

HY-HPD Series

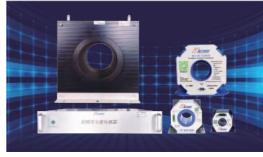
High Precision DC Power Supply

Military Quality Power Supply Expert













HY-HPD series High Precision DC Power Supply



High precision, high power density



HY-HPD series high-precision DC power supply, specifically designed for high-precision electrical Calibration accuracy of flow sensors and automotive DC current diverters. Power supply accuracy Levels up to 0.01, 0.02, and 0.05 are optional.

Product Features

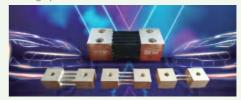
- Power supply accuracy level 0.01, 0.02, 0.05 optional
- Output current range: 0-50kA optional
- Can achieve automatic switching of multiple ranges without the need for conversion devices, with longer lifespan and higher stability
- Optional high-precision DC ammeter to establish a DC current divider testing system
- Optional 10ppm high-precision current sensor for comparative testing of current sensors
- Optional positive and negative polarity conversion device for current sensor positive and negative current testing
- Input standard PFC, with a power factor of up to 0.99

Application Area

 Dedicated to calibrating accuracy for automotive sensors and diverters

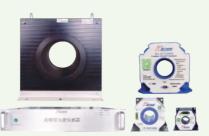


High precision current sensor for automobiles



Automotive DC current splitter

Optional High-Precision Current Sensor For Comparative Testing Of Current Sensors



HY-PCT series high-precision sensors with the highest rated DC current on the primary side. Up to 30kA, with an accuracy of 10ppm and excellent linearity. And accuracy, strong electromagnetic interference resistance, and ultra-low response time.

- High precision: 5ppm, 10ppm, 50ppm optional (2ppm customizable)
- Drift to zero: 2ppm
- Temperature effect: 1ppm/10 degrees
- Can measure AC, DC, and pulse currents
- Load start, overload protection, self recovery function

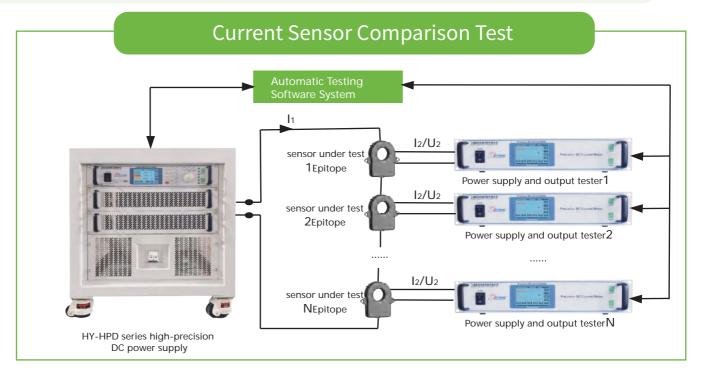


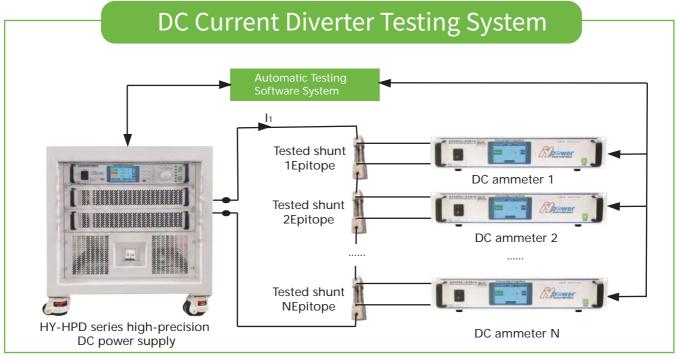
Select High-Precision DC Ammeter To Establish A DC Current Divider Testing System

HY-CMSeries high-precision ammeter, capable of observing small or large currents, capable of Electronic and electrical measurement, industrial automation, instrument testing and measurement.

- Current measurement range: 0.001A-300A optional
- Measurement accuracy: 0.01 level, 0.02 level, 0.05 level
- Voltage measurement function: 0-1000.00V
- Voltage meter measurement accuracy: DC 0.01%







HY-HPD Series Product Selection Table

Product Selection Instructions

Product Model Naming Rules Product series Output voltage Output current Optional function HY-HPD 5 - 10000 - CF

Communication protocol

Modbus
SCPI

Standard communication interface

RS-485
RS-232
Digital I/O

Optional communication interface (Users can install it themselves)

- LAN: Ethernet communication interface

- CAN : CAN communication interface

- GPIB: GPIB communication interface

- IA : Analog programming and monitoring interface (isolated type)

Model: HY-HPD 5-10000-CF

The model information is: Output voltage 0-5V,

Output current 0-10000A Choose User Defined Features

Purchasing function

- PN : Positive and negative switching

- CP : Constant power function

- T1 : operation temperature -10°C to 50°C

- T2 : operation temperature -20°C to 50°C - T4 : operation temperature -40°C to 50°C

- CF : User defined functions (please specify

when ordering)

- MR : Measurement report (issued by a third

party certified by CNAS)

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

HY-HPD Series Model Table

Output voltage: 5V, 10V optional

In the selection table, special specifications beyond the voltage/current/power range are accepted for customization.

5V Series Power Selection

| Models | Output voltage | Output current | Output power | Short-term stability (%/h) | | | Optimal measurement uncertainty (k=2) , ppm*RD +ppm*RG | | |
|----------------|----------------|----------------|--------------|----------------------------|------------|------------|--|------------|------------|
| | | | | 0.01 grade | 0.02 grade | 0.05 grade | 0.01 grade | 0.02 grade | 0.05 grade |
| HY-HPD 5-500 | 5V | 500A | 2.5kW | 0.003 | 0.005 | 0.01 | 70+30 | 150+50 | 400+100 |
| HY-HPD 5-1000 | 5V | 1000A | 5kW | 0.003 | 0.005 | 0.01 | 70+30 | 150+50 | 400+100 |
| HY-HPD 5-2000 | 5V | 2000A | 10kW | 0.003 | 0.005 | 0.01 | 70+30 | 150+50 | 400+100 |
| HY-HPD 5-3000 | 5V | 3000A | 15kW | 0.003 | 0.005 | 0.01 | 70+30 | 150+50 | 400+100 |
| HY-HPD 5-5000 | 5V | 5000A | 25kW | 0.003 | 0.005 | 0.01 | 70+30 | 150+50 | 400+100 |
| HY-HPD 5-6000 | 5V | 6000A | 30kW | 0.003 | 0.005 | 0.01 | 70+30 | 150+50 | 400+100 |
| HY-HPD 5-10000 | 5V | 10000A | 50kW | | 0.005 | 0.01 | | 150+50 | 400+100 |
| HY-HPD 5-20000 | 5V | 20000A | 100kW | | 0.005 | 0.01 | | 150+50 | 400+100 |
| HY-HPD 5-30000 | 5V | 30000A | 150kW | | 0.005 | 0.01 | | 150+50 | 400+100 |
| HY-HPD 5-50000 | 5V | 50000A | 250kW | | 0.005 | 0.01 | | 150+50 | 400+100 |

Current output range (single current source): 0-1000A

Adjusting fineness: 0.0005% * RG, 7-bit display

Establishment time: The time to output to 0.01% accuracy is less than 3 seconds

HY-HPD Series Technical Parameter

DC Voltage Measurement DCV

| Range | Minimum resolution | Optimal measurement uncertainty (k=2) ppm*RD+µV | | | Temperature coefficient,±ppm*RD/°C | | |
|-------|----------------------------|---|------------|------------|------------------------------------|------------|------------|
| | IVIII III TUTT TESOIULIOTT | 0.01 grade | 0.02 grade | 0.05 grade | 0.01 grade | 0.02 grade | 0.05 grade |
| 1mV | 1nV | 70+0.5µ | 80+0.5µ | 150+1µ | 15 | 15 | 30 |
| 10mV | 10nV | 70+1µ | 80+1.5μ | 150+3µ | 5 | 5 | 10 |
| 100mV | 100nV | 70+3µ | 80+5µ | 150+10µ | 5 | 5 | 10 |
| 1V | 1μV | 70+30µ | 80+10μ | 150+20µ | 2 | 2 | 5 |
| 10V | 10μV | 70+300μ | 80+50μ | 150+100μ | 2 | 2 | 5 |

Voltage measurement range: \pm (100 μ V~11V), manual/automatic range shifting

Input Resistance: $> 1G\Omega$

Input protection: 50Vpk, continuous

Stability&Temperature Coefficient

| Temperature drift | U: 0.01% | I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, the temperature coefficient remains unchanged for 8 hours) |
|-------------------------|------------|--|
| Temperature coefficient | U: 50ppm/℃ | I: 70ppm/°C (After 30 minutes of power on) |

Protection Function

| OVP Overvoltage protection setting range | 10 - 110%, Immediate shutdown of output beyond limit |
|--|--|
| OCP Overcurrent protection setting range | 0 - 105%, Immediate shutdown of output beyond limit |
| OTP Over temperature protection | Immediate shutdown of output beyond limit |
| OPP Over power protection | 10 - 110%, Immediate shutdown of output beyond limit |

Ambient Condition

| Environment | Indoor use; Installation overvoltage level: II; Pollution level: P2; Class II equipment |
|---------------------------------|---|
| Ambient temperature | 0°C to 50°C, Optional-10°C to 50°C, -20°C to 50°C, -40°C to 50°C |
| Storage environment temperature | -20°C to 65°C, |
| 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 °C for every 100 meters; When not in operation, it can reach an altitude of 12000 meters |
| Burial | Forced air cooling, intelligent variable speed fan, front/side air inlet, rear air outlet |
| Noise | ≤ 65dB(A), Weighted measurement with 1 m |

HY-HPD Series Technical Parameter

Control Panel

| Monitor | 4/7-inch LCD display, touch screen |
|----------------------|--|
| Control function | Numeric key 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 | Steps, ladder, gradients |

Input Power Supply

| Frequency | 47 Hz - 63 Hz |
|------------------------------|---|
| Connection | Single phase two wire+ground wire, $220 \text{ V} \pm 15\%$ Three phase three wire+ground wire, $380 \text{ V} \pm 15\%$ (-3P Standard configuration model) |
| Power factor (typical value) | 0.99 0.94 (-3P) |

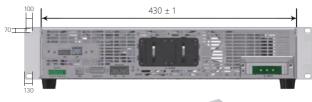
Size

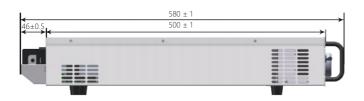
| Size | 430 (W) *500 (D) *88 (H) mm, 2U |
|------|---|
| | 450 (W) * 610 (D) * 133 (H) mm, 3U |
| | 440 (W) * 600 (D) * 445 (H) mm, 10U |
| | The size can be changed according to user needs |

Appearance&Size Outline Dimension

2U 430(W) * 500(D) * 88(H) mm



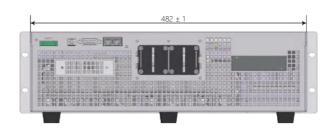






3U 482.6(W) * 660(D) * 133(H) mm



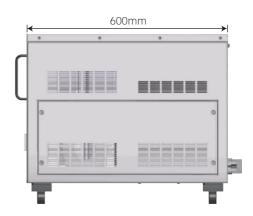






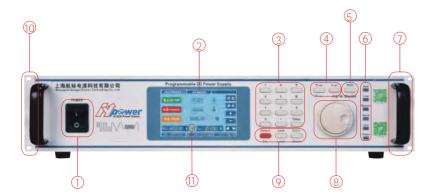
10U 440(W) * 600(D) * 445(H) mm





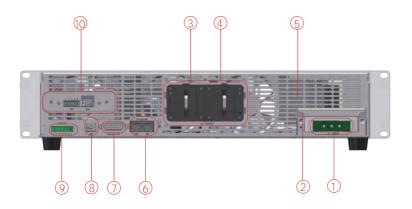
Display and Control Panel Display & Control Pannel

Control Panel



- Power input circuit breaker
- ② LCD Display (4-inch, touch screen)
- ③ Number input keyboard
- 4 Voltage/current setting key
- Shift Function reset key
- Status
- (7) Chassis handle
- Multistage shuttle adjustment knob (inner circle fine adjustment/outer circle coarse adjustment)
- Sock, Enter to confirm, Esc to exit Local, Reset restart Output ON/OFF switch
- 19 inch standard rack mounting holes
- ① CC/CV Priority can be set

Rear Panel



- AC input terminal
- AC input terminal protective cover
- ③ Output copper bar
- 4 Output end protective cover
- ⑤ Heat dissipation air outlet
- 6 RS-485 & RS-232 communication interface
- ⑦ Digital I/O communication interface
- USB communication interface
- Remote compensation measurement terminal
- Choose communication interface

(One out of three)

LAN & CAN communication interface GPIB communication interface

Analog programming and monitoring interface (isolated type)

Display Interface



- Manufacturer's name
- ② product name
- 3 Model
- 4 Voltage/current/power read back display area
- ⑤ Function setting area
- Voltage/Current Setpoints&CV/CC Status
- ⑦ TIME
- Accumulated running time
- This run time

Cooperative Clients (Partial)

Power Semiconductor Customers















Changchun Guoke

Electrical industry

China Resources Microelectronics Shanghai Huinengtai Semiconductor

Yuexin Technology

technology

Group core microelectronics



rstack

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Shanghai Zhanxin

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Hangzhou Zhongsi

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Suzhou Lianxun Instrument

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Semiconductor

Chengxin Technology Zhuoxinda Technology

Enterprises In The Field Of Automotive Electronics







Heavy Industry Automotive Brilliance Research and Development







SAIC Group SAIC Volkswagen



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Lantu Automobile



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Weilai

HAOMO.AI



MKLtech



Shanghai Tongmin Vehicle



Ningde Era



Human Horizons



Hezhong New Energy

High Tech R&D Enterprises









EPCOS



TYCO



Weidmuller



Honeywell

Huawei

FARATRONIC

Panasonic





NOSRK



Nader

Nader 良信电器



SIEMENS ABB



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卡斯柯

CASCO



CRRC



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FLUKE

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Gree









HILTI

BOSCH

linde

南瑞集团公司

NARI-TECHNOLOGY

Shanghai Electric New Thunder Energy Silan

Aerospace and National Defense Military Industry Research Institute





CASIC









CSSC



CSIC

china aerospace



aviation industry

China Aerospace

CFTC

| CASC 800 institute | (Shanghai Aerospace Precision Machinery Research Institute | , |
|--------------------|--|---|
| | | |

CASC 801 institute (Shanghai Institute of Space Propulsion)

CASC 803 institute (Shanghai Institute of Space Propulsion) CASC 804 institute (Shanghai Aerospace Electronic Communication)

CASC 805 institute (Shanghai Aerospace Systems Engineering)

CASC 808 institute (Shanghai Institute of Precision Metrology)

CASC 811 institute (Shanghai Space Power Research Institute)

CASC 812 institute (Shanghai Satellite Equipment)

CASC 502 institute (Beijing Institute of Control Engineering)

CASC 510 institute (Lanzhou Institute of Space Technology Physics) AVIC 607 institute (China Leihua Electronic Technology)

CASIC 206 institute (Beijing Institute of Mechanical Equipment)

CASIC 307 factory (Aerosun Corporation)

CASIC 33 institute (Institute 33 of Aerospace Science and)

CASIC 3651 factory (Guizhou Aerospace Linquan Motor Co., Ltd)

AVIC 603 institute ($_{\rm Research\ Institute}^{\rm AVIC\ Xi'an\ Aircraft\ Design\ and}$)

AVIC 613 institute (China Aviation Industry Group Luoyang) Electro Optic Equipment Research Institute)

AVIC 615 institute (China Aviation Industry Group Luoyang Electro Optic Equipment Research Institute) AVIC 618 institute (Xi'an Automatic Flight Research Institute of China Radio Aviation Research Institute)

AVIC 631 institute (AVIC Aerospace Computing Technology)

AVIC 105 factory (Tianjin Aviation Electromechanical Co., Ltd)

AVIC 115 factory (Shaanxi Aviation Electric Co., Ltd)

AVIC 118 factory (Shanghai Aviation Electrical Appliances Co., Ltd.) CETC 54 Institute (Shijiazhuang Communication Measurement and Control Technology Research Institute)

AVIC 181 factory (Wuhan Aviation Instrument Co., Ltd)

AVIC 304 institute (Beijing Great Wall Metrology and Testing) CSIC 7107 institute (Shaanxi Aerospace Navigation) Equipment Co., Ltd

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)

(Jiangnan Electronic Communication (Research Institute) CETC 36 institute

CETC 38 institute (East China Electronic Engineering) Research Institute CETC 50 institute (Shanghai Microwave Technology)

Research Institute CETC 51 institute (Shanghai Microwave Equipment)

CETC 55 institute (Nanjing Institute of Electronic Devices)

CSIC 707 institute (Tianjin Institute of Navigation Instruments)

CSIC 719 institute (Wuhan Second Ship Design and)

CSIC 704 institute (Shanghai Shipbuilding Equipment)

CSIC 726 institute (Shanghai Institute of Ship Electronic Equipment)

Jiangnan Shipbuilding (Group) Co., Ltd

Nanjing Panda Electronics Co., Ltd

State owned 741 Factory (Nanjing East China Electronics Group Co., Ltd.)

Scientific Research&Third Party Quality Inspection Institutions



Institute of Physical and Chemical Technology (Beijing) Urban Environment Research Institute (Xiamen) Institute of Electrical Engineering (Beijing) Institute of Applied Physics (Shanghai)











Cooperative Clients

South China Sea Fleet

East China Sea Fleet

North Sea Fleet

Navy Factory 701/702

4724 Factory (Shanghai Haiying Machinery Factory)

95861 Unit (Air First Base)

The 5720th Factory of the People's Liberation Army of China

Commercial Aviation



Commercial Aircraft Corporation of China Limited



Guangzhou Aircraft Maintenance Engineering Co., Ltd



Rockwell Collins



Beijing Aircraft Maintenance Engineering Co., Ltd

Military Academies And Local Universities



national university of



Aerospace defense technology Engineering University



Army Engineering University



air force engineering university



naval university of engineering



Dalian Naval Academy



Naval Aviation



Beihang University



Beijing Institute



Harbin Institute



Harbin Engineering



Nanjing University of Aeronautics and Astronautics



Nanjing University of Science



Northwestern Polytechnical University



University of Science and Technology of China



Tsinghua University



Peking University



Shanghai Jiaotong University



Zhejiang University



Tianjin University



Huazhong University of Science and Technology



Electronic Science and technology



University



of Technology



University



of Technology



University



University of Technology



Huazhong University of Science and Technology



Technology





Sichuan

University

xiangtan university



donghua university



north china

institute of

Xi'an University of technology



Fudan University



Xiamen University



north china electric power university



Changchun Institute of Technology



zhejiang university of technology



University of Electronic Science and Technology of China

Official WeChat: HY Power-cn



About us

Hangyu Power was founded in 2011 and is a national high-tech enterprise, Located in Songjiang, the birthplace of the G60 Science and Technology Innovation Corridor in the Yangtze River Delta, for over a decade Strive to provide customers with accurate, intelligent, and convenient testing power solutionsPlan.

Our company adheres to the product positioning of "specialty, precision, specialty, and novelty", and On the basis of targeting the market demand for "import substitution", propose "poor The development strategy of "differentiated import substitution" and "high-quality manufacturing"is committed to Innovative development of testing power supply technology in China, promoting the rejuvenation of science and technology in China The national cause is thriving.

Hangyu Power Series products cover power semiconductors, automotive electronics Aerospace, Defense and Military Industry, Low Voltage Electrical Appliances, Medical, Sensors Capacitors, inductors, smart grids, airborne, shipborne, weapons, ships.

Radar, communication, rail transit, power electronics, and other testing and other disciplines In the field of research, we strive to achieve perfect import substitution, with excellent military q uality and service,

Win unanimous praise from users.

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2009 Establishing Shanghai Ouzu Electronics Brand Successfully delivered 400kVA high-power AC power supply Hangyu Power Supply was established and officially put into operation 2011 as a three-phase precision AC power supply and militaryUsing a gyroscope to test the power supply, replacing Russian made products Formal production of programmable variable frequency power 2012 supply and AC constant current source Formal production of programmable AC/DC power supply and 2013 HY-AE excitation power supply Formal production of high-power bipolar testing power supply 2014 Formal production of HY-PM series and HY-GT series new models 2015 Dual phase/three-phase gyroscope power supply 2016 HY-HP series programmable high-power DC power supply officially put into operation 2017 HY-HV series programmable high-voltage DC power supply officially put into operation HY-CTL/CTS capacitor testing high-frequency high current testing 2018 power supply And successfully delivered 100kHz, 100Arms 2019 Official production of high-speed power supply for automotive electronic testing within 500kHz 2020 Officially put into operation LV123 new energy vehicle testing high-voltage ripple testing power supply 2021 HY-UHS series ultra-high stability magnet power supply officially put into operation HY-HVL series linear high-voltage programmable DC power supply officially put into operation



