



Hangyu Power System (Shanghai) Co., Ltd.

HY-PWHSU Series

High Power Programmable Wide-Range DC Power Supply



High Reliability High Stability

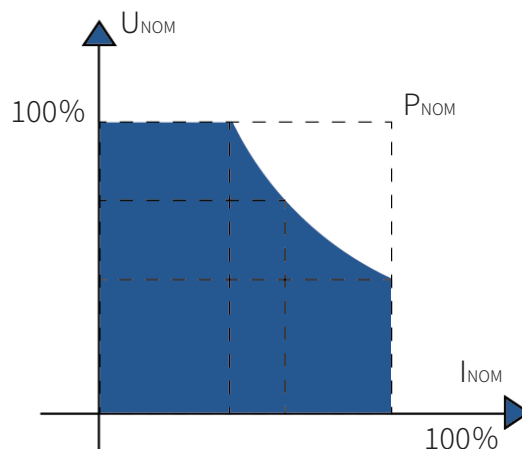
Military quality power supply expert
To provide customers with accurate, intelligent and convenient test
power supply solutions



HY-PWHSU Series High Power Programmable Wide Range DC Power Supply



Wide range, High power, High precision



This power supply has an ultra-wide voltage and current output range, covering various existing limits, and meeting various test requirements of high current and low voltage, or high current and low current.

Product Features

- High power density: 3U single machine can reach 18kW
- Master-slave parallel can be extended to 2MW
- Output voltage: 0-2250V
- Output current: 0-8000A
- Working mode: CC, CV, CP
- Multiple protection functions (OVP, OCP, OPP, OTP)
- Input standard PFC, power factor up to 0.99
- 16-bit D/A High precision converter with precise output
- 20-bit A/D High precision converter for more accurate read back

Application Field

- This power supply is widely used, in the industry (motor), server power supply, high voltage UPS, aerospace, defense military industry and other fields, plays an important role.
- Server power supply, high voltage UPS, data center, inverter design and test
 - Fuel cell, power battery, solar panel, super capacitor test
 - Power supply environment simulation of vehicle, airborne and shipboard electronic equipment
 - DC charger, charging pile design and test system integration
 - Drones, lasers, sensors
 - Automated Test System (ATE)
 - Precision plating, splash plating, surface treatment

Product Model Naming Rules

Product Series	Output Voltage	Output Current	Choose And Buy Function	Choose And Buy Function
HY-PWHSU	1500	- 40	- CF	- T1 : Operating temperature -10°C to 50°C - T2 : Operating temperature -20°C to 50°C - CF : User defined features (please specify when ordering)
Selection examples: Product Model: HY-PWHSU 1500-40-CF Output voltage 0-1500V, output current 0-40A, Custom features that users choose to purchase				
Communication Protocol	Standard Communication Interface		Optional Communication Interface	
Modbus SCPI	RS-485 RS-232 Digital I/O LAN		- CAN : CAN communication interface - GPIB : GPIB communication interface - IA : Analog quantity programming and monitoring interface (isolated type)	

HY-HPSU Series Technical Parameters

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

HY-PWHSU Series Product Model Selection And Parameters

Special specifications outside the voltage/current/power range in the selection table can be customized.

80V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 80-1020	80V	1020A	30kW
HY-PWHSU 80-1530	80V	1530A	45kW
HY-PWHSU 80-2040	80V	2040A	60kW
HY-PWHSU 80-2550	80V	2550A	75kW

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 80-3060	80V	3060A	90kW
HY-PWHSU 80-3570	80V	3570A	105kW
HY-PWHSU 80-4080	80V	4080A	120kW

300V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 300-75	300V	75A	6kW
HY-PWHSU 300-150	300V	150A	12kW
HY-PWHSU 300-225	300V	225A	18kW
HY-PWHSU 300-450	300V	450A	36kW
HY-PWHSU 300-675	300V	675A	54kW
HY-PWHSU 300-900	300V	900A	72kW
HY-PWHSU 300-1125	300V	1125A	90kW
HY-PWHSU 300-1350	300V	1350A	108kW
HY-PWHSU 300-1575	300V	1575A	126kW
HY-PWHSU 300-1800	300V	1800A	144kW

500V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 500-40	500V	40A	6kW
HY-PWHSU 500-80	500V	80A	12kW
HY-PWHSU 500-120	500V	120A	18kW
HY-PWHSU 500-240	500V	240A	36kW
HY-PWHSU 500-360	500V	360A	54kW
HY-PWHSU 500-480	500V	480A	72kW
HY-PWHSU 500-600	500V	600A	90kW
HY-PWHSU 500-720	500V	720A	108kW
HY-PWHSU 500-840	500V	840A	126kW
HY-PWHSU 500-960	500V	960A	144kW

800V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 800-25	800V	25A	6kW
HY-PWHSU 800-50	800V	50A	12kW
HY-PWHSU 800-75	800V	75A	18kW
HY-PWHSU 800-150	800V	150A	36kW
HY-PWHSU 800-225	800V	225A	54kW
HY-PWHSU 800-300	800V	300A	72kW
HY-PWHSU 800-375	800V	375A	90kW
HY-PWHSU 800-450	800V	450A	108kW
HY-PWHSU 800-525	800V	525A	126kW
HY-PWHSU 800-600	800V	600A	144kW

1000V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 1000-54	1000V	54A	18kW
HY-PWHSU 1000-108	1000V	108A	36kW
HY-PWHSU 1000-162	1000V	162A	54kW
HY-PWHSU 1000-216	1000V	216A	72kW
HY-PWHSU 1000-270	1000V	270A	90kW
HY-PWHSU 1000-324	1000V	324A	108kW
HY-PWHSU 1000-378	1000V	378A	126kW
HY-PWHSU 1000-432	1000V	432A	144kW

HY-HPSU Series Technical Parameters

1500V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 1500-40	1500V	40A	18kW
HY-PWHSU 1500-80	1500V	80A	36kW
HY-PWHSU 1500-120	1500V	120A	54kW
HY-PWHSU 1500-160	1500V	160A	72kW
HY-PWHSU 1500-200	1500V	200A	90kW
HY-PWHSU 1500-240	1500V	240A	108kW
HY-PWHSU 1500-280	1500V	280A	126kW
HY-PWHSU 1500-320	1500V	320A	144kW

2250V Series Power Supply Model Selection

Models	Output Voltage	Output Current	Output Power
HY-PWHSU 2250-25	2250V	25A	18kW
HY-PWHSU 2250-50	2250V	50A	36kW
HY-PWHSU 2250-75	2250V	75A	54kW
HY-PWHSU 2250-100	2250V	100A	72kW
HY-PWHSU 2250-125	2250V	125A	90kW
HY-PWHSU 2250-150	2250V	150A	108kW
HY-PWHSU 2250-175	2250V	175A	126kW
HY-PWHSU 2250-200	2250V	200A	144kW

Stability And Temperature Coefficient

Stability (Rated Output Voltage/Current)	U:0.01% I:0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)
Temperature Coefficient (Rated Output Voltage/Current)	U:50ppm/°C I: 70ppm/°C (30 minutes after power on)

Programming And Readback Accuracy & Resolution

Voltage Output Programming Accuracy	0.05% of the rated output voltage
Current Output Programming Accuracy	0.1% of the output current + 0.01% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)
Voltage Setting Resolution	0.001V ($\leq 60V$), 0.01V ($\leq 600V$), 0.1V ($> 600V$)
Current setting resolution	0.001A ($\leq 60A$), 0.01A ($\leq 600A$), 0.1A ($> 600A$)
Voltage Output Read-Back Accuracy	$\pm 0.05\%$ of rated output voltage + $\pm 0.05\%$ of actual voltage
Current Output Read-Back Accuracy	0.1% of the output current + 0.01% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)
Voltage Read Back Resolution	0.00001V ($\leq 10V$), 0.0001V ($\leq 100V$), 0.001V ($100V < U \leq 1000V$), 0.01V ($> 1000V$)
Current Read Back Resolution	0.00001A ($\leq 10A$), 0.0001A ($\leq 100A$), 0.001A ($100A < I \leq 1000A$)

Protection Function

OVP Overvoltage Protection Setting Range	10-110%, beyond the limit output immediately off
OCP Overcurrent Protection Setting Range	0-105%, beyond the limit output immediately off
OTP Overtemperature Protection	Beyond the limit output immediately off
OPP Overpower Protection	10-110%, beyond the limit output immediately off

HY-HPSU Series Technical Parameters

Environmental Condition

Environment	Indoor use; Installation overvoltage class: II; Pollution level: P2; Class II equipment
Operating Ambient Temperature	0°C to 50°C, optional -10°C to 50°C, -20°C to 50°C
Storage Ambient Temperature	-20°C to 65°C
Working Ambient Humidity	20%-90% RH, no dew formation, continuous operation
Storage Environment Humidity	10% - 95% RH, no dew formation
Altitude Above Sea Level	Above 2000 meters above sea level, every 100 meters up, the power will be reduced by 2%, or reduce the maximum working ambient temperature by 1°C per 100 meters; When not in operation, the altitude can reach 12,000 meters
Cooling	Forced air cooling, intelligent speed regulating fan, front/side air inlet, rear air outlet
Noise	≤ 65dB(A), use 1m to weighted measurement

Control Panel

Display	4 inch LCD display, touch screen
Control Function	Digital key input, multi-stage adjustment knob (outer ring coarse adjustment/inner ring fine adjustment), output ON/OFF switch, Lock keyboard and touch lock, Reset Restart status indicator (Shift/Local/Remote/Alarm/Lock/Output)
Programming Function	Step, Ladder, Gradient

Input Power Supply

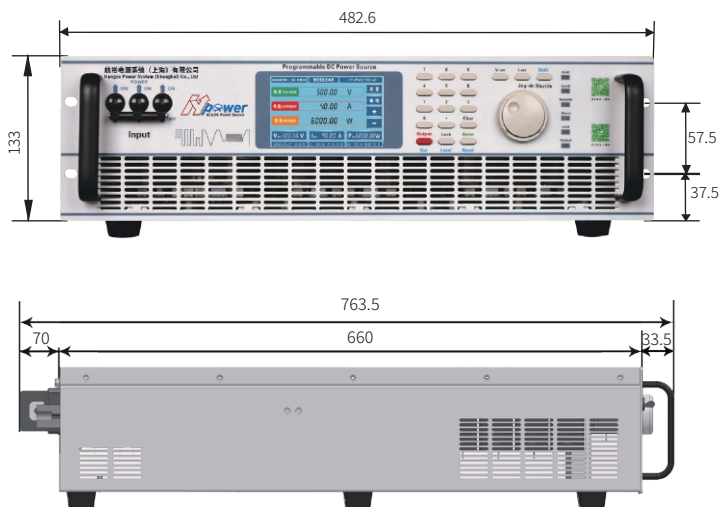
Frequency	47Hz - 63Hz
Connection Mode	Three-phase three-wire + ground wire, 380V ± 15%
Power Factor (Typical Value)	0.94(Three-phase input)

Size And Weight

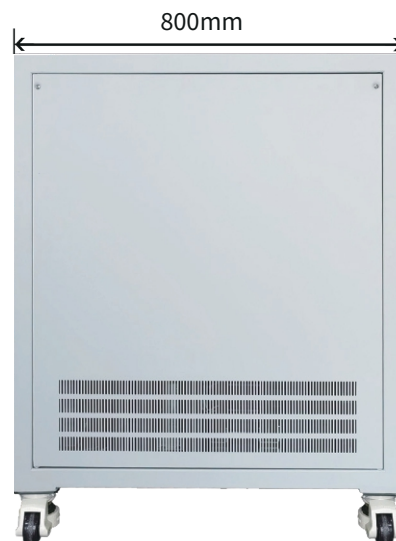
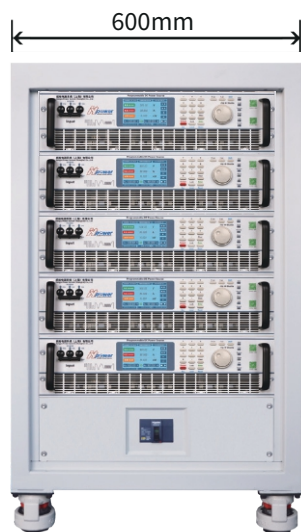
Width * Depth * Height (W * D * H)	450(W) * 660(D) * 133(H) mm, 3U 440(W) * 600(D) * 445(H) mm, 10U 600(W) * 800(D) * 920(H) mm, 18U For more dimensions, please see the appearance and dimensions of the chassis
Colour	RAL 7035

Appearance & Size

3U 450(W) * 660(D) * 133(H) mm

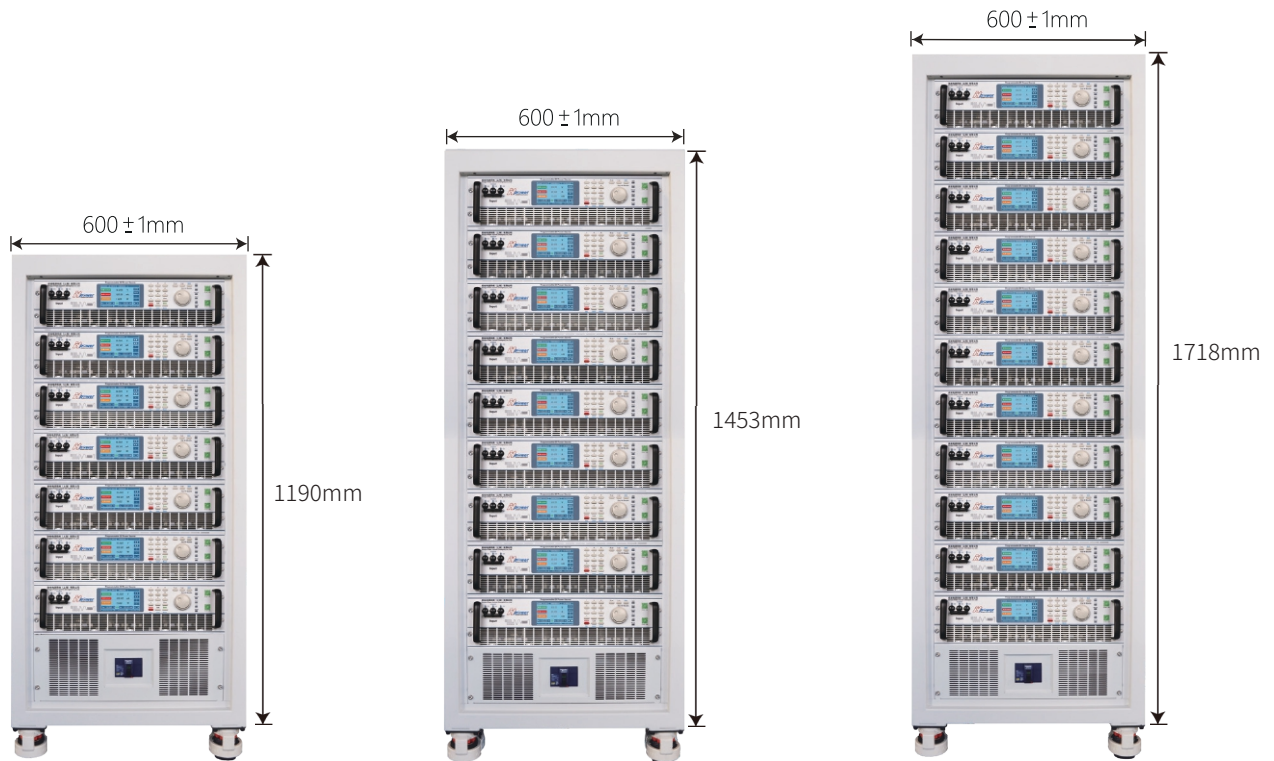


18U model: 600(W) * 800(D) * 920(H) mm



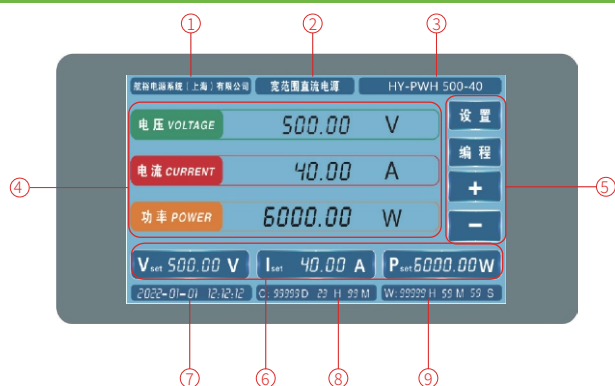
Appearance & Size

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



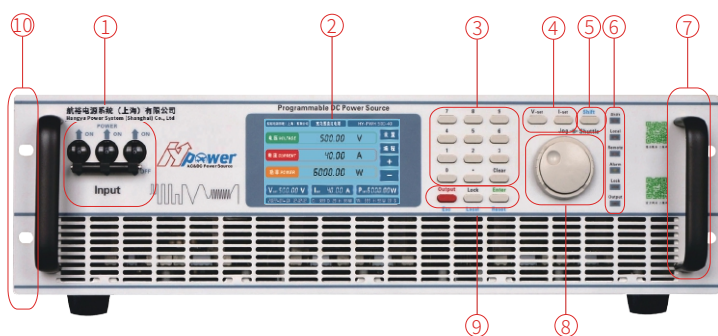
Appearance & Size

Display Interface



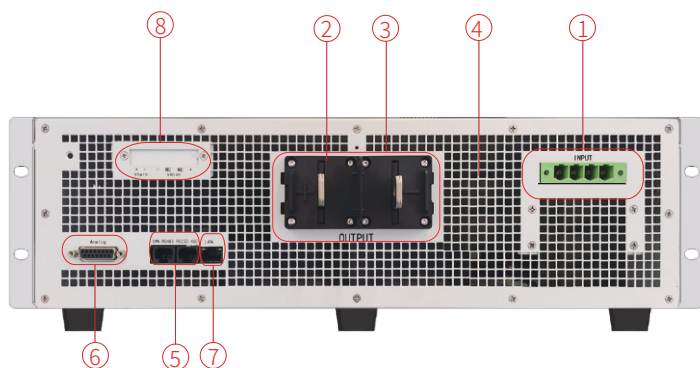
- ① Manufacturer's name
- ② Product name
- ③ Product series
- ④ Voltage/current/power read back display area
- ⑤ Function setting area
- ⑥ Voltage/Current/Power Setpoints
- ⑦ Current time
- ⑧ Accumulated running time
- ⑨ This run time

Control Panel



- ① Power input circuit breaker
- ② LCD display (4-inch, touch screen)
- ③ Number input keyboard
- ④ Voltage/current setting key
- ⑤ Shift Function reset key
- ⑥ Status indicator light
- ⑦ Chassis handle
- ⑧ Multi-stage adjustment knob (inner circle fine adjustment/outer circle coarse adjustment)
- ⑨ Lock, Enter, Esc, Local, Reset, Output ON/OFF
- ⑩ 19 inch standard rack mounting holes

Rear Panel



- ① AC input terminal
- ② Output copper bar
- ③ Output protective cover
- ④ Heat dissipation air outlet
- ⑤ RS-485 & RS-232 communication interface
- ⑥ Digital I/O communication interface
- ⑦ LAN communication interface
- ⑧ Distal compensation measuring terminal

Programmable Function

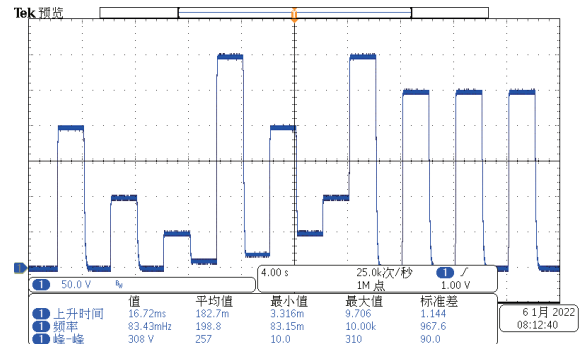
Programmable Functions Are Introduced

步阶设定模式 起始步 结束步

步号	电压 (V)	电流 (A)	运行时间 (时:分:秒:毫秒)	循环次数
			: : :	
			: : :	
			: : :	
			: : :	
			: : :	
			: : :	

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The step setting page allows you to set the required voltage, current, run time, initial step, end step, and number of cycles.



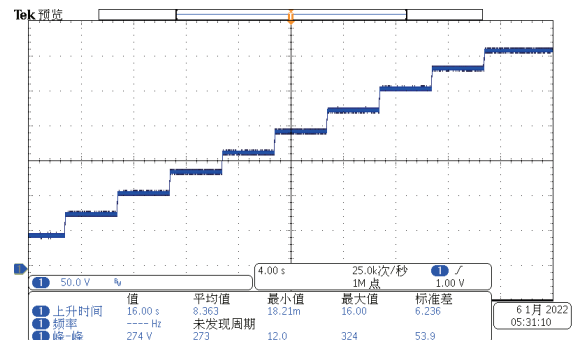
阶梯设定模式

初始电压	V
步进电压	V
步进次数	
步进时间 (时:分:秒:毫秒)	: : :
循环次数 (0为无限大)	

示意图

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The ladder setting page can set the required initial voltage, stepping voltage, stepping times and stepping time.

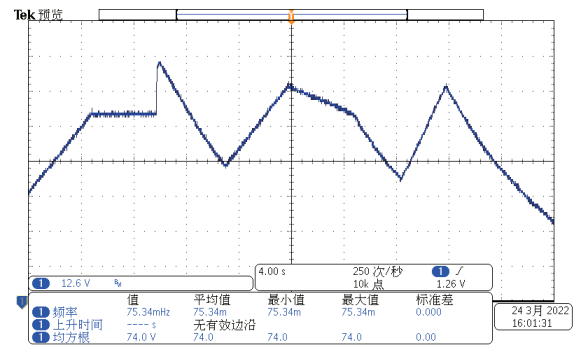


渐变设定模式 起始步 结束步

步号	电压 (V)	电流 (A)	运行时间 (时:分:秒:毫秒)	循环次数
			: : :	
			: : :	
			: : :	
			: : :	
			: : :	
			: : :	

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Gradient Settings page can set the required voltage, current, running time, initial step, end step





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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:

