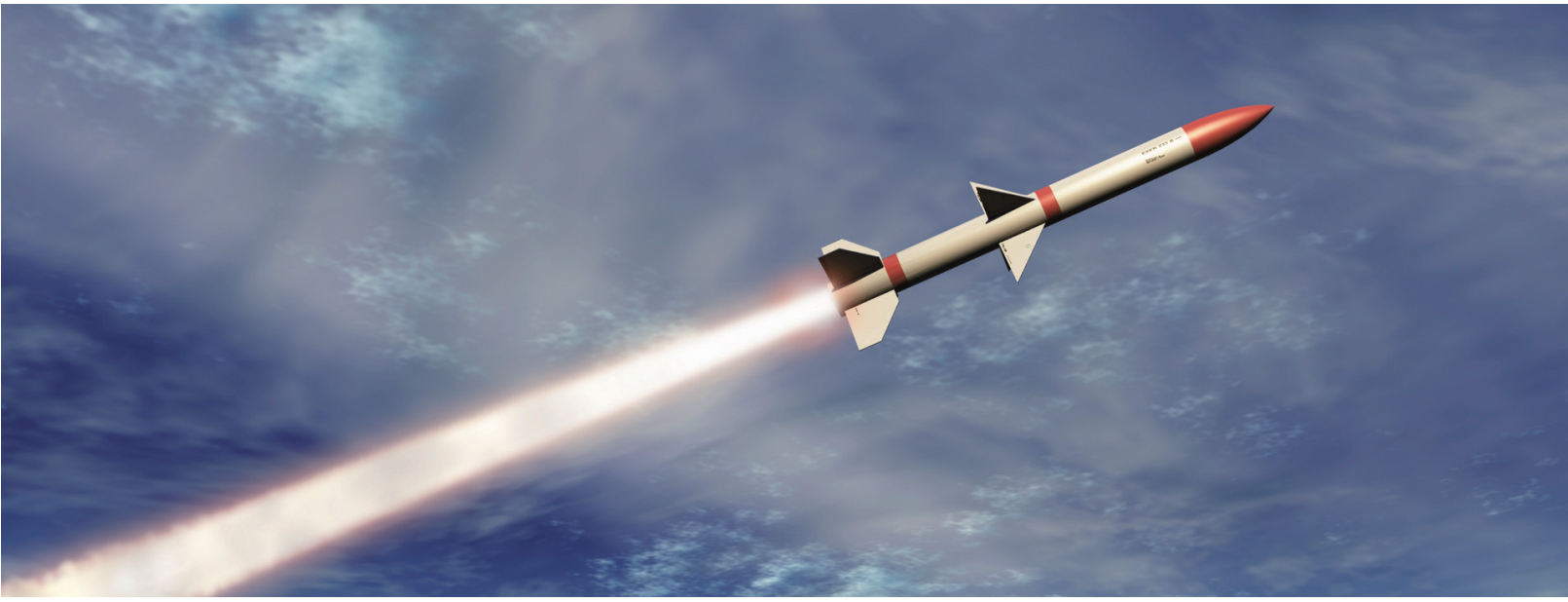
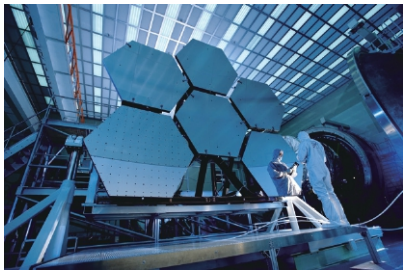
HY-GT Series

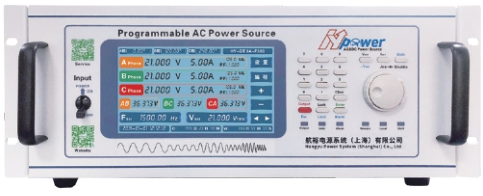
Gyroscope Test Power Source (Compass Power Supply)

AC&DC Power Source

Hangyu Power System (Shanghai) Co., Ltd.







