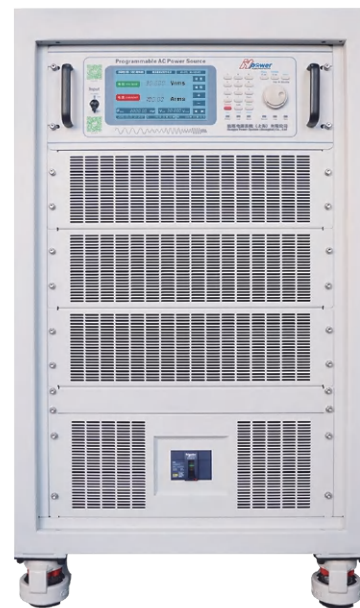


# HY-CTLSU Series

Capacitor Test Switching Power Source

Hangyu Power System (Shanghai) Co., Ltd



## Product Features

- Output frequency range 100Hz - 2kHz Optional
- Output capacity range 1kVA - 100kVA Optional
- Optional output voltage 0-10kVrms
- Maximum output current 1000A
- Supports front panel programming without the need for upper computer software control
- Adjustable slope for voltage rise and fall
- 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
- 7-Inch large LCD display screen
- Touch screen operation & number key input
- Multistage shuttle adjustment knob
- The power input is controlled by a circuit breaker, making it safer
- Output ON/OFF key
- Intelligent speed control design for fans to reduce noise
- Support modbus agreement
- Standard interface: RS-485&RS-232
- Purchasing interface: LAN
  - CAN
  - GPIB
  - USB
- Analog programming and monitoring (isolated type)



## Application Field

- ◆ Testing of Ripple Durability Characteristics of Thin Film Capacitors
- ◆ Temperature rise test
- ◆ Aging test



# HY-CTSSU Series Product Selection Table

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

HY-CTSSU Series Capacitor Testing Power Supply		
AC Output	Capacity (VA)	1kVA-100kVA
	Voltage (Vrms)	0~30 Vrms/0~50 Vrms/0~100 Vrms/0~150 Vrms/0~200 Vrms/0~300 Vrms/Max10 kV
	Current (Arms)	1Arms~1000Arms
	Frequency range (Hz)	45Hz~70Hz/100Hz~1kHz/100Hz~2kHz
DC Output	Capacity (W)	500W~30kW
	Voltage (V)	0~10kV

## Product Model Naming Rules

Product Series	Output Voltage	Output Current	Maximum Frequency	DC Voltage
HY-CTLSU	100	10	FE20K	D2000
Series Name	The output voltage is 0-100V	The output current is 10A	FE sets the maximum frequency 20kHz	The DC voltage is 2000V

Selection examples:

Model: HY-CTLSU 100-10-FE20k-D2000V

Output voltage 0-100V, output current 10A, maximum frequency 20kHz, DC voltage 2000V

# HY-CTSSU Series Technical Parameter

AC Input		
Connection	Single phase two wire+ground wire	Three phase three wire&three phase four wire+ground wire
Input voltage	220Vrms±15%	380Vrms±15%
Input frequency	47Hz-63Hz	47Hz-63Hz
AC Output		
Connection	Single phase two wire+ground wire	Three phase four wire+ground wire
Frequency	45Hz-2kHz	
Output capacity	Optional range 1kVA-100kVA	
Output voltage	Optional range Max 10kV	
Output current	Optional range Max 1000A	
(一) DC Part		
Stable voltage and current accuracy	Source effect: $\leq 0.5\%$ of rated value (output voltage change rate caused only by $\pm 10\%$ change in input source voltage)	
	Time drift: $\leq 0.3\%$ of rated value (only due to the output voltage change rate caused by the continuous working time of the power supply exceeding 8 hours)	
	Temperature drift: $\leq 0.04\%$ of rated value/ $^{\circ}\text{C}$ (only due to the output voltage change rate caused by environmental temperature changes within the temperature range of the power supply)	
	Load effect: $\leq 0.2\%$ of rated value (only due to the output voltage change rate caused by the change of output current from zero to rated value)	
Ripple wave (rms)	$\leq 0.01\%+10\text{mV}$ (80%~100% Measurement at rated output)	
Output voltage regulating range	0~ Rated voltage	
Output current regulation range	Continuous adjustable rated current value	
Output voltage display resolution	0.1V ( $\leq 10000\text{V}$ )、1V ( $> 10000\text{V}$ )	
Output current display resolution	0.001A ( $\leq 100\text{A}$ )、0.01A ( $100\text{A}<1\text{A}\leq 1000\text{A}$ )	
(二) AC Portion		
output voltage regulating range	0~Continuous adjustable rated voltage value	
Output frequency adjustment range	45Hz-2kHz	
Output voltage display resolution	0.1V/0.01V	
Output current display resolution	0.1A/0.01A	

# HY-CTSSU Series Technical Parameter

Protection Function	
Protection function	Overvoltage, overcurrent, internal overheating, short circuit
Ambient Condition	
Ambient Temperature	0°C to 45°C; Choose -20°C to 45°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, both sides/front air inlet, rear air outlet
Noise	≤ 65dB(A), Weighted measurement using 1m
Control Panel	
Display screen	7-inch, LCD display, touch screen
Display item	Voltage (set value&measured value), current measurement 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	10U, Standard 19 inch rack mounted or floor mounted (with movable universal casters and brakes); 18UAnd above, floor mounted cabinet 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

- T2 Working 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)

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



# Outline Dimension

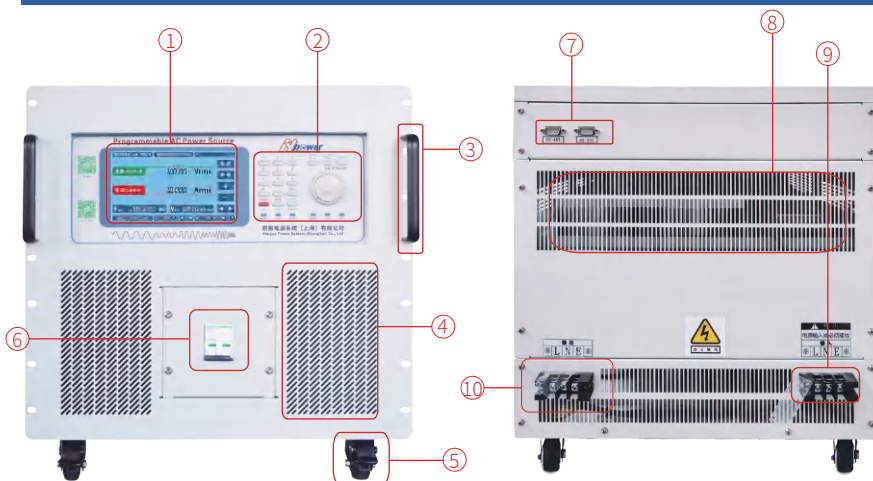
10U 440(W)\*600(D)\*445(H)mm



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



## 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 Institute



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 Chengguang 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



Collins Aerospace

Rockwell Collins



Guangzhou Aircraft Maintenance Engineering Co., LTD



Beijing Aircraft Maintenance Engineering Co., LTD

## Scientific Research & Third Party Quality Inspection Agency

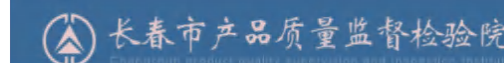
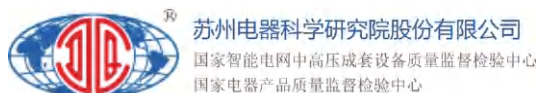


Technical Institute of Physics and Chemistry (Beijing)

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



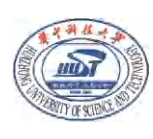
Shanghai Jiao Tong University



Zhejiang University



Tianjin University



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



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Xiamen fara



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Epcos



Teko



Weidmuller



Honeywell



China Railway Rolling Stock Corporation



Siemens



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The Chint Noyak



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People's electric apparatus



Hilti



Bosch power tools



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Guilin rubber machinery factory



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Read core Technology



Willing to create science and technology



Group core Microelectronics



Hangzhou Zhongsi



Fexide



Shanghai Zhanxin



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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



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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:

