

校准证书

Calibration Certificate

证书编号

Certificate No.

Z2019J2-F028549

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客户名称

Client Name

中清能绿洲科技股份有限公司

地 址

Address

北京市丰台区科学城星火路11号B座5088室

仪器名称

Description

变压器有载分接开关测试仪

型号/规格

Model/Type

LDYZ-III

制造厂商

Manufacturer

武汉朗电电气设备有限公司

出厂编号

Serial Number

LD201805022

管理编号

Management No.

接收日期

Date of Receipt

2019 年

Year

06 月

Month

01 日

Day

校准日期

Calibration Date

2019 年

Year

06 月

Month

01 日

Day

建议下次校准日期

Due Date

2020 年

Year

05 月

Month

31 日

Day

发布日期

Issue Date

2019 年

Year

06 月

Month

06 日

Day



发证单位(专用章)

Issued by (stamp)



批准:

Approved by

辛贝洲研

(技术经理)

核验:

Inspected by

钟霞芝

校准:

Calibrated by

王柳青



地址: 广东省深圳市龙岗区锦龙大道2号1栋、4栋、6栋

ADD: Building 1/4/6, No.2, Jinlong Road, Longgang District, Shenzhen, Guangdong, China

电话 (TEL): 0755-84815081

邮编 (Post Code): 518116

网址: <http://www.51jL.org>

传真 (Fax): 0755-28949551

说 明

DIRECTIONS

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1. 本机构管理体系符合ISO/IEC 17025: 2017的要求。
The quality system is in accordance with ISO/IEC 17025:2017.
2. 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.
3. 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.
4. 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.
5. 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
6. 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【**试验室**】
Cal. Place: _____

温 度: 20.2 °C 相对湿度: 58 %
Temperature: _____ °C Relative Humidity: _____ %

联系方式: 010-63733600
Contact: _____

8. 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
有载分接开关测试仪校准装置	TM31-039	校准字第201810006312号等	2019-10-28	中国测试院



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1. 外观及工作性能检查:
(Appearance & Working Performance Check)

符合 (Pass)

2. A相过度电阻:
Over Resistance of A phase

电流 Current	标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail	
1A	1 Ω	1.0 Ω	0.00%	±5.0%	P	
	3 Ω	3.0 Ω	0.00%	±5.0%	P	
	5 Ω	5.2 Ω	+4.00%	±5.0%	P	
	10 Ω	9.6 Ω	-4.00%	±5.0%	P	
	16 Ω	16.5 Ω	+3.13%	±5.0%	P	
	20 Ω	20.7 Ω	+3.50%	±5.0%	P	
	30 Ω	29.8 Ω	-0.67%	±5.0%	P	
	40 Ω	40.2 Ω	+0.50%	±5.0%	P	
	400mA	1 Ω	1.0 Ω	0.00%	±5.0%	P
		3 Ω	3.1 Ω	+3.33%	±5.0%	P
5 Ω		4.9 Ω	-2.00%	±5.0%	P	
10 Ω		9.8 Ω	-2.00%	±5.0%	P	
16 Ω		15.5 Ω	-3.13%	±5.0%	P	
20 Ω		20.1 Ω	+0.50%	±5.0%	P	
30 Ω		30.7 Ω	+2.33%	±5.0%	P	
40 Ω		40.2 Ω	+0.50%	±5.0%	P	

3. B相过度电阻:
Over Resistance of B phase

电流 Current	标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
1A	1 Ω	1.0 Ω	0.00%	±5.0%	P
	3 Ω	3.0 Ω	0.00%	±5.0%	P
	5 Ω	5.2 Ω	+4.00%	±5.0%	P

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电流 Current	标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
400mA	10 Ω	10.2 Ω	+2.00%	±5.0%	P
	16 Ω	16.3 Ω	+1.88%	±5.0%	P
	20 Ω	20.8 Ω	+4.00%	±5.0%	P
	30 Ω	30.3 Ω	+1.00%	±5.0%	P
	40 Ω	39.3 Ω	-1.75%	±5.0%	P
	1 Ω	1.0 Ω	0.00%	±5.0%	P
	3 Ω	2.9 Ω	-3.33%	±5.0%	P
	5 Ω	4.8 Ω	-4.00%	±5.0%	P
	10 Ω	10.0 Ω	0.00%	±5.0%	P
	16 Ω	15.5 Ω	-3.13%	±5.0%	P
	20 Ω	19.9 Ω	-0.50%	±5.0%	P
	30 Ω	30.5 Ω	+1.67%	±5.0%	P
	40 Ω	41.4 Ω	+3.50%	±5.0%	P

4. C相过度电阻:

Over Resistance of C phase

电流 Current	标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
1A	1 Ω	1.0 Ω	0.00%	±5.0%	P
	3 Ω	2.9 Ω	-3.33%	±5.0%	P
	5 Ω	5.1 Ω	+2.00%	±5.0%	P
	10 Ω	10.2 Ω	+2.00%	±5.0%	P
	16 Ω	16.5 Ω	+3.13%	±5.0%	P
	20 Ω	20.9 Ω	+4.50%	±5.0%	P
	30 Ω	29.5 Ω	-1.67%	±5.0%	P
	40 Ω	41.5 Ω	+3.75%	±5.0%	P
	1 Ω	1.0 Ω	0.00%	±5.0%	P
	3 Ω	3.0 Ω	0.00%	±5.0%	P
	5 Ω	5.2 Ω	+4.00%	±5.0%	P
	10 Ω	9.7 Ω	-3.00%	±5.0%	P
	16 Ω	15.6 Ω	-2.50%	±5.0%	P
	20 Ω	20.3 Ω	+1.50%	±5.0%	P

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电流 Current	标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
	30 Ω	30.5 Ω	+1.67%	±5.0%	P
	40 Ω	41.1 Ω	+2.75%	±5.0%	P

5. A相过度时间:

A Over Time

标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
1ms	1.01ms	+1.00%	±1.0%	P※
10ms	9.93ms	-0.70%	±1.0%	P※
50ms	49.84ms	-0.32%	±1.0%	P※
100ms	99.06ms	-0.94%	±1.0%	P※
200ms	199.60ms	-0.20%	±1.0%	P※
500ms	496.85ms	-0.63%	±1.0%	P※

6. B相过度时间:

B Over Time

标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
1ms	1.00ms	0.00%	±1.0%	P※
10ms	10.07ms	+0.70%	±1.0%	P※
50ms	50.29ms	+0.58%	±1.0%	P※
100ms	99.03ms	-0.97%	±1.0%	P※
200ms	198.46ms	-0.77%	±1.0%	P※
500ms	497.95ms	-0.41%	±1.0%	P※

7. C相过度时间:

C Over Time

标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
1ms	1.00ms	0.00%	±1.0%	P※



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标准值 Reference Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
10ms	9.99ms	-0.10%	±1.0%	P※
50ms	50.46ms	+0.92%	±1.0%	P※
100ms	100.94ms	+0.94%	±1.0%	P※
200ms	201.04ms	+0.52%	±1.0%	P※
500ms	504.75ms	+0.95%	±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)

过度电阻: $U_{rel}=6.0\%$ 过度时间: $U_{rel}=0.16\%$ $k=2$

(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)