HY-GT Series Gyroscope Test Power Source （Compass Power Supply)

High Purity, High Precision, High Reliability

Product Features

- Output frequency range 300Hz-1500Hz，
  optional 300Hz-5000Hz，set resolution 0.01Hz
- Output capacity range 100VA - 3000VA
- Output voltage AC 0-60Vrms，set resolution 0.01V
- Output phase difference dual phase 90 °/three-phase 120 °
- Output waveform sine wave, optional square wave output
- Linear power technology, low ripple noise, high stability, and
  no high-frequency interference
- Supports front panel programming without the need for
  upper computer software control
- Power output soft start function
- 16 bits D/A High precision converter with precise output
- 16 bits A/D High precision converter for more accurate read back
- Multiple protection functions OVP / OCP / OTP
- 19 Inch standard rack size or floor mounted cabinet
- 7-Inch large LCD display screen
- Touch screen operation&number key input
- Multistage shuttle adjustment knob
- Output ON/OFF button
- Intelligent speed control design for fans to reduce noise
- Front/side air inlet, rear air outlet, saving heat dissipation space
- Supports Modbus protocol
- Standard interface：RS-485&RS-232
- Purchasing interface：LAN&CAN
  USB
  GPIB
  Analog programming and monitoring (isolated type)

Application Field

- Guidance system gyroscope testing
- Rotating
  transformer
- Gyro motor
- Scientific research

HY-GT Series Product Selection Table

In the selection table, special specifications beyond the voltage/frequency/ output capacity range are accepted for customization.

HY-GT Series Gyroscope Test Power Source (Compass Power Supply)						
Frequency	300-1500Hz (Optional: 300-5000Hz)					
Voltage	0-30Vrms (Optional: 0-60Vrms)					
Wave form	Sine wave (A) , Square wave (B)					
Biphasic	100VA	200VA	400VA	600VA	1000VA	2000VA
Three-phase	150VA	300VA	600VA	900VA	1500VA	3000VA

Product Model Naming Rules

Product series	Input phase number	Output phase number	Output capacity		Wave form
HY-GT	1	2	100	-	A
Series Name	1: Input single-phase 3: Input three-phase	2: Output biphasic 3: Output three-phase	Output capacity 100VA		Wave form A:Sine wave B:Square wave

Selection examples:
Model: HY-GT 12100-A
Input single-phase, output two-phase, output capacity 100VA, sine wave.

AC Output	
Connection	Single phase two wire or three-phase four wire+ground wire
Frequency setting range	Standard：300-500Hz，Optional：300-5000Hz
Input adjustment rate	≤0.5%F.S.
Load regulation	≤0.5%F.S.
Waveform distortion (THD)	Sine wave，THD<0.6%（Test when the output is greater than 20% resistive load）
phase difference	The three-phase voltage is independently adjustable, with a phase difference of 0-359.99 ° adjustable.
Output waveform	Sine wave, optional square wave
Programming And Read Back Accuracy & Resolution	
Voltage output programming accuracy	≤0.5%F.S.，Optional ≤0.1%
Frequency output programming accuracy	±0.01%F.S.
Voltage setting resolution	0.01V
Frequency setting resolution	0.01Hz
Voltage output readback accuracy	±0.5%F.S.
Current output readback accuracy	±0.5%F.S.
Voltage read back resolution	0.01V
Current read back resolution	0.0001A（≤ 6A）；0.001A（≤ 60A）；0.01A（> 650A）；0.1A（>650A）
Protection Function	
Overload capacity	125% current for 15 seconds, 150% current for 5 seconds, 200% current for 2 seconds, 300% current immediately stops
Protection function	Overvoltage, overcurrent, internal overheating, short circuit
Ambient Condition	
Environment	Indoor use; Installation overvoltage level: II; Pollution level: P2; Class II equipment
Ambient temperature	0℃ to 45℃；-20℃ to 55℃；choose -40℃ to 55℃
Storage environment temperature	-20℃ to 65 ℃
Working environment humidity	20%-90%RH，No condensation, continuous operation
Storage environment humidity	10%-95%RH，No condensation
Altitude	Above an altitude of 2000 meters, the power decreases by 2% for every 100 meters increase, or the maximum working environment temperature decreases by 1 ℃ for every 100 meters; When not in operation, it can reach an altitude of 12000 meters
Burial	Forced air cooling, intelligent variable speed fan, both sides/front air inlet, rear air outlet
Noise	≤ 65dB(A)，Weighted measurement using 1m

HY-GT Series Ordering Information

Control Panel	
Monitor	7-Inch, LCD Display, touch screen
Display item	Line voltage/phase voltage (set value&measured value), current measurement value Frequency setting value, working time, cumulative working time, current time and date
Control function	Number button input, multi-level shuttle knob adjustment (outer circle coarse adjustment/ inner circle fine adjustment)Output ON/OFF switch, Lock keyboard and touch lock, Reset restart Status indicator light (Shift / Local / Remote / Alarm / Lock / Output)
Programming function	Step/ ladder /gradient
Communication Interface	
Standard configuration	RS-485 & RS-232
Choose	LAN、CAN、USB、GPIB, Analog programming and monitoring interface (isolated type)
Appearance Color & Size	
Colour	RAL 7035
Size	4U，Standard 19 inch rack mounted or desktop (with fixed foot pads); 10U，Standard 19 inch rack mounted or floor mounted (with movable universal casters and brakes);

Purchasing Interface

- LAN LAN Communication interface
- CAN CAN Communication interface
- USB USB Communication interface
- GPIB GPIB Communication interface
- APM Analog programming and monitoring interface (isolated type)

Purchasing Function

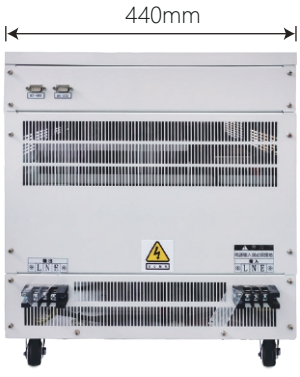
- HR High resolution/precision
- T2 Operation temperature -20℃ to 55℃
- T4 Operation temperature -40℃ to 55℃
- CF User defined functions (please specify when ordering)
- MR Measurement report (issued by a third party certified by CNAS)

*The equipment operates continuously for more than 30 minutes at the specified operating temperature Only then can all technical indicators be guaranteed.

