

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. Z2020J2-L198417

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客户名称
Client Name 江苏安科瑞电器制造有限公司

地 址
Address 江阴市南闸街道东盟路5号

仪器名称
Description 电力仪表

型号/规格
Model/Type ADW210 制造厂商
Manufacturer 江苏安科瑞电器制造有限公司

出厂编号
Serial Number JYA9090460001 管理编号
Management No. /

接收日期
Date of Receipt 2020 年 12 月 24 日
Year Month Day

校准日期
Calibration Date 2020 年 12 月 29 日
Year Month Day

建议下次校准日期
Due Date 2021 年 12 月 28 日
Year Month Day

发布日期
Issue Date 2020 年 12 月 29 日
Year Month Day



发证单位(专用章)
Issued by (stamp)



批准:
Approved by 刘洲 (技术经理)

核验:
Inspected by 钟霞芝

校准:
Calibrated by 胡凤瑞



说 明

DIRECTIONS

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1. 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.
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. 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.
6. 本次校准所依据的技术文件(Reference documents for the calibration):
JJG596-2012 电子式交流电能表检定规程
JJF1491-2014 数字式交流电参数测量仪校准规范
7. 校准的地点及环境条件(Place and environmental condition in the calibration):
校准地点: 本公司实验室【电力校准室】
Cal. Place:
温 度: 23.0 °C 相对湿度: 58 %
Temperature: Relative Humidity:
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
三相交流直流指示仪表校验装置	TS-SB-14603	DBB202003731	2021-08-06	广东省计量科学研究院

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

符合(Pass)

2. 三相电压

量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
UA	57.700V	57.68V	-0.03%	±1.0%	P
	100.00V	99.3V	-0.70%	±1.0%	P
	220.00V	220.9V	+0.41%	±1.0%	P
	380.00V	376.6V	-0.89%	±1.0%	P
UB	57.700V	57.53V	-0.29%	±1.0%	P
	100.00V	99.8V	-0.20%	±1.0%	P
	220.00V	218.9V	-0.50%	±1.0%	P
	380.00V	379.7V	-0.08%	±1.0%	P
	600.00V	605.2V	+0.87%	±1.0%	P
	100.00V	100.9V	+0.90%	±1.0%	P
	220.00V	219.5V	-0.23%	±1.0%	P
	380.00V	379.3V	-0.18%	±1.0%	P

3. 三相电流

量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
IA	1.0000A	0.995A	-0.50%	±1.0%	P
	2.0000A	1.986A	-0.70%	±1.0%	P
	3.0000A	3.005A	+0.17%	±1.0%	P
	4.0000A	4.031A	+0.77%	±1.0%	P
	5.0000A	4.976A	-0.48%	±1.0%	P
IB	1.0000A	1.008A	+0.80%	±1.0%	P
	2.0000A	1.992A	-0.40%	±1.0%	P

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量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
IC	3.0000A	2.982A	-0.60%	±1.0%	P
	4.0000A	3.978A	-0.55%	±1.0%	P
	5.0000A	4.969A	-0.62%	±1.0%	P
	1.0000A	0.992A	-0.80%	±1.0%	P
	2.0000A	2.010A	+0.50%	±1.0%	P
	3.0000A	2.991A	-0.30%	±1.0%	P
	4.0000A	3.980A	-0.50%	±1.0%	P
	5.0000A	5.027A	+0.54%	±1.0%	P

4. 三相有功功率（电压：220V）

量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
PA	220.00W	222.1W	+0.95%	±1.0%	P
	440.00W	441.5W	+0.34%	±1.0%	P
	880.00W	882.0W	+0.23%	±1.0%	P
	1100.0W	1099W	-0.09%	±1.0%	P
PB	220.00W	220.0W	0.00%	±1.0%	P
	440.00W	436.4W	-0.82%	±1.0%	P
	880.00W	883.0W	+0.34%	±1.0%	P
PC	1100.0W	1098W	-0.18%	±1.0%	P
	220.00W	221.3W	+0.59%	±1.0%	P
	440.00W	440.2W	+0.05%	±1.0%	P
	880.00W	886.4W	+0.73%	±1.0%	P
	1100.0W	1095W	-0.45%	±1.0%	P

5. 三相无功功率（电压:220V）

量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
PA	220.00Var	218.7Var	-0.59%	±1.0%	P

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量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
PB	440.00Var	442.4Var	+0.55%	±1.0%	P
	880.00Var	887.7Var	+0.88%	±1.0%	P
	1100.0Var	1098Var	-0.18%	±1.0%	P
	220.00Var	221.0Var	+0.45%	±1.0%	P
PC	440.00Var	436.2Var	-0.86%	±1.0%	P
	880.00Var	875.2Var	-0.55%	±1.0%	P
	1100.0Var	1098Var	-0.18%	±1.0%	P
	220.00Var	220.7Var	+0.32%	±1.0%	P
	440.00Var	438.2Var	-0.41%	±1.0%	P
	880.00Var	887.0Var	+0.80%	±1.0%	P
	1100.0Var	1095Var	-0.45%	±1.0%	P

6. 三相有功功率（电压：380V）

量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
PA	380.00W	381.4W	+0.37%	±1.0%	P
	760.00W	765.2W	+0.68%	±1.0%	P
	1520.0W	1526W	+0.39%	±1.0%	P
	1900.0W	1885W	-0.79%	±1.0%	P
PB	380.00W	378.2W	-0.47%	±1.0%	P
	760.00W	754.3W	-0.75%	±1.0%	P
	1520.0W	1530W	+0.66%	±1.0%	P
	1900.0W	1896W	-0.21%	±1.0%	P
PC	380.00W	383.1W	+0.82%	±1.0%	P
	760.00W	766.6W	+0.87%	±1.0%	P
	1520.0W	1532W	+0.79%	±1.0%	P
	1900.0W	1915W	+0.79%	±1.0%	P

7. 三相无功功率（电压：380V）

量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
PA	380.00Var	376.5Var	-0.92%	±1.0%	P

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量程 Range	标准值 Standard Value	示值 Indication	误差 Error	允差 MPE	结论 Pass/Fail
PB	760.00Var	763.9Var	+0.51%	±1.0%	P
	1520.0Var	1514Var	-0.39%	±1.0%	P
	1900.0Var	1894Var	-0.32%	±1.0%	P
	380.00Var	380.4Var	+0.11%	±1.0%	P
	760.00Var	757.9Var	-0.28%	±1.0%	P
	1520.0Var	1509Var	-0.72%	±1.0%	P
PC	1900.0Var	1891Var	-0.47%	±1.0%	P
	380.00Var	380.2Var	+0.05%	±1.0%	P
	760.00Var	753.3Var	-0.88%	±1.0%	P
	1520.0Var	1525Var	+0.33%	±1.0%	P
	1900.0Var	1916Var	+0.84%	±1.0%	P

注：此仪器只出电压、电流、功率

说明：本次测量结果的扩展不确定度为：

(The Expanded Uncertainty of the Measurement Result Is)

电压： $U_{rel}=0.09\%$ 电流： $U_{rel}=0.12\%$ 有功功率： $U_{rel}=0.19\%$ 无功功率： $U_{rel}=0.19\%$ $k=2$

(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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