



- High Accuracy
- Broad Bandwidth
- Low Zero-drift

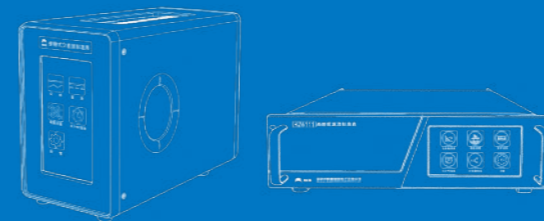
Shenzhen Hangzhi Precision Electronics Co., Ltd



- High Accuracy
- Broad Bandwidth
- Low Zero-drift

Shenzhen Hangzhi Precision Electronics Co., Ltd

Hangzhi Brochure of Electrical Measurement Instrument



SHENZHEN HANGZHI PRECISION ELECTRONICS CO., LTD

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SHENZHEN HANGZHI PRECISION ELECTRONICS CO., LTD

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DC Standard Source

Page	Model No.	Description	Accuracy	Max. Stability	Max. Output Range	Phase	Case
01	HZ601	Programmable DC Standard Source	0.01%/0.02%/0.05%	0.005%/min	DC:1000V/50A	/	Case
03	HZ602	Programmable DC Standard Source	0.01%/0.02%/0.05%	0.005%/min	DC:25A-100A (Optional)	/	Case/ Protective Housing
05	HZ603	Programmable DC Standard Source	0.01%/0.02%/0.05%	0.005%/min	DC:100A-500A (Optional)	/	Case/ Protective Housing
06	HZ605	Programmable DC Standard Source	0.01%/0.02%/0.05%	0.01%/min	DC:1000A-2000A (Optional)	/	Cabinet
07	HZ606	Programmable DC Standard Voltage Source	0.01%	0.005%/min	DC:1000V -5000V (Optional)	/	Case/ Protective Housing
09	HZ105	AC/DC Programmable Standard Source	0.05%	0.01%/min	DC:1000V/25A AC:700V/25A	Single-Phase	Case
12	HZ305	AC/DC Programmable Standard Source	0.05%	0.01%/min	DC:1000V/25A AC:700V/25A	3-Phase	Case

AC Standard Source

15	HZ103	Single-Phase Programmable Standard Source	0.05%	0.01%/min	AC:380V/100A	Single-Phase	Case/ Protective Housing
17	HZ303	3-Phase Programmable Standard Source	0.05%	0.01%/min	AC:380V/100A	3-Phase	Case
19	HZ107N	Single-Phase Programmable Power Source	0.1%	0.02%/2min	AC:220V/100A	Single-Phase	Cabinet
19	HZ307N	3-Phase Programmable Power Source	0.1%	0.02%/2min	AC:380V/100A	3-Phase	Cabinet
09	HZ105	AC/DC Programmable Standard Source	0.05%	0.01%/min	DC:1000V/25A AC:700V/25A	Single-Phase	Case
12	HZ305	AC/DC Programmable Standard Source	0.05%	0.01%/min	DC:1000V/25A AC:700V/25A	3-Phase	Case

DC Standard Meter

Page	Model No.	Description	Accuracy	Max. Output Range	Phase	Current Wiring Method
21	HZ611	High Precision DC Standard Meter	0.01%/0.02%/0.05%	DC:1000V/500A	/	Terminal
23	PIU	High Precision DC Tester	0.01%/0.02%	DC:1000V - 2000V 600A - 3000A (Optional)	/	Pass-Through
25	MIU	Mini DC Standard Meter	0.2%	DC:750V/250A	/	Pass-Through
26	HIU	High Precision AC/DC Tester	0.02%/0.05%	DC:1000V/600A - 1500A AC:707V/424A - 1000A(Optional)	Single-Phase	Pass-Through
29	PSM	AC/DC Portable Standard Meter	0.02%/0.05%	DC:1000V/600A - 1500A AC:707V/424A - 1000A(Optional)	Single-Phase	Pass-Through

AC Standard Meter

31	HZ111	Single-Phase Multi-Function Standard Meter	0.02%/0.05%	AC:480V/100A	Single-Phase	Terminal
33	HZ311	3-Phase Multi-Function Standard Meter	0.02%/0.05%	AC:480V/100A	3-Phase	Terminal
35	TPT	3-Phase High Precision Standard Meter	0.05%	AC:400V/80A	3-Phase	Terminal
26	HIU	High Precision AC/DC Tester	0.02%/0.05%	DC:1000V/600A-1500A AC:707V/424A-1000A(Optional)	Single-Phase	Pass-Through
29	PSM	AC/DC Portable Standard Meter	0.02%/0.05%	DC:1000V/300A-1500A AC:707V/212A-1000A(Optional)	Single-Phase	Pass-Through

▶ SELECT MODEL CONTENTS

DC Module						
Page	Model No.	Description	Accuracy	Max. Measurement Range	Phase	Current Wiring Method
37	HZ901D	Remote metering & Monitoring Module for Off-board Charger	0.2%	DC:750V/250A	/	Pass-Through
39	EQS	Electrical Quantity Sensor	0.5%	DC:750V/250A-500A (Optional)	/	Terminal
40	DIT	High Precision Digital Current Transducer	0.02%	DC:60A - 1500A AC:42A - 1000A(Optional)	Single-Phase	Pass-Through
41	CPD	Metering Module of CPD Charging Protection Device	0.05%	DC:1000V/300A-1500A AC:380V/63A-1000A (Optional)	Single-Phase	Pass-Through

AC Module						
Page	Model No.	Description	Accuracy	Max. Measurement Range	Phase	Current Wiring Method
44	HZ901A	Remote Metering & Monitoring Module for AC Off-board Charger	0.2%	AC:220V/32A	Single-Phase	Pass-Through
46	TPM	3-Phase Charger Detection Module	0.05%	AC:380V/63A	3-Phase	Pass-Through
40	DIT	High Precision Digital Current Transducer	0.02%	DC:60A-1500A AC:42A-1000A(Optional)	Single-Phase	Pass-Through
41	CPD	Metering Module of CPD Charging Protection Device	0.05%	DC:1000V/300A-1500A AC:380V/63A-1000A(Optional)	Single-Phase	Pass-Through

DC Calibration Apparatus							
Page	Model No.	Description	Accuracy	Max. Stability	Max. Output Range	Max. Measurement Range	Phase
49	HZ2000	Current Transducer Automatic Loading System	0.01%	0.005%/min	DC:2000A	DC:1000V/5A	/
55	HZ102	Multi-Function Calibration Apparatus for Electrical Measuring Instrument	0.05%	0.01%/min	AC:700V/25A DC:1000V/25A	DC:±10V ±20mA	Single-Phase
58	HZ302	Multi-Function Calibration Apparatus for Electrical Measuring Instrument	0.05%	0.01%/min	AC:700V/25A DC:1000V/25A	DC:±10V ±20mA	3-Phase

AC Calibration Apparatus							
Page	Model No.	Description	Accuracy	Max. Stability	Max. Output Range	Max. Measurement Range	Phase
50	HZ101	Portable Testing Device for Single-phase Electric Energy Meter	0.05%	0.01%/min	AC:380V/100A	/	Single-Phase
53	HZ301	Portable Testing Device for Three-phase Electric Energy Meter	0.05%	0.01%/min	AC:380V/100A	/	3-Phase
55	HZ102	Multi-Function Calibration Apparatus for Electrical Measuring Instrument	0.05%	0.01%/min	AC:700V/25A DC:1000V/25A	DC:±10V ±20mA	Single-Phase
58	HZ302	Multi-Function Calibration Apparatus for Electrical Measuring Instrument	0.05%	0.01%/min	AC:700V/25A DC:1000V/25A	DC:±10V ±20mA	3-Phase

Company Introduction

Shenzhen Hangzhi Precision Electronics Co.,Ltd was founded in 2017 in Bao'an, Shenzhen.

It's an ISO9001 & IATF16949 QMS certificated manufacturing enterprise which is specialized in R&D, customized solution and manufacturing of high precision current and voltage transducers, electrical measuring instruments etc as essentials at electrical industry, metrology, MRI etc medical devices, railway, satellite, hydronium accelerator, power transmission, heavy scientific equipment & research, motor driving testing equipment, BMS, Photovoltaic inverter etc.

Hangzhi Current Transducer is a current measurement and feedback component based on Fluxgate Technology to realize current detection through classical control theory rather than conventional chip induction. It features high precision, wide bandwidth, low zero drift, low temperature drift and strong stability.

Shenzhen Hangzhi dedicates to incubate branded world-wild leading enterprise in precise electronics and DC current transducer.

Investment and Financing

<p>December,2017 OFC Angel Fund</p>	<p>March,2019 OFC Pre-A Fund</p>	<p>March,2021 Oriental Goldtop Ltd - Round A Fund</p>
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Evolution History

<p>2015</p> <p>Project Launch of High Precision Current Transducer</p> 	<p>2017</p> <p>Inaugural Sample Born Company Hangzhi Registered</p> 	<p>2018</p> <p>AIT / IIT / DIT Current Transducers, HIU AC/DC Tester Launch to Market. Receive Angel Investment from OFC ISO9001:2015 Certificate</p>  <p>ISO9001:2015</p>	<p>2019</p> <p>HIT Series / RIT Series Current Transducer, DIT Series High Precision Digital Current Transducer Launched to Market. PIU DC Tester /PSM Portable AC/DC Standard Meter Launch to Market. Receive Pre-A Investment from OFC</p> 
<p>2022</p> <p>High Precision Split Core Current Transducer CIT Series TPT Three-Phase High Precision Standard Meter Launch to Market HZ1000,HZ3000 Single/Three-Phase 48 Terminal Power Energy Meter Calibrating Device</p> 	<p>2021</p> <p>BMS Vehicle Current Transducer PCB Level Current Transducer HCV Voltage Transducer Launch to Market HZ2000 Series Transducer Automatic Load Testing System Launch to Market Receive Oriental Goldtop Ltd - Round A investment</p> 	<p>2020</p> <p>10000 A Large Current Transducers PSM Portable AC/DC Standard Meter Launch to Market</p> 	
<p>2023</p> <p>AIT2000 / 3000 Integrated High Precision Current Transducer HZ1 Series, HZ3 Series & HZ6 Seires Launch to Market IATF16949:2016 Certificated</p>  <p>IATF16949:2016</p>	<p>2024</p> <p>HZ301 Three-Phase Power Energy Meter Portable Testing Device Series HZ302 Multi-Functional Transmitter Calibrating Device Series Launch to Market Establish Electrical Measuring BU</p>  <p>E.M BU</p>	<p>2025</p> <p>UL Certificated 20KA Current Transducer Launch to Market. Set up Full Category of Electrical Measurement Instrument</p> 	

Honor and qualification

 <p>UL CERTIFICATE</p>	 <p>IIT SERIES CE-EMC & ROHS CERTIFICATE</p>	 <p>IATF16949: 2016</p>	 <p>ISO9001: 2015</p>
 <p>第六届中国创新创业大赛 创客大赛智能硬件组一等奖</p>	 <p>第六届深圳宝安创新创业大赛企业组一等奖</p>	 <p>国家高新技术企业</p>	 <p>第十一届中国深圳创新创业大赛 行业决赛企业组二等奖</p>
 <p>第九届深圳创新创业大赛团队组行业决赛二等奖</p>	 <p>第四届深圳宝安创新创业大赛团队组一等奖</p>	 <p>第八届中国创新创业大赛 新能源行业决赛成长组优秀奖</p>	
 <p>第十七届深圳企业创新（中国）纪录</p>	 <p>创新南山2017“创业之星”大赛 先进制造行业赛 团队组一等奖</p>	 <p>2019“深圳创新榜”最具潜力创业项目奖</p>	

HZ601 SERIES

Programmable DC Standard Source

Product Description

HZ601 Series Programmable DC Standard Power Source is a high-level meter & power source integrated instrument with stable and high precisely output, adopting Hangzhi patented technology of electronic compensation linear sampling which ensure full range linearity of small signals(μA & mV level)and super signals (50A & 1000V) and it integrated multiple protection mechanisms to ensure no damage to the equipment or test objects in abnormal circumstances.



Product Features

High Output Stability: DC voltage, current output stability could achieve 0.005%/Min.

Wide Output Range: DC voltage range of standard source output: 0mV~1100V ; DC current range of standard source output: 0 μA ~55A.

Wide Range of Measurements: Measurement input DC voltage range: 0mV~1100V ; Measurement input DC current range: 0mA~55A.

Self-Calibration: Software self-calibration to each gear of output & input and does not need to open the case when calibration.

Soft Start: Built-in soft start, preset load circuit, output from zero quickly rise to the set value and no impact on load.

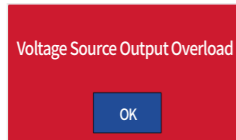
Load Protection: Prompt indication when overloading, flow limit for about 4 seconds then phase to interception protection, to ensure the safety of the load.

Human-Computer Interaction: Adopts large & colorful touch screen display and flexible settings to adjust the control source output parameters and easy to operate.

Function Features

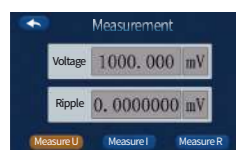


The system software allows flexible setting of the standard source output parameters.



Fault Protection

When voltage output is short circuit or current output is open, the instrument will promptly indicate overload and automatically turn off the output.



Ripple Measurement

Input ripple will be measured when measuring voltage or current.

Typical Application

It's ideal for power company, metrology, quality inspection institute, scientific research institute and industrial enterprises etc using as DC power source to verify DC voltage meter, ammeter, power meter and power protection device, measure and detect to transformer and sensors, etc.