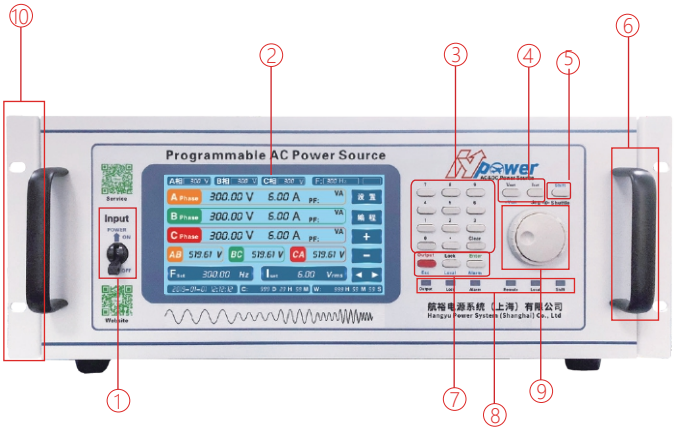
Appearance & Size

4U 433(W)*560(D)*177(H)mm

10U 440(W)*600(D)*445(H)mm

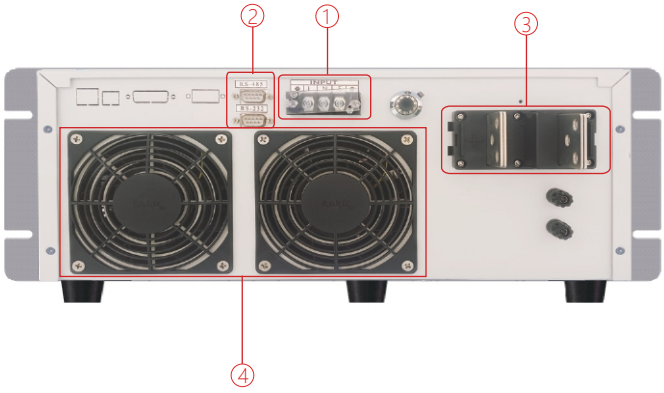


Control Panel



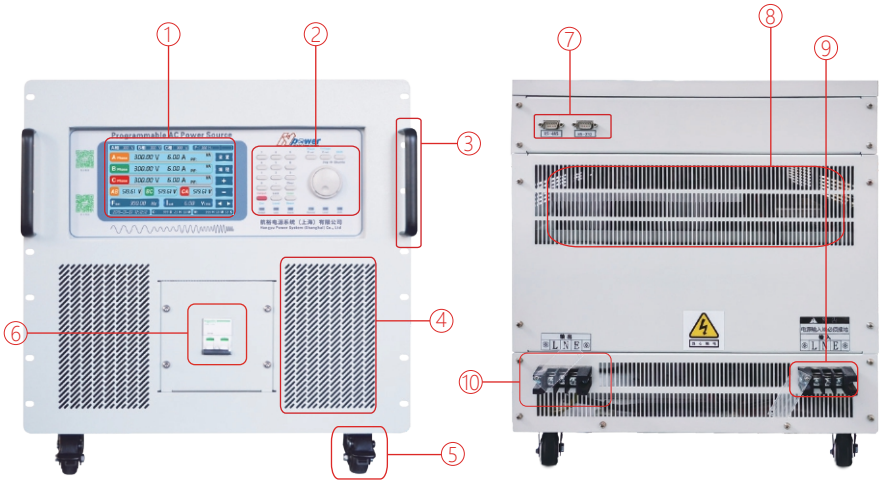
① Power input circuit breaker
② LCD display (7 inches, touch screen)
③ Numeric input keyboard
④ Frequency/voltage or current setting key
⑤ Shift function reuse key
⑥ Case handle
⑦ Lock Locks, confirms Enter, and exits Esc
Local Local or Reset Restarts
Output ON/OFF Switch
⑧ Status light
⑨ Multistage shuttle adjustment knob
(inner ring fine adjustment/outer ring coarse adjustment)
⑩ 19-inch standard rack mounting holes

Rear Panel



① Ac input terminal
② RS-485 & RS-232 communication interface
③ Ac output terminal
④ Heat dissipation outlet

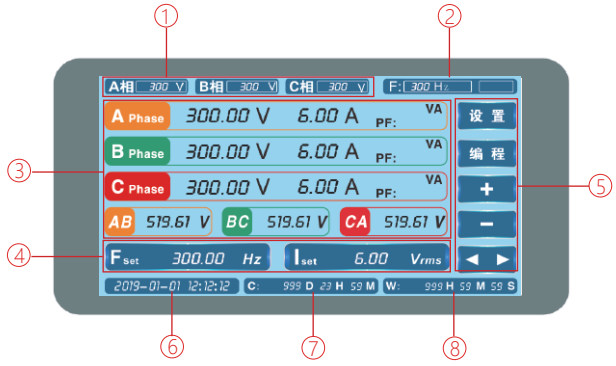
Front Panel & Rear Panel



① LCD display (7 ", touch screen)
② Control area
③ 19-inch standard rack handle
④ Heat dissipation inlet
⑤ Casters
⑥ Power input circuit breaker
⑦ Communication interface
⑧ Heat dissipation outlet
⑨ AC input terminals
⑩ AC output terminal

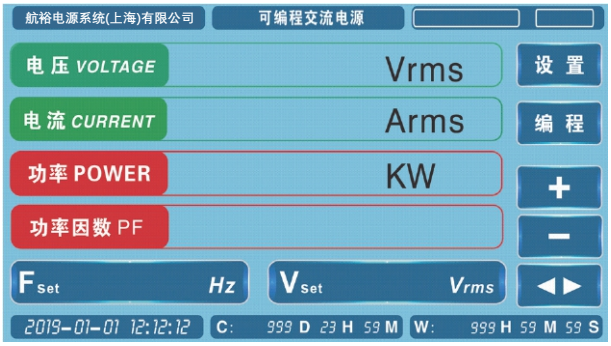
Display And Control Panel

Display Interface



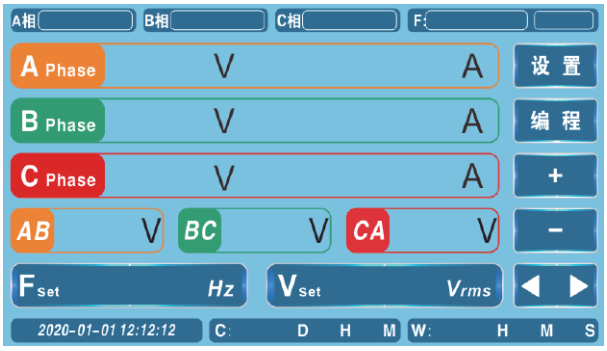
① Three phase voltage
② Product frequency
③ Three-phase voltage and current display area
④ Frequency/voltage setting value
⑤ Function setting area
⑥ Current time
⑦ Cumulative running time
⑧ This running time

