HY-CTL Series

Capacitor Test Switching Power Source

Hangyu Power System (Shanghai) Co., Ltd

HY-CTS Series Capacitor Test Switching Power Source **(Ripple Durability Test)**

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-CTS Series Product Selection Table

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

HY-CTS 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-CTL	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-CTL 100-10-FE20k-D2000V
Output voltage 0-100V, output current 10A, maximum frequency 20kHz, DC voltage 2000V

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: ≤ 0.5% of rated value (output voltage change rate caused only by ± 10% change in input source voltage)	
	Time drift: ≤ 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: ≤ 0.04% of rated value/℃ (only due to the output voltage change rate caused by environmental temperature changes within the temperature range of the power supply)	
	Load effect: ≤ 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)	≤0.01%+10mV（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（≤10000V）、1V（＞10000V）	
Output current display resolution	0.001A（≤100A）、0.01A（100A＜1A≤1000A）	
(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-CTS Series Technical Parameter

Protection Function	
Protection function	Overvoltage, overcurrent, internal overheating, short circuit
Ambient Condition	
Ambient Temperature	0℃ to 45℃；Choose -20℃ to 45℃
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
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

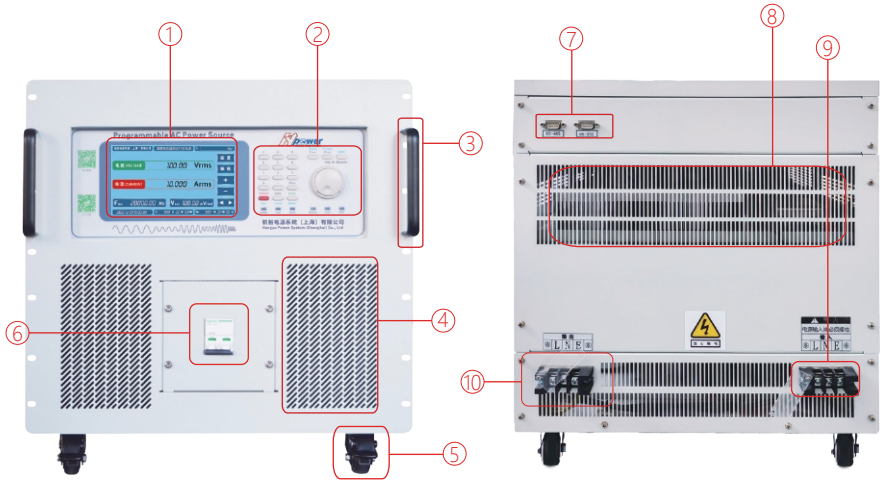
- T2 Working temperature -20 ℃ to 45 ℃
- CF User defined functions (please specify when ordering)
- MR Measurement report (issued by a third party certified by CNAS)

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

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 Lnstitute

China Aerospace

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.)

Aerospace science and engineering

Aviation industry

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)

China Air Development

China Electrical Engineering Group

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)

China Shipbuilding Corporation

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)

China Shipbuilding Industry Corporation

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

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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
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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：