TECHNICAL PARAMETER

Model #	HZ6011(Level 0.01)	HZ6012(Level 0.02)	HZ6015(Level 0.05)
DC Voltage Output			
Voltage Basic Range	75mV,300mV,1V,3V,10V,30V,100V,500V,1000V		
Setting Value Range	0% ~ 110%RG		
Adjustable Step Value	0.001%RG		
Voltage Output Deviation	0.006%RD+0.004%RG	0.012%RD+0.008%RG	0.03%RD+0.02%RG
Output Stability	0.005%/min	0.01%/min	0.02%/min
Output Load Current	Basic Range of Voltage (1). $\geq 100\text{V}$: 20VA. (2). $\leq 1\text{V}$: 35mA. (3). The rest: 200mA		
DC Current Output			
Current Basic Range	3 μA ,10 μA ,30 μA ,1mA,3mA,10mA,30mA,100mA,300mA,1A,5A,50A		
Setting Value Range	0% ~ 110%RG		
Adjustable Step Value	0.001%RG		
Output Current Deviation	0.006%RD+0.004%RG($I \geq 1\text{mA}$) 0.018%RD+0.012%RG($I < 1\text{mA}$)	0.012%RD+0.008%RG($I \geq 1\text{mA}$) 0.036%RD+0.024%RG($I < 1\text{mA}$)	0.03%RD+0.02%RG($I \geq 1\text{mA}$) 0.06%RD+0.04%RG($I < 1\text{mA}$)
Output Stability	0.005%/min	0.01%/min	0.02%/min
Output Load Voltage	Range: (1). 100 μA ~1A: 20V. (2). 5A: 7.5V. (3). 20A: 3V. (4). 50A: 2V		
DC Voltage Measurement			
Input Range	1000V,100V,10V,1V,100mV		
Measurement Resolution	0.001%RG		
Measurement Deviation	0.01%RG	0.02%RG	0.05%RG
DC Current Measurement			
Input Range	50A,5A,1A,100mA,10mA,1mA		
Measurement Resolution	0.001%RG		
Measurement Deviation	0.01%RG	0.02%RG	0.05%RG
DC Power Output			
Accuracy of Power Output	0.01%RG	0.02%RG	0.05%RG
Other Index			
Voltage & Frequency	AC(220 \pm 22)V,(50 \pm 2)Hz		
Dimension	363.5 x 485 x 133mm (W x D x H)		
Net Weight	$\leq 15\text{kg}$ (Not including accessories and package)		
Ambient Operation Temperature	10 $^{\circ}\text{C}$ ~35 $^{\circ}\text{C}$		
Unit Power Consumption	$\leq 250\text{W}$		

Note: Dimensions and weight may be slightly vibrated to each batch of product.

HZ602 Series

Programmable DC Standard Source

Product Description

Highly stable DC standard source with a maximum output voltage of 1100V and a current of 110A.



Function Features

High Output Accuracy: DC voltage & current output accuracy: 0.01% grade.

Wide Output Range: DC power output: DC voltage output range 0mA~1,100V, DC current output range 0μA~110A.

Fine Output Adjustment: Dc voltage regulation fineness: 0.005% RG, DC current regulation fineness: 0.005%RG.

Overload Multistage Protection: Output adopts multi-stage closed-loop control and multi-stage overload detection technology to ensure long-term stable reliability of output.

Large Storage: Built-in large capacity FLASH ROM which could store and query verification data.

Full Touch Interaction: Equipped with large size LCD touch screen and easy to operate.

Typical Application

- It is ideal for DC metering detection of all levels of power plants, power grid companies, metrology institutes and related instrument manufacturers.
- Suitable for power metering detection of railway, aerospace, petrochemical and large industrial and mining enterprises.
- It is suitable for high current detection to resistance, shunt, current sensor, hall etc DC current elements.

Technical Parameter

Model No.	HZ6021(Level 0.01)	HZ6022(Level 0.02)	HZ6025(Level 0.05)
DC Voltage Output			
Measurement Range	75mV,300mV,1V,3V,10V,30V,100V,300V,1000V		
Regulating Range	0% ~ 110%RG		
Regulating Fineness	0.001%RG		
Accuracy	0.006%RD+0.004%RG	0.012%RD+0.008%RG	0.03%RG+0.02%RD
Output Loading Current	50mA(≤300V);20mA(>300V)		
Ripple Coefficient	≤0.1%		

Technical Parameter

Model No.	HZ6021(Level 0.01)	HZ6022(Level 0.02)	HZ6025(Level 0.05)
DC Current Output			
Measurement Range	100μA,200μA,1mA,2mA,10mA,20mA,100mA,200mA,1A,2A,10A,25A,50A,100A		
Regulating Range	0% ~ 110%RG		
Regulating Fineness	0.001%RG		
Accuracy	0.006%RD+0.004%RG(I≥1mA) 0.018%RD+0.012%RG(I<1mA)	0.012%RD+0.008%RG(I≥1mA) 0.036%RD+0.024%RG(I<1mA)	0.03%RD+0.02%RG(I≥1mA) 0.06%RD+0.04%RG(I<1mA)
Output Loading Current	8V(≤2A); 2V(>2A)		
Ripple Coefficient	≤0.2%		
DC Power Output			
Output Range	Analog 1W~100kW		
Accuracy	0.01%	0.02%	0.05%
General Technical Index			
Voltage & Frequency	AC(220±22)V,(50±2)Hz		
Dimension	363.5 x 485 x 133mm (Not including Stand, Matt and Handle)		
Net Weight	≤20kg(Not including accessories and package)		
Ambient Operation Temperature	15°C~30°C,30%~80%RH		
Storage Temperature	-20°C~70°C,<95%RH		
Unit Power Consumption	≤350W		
Note: Dimensions and weight may be slightly vibrated to each batch of product.			

HZ603 Series

Programmable DC Standard Source

Product Description

Highly stable current source with single unit outputs 100A to 500A (optional), and multiple parallel units deliver current exceeding 500A or above.

Product Features

Wide Current Output Range: DC current output range 0A ~ 550A.

High Output Stability: DC current output 0.01%/Min.

Design in Module: Easy to extend current range.

High Output Efficiency: Current source output efficiency $\geq 90\%$ at full load.

Multi-overload Protection: With comprehensive overload and open-circuit protection functions.



Over-Shock Protection: Output will slow rise and slow fall to reduce over-current impact on the instrument under testing.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

Flexible Control: Support automatic and manual functions.

Typical Application

High current shunt, sensors and new energy metering measurement.

Technical Parameter

Model No.	HZ6031(Level 0.01)	HZ6032 (Level 0.02)	HZ6035 (Level 0.05)
DC Current Output			
Measurement Range	50A,100A,200A,500A		
Regulating Range	0% ~ 110%RG		
Regulating Fineness	0.01%RG		
Accuracy	0.01%RG	0.02%RG	0.05%RG
Stability	0.005%/min	0.01%/min	0.02%/min
Output Loading Voltage	2V		
Ripple Coefficient	$\leq 0.2\%$		
General Technical Index			
Voltage & Frequency	AC(220 \pm 22)V,(50 \pm 2)Hz		
Dimension	488.5 x 496 x 174 mm (W x D x H) (Not including Stand, Matt and Handle)		
Net Weight	Around 20kg(Not including accessories and package)		
Ambient Operation Temperature	15 $^{\circ}$ C ~ 30 $^{\circ}$ C,30% ~ 80%RH		
Storage Temperature	-20 $^{\circ}$ C ~ 70 $^{\circ}$ C,< 95%RH		
Unit Power Consumption	≤ 700 W		

Note: Dimensions and weight may be slightly vibrated to each batch of product.

HZ605 Series

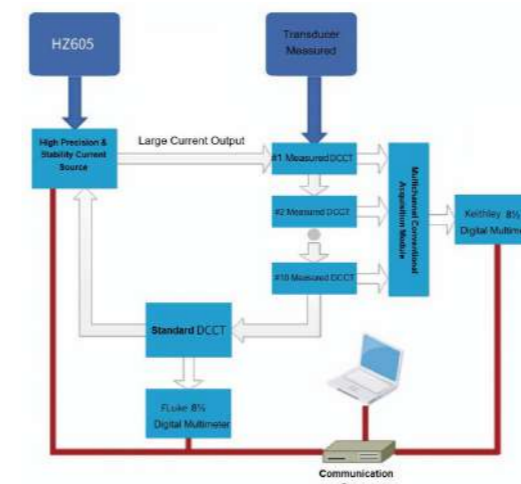
Programmable DC Standard Source

Product Description

High stability current source and the parallel output could reach up to 30,000A.

Typical Application

High current shunt, sensors and new energy metering measurement.



Product Features

High Precision Large Current Output: The multi-modular parallel system can output a maximum DC current of 30000A with an accuracy of 0.01%.

Design in Module: Easy to extend current range.

High Output Efficiency: Current source output efficiency $\geq 90\%$ at full load.

Multiple Abnormal Protection: With perfect protection functions of overload and open circuit .

Over-charge Protection: Output with gradual rise and fall to reduce over-current impact on the tested instrument.

Human-computer Interaction: Large LCD touch screen displays or controls measuring value and easy to check the device manually.

Technical Parameter

Model No.	HZ6051A (Level 0.01)	HZ6052A (Level 0.02)	HZ6055A (Level 0.05)
DC Current Output			
Measurement Range	50A,100A,200A,500A,1000A,2000A		
Regulating Range	0% ~ 110%RG		
Regulating Fineness	0.01%RG		
Accuracy	0.01%RG	0.02%RG	0.05%RG
Stability	0.005%/min	0.01%/min	0.02%/min
Output Loading Voltage	2V		
Ripple Coefficient	$\leq 0.2\%$		
General Technical Index			
Voltage & Frequency	AC(220 \pm 22)V,(50 \pm 2)Hz		
Dimension	800 x 600 x 1525mm (W x D x H) (Not including Stand, Matt and Handle)		
Net Weight	Around 120kg (Not including accessories and package)		
Ambient Operation Temperature	10 $^{\circ}$ C ~ 35 $^{\circ}$ C		
Unit Power Consumption	≤ 3000 W		

Note: Dimensions and weight may be slightly vibrated to each batch of product.



HZ606 Series

Programmable DC Standard Voltage Source



Product Description

A high-precision DC voltage source with 0.01-class accuracy, offering an output range options from 1kV to 5kV. Models up to 2kV are available in two configurations: protective enclosure and chassis.

Product Features

High Output Accuracy: Accuracy of DC voltage output could achieve 0.01%.

High Output Stability: The DC output voltage stability could reach 0.005%.

Two Design Styles, Adaptable to Multiple Scenarios: Provide two design configurations: protective enclosure and chassis (up to 2kV), which Meet diverse testing requirements in laboratory, field and other diversified scenarios.

Multiple Range Adaptation: Compatible with DC voltage output with a wide range from 0V - 5000V and an adjustment range of 0-110% RG, meeting calibration requirements for various DC voltage measurement devices.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

Typical Application

DC voltage transducer, digital voltmeter, calibration and verification of digital multi-meter.

Technical Parameter

Model No.	HZ6061A (Chassis)	HZ6061B (Chassis)
Measurement Range	225mV,900mV,3V,9V,30V,90V,300V,1500V,3000V	375mV,1.5V,5V,15V,50V,150V,500V,2500V,5000V
Regulating Range	0%~110%RG	
Regulating Fineness	0.001%RG	
Accuracy	0.006%RD+0.004%RG	
Stability	0.005%/min	
Output Loading Voltage	≤0.1%	
General Technical Index		
Voltage & Frequency	AC(220±22)V; (50±2)Hz	
Dimension	363.5 x 485 x 133mm (W x D x H) (Not including Stand, Matt and Handle)	
Net Weight	≤15kg(Not including accessories and package)	
Ambient Operation Temperature	15°C~30°C,30%~80%RH	
Unit Power Consumption	≤100W	
Note: Dimensions and weight may be slightly vibrated to each batch of product.		

Model No.	HZ6061Y (Protective Enclosure)
Measurement Range	150mV,600mV,2V,6V,20V,60V,200V,1000V,2000V
Regulating Range	0%~110%RG
Regulating Fineness	0.001%RG
Accuracy	0.006%RD+0.004%RG
Stability	0.005%/min
Output Loading Voltage	≤0.1%
General Technical Index	
Voltage & Frequency	AC(220±22)V; (50±2)Hz
Dimension	332.5 x 453 x 186mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	≤15kg (Not including accessories and package)
Ambient Operation Temperature	15°C~30°C,30%~80%RH
Unit Power Consumption	≤100W
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

HZ105 Series

AC/DC Programmable Standard Source

Product Description

The standard source for AC/DC process control features single-phase AC voltage/current and DC voltage/current output capabilities. The power amplifier delivers wide bandwidth, high power output, low distortion, and strong load-carrying capacity. Its voltage/current output includes open-circuit, short-circuit and overload protection functions.



Product Features

Wide Measurement Range: The DC voltage output reaches 1100V, while the AC voltage output is 840V. The AC/DC current output is 30A with an AC output frequency ranging from 45Hz to 65Hz.

Stable Output: The distortion of AC output $\geq 0.2\%$, and the ripple content of DC output $\geq 0.2\%$.

Precision Adjustment: The output has many kinds of value adjustment modes such as fixed-point output, rotary encoder and step ratio.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

High Reliability: The output features comprehensive hardware and software protection functions, ensuring long-term reliability of the equipment.

Strong Loading Capacity: The full load condition ensures the stability and accuracy of the measurement value, which covers the calibration of analog meters.

Technical Parameter

Model No.	HZ1055 (Level 0.05)
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V,700V
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	$\pm 0.05\%RG$
Stability	0.01%RG/min
Distortion	$\leq 0.2\%$ (Non-Capacitive Load)
Output Loading	$\leq 30W$
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,25A
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	$\pm 0.05\%RG$

Technical Parameter

Model No.	HZ1055 (Level 0.05)
AC Current Output	
Stability	0.01%RG/min
Distortion	$\leq 0.2\%$ (Non-Inductive Load)
Output Loading	$\leq 60W$
AC Power Output	
Active Power Accuracy	$\pm 0.05\%RG$
Reactive Power Accuracy	$\pm 0.1\%RG$
Active Power Stability	0.01%RG/min
Reactive Power Stability	0.02%RG/min
Phase Output	
Measurement Range	0° ~ 359.999°
Regulating Range	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	$\pm 0.05^\circ$
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	± 0.0005
Frequency Output	
Regulating Range	45Hz ~ 65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001Hz
Accuracy	$\pm 0.005Hz$
Harmonic Settings	
Harmonic Number	2 ~ 41
Harmonic Content	0% ~ 40%
Harmonic Phase	0°~359.99°
DC Voltage Output	
Measurement Range	75mV,300mV,1V,3V,10V,30V,100V,500V,1000V
Regulating Range	0% ~ 110%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG

Technical Parameter

Model No.	HZ1055 (Level 0.05)
DC Voltage Output	
Accuracy	±0.02%RG
Stability	0.01%RG/min
Output Loading	≤30W
Ripple Coefficient	≤0.2%
DC Current Output	
Measurement Range	100μA,300μA,1mA,3mA,10mA,30mA,0.1A,0.3A,1A,5A,25A
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Output Loading	≤50W
Ripple Coefficient	≤0.2%
DC Power Output	
Regulating Range	0.01%RG/min
Accuracy	0.05%RG
General Technical Index	
Voltage & Frequency	AC(220±22)V,(50±2)Hz
Dimension	478.5 x 534 x 189mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	25kg (Not including accessories and package)
Ambient Operation Temperature	-20°C ~ 40°C, ≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

Typical Application

Calibrate DC voltmeter and ammeter. Calibrate AC voltmeter and ammeter.

HZ305 Series

AC/DC Programmable Standard Source

Product Description

The AC/DC programmable standard source features wide bandwidth, high power output, low distortion and strong load-carrying capability. Its voltage and current outputs incorporate open-circuit, short-circuit and overload protection functions, compatible with three-phase four-wire, three-phase three-wire and single-phase wiring configurations.



Product Features

Wide Measurement Range: The DC voltage output reaches 1100V, while the AC voltage output is 840V.

The AC/DC current output is 30A with an AC output frequency ranging from 45Hz to 65Hz.

Stable Output: The distortion of AC output $\geq 0.2\%$, and the ripple content of DC output $\geq 0.2\%$.

Precision Adjustment: The output has many kinds of value adjustment modes such as fixed-point output, rotary encoder and step ratio.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

High Reliability: The output features comprehensive hardware and software protection functions, ensuring long-term reliability of the equipment.

Strong Loading Capacity: The full load condition ensures the stability and accuracy of the measurement value, which covers the calibration of analog meters.

Technical Parameter

Model No.	HZ3055 (Level 0.05)
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V,700V
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Distortion	≤0.2%(Non-Capacitive Load)
Output Loading	≤30W
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,25A
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG

► Technical Parameter

Model No.	HZ3055 (Level 0.05)
AC Current Output	
Stability	0.01%RG/min
Distortion	≤0.2% (Non-Inductive Load)
Output Loading	≤60W
AC Power Output	
Active Power Accuracy	±0.05%RG
Reactive Power Accuracy	±0.1%RG
Active Power Stability	0.01%RG/min
Reactive Power Stability	0.02%RG/min
Phase Output	
Regulating Range	0° ~ 359.999°
Regulating Fineness	10°, 1°, 0.1°, 0.01°
Resolution	0.001°
Accuracy	±0.05°
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	±0.0005
Frequency Output	
Regulating Range	45Hz ~ 65Hz
Regulating Fineness	1Hz, 0.1Hz, 0.01Hz, 0.001Hz
Resolution	0.001Hz
Accuracy	±0.005Hz
Harmonic Settings	
Harmonic Number	2 ~ 31
Harmonic Content	0% ~ 40%
Harmonic Phase	0° ~ 359.99°
DC Voltage Output	
Measurement Range	75mV, 300mV, 1V, 3V, 10V, 30V, 100V, 500V, 1000V
Regulating Range	0% ~ 110%RG
Regulating Fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG
Accuracy	±0.02%RG
Stability	0.01%RG/min
Output Loading	≤30W
Ripple Coefficient	≤0.2%

Model No.	HZ3055(Level 0.05)
DC Current Output	
Measurement Range	100μA, 300μA, 1mA, 3mA, 10mA, 30mA, 0.1A, 0.3A, 1A, 5A, 25A
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Output Loading	≤50W
Ripple Coefficient	≤0.2%
DC Power Output	
Regulating Range	0.01%RG
Accuracy	0.05%RG
General Technical Index	
Voltage & Frequency	AC(220±22)V,(50±2)Hz
Dimension	478.5 x 534 x 189mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	35Kg(Not including accessories and package)
Ambient Operation Temperature	-20°C ~ 40°C, ≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

► Typical Application

Calibrate DC voltmeters and ammeters. Calibrate AC voltmeters and ammeters.

HZ103 Series

Single-Phase Programmable Standard Source

Product Description

This high stability AC standard power source delivers standard AC voltage, current, phase and power parameters. With rapid calibration and stable performance, it serves as a reliable High standard power source.



Product Features

Wide Output Range: AC Voltage Output Range 0V~456V , AC Current Output Range 0A~120A.

Strong Loading Capacity: Max. Voltage Output 50W, Max. Current Output 100W.

High Stability: The output adopts multi-stage closed-loop control and multi-stage overload detection technology to ensure the long-term stability and reliability of the output.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

Large storage: Built-in high-capacity FLASH ROM for storing and retrieving calibration data.

Technical Parameter

Model No.	HZ1035(Level 0.05)
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)
Stability	0.01%/min
Distortion	≤0.2% (Non-Capacitive Load)
Output Loading	≤50W
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,20A,50A,100A
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)
Stability	0.01%/min
Distortion	≤0.2%(Non-Inductive Load)
Output Loading	≤100W

Technical Parameter

Model No.	HZ1035(Level 0.05)
Phase Output	
Regulating Range	0°~359.999°
Regulating Fineness	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	±0.05°
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	±0.05%
Frequency Output	
Regulating Range	45Hz~65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001
Accuracy	0.5%
Harmonic Settings	
Harmonic Number	2~41
Harmonic Content	0%~40%
Harmonic Phase	0°~359.99°
Power/Electricity Output	
Accuracy	0.05%RG
Stability	0.01%RG/min
General Technical Index	
Voltage & Frequency	AC(220±22)V,(50±2)Hz
Dimension	478.5 x 614 x 177mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	≤18kg (Not including accessories and package)
Ambient Operation Temperature	-20°C~40°C,≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

Typical Application

Applicable to metering and testing centers of power grid companies, electricity consumption management departments of power supply companies, national level electric energy metering and testing institutions as well as industrial and mining enterprises and electric energy meter manufacturers. It could conduct quick and small-batch testing for various single-phase energy meters.

HZ303 Series

3-Phase Programmable Standard Source

Product Description

This high stability AC standard power source delivers standard AC voltage, current, phase and power parameters with rapid calibration and stable performance, making it suitable for high standard applications. It supports three-phase 4 wire, three-phase 3 wire and single-phase wiring configurations.



Product Features

Wide Output Range: AC Voltage Output Range 0V~456V, AC Current Output Range 0A~120A.

Strong Loading Capacity: Max. Voltage Output 50W, Max. Current Output 100W.

High Stability: The output adopts multi-stage closed-loop control and multi-stage overload detection technology to ensure the long-term stability and reliability of the output.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

Large Storage: Built-in high-capacity FLASH ROM for storing and retrieving calibration data.

Typical Application

It is suitable for the calibration and testing of three-phase AC voltmeters, ammeters, energy meters, transformers and other instruments.

Technical Parameter

Model No.	HZ3035(Level 0.05)
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)
Stability	0.01%/min
Distortion	≤0.2%(Non-Capacitive Load)
Output Loading	≤50W
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,20A,50A,100A
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)

Technical Parameter

Model No.	HZ3035 (Level 0.05)
AC Current Output	
Stability	0.01%/min
Distortion	≤0.2% (Non-Inductive Load)
Output Loading	100W
Phase Output	
Regulating Range	0°~359.999°
Regulating Fineness	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	±0.05°
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	±0.05%
Frequency Output	
Regulating Range	45Hz~65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001
Accuracy	0.5%
Harmonic Settings	
Harmonic Number	2~41
Harmonic Content	0%~40%
Harmonic Phase	0°~359.99°
Power/Electricity Output	
Accuracy	0.05%RG
Stability	0.01%RG/min
General Technical Index	
Voltage & Frequency	AC(220±22)V,(50±2)Hz
Dimension	478.5 x 614 x 177mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	≤35kg (Not including accessories and package)
Ambient Operation Temperature	-20°C~40°C,≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

HZ107/307 Series

Single/Three-Phase Programmable Power Source

Product Description

High precision, large power programmable power supply. Supports multiple waveform outputs and compliant with IR46 international standard.

Product Features

Strong Loading Capacity: Max. single-phase voltage output 900W and Max. single-phase current output is 1600W.

High Resolution: The voltage, current and power are better than 2×10^{-5} with phase 0.001° and frequency 0.001Hz.

Multi-scale Fineness Adjustment: Voltage and current outputs support four adjustment modes: 0.01% RG, 0.1% RG, 1% RG and 10% RG.

Supports Higher Harmonic Settings: Could set amplitude and phase 2~41 harmonics.

Multi-scenario applications: It can be used as a power source for high-grade three-phase electric energy meter and three-phase instrument verification device.

Supports Wireless Control: The device is equipped with an Android tablet controller for remote wireless control, offering convenient operation.

Support Device Self-check: Supports automatic fault detection and comprehensive protection features.

Multiple Communication Interfaces: Provides RS232 and RS485 interfaces for PC connectivity.

Support Waveform Processing: Supports IR46-related waveforms such as spike waves, flat-top waves and higher harmonics. Also it supports waveform editing and output.



Typical Application

This system is designed for power utilities, metrology departments, quality inspection agencies, research institutions and industrial enterprises requiring kW level output loading capabilities. It also serves as a power source for high grade three-phase energy meter calibration devices and three-phase instrument calibration systems.

Technical Parameter

Model No.	HZ107N	HZ307N
AC Voltage Output		
Measurement Range	57.7V, 100V, 220V, 380V	
Regulating Fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG	
Accuracy	0.1%RG	
Stability	0.02%/2min	
AC Current Output		
Measurement Range	10mA, 100mA, 1A, 2.5A, 5A, 10A, 50A, 100A	
Regulating Fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG	
Accuracy	0.1%RG	
Stability	0.02%/2min	

Technical Parameter

Model No.	HZ107N	HZ307N
Phase Output		
Regulating Range	0° ~ 359.99°	
Regulating Fineness	0.01°, 0.1°, 1°, 10°	
Accuracy	0.05°	
Frequency Output		
Regulating Range	45Hz ~ 65Hz	
Regulating Fineness	0.001Hz, 0.01Hz, 0.1Hz, 1Hz	
Accuracy	0.01Hz	
Harmonic Output		
Harmonic Number	2 ~ 41	
Regulating Fineness	0.1%	
Harmonic Content	2 ~ 41 ≤ 40%	
Harmonic Phase	0° ~ 359.99°	
Distortion	0.5% (Under linear load conditions)	
Three-Phase Electricity Symmetry		
Phase Difference Between Three-phase Voltage	Three-Phase 4 Wire Voltage: $120^\circ \pm 0.5^\circ$. Three-Phase 3 Wire Voltage: $60^\circ \pm 0.5^\circ$	
Phase Difference Between Three-phase Current	$120^\circ \pm 0.5^\circ$	
Max. Difference Between Phase Voltage & Phase Current	$\pm 0.5^\circ$	
Output Capacity		
Single-Phase Voltage	100VA ~ 900VA	
Single-Phase Current	200VA ~ 1600VA	
General Technical Index		
Voltage & Frequency	AC(380±38)V, (50±2)Hz	
Dimension	800 × 600 × 1745 mm (Not Including Matt)	
Net Weight	≤ 120kg (Not including accessories and package)	
Ambient Operation Temperature	0°C ~ 40°C, ≤ 80%RH	
Note: Dimensions and weight may be slightly vibrated to each batch of product.		

HZ611 Series

High Precision DC Standard Meter

Product Description

It provides high precision and wide measurement Range uses as the standard for DC electricity meter verification. Light and portable.



Product Features

Wide Measurement Range: Measurement Range of Voltage 750 μ V~1200V, Current 1 μ A~600A.

High Measurement Accuracy: Option of power uncertainty could be selected with 0.01%, 0.02%, 0.05%.

Measurement Range Automatic Switch: Voltage and current provides multiple Measurement Range. Measurement Range could be switched automatically or manually.

Diversified Function: Provides standard energy pulse input/output ports with adjustable pulse constants (automatic/manual mode). The system supports DC energy meter calibration, digital display functions and stability testing. Supports DC Ripple Measurement.

Human-Computer Interaction: Adopts large & colorful touch screen display and easy to operate.

Extensibility: Multiple interfaces including RJ45, RS232 and USB, facilitating the setup of automated testing systems.

Portable: The lightweight design keeps the total net weight under 8.5kg, meeting on-site verification requirements.

Technical Parameter

Model No.	HZ6111 (Level 0.01)	HZ6112(Level 0.02)	HZ6115(Level 0.05)
DC Voltage Measurement			
Small Voltage Measurement Range	1mV, 10mV, 100mV, 1V		
Large Voltage Measurement Range	100mV, 500mV, 1V, 5V, 10V, 50V, 100V, 500V, 1000V		
Measurement Range	0%~120%RG		
Resolution	0.005%RG		
Accuracy	0.003%RD+0.002%RG	0.006%RD+0.004%RG	0.015%RD+0.001%RG
DC Current Measurement			
Full Scale Range	10 μ A, 20 μ A, 50 μ A, 100 μ A, 0.2mA, 0.5mA, 1mA, 2mA, 5mA, 10mA, 20mA, 50mA, 0.1A, 0.2A, 0.5A, 1A, 2.5A, 5A, 10A, 25A, 50A, 500A (Note: 0 < I \le 50A banana plug, 50 < I \le 500A copper bus-bar pins)		
Measurement Range	0%~120%RG		
Resolution	0.005%RG		
Accuracy	0.006%RD+0.004%RG	0.012%RD+0.008%RG	0.03%RD+0.002%RG
DC Power Measurement			
Accuracy	0.01% (1V \le U \le 1200V, 10mA \le I \le 600A) 0.05% (1mV \le U<1V, 10 μ A \le I<10mA)	0.02% (1V \le U \le 1200V, 10mA \le I \le 600A) 0.08% (1mV \le U<1V, 10 μ A \le I<10mA)	0.05% (1V \le U \le 1200V, 10mA \le I \le 600A) 0.1% (1mV \le U<1V, 10 μ A \le I<10mA)

Model No.	HZ6111 (Level 0.01)	HZ6112(Level 0.02)	HZ6115(Level 0.05)
DC Electricity Measurement			
Accuracy	0.01% (1V \le U \le 1200V, 10mA \le I \le 600A) 0.05% (1mV \le U<1V, 10 μ A \le I<10mA)	0.02% (1V \le U \le 1200V, 10mA \le I \le 600A) 0.08% (1mV \le U<1V, 10 μ A \le I<10mA)	0.05% (1V \le U \le 1200V, 10mA \le I \le 600A) 0.1% (1mV \le U<1V, 10 μ A \le I<10mA)
DC Ripple Measurement			
Frequency	1Hz~3kHz		
Accuracy	\pm 0.05%RG(Valid Value Display)		
DC Electricity Pulse Output			
Constant Output Range	1r/kWh~2000000000r/kWh		
Pulse Frequency	\le 100kHz		
Output Loading Current	> 20mA		
DC Electricity Pulse Input			
Constant Output Range	1r/kWh~2000000000r/kWh		
Pulse Frequency	\le 50kHz		
Setting Range of Verification Loop	1~999999999		
General Technical Index			
Voltage & Frequency	AC(220 \pm 22)V,(50 \pm 2)Hz		
Dimension	363.5 x 485 x 133mm (W x D x H) (Not including Stand, Matt and Handle)		
Net Weight	\le 8.5kg (Not including accessories and package)		
Ambient Operation Temperature	-20 $^{\circ}$ C~40 $^{\circ}$ C, \le 85%RH		
Unit Power Consumption	\le 75W		
Note: Dimensions and weight may be slightly vibrated to each batch of product.			

Typical Application



Standard Meter for DC Electricity Meter Calibration Device

Calibration of DC Standard Source

It is ideal for power metering test center, power supply company and power plant metering department, national level metering test institutions, scientific research institutes, industrial and mining enterprises, electric energy meter and electric instrument manufacturers.

PIU Series

High Precision DC Tester

Product Description

High precision DC tester is capable of simultaneously measuring DC voltage, current, power and other electrical parameters.

Product Features

- Automatic switching of voltage and current measurement range.
- Could measure up to 110% of the limit. It could online upgrade product program.
- Adopt key components from leading manufacturers and employ cutting-edge international production technologies to ensure product reliability.
- Equips RS232 and RS485 communication interfaces for direct PC connectivity with optional CAN communication interface support.
- It is equipped with a 7.0-inch LCD screen.

Technical Parameter

Model No.	PIU600A	PIU1000A	PIU2000A	PIU3000A
DC Current Measurement				
Full Scale Range	600A	1000A	2000A	3000A
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG	0%~110%RG
Resolution	0.001%RD	0.001%RD	0.001%RD(200A≤I≤2000A)	0.001%RD(300A≤I≤3000A)
Accuracy	±0.01%RD(50A≤I≤600A) ±0.01%RG(10A≤I<50A) ±0.01%RD(0.5A≤I≤10A)	±0.01%RD(100A≤I≤1000A) ±0.01%RG(10A≤I<100A) ±0.01%RD(0.5A≤I≤10A)	±0.01%RD(200A≤I≤2000A) ±0.01%RG(20A≤I<200A) ±0.01%RD(2A≤I≤20A)	±0.01%RD(300A≤I≤3000A) ±0.01%RG(1A≤I<300A)
DC Voltage Measurement				
Full Scale Range	1000V	1000V	2000V	2000V
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG	0%~110%RG
Resolution	0.001%RD	0.001%RD	0.001%RD	0.001%RD
Accuracy	±0.01%RD (50V≤U≤1000V)	±0.01%RD (50V≤U≤1000V)	±0.01%RD (100V≤U≤2000V)	±0.01%RD (100V≤U≤2000V)
DC Power Measurement				
Accuracy	±0.01%RD (50V≤U≤1000V, 60A≤I≤600A)	±0.01%RD (50V≤U≤1000V, 100A≤I≤1000A)	±0.01%RD (100V≤U≤2000V, 200A≤I≤2000A)	±0.01%RD (100V≤U≤2000V, 300A≤I≤3000A)



Technical Parameter

Model No.	PIU600B	PIU1000B	PIU2000B	PIU3000B
DC Current Measurement				
Full Scale Range	600A	1000A	2000A	3000A
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG	0%~110%RG
Resolution	0.002%RD	0.002%RD	0.002%RD(200A≤I≤2000A)	0.002%RD(300A≤I≤3000A)
Accuracy	±0.02%RD(50A≤I≤600A) ±0.02%RG(10A≤I<50A) ±0.02%RD(0.5A≤I≤10A)	±0.02%RD(100A≤I≤1000A) ±0.02%RG(10A≤I<100A) ±0.02%RD(0.5A≤I≤10A)	±0.02%RD(200A≤I≤2000A) ±0.02%RG(20A≤I<200A) ±0.02%RD(2A≤I≤20A)	±0.02%RD(300A≤I≤3000A) ±0.02%RG(1A≤I<300A)
DC Voltage Measurement				
Full Scale Range	1000V	1000V	2000V	2000V
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG	0%~110%RG
Resolution	0.002%RD	0.002%RD	0.002%RD	0.002%RD
Accuracy	±0.02%RD (50V≤U≤1000V)	±0.02%RD (50V≤U≤1000V)	±0.02%RD (100V≤U≤2000V)	±0.02%RD (100V≤U≤2000V)
DC Power Measurement				
Accuracy	±0.02%RD (50V≤U≤1000V, 30A≤I≤600A)	±0.02%RD (50V≤U≤1000V, 100A≤I≤1000A)	±0.02%RD (100V≤U≤2000V, 200A≤I≤2000A)	±0.02%RD (100V≤U≤2000V, 300A≤I≤3000A)
General Technical Index				
Voltage & Frequency	AC(220±22)V,(50±2)Hz			
Dimension	382 x 245 x 165mm (W x D x H) (Not including Matt)			
Net Weight	≤9kg (Not including accessories and package)			
Ambient Operation Temperature	10°C~35°C, ≤85% RH No Corrosive Gas			
Unit Power Consumption	≤100W			
Pr-Heating	30min			
Note: Dimensions and weight may be slightly vibrated to each batch of product.				

Typical Application

It is suitable for DC power measurement in electric power, measurement, military, manufacturing, scientific research and other fields.

MIU Series

Mini DC Standard Meter

Product Description

The MIU is a 0.2-class miniature DC tester, compact and portable for field testing. It also features an optional 4G module for real-time power monitoring.

Product Features

It can measure DC voltage, current, power and electric energy. Capable of measuring voltage error, current error, power error, and energy error. Equipped with RS485 interface for direct communication with PCs. It can measure DC voltage, current, power and electric energy. Capable of measuring voltage error, current error, power error, and energy error. Equipped with RS485 interface for direct communication with PCs.

Typical Application

Online monitoring of charging piles, energy consumption of big data center services and solar panel power generation etc.

Technical Parameter

Model No.	MIU
DC Voltage Measurement	
Full Scale Range	750V
Measurement Range	0%~120%RG
Accuracy	±0.2%(100V<I≤750V)
DC Current Measurement	
Full Scale Range	250A
Measurement Range	0%~120%RG
Accuracy	±0.2%(25A<I≤250A)
DC Power Measurement	
Accuracy	±0.2%(100V<I≤750V,25A<I≤250A)
DC Electricity Measurement	
Accuracy	±0.2%(100V<I≤750V,25A<I≤250A)
General Technical Index	
RS485	12V
Electricity Pulse	≤20W
Other Index	
Operation Power Supply	1 Channel
Unit Power Consumption	Circuit 1 (Pulse Constant 3600)



HIU Series

High Precision AC/DC Tester

Product Description

High-precision, wide-range AC/DC testing device, is capable of simultaneously measuring single-phase AC/DC voltage, current, frequency, phase and active power.

Product Features

- It can measure single-phase AC/DC voltage, current, frequency, phase and active power.
- Automatic multi-range switching for voltage and current, capable of measuring up to 110% of the measuring limit.
- It features RS232 and RS485 communication interfaces for direct PC connectivity, with optional CAN communication interface support.
- Upgrade product program online.
- Provides 5.6 inches LCD screen.
- Ripple test to detect AC ripple below 1kHz.

Typical Application



Ideal for AC and DC power measurement in power, measurement, military manufacturing, scientific research and other fields.

Technical Parameter



Model No.	HIU600B/H(Level 0.02)	HIU1000B/H(Level 0.02)	HIU1500B/H(Level 0.02)
DC Current Measurement			
Full Scale Range	600A	1000A	1500A
Measurement Range	0%~110%RG		
Resolution	0.002%RD(20A≤I≤600A)	0.002%RD(30A≤I≤1000A)	0.002%RD(75A≤I≤1500A)
Accuracy	±0.02%RD(20A≤I≤600A)	±0.02%RD(30A≤I≤1000A)	±0.02%RD(75A≤I≤1500A)
DC Voltage Measurement			
Full Scale Range	1000V		
Measurement Range	0%~110%RG		
Resolution	0.002%RD(20V≤U≤1000V)		
Accuracy	±0.02%RD(20V≤U≤1000V)		
AC Current Measurement			
Full Scale Range	424A	707A	1000A
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG
Resolution	0.005%RD(15A≤I≤424A)	0.005%RD(20A≤I≤707A)	0.005%RD(50A≤I≤1000A)
Accuracy	±0.05%RD(15A≤I≤424A)	±0.05%RD(20A≤I≤707A)	±0.05%RD(50A≤I≤1000A)



► Technical Parameter

Model No.	HIU600B/H(Level 0.02)	HIU1000B/H(Level 0.02)	HIU1500B/H(Level 0.02)
AC Voltage Measurement			
Full Scale Range	707V		
Measurement Range	0%~110%RG		
Resolution	0.005%RD(30V≤U≤707V)		
Accuracy	±0.05%RD(30V≤U≤707V)		
DC Power Measurement			
Accuracy	±0.02%RD (20V≤U≤1000V,20A≤I≤600A)	±0.02%RD (20V≤U≤1000V,30A≤I≤1000A)	±0.02%RD (20V≤U≤1000V,75A≤I≤1500A)
AC Active Power Measurement			
Accuracy	±0.05%RD (30V≤U≤707V,15A≤I≤424A)	±0.05%RD (30V≤U≤707V,20A≤I≤707A)	±0.05%RD (30V≤U≤707V,50A≤I≤1000A)
Phase Measurement			
Measurement Range	0°~359.999°		
Resolution	0.001°		
Accuracy	±0.02°		
Frequency Measurement			
Measurement Range	40Hz~70Hz		
Resolution	0.001Hz		
Accuracy	±0.01Hz		
Allowable Error of Harmonic Measurement (Grade A)			
Testing Item	Condition	Tolerance	
Voltage	$U_b \geq 1\%U_N$	5% U_b	
	$U_b < 1\%U_N$	0.05% U_N	
Current	$I_b \geq 3\%I_N$	5% I_b	
	$I_b < 3\%I_N$	0.15% I_N	
General Technical Index			
Voltage & Frequency	AC(220±22)V,(50±2)Hz		
Dimension	100 x 300 x 185mm (WxDxH)(Not including Matt & Handle)	382 x 165 x 245mm (WxDxH)(Not including Matt)	
Net Weight	≤3kg (Not including accessories and package)	≤9kg (Not including accessories and package)	
Ambient Operation Temperature	10°C~35°C, ≤85%RH No Corrosive Gas		
Unit Power Consumption	< 30W		
Pr-heating	≤30min		
Product Appearance	HIU-B Series 	HIU-H Series 	

Note: Dimensions and weight may be slightly vibrated to each batch of product.

Model No.	HIU600L/E	HIU1000L/E
DC Current Measurement		
Full Scale Range	600A	1000A
Measurement Range	0%~110%RG	
Resolution	0.005%RD(500mA≤I≤600A)	0.005%RD(1A≤I≤1000A)
Accuracy	±0.05%RD(500mA≤I≤600A)	±0.05%RD(1A≤I≤1000A)
DC Voltage Measurement		
Full Scale Range	1000V	
Measurement Range	0%~110%RG	
Resolution	0.005%RD(20V≤U≤1000V)	0.005%RD(20V≤U≤1000V)
Accuracy	±0.05%RD(20V≤U≤1000V)	±0.05%RD(20V≤U≤1000V)
AC Current Measurement		
Full Scale Range	424A	707A
Measurement Range	0%~110%RG	
Resolution	0.005%RD(500mA≤I≤424A)	0.005%RD(1A≤I≤707A)
Accuracy	±0.05%RD(500mA≤I≤424A)	±0.05%RD(1A≤I≤707A)
AC Voltage Measurement		
Full Scale Range	707V	
Measurement Range	0%~110%RG	
Resolution	0.005%RD(35V≤U≤707V)	
Accuracy	±0.05%RD(35V≤U≤707V)	
DC Power Measurement		
Accuracy	±0.05%RD (20V≤U≤1000V,500mA≤I≤600A)	±0.05%RD (20V≤U≤1000V,1A≤I≤1000A)
AC Active Power Measurement		
Accuracy	±0.05%RD (30V≤U≤707V,500mA≤I≤424A)	±0.05%RD (30V≤U≤707V,1A≤I≤707A)
Product Appearance	HIU-L Series 	HIU-E Series 

Note: Dimensions and weight may be slightly vibrated to each batch of product.

PSM Series

Portable AC/DC Standard Meter

Product Description

PSM Collection AC/DC Portable Standard Meter could simultaneously measures single-phase AC/DC voltage, current, frequency, phase, active power, active electricity etc electrical parameters. Accuracy Could be 0.02% for DC current range at 500mA ~ 600A and 0.02% for DC voltage at 20V ~ 1,000V. It can be used as AC / DC standard electricity meter, DC power/electricity accuracy reaches 0.02% and AC power / electricity accuracy reaches level 0.05%.



Product Features

- Could detect AC ripple that below 1kHz.
- It could measure the single-phase AC/DC voltage, current, frequency, phase, active power, active power and other electrical parameters.
- Equips with RS232 and RS485 communication interface, directly communicate with computer online and CAN communication interface is optional.
- Could measure Total Harmonics Distortion of voltage and current, 2nd ~ 63rd harmonics analysis, real-time display component, content and Total Harmonics Distortion of each harmonics.
- Equips with standard electric pulse output interface, pulse constant automatic setting and electric pulse input interface that enables real-time verification of various active electricity meters.
- Voltage & current multi-range automatically switches and measures up to 110% of Maximum range.
- Programme upgrades online.

Technical Parameter

Model No.	PSM600H(0.02)	PSM1000H(0.02)	PSM1500H(0.02)
DC Current Measurement			
Full Scale Range	600A	1000A	1500A
Measurement Range	0%~110%RG		
Resolution	0.002%RD(1A≤I≤600A)	0.002%RD(2A≤I≤1000A)	0.002%RD(150A≤I≤1500A)
Accuracy	±0.02%RD(1A≤I≤600A)	±0.02%RD(2A≤I≤1000A)	±0.02%RD(150A≤I≤1500A)
DC Voltage Measurement			
Full Scale Range	1000V		
Measurement Range	0%~110%RG		
Resolution	0.002%RD(50V≤U≤1000V)		
Accuracy	±0.02%RD(50V≤U≤1000V)		

Model No.	PSM600H(0.02)	PSM1000H(0.02)	PSM1500H(0.02)
AC Current Measurement			
Full Scale Range	424A	707A	1000A
Measurement Range	0%~110%RG		
Resolution	0.005%RD(1A≤I≤424A)	0.005%RD(2A≤I≤707A)	0.005%RD(100A≤I≤1000A)
Accuracy	±0.05%RD(1A≤I≤424A)	±0.05%RD(2A≤I≤707A)	±0.05%RD(100A≤I≤1000A)
AC Voltage Measurement			
Full Scale Range	707V		
Measurement Range	0%~110%RG		
Resolution	0.005%RD(35V≤U≤707V)		
Accuracy	±0.05%RD(35V≤U≤707V)		
DC Power / Electricity Measurement			
Accuracy	±0.02%RD (50V≤U≤1000V,1A≤I≤600A)	±0.02%RD (50V≤U≤1000V,2A≤I≤1000A)	±0.02%RD (50V≤U≤1000V,150A≤I≤1500A)
AC Active Power / Electricity Measurement			
Accuracy	±0.05%RD (35V≤U≤707V,1A≤I≤424A)	±0.05%RD (35V≤U≤707V,2A≤I≤707A)	±0.05%RD (35V≤U≤707V,100A≤I≤1000A)
Pulse Constant Setting			
Electric Pulse Output	Electric Output Pulse Constant (r/kwh) could be set Setting Range: 1 ~ 2,000,000,000, Maximum Pulse Output Frequency: 160KHZ Electric Pulse: TTL/CMOS (Compatible Electrical Level Output) Load Capacity:>20mA Default Pulse Output Frequency:0.2Hz~ 160KHZ		
Electric Pulse Input	Setting Range for Pulse Constant of Rectified Power Energy Meter (r/kWh):1 ~ 2,000,000,000 Setting Range of Calibration Circle Number:1 ~ 999,999,999 Maximum Received Pulse Frequency: 50kHz		
Daily Timing Pulse input	Setting Range of Clock Frequency(Hz):0.01~50.000.00 Setting Range of Calibration Circle Number:1~999,999,999 Maximum Received Pulse Frequency: 50kHz		
General Technical Index			
Voltage & Frequency	AC(220±22)V,(50±2)Hz		
Dimension	382 x 165 x 245mm (W x D x H) (Not including Matt)		
Net Weight	≤9kg (Not including accessories and package)		
Ambient Operation Temperature	10°C~35°C, ≤85%RH No Corrosive Gas		
Unit Power Consumption	< 30W		
Pr-heating	≤30min		
Note: Dimensions and weight may be slightly vibrated to each batch of product.			

Typical Application

Applicable for metrological verification of single-phase AC/DC voltmeters, ammeters, energy meters, and power meters in metrology research institutes, government inspection agencies, and other metrological fields.

HZ111 Series

Single-Phase Multi-Functional Standard Meter

Product Description

Employed as a standard meter for testing electricity meters and electric instruments and applied to precise measurement of various AC electricity as well.



Product Features

- Voltage & current with multiple ranges, each range could be measured up to 120% of maximum range and automatically switch between ranges.
- Standard electric pulse output constant could be set either automatically or manually.
- Input port of electric pulse enables to real-time detect various active power energy meters.
- There is standard pulse output at any interface which is convenient to employ to other verification devices.
- Equips with RS232 interface that enables to communicate with computer online.
- Provide large LCD screen that displays operation & various measurement data.

Typical Application



Ideal to metrology & testing center of power grid companies, power supply companies and metrology departments of power plant, national metrology and testing institutions at all levels, the 3rd party quality inspection institutes, scientific research institutes, colleges and universities, industrial and mining enterprises, power energy meters and electric instruments etc manufacturing enterprises.

Technical Parameter

Model No.	HZ1112 (Level 0.02)	HZ1115 (Level 0.05)
Voltage Measurement		
Full Scale Range	60V, 120V, 240V, 480V	
Measurement Range	0% ~ 120%RG	
Resolution	0.01%RG	
Accuracy	0.02%RG(30V≤U≤480V)	0.05%RD(30V≤U≤480V)

Technical Parameter

Model No.	HZ1112 (Level 0.02)	HZ1115 (Level 0.05)
Current Measurement		
Full Scale Range	10mA, 50mA, 100mA, 500mA, 1A, 5A, 10A, 50A, 100A, 120A	
Measurement Range	0% ~ 120%RG	
Resolution	0.01%RG	
Accuracy	0.02%RD(25mA≤I≤100A); 0.05%(1mA≤I<25mA)	0.05%RD(25mA≤I≤100A); 0.1%RD(1mA≤I<25mA)
Power Measurement		
Active Power Accuracy	0.05%RD(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Reactive Power Accuracy	0.05%RD(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Apparent Power Accuracy	0.05%RD(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Electricity Measurement		
Active Electricity Accuracy	0.05%(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Reactive Electricity Accuracy	0.05%(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Phase Measurement		
Measurement Range	0° ~ 359.99°	
Resolution	0.001°	
Accuracy	0.02°(Voltage≥30V, Current≥25mA)	
Frequency Measurement		
Measurement Range	45Hz ~ 65Hz	
Resolution	0.001Hz	
Accuracy	1%	
Power Factor		
Measurement Range	-1.0 ~ 1.0(L/C)	
Resolution	0.0001	
Accuracy	0.05%	
General Technical Index		
Voltage & Frequency	AC(220±22)V, (50±2)Hz	
Dimension	363.5 x 485 x 133mm (W x D x H) (Not including Stand, Matt and Handle)	
Net Weight	≤13kg(Not including accessories and package)	
Ambient Operation Temperature	10°C~35°C, ≤85%RH No Corrosive Gas	
Unit Power Consumption	< 30W	
Pr-heating	≤30min	
Note: Dimensions and weight may be slightly vibrated to each batch of product.		

HZ311 Series

Three-Phase Multi-Functional Standard Meter

Product Description

Employed as a standard meter for testing electricity meters and electric instruments and applied to precise measurement of various AC electricity as well.



Product Features

- **Output Constant of Standard Electric Pulse** could be set either automatically or manually.
- **Standard Pulse Output** which is convenient to apply on other verification devices at any interface.
- **Power Pulse** Input port makes it is easy to detect all kinds of active power energy meters & reactive electricity meters.
- **Large LCD Screen** displays operation & various measurement data.
- **Voltage & Current with Multiple Range**, each range could be measured up to 120% and all ranges could be automatically switched
- **Could set measurement modes of three-phase** two-components cross phase 90° reactive power and 60° internal phase angle reactive power which is especially suitable for verifying the reactive power meter with similar wiring principle.

Technical Parameter

Model No.	HZ3112 (Level 0.02)	HZ3115 (Level 0.05)
AC Voltage Measurement		
Full Scale Range	60V, 120V, 240V, 480V	
Measurement Range	0% ~ 120%RG	
Resolution	0.01%RG	
Accuracy	0.02%RG(30V≤U≤480V)	0.05%RD(30V≤U≤480V)
AC Current Measurement		
Full Scale Range	10mA, 50mA, 0.1A, 0.5A, 1A, 5A, 10A, 50A, 100A	
Measurement Range	0% ~ 120%RG	
Resolution	0.01%RG	
Accuracy	0.02%RD(25mA≤I≤100A); 0.05%(2mA≤I<25mA)	0.05%RD(25mA≤I≤100A); 0.1%RD(2mA≤I<25mA)
Power Measurement		
Active Power Accuracy	0.05%RD(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Reactive Power Accuracy	0.05%RD(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Apparent Power Accuracy	0.05%RD(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Electricity Measurement		
Active Electricity Accuracy	0.05%(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	
Reactive Electricity Accuracy	0.05%(30V≤U≤480V, 25mA≤I≤100A, PF≥0.5)	

Model No.	HZ3112 (Level 0.02)	HZ3115 (Level 0.05)
Phase Measurement		
Measurement Range	0° ~ 359.99°	
Resolution	0.001°	
Accuracy	0.02°(Voltage≥30V, Current≥25mA)	
Frequency Measurement		
Measurement Range	45Hz ~ 65Hz	
Resolution	0.001Hz	
Accuracy	1%	
Power Factor		
Measurement Range	-1.0 ~ 0 ~ 1.0	
Resolution	0.0001	
Accuracy	0.05%	
Electric Pulse Output (Electric Pulse TTL/CMOS Compatible with Electrical Level Output)		
Electricity Output Pulse Constant Range	1 ~ 1800000000	
Max. Pulse Output Frequency	160kHz	
Loading Capacity	> 20mA	
Default Pulse Output Frequency	900Hz ~ 160kHz	
Electric Pulse Input		
Pulse Constant Input Range of Calibrated Electricity Meter	36000 ~ 2000000000	
Setting Range of Calibrated Circle	1 ~ 999999999	
Max. Received Pulse Frequency	50kHz	
General Technical Index		
Voltage & Frequency	AC(220±22)V, (50±2)Hz	
Dimension	363.5 x 485 x 133mm(W x D x H) (Not including Stand, Matt and Handle)	
Net Weight	≤13kg (Not including accessories and package)	
Ambient Operation Temperature	10°C~35°C, ≤85%RH No Corrosive Gas	
Unit Power Consumption	< 30W	
Pr-heating	< 30min	
Note: Dimensions and weight may be slightly vibrated to each batch of product.		

Typical Application

Ideal to metrology & testing center of power grid companies, power supply companies and metrology departments of power plant, national metrology and testing institutions at all levels, the 3rd party quality inspection institutes, scientific research institutes, labs of colleges and universities, industrial and mining enterprises, electricity meters and electric instruments etc manufacturing enterprises.



TPT Series

Three-Phase High Precision Standard Meter

Product Description

TPT Collection Three-Phase High Precision Standard Meter, Voltage / current measurement accuracy and power / electricity measurement accuracy both are 0.05% grade.



Functional Characteristics

- Real-time displays AC voltage, AC current, frequency, phase, active power, reactive power and other measurement value.
- Real-time displays electric energy deviation test progress and deviation results.

Real-Time Measurement				
U	I	φU	φI	φUI
U1	0.000000 V	0.000000 A	0.000000°	0.000000°
U2	0.000000 V	0.000000 A	0.000000°	0.000000°
U3	0.000000 V	0.000000 A	0.000000°	0.000000°
F	Q	S	PF	F
U1	0.000000 var	0.000000 VA	0.000000	0.000000Hz
U2	0.000000 var	0.000000 VA	0.000000	0.000000Hz
U3	0.000000 var	0.000000 VA	0.000000	0.000000Hz
±	0.000000 var	0.000000 VA	0.000000	0.000000Hz

Power Energy Error				
Constant of Electric Meter (imp/kWh)	Verify Circle	Verify Circle	Verify Circle	Verify Circle
10000	10	10	10	10
U1	0.000000 V	0.000000 A	0.000000°	0.000000°
U2	0.000000 V	0.000000 A	0.000000°	0.000000°
U3	0.000000 V	0.000000 A	0.000000°	0.000000°
2	0.000000	0.000000	0.000000	0.000000
E1%	0.000000	Energy%	0.000000	0.000000
E2%	0.000000	E4%	0.000000	0.000000
E3%	0.000000	Current Pulse Constant	0.000000	0.000000
E4%	0.000000	Pulse Count	0.000000	0.000000
E5%	0.000000	Verification Time	0 h 0 m 0 s	Verification Progress

Product Features

- Fundamental active power/electricity, total harmonic active power/electricity, sub-harmonic active power/ electricity could be measured.
- Verifies electricity deviation, the daily timing deviation & electrical word reading test.
- Voltage & current multi-range automatically switches and measures up to 110% of range limit.
- Could measure three-phase voltage, current, frequency, phase, active power, reactive power, apparent power, active electricity, reactive electricity, apparent electricity and other electrical parameters.
- Could measure Total Harmonics Distortion of voltage and current, 2nd ~ 63rd harmonics analysis, real-time display component, content and Total Harmonics Distortion of each harmonics.
- Equips with standard electric pulse output interface (pulse constant automatically set) and electric pulse input interface which can be real-time verification of various active power energy meters. Electric pulse constant could be auto-set.
- Provides with RS232 and RS485 communication interface, directly communicate with computer online. CAN communication interface is optional.
- Programme upgrades online.
- Equipped with a power pulse input interface for real-time calibration of various active electricity meters.

Typical Application

It widely applies in metrological verification of metrology research institutes, the 3rd party quality inspection institutes and other metrology fields of voltage meters, ammeters, single/multi-phase power energy meters and power meters etc.

Technical Parameter

Model No.	TPT80(Level 0.05)	
Voltage Measurement		
Full Scale Range	200V,400V	
Measurement Range	0%~110%RG	
Resolution	0.005%RG	
Accuracy	±0.05%RD(30V≤U≤400V)	
Current Measurement		
Full Scale Range	500mA,1A,2A,5A,10A,20A,40A,80A	
Measurement Range	0%~110%RG	
Resolution	0.005%RG	
Accuracy	±0.05%RD(500mA≤I≤80A)	
Measurement of Active Power		
Accuracy	±0.05%RD(30V≤U≤400V, 500mA≤I≤80A)	
Measurement of Active Electricity		
Accuracy	±0.05%RD(30V≤U≤400V, 500mA≤I≤80A)	
Phase Measurement		
Measurement Range	0°~359.99°	
Resolution	0.001°	
Accuracy	±0.02°(30V≤U≤400V, 500mA≤I≤80A)	
Frequency Measurement		
Measurement Range	40Hz~70Hz	
Resolution	0.001Hz	
Accuracy	±1%	
Harmonics Measurement		
Measurement Range	1~63	
Accuracy	0.05%	
Electric Pulse		
Electric Pulse Output	Electricity Output Pulse Constant (r/kwh) could be set. Setting Range: 1 ~ 2,000,000,000 Maximum Pulse Output Frequency: 160kHz. Electric Pulse: TTL / CMOS (Compatible Electrical Level Output). Load Capacity: > 20mA. Default Pulse Output Frequency: 0.2Hz~160KHz	
Electric Pulse Input	Setting Range for Pulse Constant of Rectified Power Energy Meter (r/kWh): 1~2,000,000,000 Setting Range of Calibration Circles Number: 1~999,999,999 Maximum Received Pulse Frequency: 50kHz	
Other Technical Parameter		
Timer	Clock Accuracy	0.1ppm
Power Factor	Annual Accuracy	±0.05%(500mA≤I≤80A)
Other Index	Power Supply	AC85~265V,50/60Hz
	Ambient Operation Temperature	10°C~35°C

HZ901D Series

DC Remote Metering & Monitoring Module for Off-board Charger

Product Description

HZ901D series 0.2 grade off-vehicle charger features a remote measurement and monitoring module that provides real-time measurement of voltage, current, power and energy consumption. Data could be transmitted to the user platform via 4G (optional).



Product Features

High Electricity Metering Accuracy: 0.2%.

Real-time Measurement of Multiple Power Quantities: Could measure multiple electrical parameters including voltage, current, active power, and electricity with dual-channel DC measurement capability.

Support Temperature Measurement: Accuracy $\pm 1^{\circ}\text{C}$.

Online Monitoring: Transmission of parameters such as electricity consumption via 4G network.

Remote Upgrade: Remotely upgrade software for the functions and performance of this module.

Easy to Install: Small size is convenient for guide rail installation.

Supports Pulse Calibration: An electrical pulse output interface for calibration and automatic setting of pulse constant.

Technical Parameter

Model No.	HZ901D
DC Voltage Measurement	
Full Scale Range	750V
Measurement Range	0%~120%RG
Accuracy	$\pm 0.2\%$
DC Current Measurement	
Full Scale Range	250A
Measurement Range	0%~120%RG
Accuracy	$\pm 0.2\%$
General Technical Index	
Voltage & Frequency	12V
Dimension	103 x 70 x 62mm (W x D x H)
Ambient Operation Temperature	-20 $^{\circ}\text{C}$ ~85 $^{\circ}\text{C}$, 5%~80%RH
Unit Power Consumption	$\leq 100\text{W}$
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

Technical Parameter

Model No.	HZ901D
Other Index	
Sampling Temperature Range	-25 $^{\circ}\text{C}$ ~+85 $^{\circ}\text{C}$
Temperature Accuracy	$\pm 1^{\circ}\text{C}$
Power Consumption	1 Channel $\leq 5\text{W}$, 2 Channel $\leq 10\text{W}$
485 Port	1 port
Wireless	1 Channel (4G)
Electric Pulse	Circuit 1 & Circuit 2 is optional

Typical Application

Ideal to remote measurement and monitoring of charging piles (machines) in operation.

EQS Series

Electric Quantity Sensor

Product Description

EQS series electrical transducer is a new generation of low-cost digital transducer produced by Hangzhi. The product adopts new software and hardware design which measure DC voltage, current, power, electric energy etc at the same time. It is widely applied in metrology institutes, government inspection institutions and other metrology fields.



Product Features

- Measurable DC voltage, current, power and electricity.
- Equipped with standard electric pulse output interface.
- Provide with diary pulse output interface.
- Provide function of online upgrade of product programme.
- Equipped with RS485 communication port, directly connected to PC for communication.
- Voltage and current could be measured up to 110% of the measurement limit.

Technical Parameter

Model No.	EQS300A	EQS500A	EQS1000A
DC Current Measurement			
Full Scale Range	250A	500A	1000A
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG
Accuracy	±0.5%RD(15A<I≤250A)	±0.5%RD(25A<I≤500A)	±0.5%RD(50A<I≤1000A)
DC Voltage Measurement			
Full Scale Range	750V	750V	750V
Measurement Range	0%~110%RG	0%~110%RG	0%~110%RG
Accuracy	±0.5%RD(45V<U≤750V)	±0.5%RD(45V<U≤750V)	±0.5%RD(45V<U≤750V)
DC Power Measurement			
Accuracy	±0.5%RD(45V<U≤750V, 15A<I≤250A)	±0.5%RD(45V<U≤750V, 25A<I≤500A)	±0.5%RD(45V<U≤750V, 50A<I≤1000A)
General Technical Index			
Electric Pulse Output	Electricity Output Pulse Constant 1200imp/kWh, Electric Pulse: TTL / CMOS (Compatible Electrical Level Output), Load Capacity: > 20mA		
Communication Port	RS485		
Nominal Value of Working Power Supply (Range Value)	DC 24V(16-34V)		
Ambient Operation Temperature	10°C~35°C		
Unit Power Consumption	<50W		
Pr-heating	≤30min		

Note: Dimensions and weight may be slightly vibrated to each batch of product.

DIT Series

High Precision Digital Current Transducer

Product Description

DIT series high precision digital current transducer measures single phase AC or DC Current and frequency etc at the same time.

Product Features

- Advanced Zero Magnetic Flux Closed Loop Circuit Sensor.
- Primary & secondary isolation measurement.
- Excellent linearity and precision.
- Extremely low temperature drift.
- Extremely low zero drift.
- Wide bandwidth and low response time.
- Strong anti-electromagnetic interference.

Typical Application

- Industrial Control.
- Medical Equipment.
- Railway, Electricity, Power Grid.
- Test Instrument.
- New Energy.



Technical Parameter

Model No.	DIT60-SG	DIT200-SG	DIT300-SG	DIT400-SG	DIT600-SG	DIT1000-SG	DIT1500-SG
AC Current Measurement							
Full Scale Range	42A	141A	212A	282A	424A	707A	1060A
Measurement Range	0%~110%RG						
Resolution	0.01%						
Accuracy	±0.05%						
DC Current Measurement							
Full Scale Range	±60A	±200A	±300A	±400A	±600A	±1000A	±1500A
Measurement Range	0%~110%RG						
Resolution	0.005%						
Accuracy	±0.02%						
Frequency Measurement							
Measurement Range	40Hz~70Hz						
Resolution	0.001Hz						
Accuracy	±0.01Hz						
Other Index							
Voltage & Frequency	±15VDC						
Ambient Operation Temperature	10°C~35°C, ≤85%RH No Corrosive Gas						

CPD Series

Metering Module of CPD Charging Protection Device

Product Description

CPD series 0.05 high precision AC and DC measurement module measures DC or single-phase AC voltage, current, frequency, phase, active power, active energy, harmonic distortion and so on.

Product Features

High Energy Metering Accuracy: The accuracy of electric energy is 0.05%, and the DC supports reverse measurement.

Real-time Measurement of Various Quantity of Electricity: It could measure voltage, current, frequency, phase, active power, electric energy and other quantities. It analyzes 2~63 harmonics of voltage and current, calculates each harmonic components, harmonic content and harmonic distortion in real-time.

High Precision Temperature and Humidity Measurement: Accuracy of temperature measurement $\pm 0.3^{\circ}\text{C}$, accuracy of humidity measurement $\pm 4\%$.

High Precision GPS Timing: Timing accuracy $\pm 1\mu\text{s}$.



Compatible with JJG1148 & JJG1149: It could check voltage error, current error, power error, electric energy error, daily timing error, working error, indication error and clock time error etc.

Pulse Calibration: The electric energy pulse input interface could be used to check various active energy meters in real-time. The electric energy pulse output interface could be used for calibration to this instrument.

Multiple Communication Ports: RS232, RS485, CAN (optional).

Remote Upgrades: Function and performance of the instrument could be upgraded online.

Typical Application

Ideal for charging piles (machines), DC or single-phase AC voltmeter, ammeter, energy meter and power meter measurement verification works.

Technical Parameter

Model No.	CPD300	CPD300A	CPD300D	CPD60
AC Voltage Measurement				
Full Scale Range	220V,380V	220V,380V	/	220V,380V
Measurement Range	0%~110%RG	0%~110%RG	/	0%~110%RG
Resolution	0.01%RG	0.01%RG	/	0.01%RG
Accuracy	$\pm 0.05\%RD(30V \leq U \leq 380V)$	$\pm 0.05\%RD(30V \leq U \leq 380V)$	/	$\pm 0.05\%RD(30V \leq U \leq 380V)$
AC Current Measurement				
Full Scale Range	63A	63A	/	63A
Measurement Range	0%~110%RG	0%~110%RG	/	0%~110%RG
Resolution	0.01%RG	0.01%RG	/	0.01%RG
Accuracy	$\pm 0.05\%RD(10A \leq I \leq 63A)$	$\pm 0.05\%RD(10A \leq I \leq 63A)$	/	$\pm 0.05\%RD(10A \leq I \leq 63A)$

Technical Parameter

Model No.	CPD300	CPD300A	CPD300D	CPD60
DC Voltage Measurement				
Full Scale Range	100V,200V,500V,750V	/	100V,200V,500V,750V	/
Measurement Range	0%~110%RG	/	0%~110%RG	/
Resolution	0.005%RG	/	0.005%RG	/
Accuracy	$\pm 0.05\%RD(60V \leq U \leq 750V)$	/	$\pm 0.05\%RD(60V \leq U \leq 750V)$	/
DC Current Measurement				
Full Scale Range	250A	/	250A	/
Measurement Range	0%~110%RG	/	0%~110%RG	/
Resolution	0.005%RG	/	0.005%RG	/
Accuracy	$\pm 0.05\%RD(10A \leq I \leq 250A)$	/	$\pm 0.05\%RD(10A \leq I \leq 250A)$	/
Power Measurement				
AC Power Accuracy	$\pm 0.05\%RD(30V \leq U \leq 380V, 10A \leq I \leq 63A)$	$\pm 0.05\%RD(30V \leq U \leq 380V, 10A \leq I \leq 63A)$	/	$\pm 0.05\%RD(30V \leq U \leq 380V, 10A \leq I \leq 63A)$
DC Power Accuracy	$\pm 0.05\%RD(60V \leq U \leq 750V, 10A \leq I \leq 250A)$	/	$\pm 0.05\%RD(60V \leq U \leq 750V, 10A \leq I \leq 250A)$	/
Electricity Measurement				
AC Electricity Accuracy	$\pm 0.05\%RD(30V \leq U \leq 380V, 10A \leq I \leq 63A)$	$\pm 0.05\%RD(30V \leq U \leq 380V, 10A \leq I \leq 63A)$	/	$\pm 0.05\%RD(30V \leq U \leq 380V, 10A \leq I \leq 63A)$
DC Electricity Accuracy	$\pm 0.05\%RD(60V \leq U \leq 750V, 10A \leq I \leq 250A)$	/	$\pm 0.05\%RD(60V \leq U \leq 750V, 10A \leq I \leq 250A)$	/
Phase Measurement				
Measurement Range	0°~359.99°	0°~359.99°	/	0°~359.99°
Resolution	0.001°	0.001°	/	0.001°
Accuracy	$\pm 0.02^{\circ}(30V \leq U \leq 380V, 10A \leq I \leq 63A)$	$\pm 0.02^{\circ}(30V \leq U \leq 380V, 10A \leq I \leq 63A)$	/	$\pm 0.02^{\circ}(30V \leq U \leq 380V, 10A \leq I \leq 63A)$
Frequency Measurement				
Measurement Range	40Hz~70Hz	40Hz~70Hz	/	40Hz~70Hz
Resolution	0.001Hz	0.001Hz	/	0.001Hz
Accuracy	$\pm 1\%$	$\pm 1\%$	/	$\pm 1\%$
Power Factor				
Measurement Range	-1.0~0~+1.0	-1.0~0~+1.0	/	-1.0~0~+1.0
Resolution	0.0001	0.0001	/	0.0001
Accuracy	$\pm 0.05\%$	$\pm 0.05\%$	/	$\pm 0.05\%$

Technical Parameter

Model No.	CPD300	CPD300A	CPD300D	CPD60
Ripple Measurement				
Accuracy	±0.05%RG	/	±0.05%RG	/
Bandwidth	≤1kHz	/	≤1kHz	/
Electric Pulse Output				
Electric Output Pulse Constant (r/kwh) could be set Setting Range: 1~2,000,000,000, Maximum Pulse Output Frequency:160kHz Electric Pulse: TTL / CMOS (Compatible Electrical Level Output) Load Capacity: > 20mA Default Pulse Output Frequency: 0.2Hz ~ 160KHz				
Electric Pulse Input				
Setting Range for Pulse Constant of Rectified Power Energy Meter (r/kWh): 1 ~ 2,000,000,000 Setting Range of Calibration Circle Number: 1 ~ 999,999,999 Maximum Received Pulse Frequency: 50kHz				
Daily Timing Pulse Input				
Setting Range of Clock Frequency (Hz): 0.01 ~ 50,000.00 Setting Range of Calibration Circle Number: 1 ~ 999,999,999 Maximum Received Pulse Frequency: 50kHz				
General Technical Index				
GPS Timing Accuracy	±1μs			
Clock Accuracy	±0.2ppm			
Temperature & Humidity Measurement	Range of Temperature Measurement: -25°C~+55°C Range of Humidity Measurement: 0%~100% Accuracy of Temperature Measurement: ±0.3°C Accuracy of Humidity Measurement: ±4% Resolution of Temperature Measurement: 0.1°C Resolution of Humidity Measurement: 1%			
Atmospheric Pressure Measurement	Measurement Range of Atmospheric Pressure: 300~1100hPa(Altitude: -500~+9000m) Relative Accuracy of Atmospheric Pressure Measurement: ±0.24hPa(±2m) Absolute Accuracy of Atmospheric Pressure Measurement: ±2hPa			
Voltage & Frequency	AC(220±22)V, (50±2)Hz			
Ambient Operation Temperature	10°C~35°C, ≤85%RH No Corrosive Gas			
Unit Power Consumption	< 30W			
Pr-Heating	≤30min			
Note: Dimensions and weight may be slightly vibrated to each batch of product.				

HZ901A Series

AC Remote Metering & Monitoring Module for Off-board Charger

Product Description

HZ901A series 0.2 grade AC remote metering & monitoring module for off-board charger could real-time measure voltage, current, power and electricity etc, and transmit data to the user platform via 4G (optional).



Product Features

High Energy Metering Accuracy: 0.2%.

Real-time Measurement of Various Quantity of Electricity: It could measure voltage, current, frequency, phase, active power, electric energy and other quantities. DC is compatible with dual-channel simultaneous measurement.

Compatible with Temperature Measurement: Accuracy ±1°C.

On-line Monitor: Transmit power and other parameters via 4G network.

Remote Upgrades: Function and performance of the instrument could be upgraded online.

Easy to Install: Small size is convenient for guide rail installation.

Pulse Calibration: The electric energy pulse output interface could be used for calibration to this instrument and automatic setting of pulse constant.

Technical Parameter

Model No.	HZ901A
AC Voltage Measurement	
Full Scale Range	220V
Measurement Range	0%~120%RG
Accuracy	±0.2%
AC Current Measurement	
Full Scale Range	32A
Measurement Range	0%~120%RG
Accuracy	±0.2%

► Technical Parameter

Model No.	HZ901A
General Technical Index	
Voltage & Frequency	220VAC (±20%)/+12VDC
Dimension	103 x 70 x 62mm (WxDxH)
Ambient Operation Temperature	-20°C~85°C,5%~80%RH
Unit Power Consumption	≤100W
Other Technical Index	
Sampling Temperature Range	-25°C~+85°C
Temperature Accuracy	±1°C
Power Consumption	1 Channel ≤5W, 2 Channel ≤10W
485 Port	1 port
Wireless	1 Channel (4G)
Electric Pulse	Circuit 1 & Circuit 2 is optional
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

► Typical Application

Ideal to remote measurement and monitoring of charging piles (machines) in operation.

TPM Series

Three-Phase Charger Detection Module

► Product Description

TPM series accuracy 0.05% level high precision AC metering module measures three-phase AC voltage, current, frequency, phase, active power, active energy, harmonic distortion and so on.

► Typical Application

It is suitable for the measurement and verification of three-phase AC charging piles, AC voltmeter, ammeter, electric meter and power meter.

► Product Features

High Electric Energy Metering Accuracy: The accuracy of electric energy 0.05%.

Real-time Measurement of Various Quantity of Electricity: It could measure voltage, current, frequency, phase, active power, electric energy and other quantities. It analyzes 2~ 63 harmonics of voltage and current, calculates each harmonic components, harmonic content and harmonic distortion in real-time.

High Precision Temperature & Humidity Measurement: Accuracy of temperature measurement $\pm 0.3^{\circ}\text{C}$, accuracy of humidity measurement $\pm 4\%$.

Compatible with JJG1148: It could check voltage error, current error, power error, electric energy error, daily timing error, working error, indication error and clock time error etc.

Pulse Calibration: The electric energy pulse input interface could be used to check various active energy meters in real-time. The electric energy pulse output interface could be used for calibration to this instrument.

Multiple Communication Ports: Compatible with RS232, RS485, CAN (optional).

Remote Upgrades: Function and performance of the instrument can be upgraded remotely.

High Precision GPS Timing: Timing accuracy $\pm 1\mu\text{s}$.



► Technical Parameter

Model No.	TPM80
AC Voltage Measurement	
Full Scale Range	220V,380V
Measurement Range	0%~110%RG
Resolution	0.01%RG
Accuracy	$\pm 0.05\%RD(30V \leq U \leq 380V)$
Temperature Coefficient	$\pm 10\text{ppmRD}/^{\circ}\text{C}(-20^{\circ}\text{C} \sim +50^{\circ}\text{C})$

Technical Parameter

Model No.	TPM80
AC Current Measurement	
Full Scale Range	63A
Measurement Range	0%~110%RG
Resolution	0.01%RG
Accuracy	±0.05%RD(5A≤I≤63A)
Temperature Coefficient	±10ppmRD/°C(-20°C~+50°C)
AC Power Measurement	
Accuracy	±0.05%RD(30V≤U≤380V,5A≤I≤63A)
AC Electricity Measurement	
Accuracy	±0.05%RD(30V≤U≤380V,5A≤I≤63A)
Phase Measurement	
Measurement Range	0°~359.99°
Resolution	0.001°
Accuracy	±0.02°(30V≤U≤380V,5A≤I≤63A)
Frequency Measurement	
Measurement Range	40Hz~70Hz
Resolution	0.001Hz
Accuracy	±0.01Hz
Power Factor Measurement	
Measurement Range	-1.0 ~ 0 ~ +1.0
Resolution	0.0001
Accuracy	±0.0005
Electric Pulse Output	
Electric Output Pulse Constant (r/kwh) could be set Setting Range: 1 ~2,000,000,000 Electric Pulse: TTL / CMOS (Compatible Electrical Level Output), Load Capacity: > 20mA Default Pulse Output Frequency: 0.2Hz ~160KHz	
Electric Pulse Input	
Setting Range for Pulse Constant of Rectified Power Energy Meter (r/kWh): 1 ~2,000,000,000 Setting Range of Calibration Circle Number: 1 ~999,999,999 Maximum Received Pulse Frequency: 50kHz	
Daily Timing Pulse Input	
Setting Range of Clock Frequency (Hz): 0.01 ~50,000.00 Setting Range of Calibration Circle Number: 1 ~999,999,999 Maximum Received Pulse Frequency: 50kHz	

Technical Parameter

Model No.	TPM80
General Technical Index	
GPS Timing Accuracy	±1μs
Clock Accuracy	±0.2ppm
Temperature & Humidity	Range of Temperature Measurement: -25°C~+55°C Accuracy of Temperature Measurement: ±0.3°C Resolution of Temperature Measurement: 0.1°C Range of Humidity Measurement: 0%~100% Accuracy of Humidity Measurement: ±4% Resolution of Humidity Measurement: 1%
Atmospheric Pressure Measurement	Measurement Range of Atmospheric Pressure: 300~1100hPa(Altitude: -500~+9000m) Relative Accuracy of Atmospheric Pressure Measurement: ±0.24hPa(±2m) Absolute Accuracy of Atmospheric Pressure Measurement: ±2hPa
Voltage & Frequency(DC)	DC10V~15V
Voltage&Frequency (AC)External)	AC(220±22)V,(50±2)Hz
Dimension	218 x 50 x 225mm (W x D x H)
Ambient Operation Temperature	-20°C~+50°C,≤85%RH No Corrosive Gas
Unit Power Consumption	≤18W
Pr-heating	≤30min
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

HZ2000 Series

Transducer Automatic Load Testing System

Product Description

Multifunctional work bench for automatically detecting current sensors, ideally apply to verification of the DC current zero output deviation, basic proportional deviation, linearity deviation of the transducer. The DC current standard source outputs large current 2,000A and measurement uncertainty of secondary output of the transducer reaches 0.005% grade.



Product Features

High Precision Measurement: Two 8 1/2 precision instruments are configured to ensure the accuracy and stability of the voltage measurement.

Design of Multi-Terminal: Standard configuration is 10 terminal and could be customize.

Automatic Pressing & Wiring: With automatic high current wire bonding device which is safe and convenient.

Wide Range Testing Power Supply: Independently controls standard testing power supply and accurately outputs 0~2,000A wide range DC current.

High Reliability: Standard testing power supply, transducer secondary signal measurement and auxiliary power supply are isolated from each other with high reliability.

Special Verification Software: Support semi / automatic calibration of the inspected meter, data recording, analysis management and protocol export.

Special Testing Software: Select test programme type of the corresponding transducer, set the sensor item number, model, range and output unit and set the limits related to the total accuracy. Could conduct fully automatic test according to the test scheme and automatically save test data.

Data Management: Test records can be queried according to the product number, type, date etc. The test records can be printed and saved.

Human-Computer Friendly Interaction: Equipped with LCD touch screen for observation or controlling value output which is easy users to operate.

System Consists

Model No.	HZ2000A
System Module	Module Elaboration
Standard Testing Power Supply	0A ~ 2,000A Wide Range DC Current Output
Transducer Secondary Voltage Measuring Instrument	8 1/2 High Precision Digit Multi-meter
Auxiliary Power Supply	DC±15V Stabilized Voltage Power Supply
Calibration Work Bench	Design with 10 Terminal & Customize
Passing Through Sensor Testing Fixture	Customize
Computer&Measuring Software	Special Verification Software, Test Software, Support Fully Automatic Testing with Data Management

Typical Application

Apply to Detection and Calibration of High Precision Current Transducer.

HZ101 Series

Portable Testing Device for Single-phase Electric Energy Meter

Product Description

High stability AC standard power source delivers standard AC voltage, current, phase and power parameters with rapid calibration and stable performance, which making it ideal as high standard power source.



Product Features

Wide Output Range: Max. Voltage Output 456V, Max. Current Output 120A.

Strong Loading Capacity: Max. Voltage Output 50W, Max. Current Output 100W.

High Reliability: Output adopts multi-stage closed-loop control and multi-stage overload detection technology to ensure long-term stability and reliability of the output.

Human-Computer Friendly Interaction: Equipped with LCD touch screen for observation or controlling value output which is easy users to operate.

Large Storage: Built-in high-capacity FLASH ROM for storing and retrieving calibration data.

Electricity Measurement: Compatible with electric pulse input and output.

Functional Characteristics

It automatically or manually verifies the basic error, creeping, startup and standard deviation of single-phase electricity meters.

Test of changes caused by influencing factors such as voltage, frequency and harmonics.

It outputs high stable and accurate AC voltage, current, phase and other parameters synchronously.

Technical Parameter

Model No.	HZ1015(Level 0.05)
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)
Stability	0.01%/min
Distortion	≤0.2% (Non-Capacitive Load)
Output Loading	≤50W

Technical Parameter

Model No.	HZ1015(Level 0.05)
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,20A,50A,100A
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	$\pm(0.03\%RG+0.02\%RD)$
Stability	0.01%/min
Distortion	$\leq 0.2\%$ (Non-Inductive Load)
Output Loading	$\leq 100W$
Phase Output	
Regulating Range	0°~359.999°
Regulating Fineness	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	$\pm 0.05^\circ$
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	± 0.0005
Frequency Output	
Regulating Range	45Hz~65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001Hz
Accuracy	0.005Hz
Harmonic Settings	
Harmonic Number	2~41
Harmonic Content	0~40%
Harmonic Phase	0°~359.99°
AC Power/Electricity Output	
Accuracy	0.05%RG
Stability	0.01%RG/min

Technical Parameter

Model No.	HZ1015(Level 0.05)
General Technical Index	
Voltage & Frequency	AC(220 \pm 22)V,(50 \pm 2)Hz
Dimension	478.5 x 614 x 177mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	$\leq 18kg$ (Not including accessories and package)
Ambient Operation Temperature	-20°C~40°C, $\leq 85\%RH$
Unit Power Consumption	$\leq 1kW$
Note:Dimensions and weight may be slightly vibrated to each batch of product.	

Typical Application

It is ideal to power metering and testing center of power grid companies, electricity management department of power supply companies, national electric energy metering and testing institutions at all levels as well as industrial and mining enterprises and electric energy meter manufacturers to carry out various quick and small batch testings of single-phase electric energy meter.

HZ301 Series

Portable Testing Device for Three-phase Electric Energy Meter

Product Description

High stability AC standard power source delivers standard AC voltage, current, phase and power parameters with rapid calibration and stable performance, which making it ideal as high standard power source.

Product Features

Wide Output Range: AC Voltage Output Range 0V~456V, AC Current Output Range 0A~120A.

Strong Loading Capacity: Max. Voltage Output 50W Each Phase, Max. Current Output 100W Each Phase.

High Reliability: Output adopts multi-stage closed-loop control and multi-stage overload detection technology to ensure long-term stability and reliability of the output.

Human-Computer Friendly Interaction: Equipped with LCD touch screen for observation or controlling value output which is easy users to operate.

Large Storage: Built-in high-capacity FLASH ROM for storing and retrieving calibration data.

Electricity Measurement: Compatible with electric pulse input and output.

Functional Characteristics

- It automatically or manually verifies the basic error, creeping, startup and standard deviation of single-phase and three-phase electricity meters.
- Test of changes caused by influencing factors such as voltage, frequency and harmonics.
- It outputs high stable and accurate AC three-phase voltage, current, phase and other parameters synchronously, or independently phase-regulated as well.

Technical Parameter

Model No.	HZ3015(Level 0.05)
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)
Stability	0.01%/min
Distortion	≤0.2%(Non-Capacitive Load)
Output Loading	≤50W



Typical Application

It is ideal to power metering and testing center of power grid companies, electricity management department of power supply companies, national electric energy metering and testing institutions at all levels as well as industrial and mining enterprises and electric energy meter manufacturers to carry out various quick and small batch testings of single-phase electric energy meter.

Model No.	HZ3015(Level 0.05)
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,20A,50A,100A
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±(0.03%RG+0.02%RD)
Stability	0.01%/min
Distortion	≤0.2% (Non-Inductive Load)
Output Loading	100W
Phase Output	
Regulating Range	0° ~ 359.999°
Regulating Fineness	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	±0.05°
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Frequency Output	
Regulating Range	45Hz ~ 65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001Hz
Accuracy	0.5%
Harmonic Settings	
Harmonic Number	2~41
Harmonic Content	0% ~ 40%
Harmonic Phase	0° ~ 359.99°
AC Power/Electricity Output	
Accuracy	0.05%RG
Stability	0.01%RG/min
General Technical Index	
Voltage & Frequency	AC(220±22)V,(50±2)Hz
Dimension	478.5 x 614 x 177mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	≤35kg(Not including accessories and package)
Ambient Operation Temperature	-20°C~40°C. ≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

HZ102 Series

Multi-Function Calibration Apparatus for Electrical Measuring Instrument

Product Description

Multi-Function Calibration Apparatus for Electrical Measuring Instrument, The amplifier features wide output bandwidth, high power output, low distortion and strong loading capability. its voltage and current outputs provide with protection functions for open circuit, short circuit and overload. The device could also implement high precision DC measurement which could be applied for transmitter verification.



Product Features

Wide Measurement Range: Max. Output of DC Voltage 1100V, Max. Output of DC Voltage 840V. Max. Output of AC/DC Current 30A, AC Frequency Output 45Hz~65Hz.

Stable Output: Distortion of AC Output $\geq 0.2\%$, DC Output Ripple Content $\geq 0.2\%$.

Precision Adjustment: The output features multiple adjustment modes including fixed-point output, rotary encoder and step ratio.

Human-Computer Friendly Interaction: Equipped with LCD touch screen for observation or controlling value output which is easy users to operate.

High Reliability: The output features comprehensive hardware and software protection functions, ensuring long-term reliability of the instrument.

Strong Loading Capacity: Ensure stability and accuracy of the measuring value at full load, which could cover the calibration of analog meters.

Large Storage: Built-in high-capacity FLASH ROM for storing and retrieving calibration data.

Multi-scheme Meter Calibration: Energy meter could be calibrated according to its calibrated load points or user-defined points.

Functional Characteristics

It provides multiple functions including AC standard source, DC standard source, transmitter calibration and electric energy error verification. The measurement output supports various adjustment modes such as fixed-point output, rotary encoder and step proportional. It also supports electric energy error verification.

Technical Parameter

Model No.	HZ1021
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V,700V
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	$\pm 0.05\%RG$
Stability	0.01%RG/min
Distortion	$\leq 0.2\%$ (Non-Capacitive Load)
Output Loading	$\leq 30W$

Technical Parameter

Model No.	HZ1021
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,25A
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	$\pm 0.05\%RG$
Stability	0.01%RG/min
Distortion	$\leq 0.2\%$ (Non-Inductive Load)
Output Loading	$\leq 60W$
AC Power Output	
Active Power Accuracy	$\pm 0.05\%RG$
Reactive Power Accuracy	$\pm 0.1\%RG$
Active Power Stability	0.01%RG/min
Reactive Power Stability	0.02%RG/min
Phase Output	
Regulating Range	0°~359.999°
Regulating Fineness	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	$\pm 0.05^\circ$
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	$\pm 0.05\%$
Frequency Output	
Regulating Range	45Hz~65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001Hz
Accuracy	$\pm 0.5\%$
Harmonic Settings	
Harmonic Number	2~41
Harmonic Content	0%~40%
Harmonic Phase	0°~359.99°
DC Voltage Output	
Measurement Range	75mV,300mV,1V,3V,10V,30V,100V,500V,1000V
Regulating Range	0%~110%RG

Technical Parameter

Model No.	HZ1021
DC Voltage Output	
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.02%RG
Stability	0.01%RG/min
Output Loading	≤30W
Ripple Coefficient	≤0.2%
DC Current Output	
Measurement Range	100μA,300μA,1mA,3mA,10mA,30mA,0.1A,0.3A,1A,5A,25A
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Output Loading	≤50W
Ripple Coefficient	≤0.2%
DC Power Output	
Regulating Range	0.01%RG/min
Accuracy	0.05%RG
General Technical Index	
Voltage & Frequency	AC(220±22)V,(50±2)Hz
Dimension	478.5 x 534 x 189mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	25kg (Not including accessories and package)
Ambient Operation Temperature	-20°C~40°C,≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

Typical Application

Calibrate DC voltmeter and ammeter. Calibrate AC voltmeter and ammeter.

HZ302 Series

Multi-Function Calibration Apparatus for Electrical Measuring Instrument

Product Description

Multi-Functional Calibration Apparatus for Electrical Measuring Instrument. The power amplifier features wide output bandwidth, high power, low distortion and strong loading capability. Voltage and current outputs provide with open-circuit, short-circuit and overload protection functions. The apparatus possesses high-precision DC measurement capabilities and could be used for transmitter calibration.



Product Features

Wide Measurement Range: Max. Output of DC Voltage 1100V, Max. Output of DC Voltage 840V. Max. Output of AC/DC Current 30A, AC Frequency Output 45Hz~65Hz.

High Measurement Accuracy: Capable of measuring 0~±10V DC voltage and 0~±20mA DC current, with an accuracy of 0.01% RG.

Stable Output: Distortion of AC Output ≥0.2%, DC Output Ripple Content ≥0.2%.

Precision Adjustment: The output features multiple adjustment modes including fixed-point output, rotary encoder and step ratio.

Human-Computer Friendly Interaction: Equipped with LCD touch screen for observation or controlling value output which is easy users to operate.

High Reliability: The output features comprehensive hardware and software protection functions, ensuring long-term reliability of the instrument.

Strong Loading Capacity: Ensure stability and accuracy of the measuring value at full load, which could cover the calibration of analog meters.

Large Storage: Built-in high-capacity FLASH ROM for storing and retrieving calibration data.

Multi-scheme Meter Calibration: Energy meter could be calibrated according to its calibrated load points or user-defined points.

Functional Characteristics

Provides various functions, such as AC standard source, DC standard source, transmitter verification, electric energy error verification, etc.



The measurement output supports multiple adjustment modes including fixed-point output, rotary encoder and step ratio. It also supports electrical energy error verification.



► Technical Parameter

Model No.	HZ3021
AC Voltage Output	
Measurement Range	57.7V,100V,220V,380V,700V
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Distortion	≤0.2% (Non-Capacitive Load)
Output Loading	≤30W
AC Current Output	
Measurement Range	100mA,200mA,500mA,1A,2A,5A,10A,25A
Regulating Range	0%~120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Distortion	≤0.2% (Non-Inductive Load)
Output Loading	≤60W

► Technical Parameter

Model No.	HZ3021
AC Power Output	
Active Power Accuracy	±0.05%RG
Reactive Power Accuracy	±0.1%RG
Active Power Stability	0.01%RG/min
Reactive Power Stability	0.02%RG/min
Phase Output	
Regulating Range	0°~359.999°
Regulating Fineness	10°,1°,0.1°,0.01°
Resolution	0.001°
Accuracy	±0.05°
Power Factor	
Regulating Range	-1.0~1.0(L/C)
Resolution	0.0001
Accuracy	±0.05%
Frequency Output	
Regulating Range	45Hz~65Hz
Regulating Fineness	1Hz,0.1Hz,0.01Hz,0.001Hz
Resolution	0.001Hz
Accuracy	±0.5%
Harmonic Settings	
Harmonic Number	2~41
Harmonic Content	0%~40%
Harmonic Phase	0°~359.99°
DC Voltage Output	
Measurement Range	75mV,300mV,1V,3V,10V,30V,100V,500V,1000V
Regulating Range	0%~110%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.02%RG
Stability	0.01%RG/min
Output Loading	≤30W
Ripple Coefficient	≤0.2%

► Technical Parameter

Model No.	HZ3021
DC Current Output	
Measurement Range	100μA,300μA,1mA,3mA,10mA,30mA,0.1A,0.3A,1A,5A,25A
Regulating Range	0% ~ 120%RG
Regulating Fineness	0.01%RG,0.1%RG,1%RG,10%RG
Accuracy	±0.05%RG
Stability	0.01%RG/min
Output Loading	≤50W
Ripple Coefficient	≤0.2%
DC Power Output	
Regulating Range	0.01%RG/min
Accuracy	0.05%RG
DC Input Voltage Measurement	
Measurement Range	-10V~10V
Resolution	0.001%RG
Accuracy	±0.01%RG
DC Input Current Measurement	
Measurement Range	-20mA~20mA
Resolution	0.001%RG
Accuracy	±0.01%RG
Electric Power Error Measurement (40V~400V)	
Active Energy Accuracy	±0.05%RG
Reactive Energy Accuracy	±0.1%RG
Input of Pulse Energy Detected	
Pulse Level	5V~24V, ±5mA
Input Frequency	≤100kHz
Standard Electric Pulse Output	
Pulse Level	5V±5%,100mA, Short-circuit Protection
Output Frequency	50kHz

Model No.	HZ3021
General Technical Index	
Voltage & Frequency	AC(220±22)V, (50±2)Hz
Dimension	478.5 x 534 x 189mm (W x D x H) (Not including Stand, Matt and Handle)
Net Weight	35kg (Not including accessories and package)
Ambient Operation Temperature	-20°C~40°C, ≤85%RH
Unit Power Consumption	≤1kW
Note: Dimensions and weight may be slightly vibrated to each batch of product.	

► Typical Application

