



Shanghai Electric Tool Research Institute Center of Measurement and Calibration  
The Tenth Metering and Measuring Center Station of Mechanical Industry (Shanghai)

证书编号: 2015-C-13518  
Certificate No.

# 上海电动工具研究所计量校准中心 机械工业第十计量测试中心站 (上海)

## 校准证书

CALIBRATION CERTIFICATE

委托者 湖北易瓦特科技有限公司  
Customer

委托者地址 武汉市江岸区石桥一路6号科技创业中心2号楼一层  
Add. of Customer

委托书编号 2015-01119  
Order Number

器具的名称 变压器容量测试仪  
Description of Instrument

制造厂商 杭州高电科技有限公司  
Manufacturer

型号/规格 CT3300B+  
Model/Type

器具编号 1510131  
Number of Instrument

受样日期 2015.10.16  
Date of Sampling

受样方式/地点(单位) 现场  
Way & Place (Organization) of Sampling

签发人/职务 主任  
Approved Signature/Title/Position

杭州高电  
机械校准专用章  
Stamp

校核 高电  
Checked by

专业高电压试验  
Professional high voltage test

日期  
Date for calibrated

高压测量仪器智造 | 电力试验工程服务

地址: 上海市长宁区 电话: (021) 64314012 (021) 64331431 传真: (021) 64331130 邮编: 200031  
Address: No. 10 Baoqing Rd., Shanghai Tel: Fax: Post Code:

本证书提供的结果仅对本次被校的样品有效。  
It's effect that the result of this certificate only for the sample(s) Calibrated.  
本实验室获中国合格评定国家认可委员会认可。认可证书编号为: L6025  
SETRI has been accredited by China National Accreditation Service for Conformity Assessment. The number of the Certificate is L6025  
本实验室获上海校准实验室评审中心认可。认可证书编号为: SJ016  
SETRI has been accredited by Shanghai Calibration Laboratory Audit Center. The number of the Certificate is SJ016.

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### 1. 校准依据

Calibration Specification  
JJG (机械) 141-93 多功能电参数分析仪检定规程  
JJF1491-2014 数字式交流电参数测量仪校准规范  
SETRI/JJF019-2002 多功能电参数分析仪校准规范

### 2. 本次校准所使用的主要计量标准器(组):

名称 Name	型号 Type	出厂编号 Ex-factory No	测量范围 Measuring range	准确度/等级 Accuracy/Class	证书编号/有效期限 Certificate No/ Due Date
多功能 校准器	5522A	E-17-333	AC V 0~1020V (45Hz~1kHz) AC I 0~20.5A (45Hz~1kHz)	AC I: 0.125%输出+0.1 $\mu$ A ~ 0.15% 输出+5mA AC V: 150ppm 输出+6 $\mu$ V ~ 30ppm 输出 $\pm$ 10mV	J14101001496 2015.11.20

以上计量标准器具的量值溯源至国家基准。

Quantity values of above measurement standards in this calibration are traced to those of the national primary standards in the P.R. China.

### 3. 校准的地点、环境条件:

Place, time and environmental condition of this calibration

地点: 西湖科技园西园八路2号

Place

温度: 20°C

Temp

湿度: 50RH

R.H.

其它: /

Others

### 4. 测量结果的不确定度、限制使用范围及条件:

Uncertainty of the measurement results, limiting range and condition in used

#### 本次测量结果的不确定度:

Uncertainty of the measurement results

AC I: 0~3.0A  $U_{rel}=0.10\%$  ( $k=2$ ),

3.0A~11A  $U_{rel}=0.18\%$  ( $k=2$ ),

11A~20.5A  $U_{rel}=0.24\%$  ( $k=2$ );

AC V: 330mV~330V  $U_{rel}=0.08\%$  ( $k=2$ );

330V~1020V  $U_{rel}=0.11\%$  ( $k=2$ );

AC W: 330mV~1020V/0.33A~20.5A  $U_{rel}=0.2\%$  ( $k=2$ )

#### 限制使用范围及条件:

Limiting range and condition in used

### 5. 其它:

Other

本次校准只对所给数据有效。

The calibration results presented in this report relate only to the item calibrated.



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## 校准数据 / 结果

Data / Results of Calibration

1. 外观检查: 正常

2. 电压测试:

功能	实际值 (V)	被检仪器示值 (V)		
		$U_{ab}$	$U_{bc}$	$U_{ca}$
AC V f=50Hz	50.000	49.979	49.994	49.923
	100.00	100.01	100.04	99.957
	200.00	200.01	200.00	199.84
	300.00	300.01	300.12	299.57
	400.00	400.07	400.14	399.44
	500.00	500.01	500.17	499.23

3. 电流测试:

功能	实际值 (A)	被检仪器示值 (A)		
		$I_a$	$I_b$	$I_c$
AC I f=50Hz	1.000	1.000	1.001	1.002
	2.000	2.000	2.001	2.001
	5.000	5.002	5.002	5.002
	10.000	10.006	10.006	10.002
	15.000	15.002	15.003	15.003
	20.000	20.008	20.006	20.005

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4. 功率测试:

功 能	实际值			被检仪器示值 (W)		
	电压值 (V)	电流值 (A)	功率值 (W)	P <sub>a</sub>	P <sub>b</sub>	P <sub>c</sub>
AC W cos φ=1.0 f=50Hz	500	1	500	499.87	499.54	498.60
		5	2500	2499.9	2999.8	2498.6
		10	5000	4998.8	4999.1	4996.3
		15	7500	7498.5	7498.2	7495.2
	100	20	2000	1999.8	1999.8	1998.9
	300		6000	5998.5	5998.2	5997.2
	500		10000	9997.6	9997.5	9995.3

5. 频率测试:

功 能	实际值 (Hz)	被检仪器示值 (Hz)
f (220V)	45.00	44.97
	50.00	49.97
	60.00	59.97
	65.00	64.97

注: 委托方选做以上测量点。

校准结果内容结束

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