Display Interface



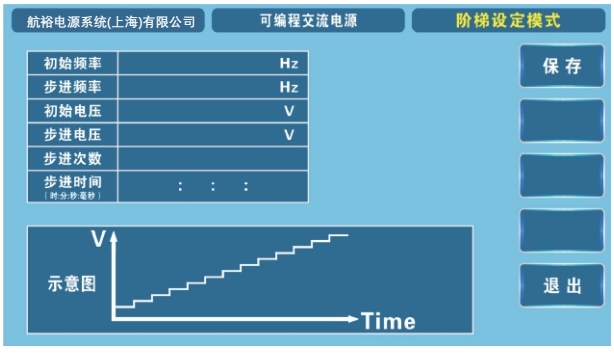
Main interface of single-phase power supply

Main interface of the dual phase power supply



Main interface of three-phase power supply

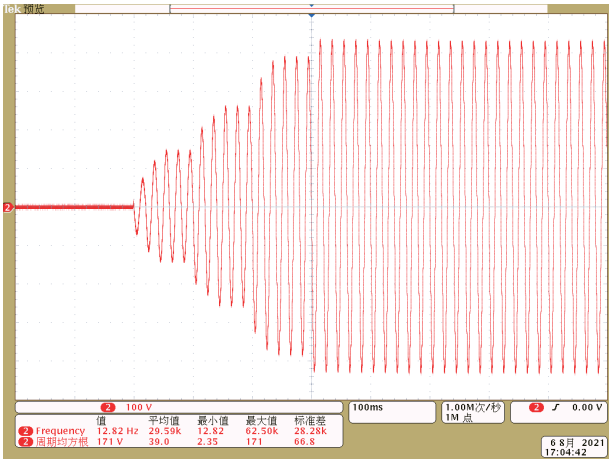
Step setting page can set the required frequency, voltage,
Run time, initial step, end step, and number of cycles



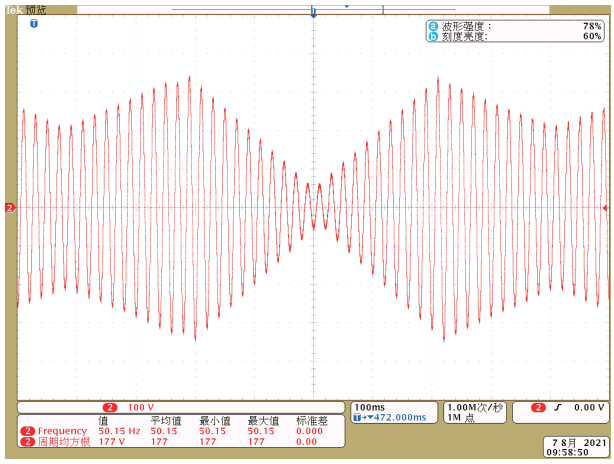
Step setting page can set the required initial frequency,
Step frequency, initial voltage, step voltage, step number and step time

The gradient Settings page can set the required voltage and frequency
Run time, initial step, end step

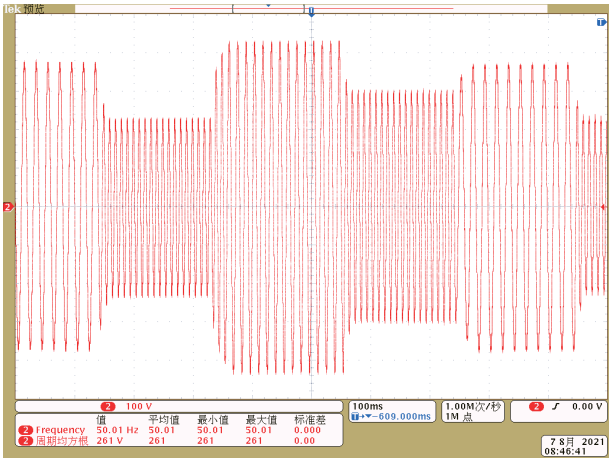
Output Voltage Waveform Of Single-phase Power Supply



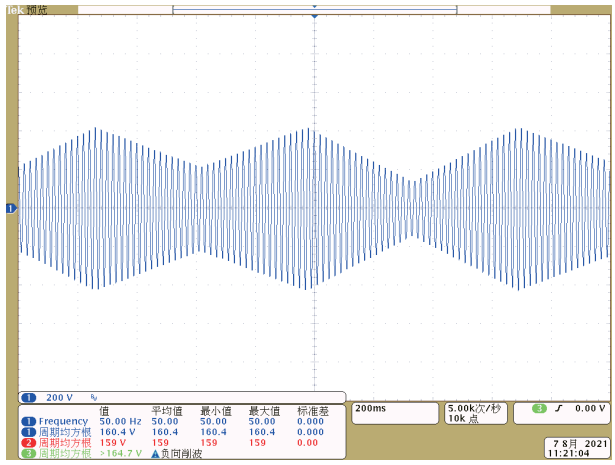
step



step

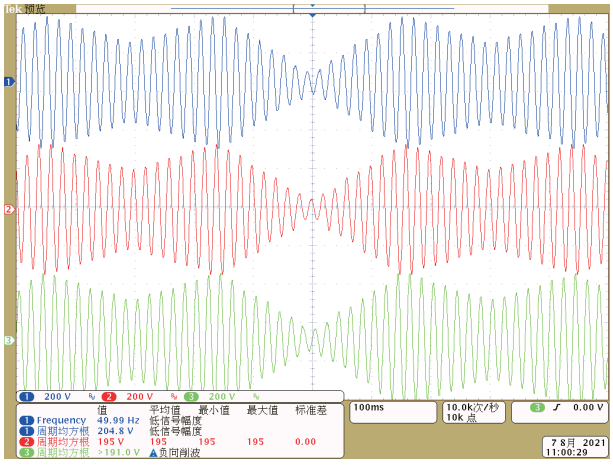


ladder

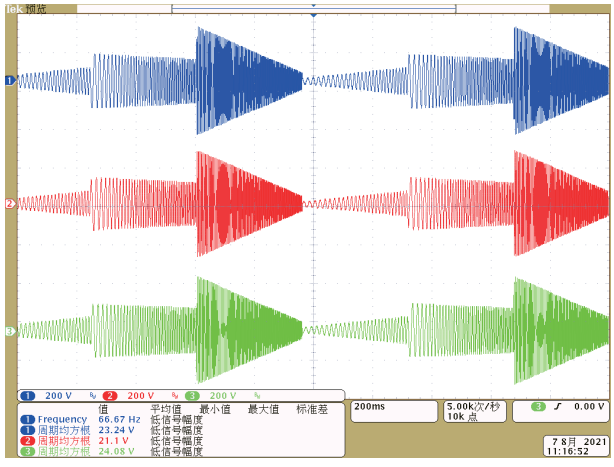


gradation

Output Voltage Waveform Of Three-phase Power Supply



Three-phase step



Three-phase gradient

Cooperative Customers (Part)

Aerospace & Defense Military Research Lnstitute

China Aerospace

Aerospace science and engineering

Aviation industry

China Air Development

China Electrical Engineering Group

China Shipbuilding Corporation

China Shipbuilding Industry Corporation

CASC 803 (Shanghai Aerospace Control Technology Institute)
CASC 800 (Shanghai Aerospace Precision Machinery Research Institute)
CASC 804 (Shanghai Aerospace Electronic Communication Equipment Research Institute)
CASC 805 (Shanghai Aerospace System Engineering Institute)
CASC 808 (Shanghai Precision Measurement and Testing Institute)
CASC 811 (Shanghai Space Power Research Institute)
CASC 812 (Shanghai Satellite Equipment Research Institute)
CASC 801 (Shanghai Space Propulsion Research Institute)
CASC 502 (Beijing Control Engineering Research Institute)
CASC 510 (Lanzhou Institute of Space Technology Physics)
CASIC 206 (Beijing Machinery and Equipment Research Institute)
CASIC 304 Institute (Beijing Great Wall Institute of Measurement and Testing Technology)
CASIC 307 Factory (Aerospace Chenguang Co., LTD.)
33 CASIC (33 Aerospace Science and Industry Institutes)
CASIC 3651 Factory (Guizhou Aerospace Linquan Motor Co., LTD.)
AVIC 615 (Aeronautical Radio Electronics Research Institute of China)
AVIC 618 (Xi 'an Flight Automatic Control Research Institute)
AVIC 105 Factory (Tianjin Aviation Electromechanical Co., LTD.)
AVIC 115 Factory (Shaanxi Aero Electric Co., LTD.)

AVIC 118 Factory (Shanghai Aviation Electric Appliance Co., LTD.)
AVIC 181 Factory (Wuhan Aviation Instrument Co., LTD.)
AVIC 607 Institute (China Leihua Electronic Technology Institute)
AECC 606 Institute (Shenyang Engine Research Institute)
CETC 14 Institute (Nanjing Institute of Electronic Technology)
CETC 21 Institute (Shanghai Micromotor Research Institute)
CETC 23 Institute (Shanghai Transmission Line Research Institute)
CETC 36 Institute (Jiangnan Institute of Electronic Communication)
CETC 38 Institute (East China Institute of Electronic Engineering)
CETC 50 Institute (Shanghai Microwave Technology Research Institute)
CETC 51 Institute (Shanghai Microwave Equipment Research Institute)
CETC 54 Institute (Shijiazhuang Communication Measurement and Control Technology Research Institute)
CETC 55 Institute (Nanjing Institute of Electronic Devices)
CSIC 707 Institute (Tianjin Institute of Marine Instruments)
CSIC 719 Institute (Wuhan Second Ship Design Institute)
CSIC 704 Institute (Shanghai Marine Equipment Research Institute)
CSIC 726 Institute (Shanghai Marine Electronic Equipment Research Institute)
Jiangnan Shipbuilding (Group) Co., LTD
Nanjing Panda Electronics Co., LTD
State-owned 741 Factory (Nanjing Huadong Electronics Group Co., LTD.)

Chinese People's Liberation Army

South Sea Fleet
East China Sea Fleet
North Sea Fleet
Navy Plant 701 / Plant 702
4724 Factory (Shanghai Haiying Machinery Factory)
Unit 95861 (Empty Base 1)

Commercial Aviation

Commercial Aircraft Corporation of China

Rockwell Collins

Guangzhou Aircraft Maintenance Engineering Co., LTD

Beijing Aircraft Maintenance Engineering Co., LTD

Scientific Research & Third Party Quality Inspection Agency

Technical Institute of Physics and Chemistry (Beijing)
Institute of Urban Environment (Xiamen)
Electrotechnical Research Institute (Beijing)
Institute of Applied Physics (Shanghai)

Military Academies & Local Universities

National University of Defense Technology
Aerospace engineering university
Army Engineering University
Air force Engineering University
Naval University of Engineering
Dalian Naval Academy
Naval Aeronautical University
Beijing University of Aeronautics and Astronautics
Beijing Institute of Technology
Harbin Institute of Technology
Harbin Engineering University
Nanjing University of Aeronautics and Astronautics
Nanjing University of Science and Technology
Northwestern Polytechnical University
University of Science and Technology of China
Tsinghua University
Peking University.
Shanghai Jiao Tong University
Zhejiang University
Tianjin University
Hust (Huazhong University of Science and Technology)
Hust (Huazhong University of Science and Technology)
North China Electric Power University
Beijing University of Technology
Zhejiang University of Technology
Xi 'an University of Technology
Dalian Maritime University
South China University of Technology

High-tech R&D Enterprise

Huawei
Xiamen fara
Panasonic
Epcos
Teko
Weidmuller
Honeywell
China Railway Rolling Stock Corporation
Siemens
ABB
Schneider
The Chint Noyak
Xiamen Hongfa
People's electric apparatus
Hilti
Bosch power tools
Gree Electric Appliances
Guilin rubber machinery factory
Guodian Nanrui
Shanghai Electric
American PI
Read core Technology
Willing to create science a nd technology
Group core Microelectronics
Hangzhou Zhongsi
Fexide
Shanghai Zhanxin
Chenxin Technology
China Automotive Research Institute
Heavy duty Automobile Research and Development Corporation
BMW Brilliance
Hongqi Automobile
Saic Motor Corporation
Saic Volkswagen
Geely Automobile
Ulai
BYD
Huichuan
Shanghai Tongmin vehicle
Nind era
Chinese Express
United New Energy

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Hangyu Power AC Power Supply Product Manual, version 06.00, february 2024
The warranty period of all standard products in this manual is three years, except non-standard products
All technical data and instructions are based on the actual product
If there is any change, Hangyu Power has the final interpretation right

Authorized distributor: