



中国赛宝实验室  
(工业和信息化部电子第五研究所)  
CEPREI CHINA CEPREI LABORATORY



中国认可  
国际互认  
校准  
CALIBRATION  
CNAS L0462

# 校准证书

## CALIBRATION CERTIFICATE

证书编号: 2GB18E00872-0001  
Certificate No.



委托单位:  
Client

赛宝质量安全检测中心

委托方地址:  
Address

重庆市沙坪坝区西永微电园西园南街3号

仪器名称:  
Description

三相交流恒流源

型号规格:  
Model/Type

SDDL-700-2800Q

制造商:  
Manufacturer

青岛东来电气设备

机身号:  
Serial No.

18DL0614

校准日期:  
Cal. Date

2018年06月10日

建议再校日期:  
Next Cal. Date

2019年06月10日

结论:  
Conclusion

所校准项目合格(Passed at Calibration Items)

校准:  
Calibrated by

谭仕林

核验:  
Inspected by

杜好岗

签发:  
Approved by

魏武

印章:  
Stamp

赛宝计量检测中心  
广州总部地址: 广州天河区东莞庄路110号  
客服电话: 020-87237633 传真: 020-87236189  
投诉电话: 020-87236896、020-87236789  
邮件: cal@ceprei.com  
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H.Q. Addr: No.110 Dongguan Zhuang Road, Tianhe District, Guangzhou  
Tel: 020-87237633 Fax: 020-87236189  
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Email: cal@ceprei.com  
Website: www.ceprei-cal.com

# 说 明

## DIRECTIONS

证书编号(Certificate No.): 2GB18E00872-0001

1. 本机构质量管理体系符合ISO/IEC 17025的要求, 获得中国合格评定国家认可委员会(CNAS)认可, 认可证书号为: CNAS L0462。

This laboratory quality management system meets the ISO/IEC 17025 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L0462.

2. 本机构出具的数据均可溯源到国家计量基准和国际单位制(SI)。

The data issued by this laboratory is traceable to national primary standards and International system of Units (SI).

3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):

▪ JJF(军工)85-2015 交流稳压电源稳态特性校准规范: 电压:(1~700)V@(40Hz~30kHz); 电流:(10mA~500A)@(40Hz~20kHz); 负载效应:(1~700)V@(40Hz~30kHz); 源效应:(1~700)V@(40Hz~30kHz); 失真:0.003%~30%; 频率:1Hz~10kHz

\* 详细认可范围请查看CNAS网站中注册编号为L0462的证书附件(Please see the attachment of certificate No. L0462 at CNAS website for details)。

4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

| 名 称<br>(Description) | 技术指标<br>(Specification)                                                 | 证书编号<br>(Certificate No.) | 有效期至<br>(Due Date) |
|----------------------|-------------------------------------------------------------------------|---------------------------|--------------------|
| 交直流电流比较仪             | ±0.05%                                                                  | 2019-02-06                | 2019-02-05         |
| 数字万用表                | DCV:±0.0035%; ACV:±0.06%; DCI:±0.05%; ACI:±0.1%<br>; R:±0.01%; f:±0.01% | 2GB18E00666-0001          | 2019-05-21         |

5. 校准地点(The calibration place): 重庆市沙坪坝区西永微电园西园南街3号1楼质检中心

6. 环境条件(Environmental conditions): 温度(Temperature): 26℃ 相对湿度(Relative Humidity): 45%

7. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用"。

"P" and "Pass" in this certificate stand for "Low Limit≤the measured value ≤High Limit", "F" and "Fail" stand for "the measured value<Low Limit or the measured value>High Limit", "N/A" stands for "Not Applicable".

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注: 1. 本证书未经本机构书面授权, 不得部分复制。(The certificate shall not be partly reproduced without written approval of the laboratory.)

2. 本次校准结果仅与被校物有关。(The results are only related to the items calibrated.)

## 0 外观与工作正常性检查(Appearance and Function Check)

结论  
(Pass/Fail)  
P

## 1. 电流输出(ACA)

|    | 标称值<br>Nominal | 标准值<br>Reference | 指示值<br>Indicated | 误差<br>Error | 允许误差<br>Limit | 结论<br>Pass/Fail | <i>U</i><br>( <i>k</i> =2) |
|----|----------------|------------------|------------------|-------------|---------------|-----------------|----------------------------|
|    | (A)            | (A)              | (A)              | (A)         | (A)           |                 | (A)                        |
| A1 | 100            | 95.8             | 96.2             | -0.40       | ±0.5          | P               | 0.13                       |
|    | 200            | 203.6            | 203.6            | 0.00        | ±1.0          | P               | 0.25                       |
|    | 300            | 300.6            | 301.1            | -0.50       | ±1.5          | P               | 0.37                       |
|    | 400            | 397.6            | 398.0            | -0.40       | ±2.0          | P               | 0.49                       |
|    | 500            | 497.4            | 498.0            | -0.60       | ±2.5          | P               | 0.58                       |
|    | 600            | 598.4            | 598.0            | 0.40        | ±3.0          | P               | 0.70                       |
|    | 700            | 701.2            | 701.0            | 0.20        | ±3.5          | P               | 0.83                       |
| A2 | 100            | 98.8             | 99.1             | -0.30       | ±0.5          | P               | 0.13                       |
|    | 200            | 200.2            | 200.0            | 0.20        | ±1.0          | P               | 0.25                       |
|    | 300            | 301.0            | 301.6            | -0.60       | ±1.5          | P               | 0.38                       |
|    | 400            | 398.6            | 399.1            | -0.50       | ±2.0          | P               | 0.49                       |
|    | 500            | 503.4            | 504.2            | -0.80       | ±2.5          | P               | 0.59                       |
|    | 600            | 603.4            | 603.8            | -0.40       | ±3.0          | P               | 0.71                       |
|    | 700            | 703.2            | 703.7            | -0.50       | ±3.5          | P               | 0.84                       |
| A3 | 100            | 99.6             | 99.7             | -0.10       | ±0.5          | P               | 0.13                       |
|    | 200            | 198.4            | 198.4            | 0.00        | ±1.0          | P               | 0.25                       |
|    | 300            | 296.0            | 296.3            | -0.30       | ±1.5          | P               | 0.37                       |
|    | 400            | 404.0            | 403.2            | 0.80        | ±2.0          | P               | 0.49                       |
|    | 500            | 498.4            | 499.8            | -1.40       | ±2.5          | P               | 0.58                       |
|    | 600            | 603.2            | 603.9            | -0.70       | ±3.0          | P               | 0.71                       |
|    | 700            | 697.4            | 698.4            | -1.00       | ±3.5          | P               | 0.83                       |

|    |     |       |       |       |      |   |      |
|----|-----|-------|-------|-------|------|---|------|
| A4 | 100 | 99.4  | 99.5  | -0.10 | ±0.5 | P | 0.13 |
|    | 200 | 200.8 | 201.0 | -0.20 | ±1.0 | P | 0.25 |
|    | 300 | 295.6 | 296.2 | -0.60 | ±1.5 | P | 0.37 |
|    | 400 | 403.2 | 403.6 | -0.40 | ±2.0 | P | 0.49 |
|    | 500 | 501.2 | 502.4 | -1.20 | ±2.5 | P | 0.59 |
|    | 600 | 600.0 | 600.1 | -0.10 | ±3.0 | P | 0.71 |
|    | 700 | 699.2 | 699.7 | -0.50 | ±3.5 | P | 0.83 |
| B1 | 100 | 104.6 | 104.5 | 0.10  | ±0.5 | P | 0.14 |
|    | 200 | 200.2 | 200.0 | 0.20  | ±1.0 | P | 0.25 |
|    | 300 | 301.4 | 302.0 | -0.60 | ±1.5 | P | 0.38 |
|    | 400 | 404.2 | 404.3 | -0.10 | ±2.0 | P | 0.49 |
|    | 500 | 502.6 | 503.8 | -1.20 | ±2.5 | P | 0.59 |
|    | 600 | 600.6 | 601.5 | -0.90 | ±3.0 | P | 0.71 |
|    | 700 | 702.4 | 703.0 | -0.60 | ±3.5 | P | 0.84 |
| B2 | 100 | 104.2 | 104.1 | 0.10  | ±0.5 | P | 0.14 |
|    | 200 | 201.0 | 200.8 | 0.20  | ±1.0 | P | 0.25 |
|    | 300 | 301.4 | 301.5 | -0.10 | ±1.5 | P | 0.38 |
|    | 400 | 400.4 | 400.4 | 0.00  | ±2.0 | P | 0.49 |
|    | 500 | 495.2 | 495.8 | -0.60 | ±2.5 | P | 0.58 |
|    | 600 | 598.4 | 598.5 | -0.10 | ±3.0 | P | 0.70 |
|    | 700 | 701.0 | 700.5 | 0.50  | ±3.5 | P | 0.83 |
| B3 | 100 | 102.4 | 102.3 | 0.10  | ±0.5 | P | 0.14 |
|    | 200 | 197.6 | 197.4 | 0.20  | ±1.0 | P | 0.25 |
|    | 300 | 303.0 | 302.9 | 0.10  | ±1.5 | P | 0.38 |
|    | 400 | 397.6 | 397.4 | 0.20  | ±2.0 | P | 0.49 |
|    | 500 | 503.2 | 503.3 | -0.10 | ±2.5 | P | 0.59 |
|    | 600 | 594.8 | 595.7 | -0.90 | ±3.0 | P | 0.70 |
|    | 700 | 700.0 | 700.1 | -0.10 | ±3.5 | P | 0.83 |

|    |     |       |       |       |      |   |      |
|----|-----|-------|-------|-------|------|---|------|
| B4 | 100 | 96.6  | 96.5  | 0.10  | ±0.5 | P | 0.13 |
|    | 200 | 201.2 | 201.0 | 0.20  | ±1.0 | P | 0.25 |
|    | 300 | 301.0 | 301.0 | 0.00  | ±1.5 | P | 0.38 |
|    | 400 | 404.4 | 404.3 | 0.10  | ±2.0 | P | 0.49 |
|    | 500 | 502.6 | 502.4 | 0.20  | ±2.5 | P | 0.59 |
|    | 600 | 599.0 | 598.3 | 0.70  | ±3.0 | P | 0.71 |
|    | 700 | 697.4 | 698.0 | -0.60 | ±3.5 | P | 0.83 |
| C1 | 100 | 103.8 | 104.2 | -0.40 | ±0.5 | P | 0.14 |
|    | 200 | 200.2 | 200.3 | -0.10 | ±1.0 | P | 0.25 |
|    | 300 | 302.6 | 302.9 | -0.30 | ±1.5 | P | 0.38 |
|    | 400 | 403.6 | 403.4 | 0.20  | ±2.0 | P | 0.49 |
|    | 500 | 495.6 | 495.8 | -0.20 | ±2.5 | P | 0.58 |
|    | 600 | 603.6 | 604.3 | -0.70 | ±3.0 | P | 0.71 |
|    | 700 | 699.4 | 699.6 | -0.20 | ±3.5 | P | 0.83 |
| C2 | 100 | 101.2 | 101.3 | -0.10 | ±0.5 | P | 0.14 |
|    | 200 | 202.4 | 202.0 | 0.40  | ±1.0 | P | 0.25 |
|    | 300 | 302.2 | 303.1 | -0.90 | ±1.5 | P | 0.38 |
|    | 400 | 400.0 | 400.4 | -0.40 | ±2.0 | P | 0.49 |
|    | 500 | 503.6 | 504.2 | -0.60 | ±2.5 | P | 0.59 |
|    | 600 | 603.8 | 602.6 | 1.20  | ±3.0 | P | 0.71 |
|    | 700 | 696.6 | 697.5 | -0.90 | ±3.5 | P | 0.83 |
| C3 | 100 | 100.8 | 101.0 | -0.20 | ±0.5 | P | 0.14 |
|    | 200 | 202.4 | 202.2 | 0.20  | ±1.0 | P | 0.25 |
|    | 300 | 300.2 | 300.5 | -0.30 | ±1.5 | P | 0.37 |
|    | 400 | 396.4 | 396.7 | -0.30 | ±2.0 | P | 0.48 |
|    | 500 | 497.6 | 497.8 | -0.20 | ±2.5 | P | 0.58 |
|    | 600 | 603.6 | 604.0 | -0.40 | ±3.0 | P | 0.71 |
|    | 700 | 698.6 | 699.1 | -0.50 | ±3.5 | P | 0.83 |



|    |     |       |       |       |      |   |      |
|----|-----|-------|-------|-------|------|---|------|
| C4 | 100 | 101.2 | 101.3 | -0.10 | ±0.5 | P | 0.14 |
|    | 200 | 201.8 | 201.3 | 0.50  | ±1.0 | P | 0.25 |
|    | 300 | 303.2 | 303.7 | -0.50 | ±1.5 | P | 0.38 |
|    | 400 | 398.0 | 398.6 | -0.60 | ±2.0 | P | 0.49 |
|    | 500 | 500.6 | 500.6 | 0.00  | ±2.5 | P | 0.59 |
|    | 600 | 599.8 | 599.8 | 0.00  | ±3.0 | P | 0.71 |
|    | 700 | 703.4 | 704.2 | -0.80 | ±3.5 | P | 0.84 |

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