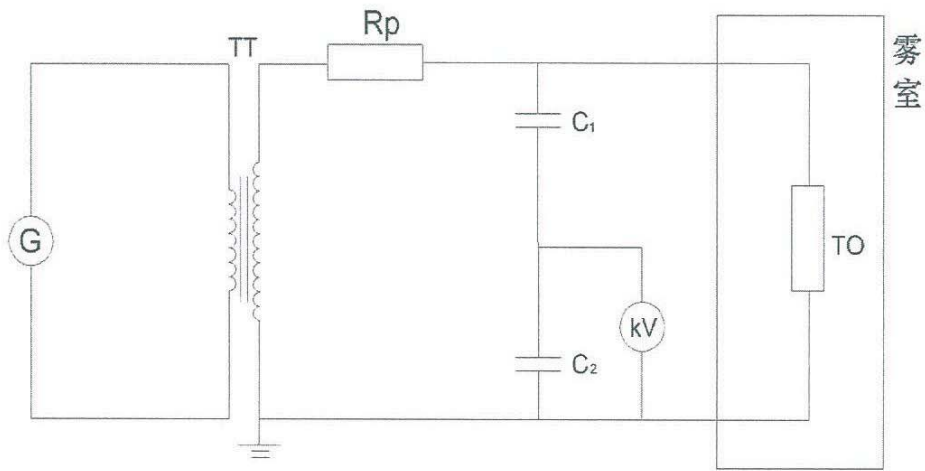
符合检验依据规定, 合格。

The result met test standard and the technical specifications.

人工污秽耐受电压试验 (型式) Artificial Pollution Test (Type Test)

试验回路图/Test circuit diagram: XGJT08

污秽试验回路图
(Diagram of artificial pollution test circuit)



G——发电机组(Generator);

Rp——保护电阻(Protect resistor);

TT——工频试验变压器(Testing transformer);

TO——试品(Tested object);

C₁——分压器高压臂电容(High voltage capacitor for voltage divider);

C₂——分压器低压臂电容(Low voltage capacitor for voltage divider);

kV——千伏表(Voltmeter)。

试验所用设备主要参数

(Main parameters of testing equipment)

G(kW)	TT(kV/kVA)	Rp(kΩ)	分压比 (Voltage ratio)
2000	750/3000	120	10000: 1

人工污秽耐受电压试验 (型式)
Artificial Pollution Test (Type Test)

试验日期/Date: 2013-02-20~2013-02-25

实测盐密/SDD: (0.121 ~ 0.123) mg/cm²; 实测灰密/NSDD: (0.97 ~ 0.98) mg/cm²

雾室温度/Temperature of chamber: (7.5 ~ 32.0) °C ;

污液成份/Pollution solution: NaCl、硅藻土/kieselguhr、SiO₂、自来水/de-ioned water.

污染方法/Application of the pollution layer: 喷污法/spraying - Solid layer method.

样品编号 No.	试验序号 Test serial number	耐受电压值 Voltage kV	持续时间 Duration min	耐受结果 Result
2	1	146	45	未闪络 No flashover
	2	146	45	未闪络 No flashover
	3	146	45	未闪络 No flashover
规定值 Specifications	/	146	15	连续3次耐受或 4次中仅闪络1次 withstand 3 times or only 1 flashover in 4 time tests

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

弯曲破坏负荷试验 (型式) Bending Failing Load Test (Type Test)

试验日期/ Date : 2013-04-02

1 弯曲耐受负荷试验/Bending load test

样品编号 No.	施加负荷值 Load applied kN	样品状况 Result
2	16.0	未损坏 No damage
/	/	/
规定值 Specifications	16.0	不应损坏 No damage

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

2 弯曲破坏负荷试验/Bending failing load test

样品编号 No.	施加负荷值 Load applied kN	样品状况 Result
2	27.7	下元件上附件处瓷件坏 Ceramic breakage near top flange of bottom unit
/	/	/

提供实测数据。

Provide datum only.



2号样品破坏部位/failure spot of No.2 sample

照片 1/Photograph 1

扭转破坏负荷试验 (型式) Torsion Failing Load Test (Type Test)

试验日期/ Date : 2013-02-27

1 扭转耐受负荷试验/Torsion load test

样品编号 No.	施加负荷值 Load applied kN·m	样品状况 Result
4	7.0	未损坏 No damage
/	/	/
规定值 Specifications	7.0	不应损坏 No damage

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

2 扭转破坏负荷试验/Torsion failing load test

样品编号 No.	施加负荷值 Load applied kN·m	样品状况 Result
4	15.0	未损坏 No damage
/	/	/

提供实测数据。

Provide datum only.

负荷下偏移试验 (特殊)
Test for Deflection under Load (Special Test)

试验日期/ Date : 2013-04-02

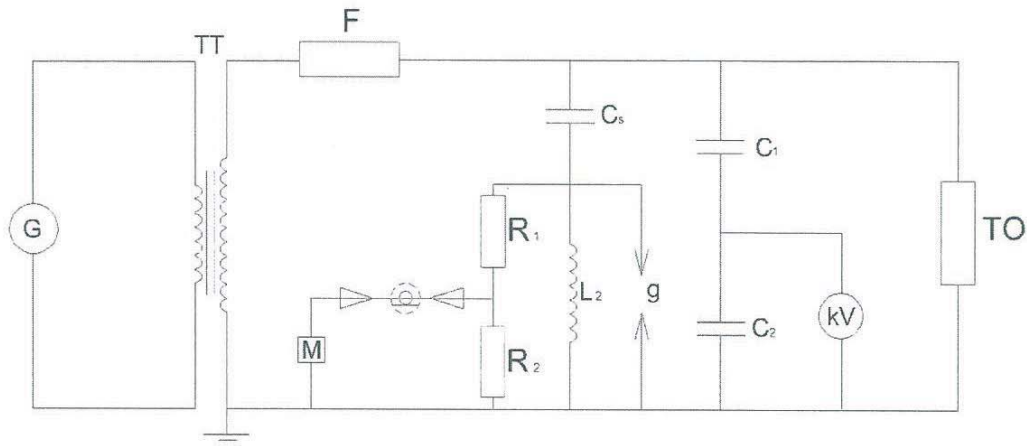
样品编号 No.	弯曲负荷下的顶端偏移量 Deflection at the top surface mm		
	3.2 kN, (20%×16)	8.0 kN, (50%×16)	11.2 kN, (70%×16)
2	8.0	17.5	24.0
/	/	/	/
/	/	/	/

提供实测数据。
Provide datum only.

无线电干扰电压试验 (特殊) Radio Interference Voltage Test (Special Test)

试验回路图/Test circuit diagram: XGJT09

(750kV)无线电干扰试验线路图
(Diagram of radio interference voltage test circuit)



TT: 工频试验变压器 (Testing transformer)

C_s : 耦合电容 (Coupled capacitor);

L_2 : 电感 (Inductance);

R_1 : 取样电阻 (Sample resistor);

R_2 : 匹配电阻 (Matching resistor);

F: 滤波器 (Filter);

TO: 试品 (Tested object);

g: 保护间隙 (Protect gap);

kV: 千伏表 (Voltmeter);

C_1 : 分压器高压臂电容 (High voltage capacitor for voltage divider);

C_2 : 分压器低压臂电容 (Low voltage capacitor for voltage divider);

G: 发电机组 (Generator);

M: 无线电干扰场强测定仪 (Measuring receiver of radio interference voltage)。

试验所用设备主要参数

(Main parameters of testing equipment)

G (kW)	TT (kV/kVA)	R_p (k Ω)	分压比 (Voltage ratio)
2000	750/3000	12	10000: 1

无线电干扰电压试验 (特殊) Radio Interference Voltage Test (Special Test)

试验日期/Date: 2013-02-19

干球温度 $t_d=8.0^{\circ}\text{C}$. 相对湿度RH= 59%. 大气压P= 98.5kPa. 测量频率/Test frequency: 1.0MHz.

样品安装/Specimen mounted: 直立安装/vertical. 背景干扰水平/Background noise level: 6dB.

试验按标准规定的“标准程序”进行, 最后一轮降压过程中规定测量电压下的无线电干扰电压如下:

The test was carried out according to the "standard procedure", RIV obtained during the last decreasing run at the specified test voltage was as follows.

样品编号 No.	施加电压 Voltage applied kV	测量结果 Result	
		dB	μV
2	160	50	316.2
规定值 Specifications	160	/	≤ 500

符合检验依据规定, 合格。

The result met test standard and the technical specifications.

可见电晕电压试验 (附加)
Visual Corona Voltage Test (Additional Test)

试验日期/Date: 2013-02-19

干球温度 $t_d=8.0^{\circ}\text{C}$. 相对湿度RH=59%. 大气压P= 98.5kPa样品安装/Sample assembly: 直立安装/vertical. 海拔高度/Altitude H=396.9m. 校正系数/Correction coefficient $K_a=1.041$.

样品编号 No.	可见电晕电压 Visual corona voltage kV	平均值 Average value kV	校正值 Corrected value kV
2	171、172、172	171.7	178.7
规定值 Specifications	/	/	≥ 160

符合检验依据规定, 合格。
The result met test standard and the technical specifications.

附录
Appendix

一、确认的试品图纸/Drawing

C16-1050-IV (日期/Date : 2012.11.10)

二、试品照片/Photographs

(/)

