

校准证书
Calibration Certificate中国认可
国际互认
校准
CALIBRATION
CNAS L5138

证书编号

Certificate No.

Z20243-J046584

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客户名称

Client Name

江西卢格电气有限公司
JIANGXI LUGE ELECTRIC CO., LTD

地 址

Address

江西省抚州市崇仁县高新产业园区纵三路8号
No.6 Industrial Avenue, High-tech Industrial Park, Chongren County, Fuzhou City,
Jiangxi Province (North of Industrial Avenue, west of Jifa Medical Treatment)

仪器名称

Description

变压器有载分接开关测试仪 (Transformer on Load Tap Changer Tester)

型号/规格

Model/Type

UHV-3000

制造厂商

Manufacturer

武汉特高压电力科技有限公司

出厂编号

Serial Number

2410006

管理编号

Management No.

/

接收日期

Date of Receipt

2024 年

Year

10 月

Month

10 日

Day

校准日期

Calibration Date

2024 年

Year

10 月

Month

10 日

Day

建议下次校准日期

Due Date

2025 年

Year

10 月

Month

09 日

Day

发布日期

Issue Date

2024 年

Year

10 月

Month

10 日

Day



发证单位(专用章)

Issued by (stamp)



批准:

Approved by

廖桃兴

核验:

Inspected by

陈小曼

校准:

Calibrated by

张华群

地址: 广东省深圳市龙岗区锦龙大道2号

ADD: No.2, Jinlong Avenue, Longgang District, Shenzhen, Guangdong,
China

电话 (TEL): 0755-84815081

邮编(Post Code): 518116

网址: <http://www.tiansu.org>Email: zskf@tiansu.org

说明

DIRECTIONS

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- 本实验室质量管理体系依据ISO/IEC17025:2017建立。
The laboratory quality management systems document is established according to ISO/IEC17025:2017.
- 本证书中的数据均可溯源至国际单位制（SI）单位和/或社会公用计量标准。
The data in this certificate can be traced to International System of Units (SI) and/or social public measurement standards.
- 本证书未经签章、数据涂改、或分离使用均无效。未经我司书面批准，不得部分复制此证书。校准结果仅对受测仪器当时之情况负责。
The Certificate is invalid when no stamp sealed on, data alteration or separate use. Without our written approval, the certification should not be partially duplicated. The calibration results are only responsible for calibration conditions of the instrument at the time.
- 本证书具有唯一性，带有相同证书编号、按页码顺序的组成页为校准证书，我司对本证书的内容拥有最终解释权。
The certificate is unique, and made up of pages with same certificate number and serial order, and reserves final explanation right of the certificate contents.
- 证书中最大允许误差、判定结果仅供参考，其中“P”代表“合格”，“F”代表“不合格”。
MPE & judgement result in the datasheet is only for reference, "P" is "Pass" "F" is "Fail".
- 若被校仪器属于强检范畴，按照法规要求，不能替代检定证书。
If the instrument belongs to compulsory test field, the corresponding calibration can not replace the verification according to the compulsory regulations.
- 带※的参数项目表示不在CNAS认可范围内。
Parameter with asterisk '※' is not within the accreditation by CNAS.
- 本次校准所依据的技术文件(Reference documents for the calibration):
JJF(浙)1084-2012 变压器有载分接开关测试仪校准规范
- 校准的地点及环境条件(Place and environmental condition in the calibration):

校准地点:

委托方现场【武汉市江夏区高新五路84号一楼试验区】

Cal. Place:

温度:

25.3

℃

相对湿度:

56

%

Temperature:

Relative Humidity:

- 校准所用的主要计量标准器具(Main Standards of Measurement Used in the Calibration):

名称 Description	设备编号 Equipment No.	证书编号 Certificate No.	有效期至 Due date	溯源机构 Actuator
变压器有载分接开关校准装置	TS-SB-19853	校准字第202310003120号	2024-10-16	中国测试技术研究院

校准结果

Results of Calibration

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1. 外观及工作性能检查:

(Appearance & Working Performance Check)

符合(Pass)

2. A相过渡电阻:

Over Resistance of A phase

电流 Current	标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
1A	1 Ω	1.0 Ω	0.00%	$\pm 5.0\%$	P
	3 Ω	3.0 Ω	0.00%	$\pm 5.0\%$	P
	5 Ω	5.0 Ω	0.00%	$\pm 5.0\%$	P
	10 Ω	10.1 Ω	+1.00%	$\pm 5.0\%$	P
	16 Ω	16.3 Ω	+1.88%	$\pm 5.0\%$	P
	20 Ω	20.4 Ω	+2.00%	$\pm 5.0\%$	P
	30 Ω	30.5 Ω	+1.67%	$\pm 5.0\%$	P
	40 Ω	40.7 Ω	+1.75%	$\pm 5.0\%$	P
400mA	1 Ω	1.0 Ω	0.00%	$\pm 5.0\%$	P
	3 Ω	3.0 Ω	0.00%	$\pm 5.0\%$	P
	5 Ω	5.0 Ω	0.00%	$\pm 5.0\%$	P
	10 Ω	9.9 Ω	-1.00%	$\pm 5.0\%$	P
	16 Ω	15.8 Ω	-1.25%	$\pm 5.0\%$	P
	20 Ω	19.7 Ω	-1.50%	$\pm 5.0\%$	P
	30 Ω	29.6 Ω	-1.33%	$\pm 5.0\%$	P
	40 Ω	39.2 Ω	-2.00%	$\pm 5.0\%$	P

3. B相过渡电阻:

Over Resistance of B phase

电流 Current	标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
1A	1 Ω	1.0 Ω	0.00%	$\pm 5.0\%$	P
	3 Ω	3.0 Ω	0.00%	$\pm 5.0\%$	P
	5 Ω	5.0 Ω	0.00%	$\pm 5.0\%$	P

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电流 Current	标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
400mA	10 Ω	10.2 Ω	+2.00%	$\pm 5.0\%$	P
	16 Ω	16.4 Ω	+2.50%	$\pm 5.0\%$	P
	20 Ω	20.5 Ω	+2.50%	$\pm 5.0\%$	P
	30 Ω	30.5 Ω	+1.67%	$\pm 5.0\%$	P
	40 Ω	40.5 Ω	+1.25%	$\pm 5.0\%$	P
	1 Ω	1.0 Ω	0.00%	$\pm 5.0\%$	P
	3 Ω	3.0 Ω	0.00%	$\pm 5.0\%$	P
	5 Ω	5.1 Ω	+2.00%	$\pm 5.0\%$	P
	10 Ω	10.2 Ω	+2.00%	$\pm 5.0\%$	P
	16 Ω	16.5 Ω	+3.13%	$\pm 5.0\%$	P
	20 Ω	20.6 Ω	+3.00%	$\pm 5.0\%$	P
	30 Ω	30.7 Ω	+2.33%	$\pm 5.0\%$	P
	40 Ω	40.7 Ω	+1.75%	$\pm 5.0\%$	P

4. C相过渡电阻:

Over Resistance of C phase

电流 Current	标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
1A	1 Ω	1.0 Ω	0.00%	$\pm 5.0\%$	P
	3 Ω	3.0 Ω	0.00%	$\pm 5.0\%$	P
	5 Ω	5.0 Ω	0.00%	$\pm 5.0\%$	P
	10 Ω	10.1 Ω	+1.00%	$\pm 5.0\%$	P
	16 Ω	16.3 Ω	+1.88%	$\pm 5.0\%$	P
	20 Ω	20.4 Ω	+2.00%	$\pm 5.0\%$	P
	30 Ω	30.5 Ω	+1.67%	$\pm 5.0\%$	P
	40 Ω	40.5 Ω	+1.25%	$\pm 5.0\%$	P
400mA	1 Ω	1.0 Ω	0.00%	$\pm 5.0\%$	P
	3 Ω	3.0 Ω	0.00%	$\pm 5.0\%$	P
	5 Ω	5.1 Ω	+2.00%	$\pm 5.0\%$	P
	10 Ω	10.2 Ω	+2.00%	$\pm 5.0\%$	P
	16 Ω	16.3 Ω	+1.88%	$\pm 5.0\%$	P
	20 Ω	20.3 Ω	+1.50%	$\pm 5.0\%$	P

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电流 Current	标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
	30 Ω	30.3 Ω	+1.00%	$\pm 5.0\%$	P
	40 Ω	40.5 Ω	+1.25%	$\pm 5.0\%$	P

5. A相过渡时间:

A Over Time

标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
1ms	1.0ms	0.00%	$\pm 1.0\%$	P
10ms	10.0ms	0.00%	$\pm 1.0\%$	P
50ms	50.1ms	+0.20%	$\pm 1.0\%$	P
100ms	100.1ms	+0.14%	$\pm 1.0\%$	P
200ms	200.21ms	+0.11%	$\pm 1.0\%$	P

6. B相过渡时间:

B Over Time

标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
1ms	1.0ms	0.00%	$\pm 1.0\%$	P
10ms	10.0ms	0.00%	$\pm 1.0\%$	P
50ms	50.1ms	+0.20%	$\pm 1.0\%$	P
100ms	100.2ms	+0.20%	$\pm 1.0\%$	P
200ms	200.4ms	+0.20%	$\pm 1.0\%$	P

7. C相过渡时间:

C Over Time

标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
1ms	1.0ms	0.00%	$\pm 1.0\%$	P

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标准值 Standard Value	示值 Indication	示值误差 Indication Error	允 差 MPE	结论 Pass/Fail
10ms	10. 0ms	0. 00%	±1. 0%	P
50ms	50. 1ms	+0. 20%	±1. 0%	P
100ms	100. 2ms	+0. 20%	±1. 0%	P
200ms	200. 4ms	+0. 20%	±1. 0%	P

说明:本次测量结果的扩展不确定度为:

(The Expanded Uncertainty of the Measurement Result Is)

电阻:1Ω: $U_{rel}=1.8\%$, 3Ω: $U_{rel}=0.7\%$, 5Ω: $U_{rel}=0.5\%$, 10Ω~40Ω: $U_{rel}=0.3\%$, 时

间:1ms: $U_{rel}=1.3\%$, 10ms: $U_{rel}=0.16\%$, 50ms: $U_{rel}=0.03\%$, 100ms~500ms: $U_{rel}=0.02\%$ $k=2$

(依据JJF1059.1-2012测量不确定度评定与表示)

(According to JJF1059.1-2012 Evaluation and Expression of Uncertainty in Measurement)

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