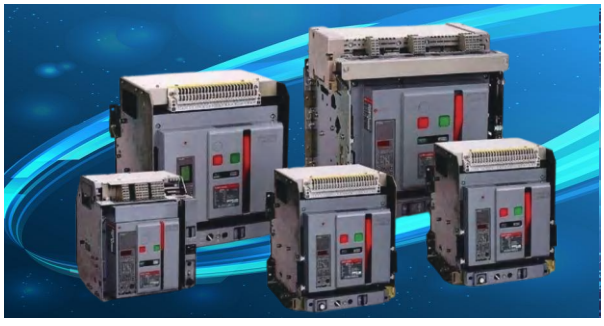
HY-SCSSU Series

Programmable Switching AC Constant Current Source

Hangyu Power System (Shanghai) Co., Ltd

AC&DC Power Source



HY-SCSSU Series Programmable Switching AC Constant Current Source

High Purity, High Precision, High Reliability

Application Field

- Current sensor
- Current Transformer
- Cable
- Wiring Harness
- Connector
- Circuit breaker
- Contactor
- Low voltage electrical appliances

Product Features

- Output frequency range 45Hz-70Hz, Optional range 45Hz-1kHz
- Output capacity optional range 1kVA-300kVA
- Output current range 1-12000A
- Open circuit voltage 2V/5V/10V/20V, optional 2-300V
- Support front panel programming, no need for PC software control
- Voltage rising and falling slopes are adjustable
- Power output soft-start function
- 16 bits D/A high precision converter, accurate output
- 16 bits A/D high precision converter, more accurate readback
- Multiple protection functions OVP/OCP/OTP
- 19-inch standard rack size or floor-standing cabinet
- 7-inch large LCD screen
- Touch screen operation & numeric key input
- Multi-level shuttle adjustment knob
- The power input is controlled by a circuit breaker, which is more secure
- Output ON/OFF button
- Fan intelligent speed regulation design to reduce noise
- Front/side air intake, rear air outlet, saving cooling space
- Support Modbus protocol
- Standard interface: RS-485&RS-232
- Optional interface: LAN&CAN
  USB
  GPIB
  Analog programming and monitoring (isolated)

HY-SCSSU Series Product Selection Table

In the selection table, special specifications outside the range of voltage/ frequency/output capacity can be customized.

SCSSU Series Programmable Switching AC Current Source				
Product model	Max output current (Arms)	Max open circuit voltage(L-N,Vrms)	Output capacity (1Φ/3Φ)	Output frequency(Hz)
HY-SCSSU	100A	2.5V 5V 10V 20V 36V 48V Multiple options available	1kVA 2kVA 3kVA 5kVA 10kVA 15kVA 20kVA 25kVA 30kVA 40kVA 50kVA 60kVA 100kVA 120kVA 300kVA Multiple options available	45Hz -70Hz 320Hz -480Hz 45Hz -1000Hz Three options available
HY-SCSSU	150A			
HY-SCSUS	200A			
HY-SCSSU	250A			
HY-SCSSU	300A			
HY-SCSSU	400A			
HY-SCSSU	600A			
HY-SCSSU	1000A			
HY-SCSSU	1200A			
HY-SCSSU	1500A			
HY-SCSSU	2000A			
HY-SCSSU	2500A			
HY-SCSSU	3000A			
HY-SCSSU	5000A			
HY-SCSSU	6000A			
HY-SCSSU	10000A			
HY-SCSSU	12000A			

Product Model Naming Rules (1Φ)

Product series	Open circuit voltage		Output current		Customized function
HY-SCSSU	10	-	100	-	CF
Series name	Open circuit voltage is 10V		Output current is 1A-100A		Abbreviation for customized function See optional features

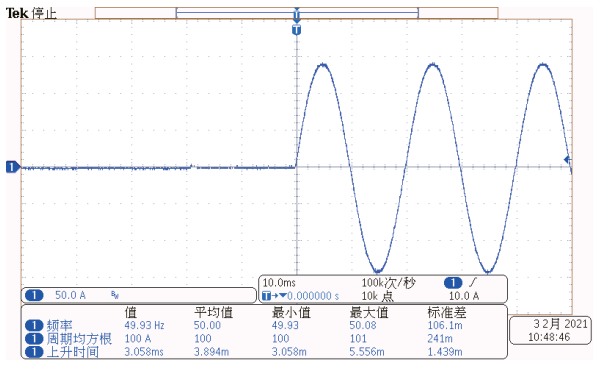
Selection example:
Product model:HY-SCSSU 10-100-CF
Open circuit voltage 10V, output current 1A-100A, optional user-defined function

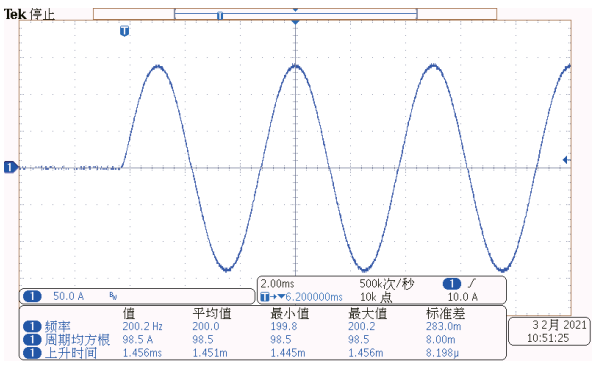
Product Model Naming Rules (3Φ)

Product series	Three-phase output		Open circuit voltage		Output current		Customized function
HY-SCSSU	3P	-	10	-	100	-	CF
Series name	Three-phase output		Open circuit voltage is 10V		Output current is 1A-100A		Abbreviation for customized function See optional features

Selection example:
Product model:HY-SCSSU 3P-10-100-CF
Three-phase output, open circuit voltage 10V, output current 1A-100A, optional user-defined functions

The actual measurement of the current rise time of some constant current sources is shown below. The current rise response time is ⩽ 10ms, which can meet the testing requirements of low-voltage electrical transient testing within 10ms.





AC Output	
Working mode	CC Mode
Output capacity	Optional range Max. 1kVA-120kVA
Output current	Optional range 1-12000A
Settable output current range	1%-100%
Open circuit voltage	2.5V/5V/10V/20V/36V/48V (customized)
Output frequency	45Hz-70Hz, optional 320Hz-480Hz, 45Hz-1000Hz (customizable according to customer requirements)
Frequency stabilization accuracy	100ppm
Number of output phases	1Φ/3Φ can be available
Input regulation	⩽0.5%F.S. (Note: F.S. means full scale)
Waveform distortion(THD)	Sine wave, I-THD⩽2%, resistive test
	Different current models have different distortion rates
Programming And Readback Accuracy & Resolution	
Current Output | Programming Accuracy	1%F.S.
Current Setting | Resolution	0.01A (⩽600A) , 0.1A (>600A)
Frequency Setting | Resolution	0.01Hz
Current Output | Readback Accuracy	1%F.S.
Current Readback | Resolution	0.01A (⩽600A) , 0.1A (>600A)
Protective Function	
Open circuit protection	The output shuts down immediately when the open-circuit voltage limit is exceeded
Over temperature protection(OTP)	When the limit is exceeded, the output shuts down immediately

HY-SCSSU Series Technical Parameters

Environmental Conditions	
Surroundings	Indoor use; installation overvoltage class: II; pollution class: P2; class II equipment
Working temperature	0°C to 45°C；optional -20°C to 45°C
Storage ambient 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 2000 meters above sea level, the power decreases by 2% for every 100 meters, or the maximum working environment temperature decreases by 1 °C every 100 meters;When not in operation, up to 12,000 meters above sea level
Cool down	Forced air cooling, intelligent speed-adjustable fan, air intake from both sides/front, air out from the rear
Noise	⩽ 65dB(A)，weighted measurements with 1m
Control Panel	
Display	7 inches, LCD liquid crystal display, touch screen
Show items	Current (set value & measurement value), voltage measurement value, operating time, cumulative operating time, current time and date
Control function	Digital key input, multi-level shuttle knob adjustment (coarse adjustment of outer ring/fine adjustment of inner ring) output ON/OFF switch, Lock keyboard and touch lock, Reset restart status indicator (Shift / Local / Remote / Alarm / Lock / Output)
Programming function	Step/ladder/gradient
Communication Interface	
Standard	RS-485 & RS-232
Options	LAN、CAN、USB、GPIB, analog programming and monitoring interface (isolated)
Appearance Color & Size	
Color	RAL 7035
Size	4U，Standard 19-inch rack, or desktop (with fixed feet); 10U，Standard 19-inch rack type, or floor table (with movable swivel casters and brakes); 18U and above, floor-standing cabinet, with movable swivel casters and brakes.

Customized Interface

- LAN LAN Communication Interface
- CAN CAN Communication Interface
- USB USB Communication Interface
- GPIB GPIB Communication Interface
- APM analog programming and monitoring interface (isolated)

Customized Function

- HR High resolution/high precision
- T2 Operating temperature -20°C to 45°C
- CF User-defined functions (please specify when ordering)
- MR Measurement report (issued by a third party certified by CNAS)

*All technical indicators can only be guaranteed when the equipment runs continuously for more than 30 minutes at the specified operating temperature.

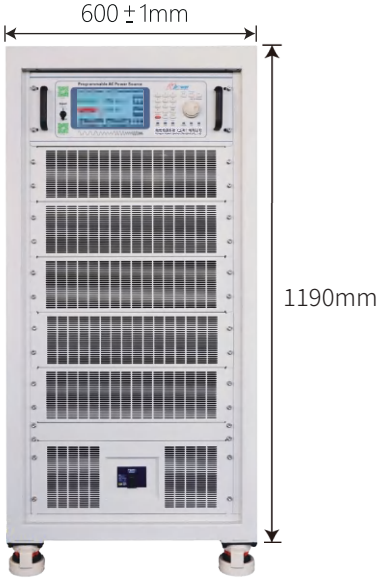
4U 433(W)*560(D)*177(H)mm

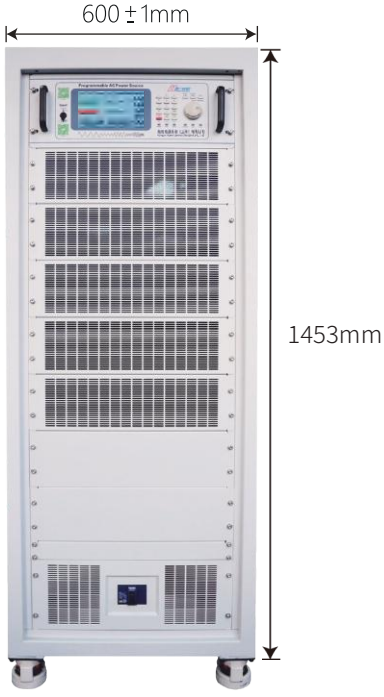
10U 440(W)*600(D)*445(H)mm

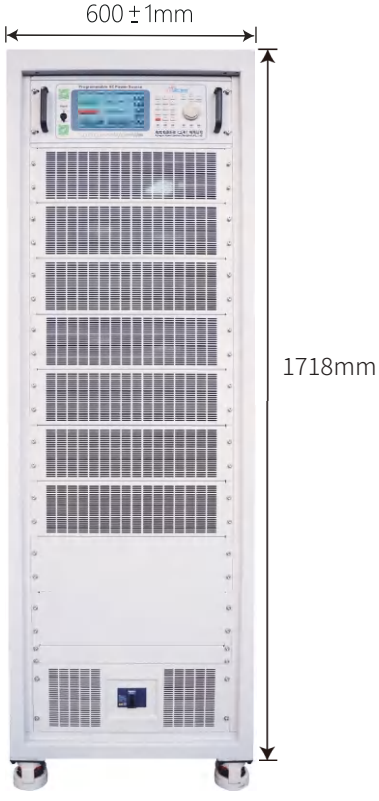
Appearance & Size

18U 600(W)*800(D)*920(H)mm

24U 600(W)*800(D)*1190(H)mm
30U 600(W)*800(D)*1453(H)mm
36U 600(W)*800(D)*1718(H)mm

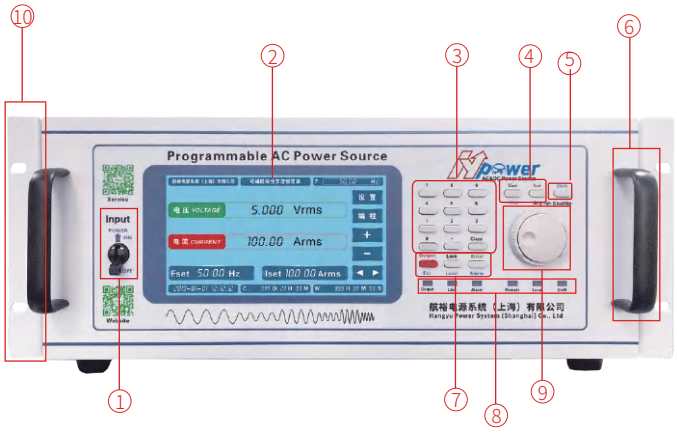






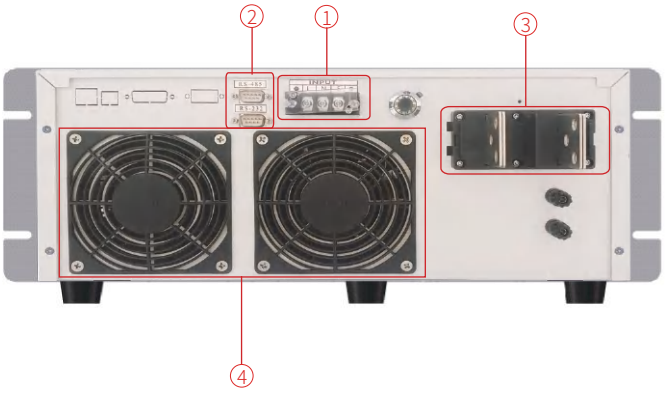
Display And Control Panel

Control Panel



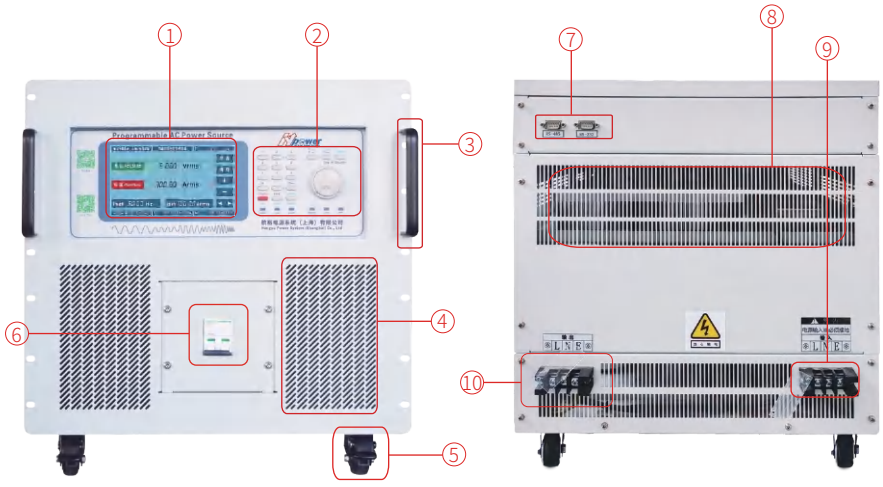
① Power input circuit breaker
② LCD display (7 inches, touch screen)
③ Numeric input keyboard
④ Frequency/voltage or current setting key
⑤ Shift function reuse key
⑥ Chassis handle
⑦ Lock Lock, Enter confirm, Esc exit
Local Local or Reset Restarts
Output ON/OFF Switch
⑧ Status indicator
⑨ Multi-stage 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 inches, 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

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)

Cooperative Customers (Part)

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
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：