



HY-UHSSU series Ultra-high stable magnet power supply

Various grades of high stability magnet power supplies for high temperature/low temperature superconducting magnet coils and conventional magnet coils can be provided, as well as fully customized parameters and functional requirements.

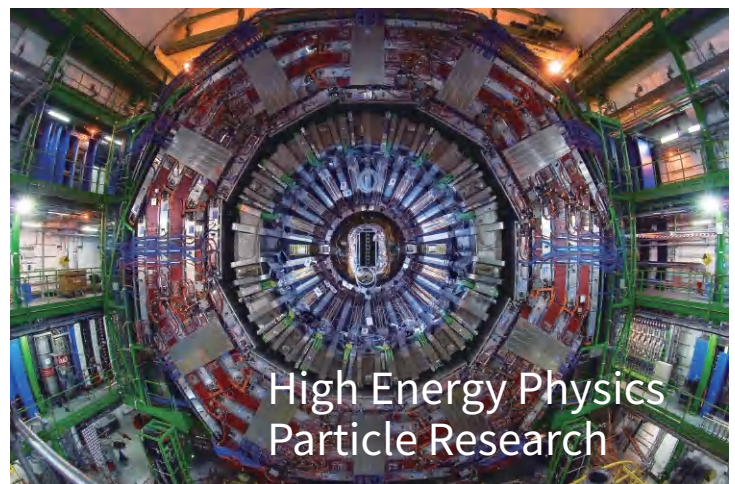
HY-UHSSU series Ultra-high stable magnet power supply

HY-UHSSU series ultra-high stability magnet power supply has the characteristics of ultra-high stability, low ripple, high precision, etc. It has voltage and current control modes, continuous and stable power supply, and builds ultra-high stability magnetic field, which can help clear MRI imaging. Restore medical images and provide professional and accurate testing solutions for medical applications and high-energy physics. Additionally, high power density coupled with high accuracy and low ripple characteristics make the combined solution ideal for ATE calibration applications.

Stable
power
supply

Clear
imaging

High
precision,
low ripple



Hangyu HY-UHSSU series ultra-high stable magnet power supply is mainly used in the field of radiation medicine and high-energy physical particle research. In order to realize that the magnetic field generated by the magnet coil is sufficiently stable, the current stability and accuracy of the magnet power supply that provides power to the coil are particularly important.

Hangyu Power Supply provides fully customized high-precision magnet power supplies, including various grades of high-stable power supplies for high-temperature/low-temperature superconducting magnet power supplies, conventional magnets and magnetic material testing.

The customized magnet power supply covers the following indicators:

- Application type: conventional magnets, low temperature superconductivity, high temperature superconductivity, magnetic material testing
- Current range: 0.1A -50000A optional
- Voltage range: 0 - 1500V optional
- Power range: 1KW -1000KW optional
- Time stability: 5ppm, 10ppm, 50ppm, 100ppm long-term stability optional
- 16 bits D/A high precision converter, accurate output (optional 18 bits, 20bits)
- 20 bits A/D high precision converter, more accurate read back
- Temperature stability: different according to "air cooling" and "water cooling"
- Power supply polarity: unipolar, bipolar (polarity can be switched), bipolar four-quadrant

Product Model Naming Rules

Product Series	Output Voltage	Output Current	Optional function
HY-UHSSU	2000	500	CF
Series name	The output voltage is 0-2000V	The output current is 0-500A	Abbreviation of optional function (See optional features)

Selection example:

Product model: HY-UHS 2000-500-CF

Output voltage 0-2000V, output current 0-500A, optional user-defined functions.

Optional interface (users can install it by themselves)

- IL CAN & USB Communication Interface
- IG GPIB Communication Interface
- IA Analog programming and monitoring interface (isolated)
- LAN Ethernet communication interface

Optional function

- SP Tep / Stair / Gradient Sequence programming function
- NCH N stands for number, CH stands for channel
- PN Positive and negative switching
- CP Constant power function
- ABD Anti-backflow diode
- BD Anti-reverse diode
- TVS Transient suppression diodes
- AT Built-in ISO 16750-2 test standard (some waveforms)
- PS Power absorption (supported on some models, installed at the factory)
- HS High-speed transition function (installed at the factory)
- HR High Resolution / High Accuracy
- TP Three-phase input, AC 380 V (5kW / 2U)
- T1 Operating temperature -10°C to 50°C
- T2 Operating temperature -20°C to 50°C
- T4 Operating 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)

Selection table

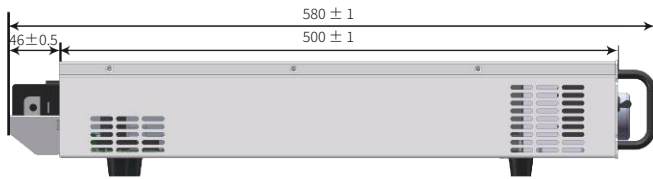
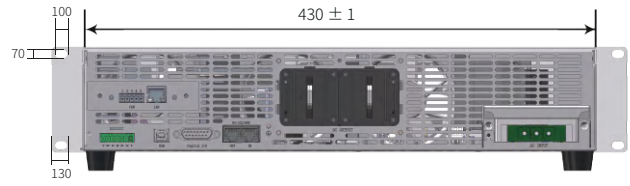
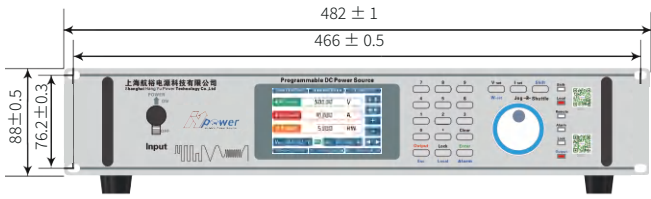
■ In the selection table, special specifications outside the range of voltage/current/power can be customized

Output voltage	Output Power (W) & Output current (A)						
	3U		2U				
	15kW	10kW	5kW	3600W	2500W	1600W	1000W
1500V	10A	6.7A	3.3A	2.4A	1.7A	1.1A	0.7A
1200V	12.5A	8.3A	4.2A	3A	2A	1.3A	0.8A
1000V	15A	10A	5A	3.6A	2.5A	1.6A	1A
800V	18.8A	12.5A	6.3A	4.5A	3.1A	2A	1.3A
600V	25A	16.7A	8.3A	6A	4.2A	2.7A	1.7A
500V	30A	20A	10A	7.2A	5A	3.2A	2A
400V	37.5A	25A	12.5A	9A	6.3A	4A	2.5A
350V	43A	28.6A	14.3A	10.3A	7A	4.6A	3A
300V	50A	33A	16.7A	12A	8.3A	5.3A	3.3A
250V	60A	40A	20A	14.4A	10A	6.4A	4A
200V	75A	50A	25A	18A	12.5A	8A	5A
150V	100A	66.7A	33.3A	24A	16.7A	10.7A	6.7A
100V	150A	100A	50A	36A	25A	16A	10A
80V	187.5A	125A	62.5A	45A	31A	20A	12.5A
60V	250A	166.7A	83A	60A	41.7A	26.7A	16.7A
40V	375A	250A	125A	90A	62.5A	40A	25A
30V	500A	333A	166.7A	120A	83A	53A	33A
20V	750A	500A	250A	180A	125A	80A	50A
10V		1000A	500A	360A	250A	160A	100A

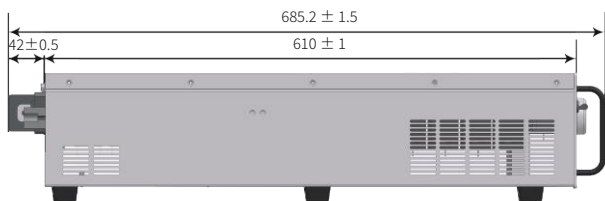
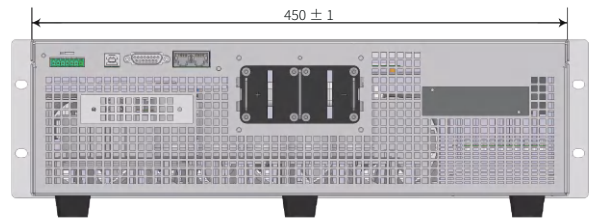
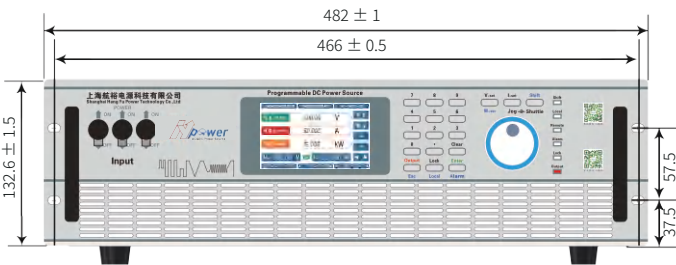
Stability & Temperature Coefficient	
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (8 hours after turning on the power supply for 30 minutes at a certain input voltage and load ambient temperature)
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after turning on the power)
Programming and Readback Accuracy & Resolution	
Voltage Output Programming Accuracy	0.05% of rated output voltage, measured at telemetry point
Current Output Programming Accuracy	0.1% of output current + 0.1% of rated output current
Voltage Setting Resolution	0.01V (≤ 600 V), 0.1V (> 600 V)
Current Setting Resolution	0.01A (≤ 600 A), 0.1A (> 600 A)
Voltage Output Readback Accuracy	0.05% of rated output voltage
Current Output Readback Accuracy	0.3% of rated output current
Voltage Readback Resolution	0.001 V (≤ 100 V), 0.01 V (100 V $< U \leq 1000$ V), 0.1 V (> 1000 V)
Current Readback Resolution	0.001 A (≤ 100 A), 0.01 A (100 A $< I \leq 1000$ A)
Protective function	
OVP set range	10 - 110%, Immediate shutdown of the output when the limit value is exceeded
OCP set range	0 - 105%, Immediate shutdown of the output when the limit value is exceeded
OTP set range	Immediate shutdown of the output when the limit value is exceeded
Environmental conditions	
Environmental	Indoor use; installation overvoltage class: II; pollution class: P2; class II equipment
Working temperature	0°C to 50°C, optional -10°C to 50°C, -20°C to 50°C, -40°C to 50°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 is reduced by 2% for every 100 meters, or the maximum working environment temperature is reduced by 1°C every 100 meters; When not operating, up to 12,000 meters above sea level
Cooling	Forced air cooling, intelligent speed-adjustable fan, air intake from both sides, and air out from the rear
Noise	≤ 65 dB(A), Use 1 m to weight measurements
Control panel	
Display	4" / 7", LCD, touch screen
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 Reboot Status Indicator (Shift / Local / Remote / Alarm / Lock / Output)
Input power	
Frequency	47 Hz - 63 Hz
Wiring	Single-phase two-wire + ground wire, 220 V \pm 15% (-ST standard configuration model)
Power Factor (Typical)	0.99 (-ST) 0.94 (-TP)

Appearance & size

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



3U 450(W) * 610(D) * 133(H) mm





Official wechat:hypower-cn



Contact us

Hangyu Power System (Shanghai) Co., Ltd.

Mobile/Whatsapp:+8613801800699

Fax:+86-21-67285228-8009

Email:sales@hangyupower.com

neo@hangyupower.com

Address: Block B, Building 11, No. 1698 Minyi Road, Songjiang District, Shanghai

Web:www.hangyupower.com

©Hangyu Power System, 2024

Programmable DC Power Supply Product Catalog, version 08.00, April 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:

