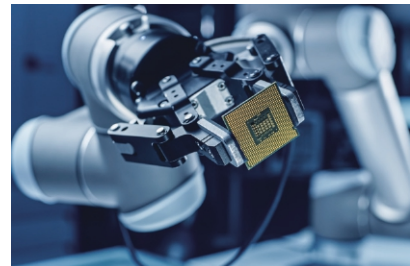
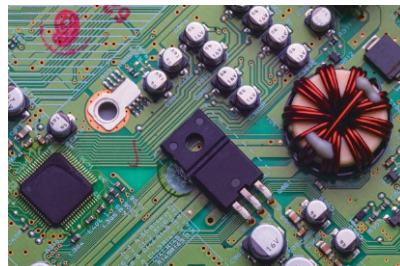




# HY-PM Series

Programmable Multi-Function DC Power Supply

Military Quality Power Supply Expert

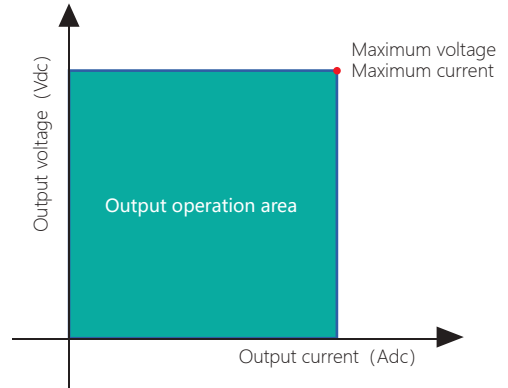


# HY-PM Series

## Programmable Multi-Function DC Power Supply



High performance, precision, and power density



HY-PM series programmable multifunctional DC power supply with low voltage and high current. Some models are widely used for transient testing of low-voltage electrical appliances, which can be obtained through parallel connection. It has higher current, a variety of models, powerful functions, and a wide range of applications.

### Product Features

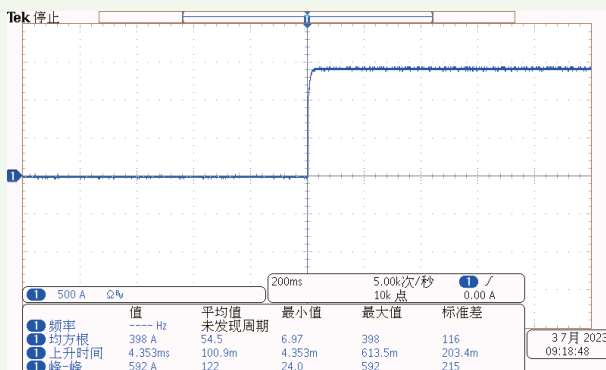
- Maximum output voltage 1500V, Maximum output current 30kA
- Maximum output current: 5kW / 2U
- Input standard configuration PFC, Power factor up to 0.99
- 16 bits D/A High precision converter with precise output
- 20 bits A/D High precision converter for more accurate read back

### Application Area

This power supply has a wide range of uses, and its low-voltage and high current models are particularly suitable for low voltage applications. Piezoelectric transient test, **Current rise time  $\leq 5\text{ms}$ ,  $\leq 10\text{ms}$  optional**. In addition, this power supply has a wide range of models and is suitable for electronic systems in the following fields. The purpose of aging, voltage resistance, temperature rise, power supply, etc.

- Low voltage electrical testing
- Power semiconductor testing
- Power Electronics Testing
- Scientific research testing
- AEROSPACE
- National Defense and Military Industry
- Automotive Electronic Testing
- smart grid

### Transient Test



Using HY-PM series for actual measurement of circuit breakers  
Current rise time measured  $\leq 5\text{ms}$

Hangyu Power can solve the problems of frame current sensors, circuit breakers, molded case circuit breakers. Low voltage power supply such as miniature circuit breakers, relays, contactors, wiring harnesses, cables, connectors, etc. Difficulty in circuit breaker testing, meeting the requirements of IEC60947-2 standard for instantaneous test current of circuit breakers. Test conditions where the response time must be less than 5ms, low voltage below 10V, and current up to 10000A, high current accuracy, and multiple programming functions, allowing for temperature rise of circuit breakers. Durability testing and transient experiments are more accurate and convenient. The transient characteristic test is used to detect the instantaneous overcurrent release action characteristics of low-voltage circuit breakers. A major experimental project on sex. Its working principle is to control the main circuit power supply. Apply the test current to the test object to verify the action characteristics of the instantaneous overcurrent release by making and breaking it. Whether the sex meets the requirements of the standard. The characteristic of this experiment is that the test current is high, but there is no voltage requirement; The main circuit of the test has a short power on time; Number of tested products (i.e. products) Large quantity, high frequency of experimental operations; According to GB998-82, the test requires instantaneous. The test current of the overcurrent release should be symmetrical, that is, there is basically no DC component.

## Product Selection Instructions

### Product Model Naming Rules

| Product series | Output voltage | Output current | Optional function |
|----------------|----------------|----------------|-------------------|
| HY-PM          | 10             | - 10000        | - CF              |

Model: HY-PM 10-10000-CF  
 The model information is: output voltage 0-10V,  
 output current 0-10000A  
 Choose User Defined Features

#### Communication protocol

Modbus  
 SCPI

#### Standard communication interface

RS-485  
 RS-232  
 Digital I/O

#### Optional communication interface (Users can install it themselves)

- LAN : Ethernet communication interface
- CAN : CAN communication interface
- GPIB : GPIB communication interface
- IA : Analog programming and monitoring interface (isolated type)

#### Purchasing function

- PN : Positive and negative switching
- CP : Constant power function
- ABD : Anti backflow diode
- BD : Anti reverse diode
- TVS : TVS DIODE
- PS : Attack rate absorption (supported by some models, installed during factory shipment)
- HS : High speed jump function (installed during factory shipment)
- HR : High resolution/precision
- TP : Three phase input, AC 380 V
- T1 : Operation temperature -10°C to 50°C
- T2 : Operation temperature -20°C to 50°C
- T4 : Operation 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)

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

# HY-PM Series Product Selection Table

## HY-PM Series Low Pressure Model Table

The following is a list of low-voltage and high current models for this series of power supplies. The output voltage is generally 10-20V, and the maximum output current can reach 10000A. If the selection table does not meet your needs The requested model can be proposed separately for special customization.

### 10V Series Power Selection

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 10-100   | 10V            | 100A           | 1kW          |
| HY-PM 10-160   | 10V            | 160A           | 1.6kW        |
| HY-PM 10-250   | 10V            | 250A           | 2.5kW        |
| HY-PM 10-360   | 10V            | 360A           | 3.6kW        |
| HY-PM 10-500   | 10V            | 500A           | 5kW          |
| HY-PM 10-1000  | 10V            | 1000A          | 10kW         |
| HY-PM 10-1500  | 10V            | 1500A          | 15kW         |
| HY-PM 10-2000  | 10V            | 2000A          | 20kW         |
| HY-PM 10-3000  | 10V            | 3000A          | 30kW         |
| HY-PM 10-4000  | 10V            | 4000A          | 40kW         |
| HY-PM 10-5000  | 10V            | 5000A          | 50kW         |
| HY-PM 10-6000  | 10V            | 6000A          | 60kW         |
| HY-PM 10-8000  | 10V            | 8000A          | 80kW         |
| HY-PM 10-10000 | 10V            | 10000A         | 100kW        |

### 20V Series Power Selection

| Models        | Output voltage | Output current | Output power |
|---------------|----------------|----------------|--------------|
| HY-PM 20-50   | 20V            | 50A            | 1kW          |
| HY-PM 20-80   | 20V            | 80A            | 1.6kW        |
| HY-PM 20-125  | 20V            | 125A           | 2.5kW        |
| HY-PM 20-180  | 20V            | 180A           | 3.6kW        |
| HY-PM 20-250  | 20V            | 250A           | 5kW          |
| HY-PM 20-500  | 20V            | 500A           | 10kW         |
| HY-PM 20-750  | 20V            | 750A           | 15kW         |
| HY-PM 20-1000 | 20V            | 1000A          | 20kW         |
| HY-PM 20-1500 | 20V            | 1500A          | 30kW         |
| HY-PM 20-2000 | 20V            | 2000A          | 40kW         |
| HY-PM 20-2500 | 20V            | 2500A          | 50kW         |
| HY-PM 20-3000 | 20V            | 3000A          | 60kW         |
| HY-PM 20-4000 | 20V            | 4000A          | 80kW         |
| HY-PM 20-5000 | 20V            | 5000A          | 100kW        |

## HY-PM Series Non Low Voltage Model Table

The following is a list of other models of this series of power supplies, with a single machine output voltage of 10-1500V, which can be connected in parallel to obtain larger voltages. If the selection table does not meet your needs The requested model can be proposed separately for special customization.

### 1kW Series Power Supply Selection (The Following Models Are All 2U Models)

| Models        | Output voltage | Output current | Output power |
|---------------|----------------|----------------|--------------|
| HY-PM 30-33   | 30V            | 33A            | 1kW          |
| HY-PM 40-25   | 40V            | 25A            | 1kW          |
| HY-PM 60-16.7 | 60V            | 16.7A          | 1kW          |
| HY-PM 80-12.5 | 80V            | 12.5A          | 1kW          |
| HY-PM 100-10  | 100V           | 10A            | 1kW          |
| HY-PM 150-6.7 | 150V           | 6.7A           | 1kW          |
| HY-PM 200-5   | 200V           | 5A             | 1kW          |
| HY-PM 250-4   | 250V           | 4A             | 1kW          |

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 300-3.3  | 300V           | 3.3A           | 1kW          |
| HY-PM 350-3    | 350V           | 3A             | 1kW          |
| HY-PM 400-2.5  | 400V           | 2.5A           | 1kW          |
| HY-PM 500-2    | 500V           | 2A             | 1kW          |
| HY-PM 600-1.7  | 600V           | 1.7A           | 1kW          |
| HY-PM 800-1.3  | 800V           | 1.3A           | 1kW          |
| HY-PM 1000-1   | 1000V          | 1A             | 1kW          |
| HY-PM 1200-0.8 | 1200V          | 0.8A           | 1kW          |
| HY-PM 1500-0.7 | 1500V          | 0.7A           | 1kW          |

# HY-PM Series Product Selection Table

## 1.6kW Series Power Supply Selection (The Following Models Are All 2U Models)

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 30-53    | 30V            | 53A            | 1.6kW        |
| HY-PM 40-40    | 40V            | 40A            | 1.6kW        |
| HY-PM 60-26.7  | 60V            | 26.7A          | 1.6kW        |
| HY-PM 80-20    | 80V            | 20A            | 1.6kW        |
| HY-PM 100-16   | 100V           | 16A            | 1.6kW        |
| HY-PM 150-10.7 | 150V           | 10.7A          | 1.6kW        |
| HY-PM 200-8    | 200V           | 8A             | 1.6kW        |
| HY-PM 250-6.4  | 250V           | 6.4A           | 1.6kW        |

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 300-5.3  | 300V           | 5.3A           | 1.6kW        |
| HY-PM 350-4.6  | 350V           | 4.6A           | 1.6kW        |
| HY-PM 400-4    | 400V           | 4A             | 1.6kW        |
| HY-PM 500-3.2  | 500V           | 3.2A           | 1.6kW        |
| HY-PM 600-2.7  | 600V           | 2.7A           | 1.6kW        |
| HY-PM 800-2    | 800V           | 2A             | 1.6kW        |
| HY-PM 1000-1.6 | 1000V          | 1.6A           | 1.6kW        |
| HY-PM 1200-1.3 | 1200V          | 1.3A           | 1.6kW        |
| HY-PM 1500-1.1 | 1500V          | 1.1A           | 1.6kW        |

## 2.5kW Series Power Supply Selection (The Following Models Are All 2U Models)

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 30-83    | 30V            | 83A            | 2.5kW        |
| HY-PM 40-62.5  | 40V            | 62.5A          | 2.5kW        |
| HY-PM 60-41.7  | 60V            | 41.7A          | 2.5kW        |
| HY-PM 80-31    | 80V            | 31A            | 2.5kW        |
| HY-PM 100-25   | 100V           | 25A            | 2.5kW        |
| HY-PM 150-16.7 | 150V           | 16.7A          | 2.5kW        |
| HY-PM 200-12.5 | 200V           | 12.5A          | 2.5kW        |
| HY-PM 250-10   | 250V           | 10A            | 2.5kW        |

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 300-8.3  | 300V           | 8.3A           | 2.5kW        |
| HY-PM 350-7    | 350V           | 7A             | 2.5kW        |
| HY-PM 400-6.3  | 400V           | 6.3A           | 2.5kW        |
| HY-PM 500-5    | 500V           | 5A             | 2.5kW        |
| HY-PM 600-4.2  | 600V           | 4.2A           | 2.5kW        |
| HY-PM 800-3.1  | 800V           | 3.1A           | 2.5kW        |
| HY-PM 1000-2.5 | 1000V          | 2.5A           | 2.5kW        |
| HY-PM 1200-2   | 1200V          | 2A             | 2.5kW        |
| HY-PM 1500-1.7 | 1500V          | 1.7A           | 2.5kW        |

## 3.6kW Series Power Supply Selection (The Following Models Are All 2U Models)

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 30-120   | 30V            | 120A           | 3.6kW        |
| HY-PM 40-90    | 40V            | 90A            | 3.6kW        |
| HY-PM 60-60    | 60V            | 60A            | 3.6kW        |
| HY-PM 80-45    | 80V            | 45A            | 3.6kW        |
| HY-PM 100-36   | 100V           | 36A            | 3.6kW        |
| HY-PM 150-24   | 150V           | 24A            | 3.6kW        |
| HY-PM 200-18   | 200V           | 18A            | 3.6kW        |
| HY-PM 250-14.4 | 250V           | 14.4A          | 3.6kW        |

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 300-12   | 300V           | 12A            | 3.6kW        |
| HY-PM 350-10.3 | 350V           | 10.3A          | 3.6kW        |
| HY-PM 400-9    | 400V           | 9A             | 3.6kW        |
| HY-PM 500-7.2  | 500V           | 7.2A           | 3.6kW        |
| HY-PM 600-6    | 600V           | 6A             | 3.6kW        |
| HY-PM 800-4.5  | 800V           | 4.5A           | 3.6kW        |
| HY-PM 1000-3.6 | 1000V          | 3.6A           | 3.6kW        |
| HY-PM 1200-3   | 1200V          | 3A             | 3.6kW        |
| HY-PM 1500-2.4 | 1500V          | 2.4A           | 3.6kW        |



# HY-PM Series Product Selection Table

## 5kW Series Power Supply Selection (The Following Models Are All 2U Models)

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 30-166.7 | 30V            | 166.7A         | 5kW          |
| HY-PM 40-125   | 40V            | 125A           | 5kW          |
| HY-PM 60-83    | 60V            | 83A            | 5kW          |
| HY-PM 80-62.5  | 80V            | 62.5A          | 5kW          |
| HY-PM 100-50   | 100V           | 50A            | 5kW          |
| HY-PM 150-33.3 | 150V           | 33.3A          | 5kW          |
| HY-PM 200-25   | 200V           | 25A            | 5kW          |
| HY-PM 250-20   | 250V           | 20A            | 5kW          |

| Models         | Output voltage | Output current | Output power |
|----------------|----------------|----------------|--------------|
| HY-PM 300-16.7 | 300V           | 16.7A          | 5kW          |
| HY-PM 350-14.3 | 350V           | 14.3A          | 5kW          |
| HY-PM 400-12.5 | 400V           | 12.5A          | 5kW          |
| HY-PM 500-10   | 500V           | 10A            | 5kW          |
| HY-PM 600-8.3  | 600V           | 8.3A           | 5kW          |
| HY-PM 800-6.3  | 800V           | 6.3A           | 5kW          |
| HY-PM 1000-5   | 1000V          | 5A             | 5kW          |
| HY-PM 1200-4.2 | 1200V          | 4.2A           | 5kW          |
| HY-PM 1500-3.3 | 1500V          | 3.3A           | 5kW          |

# HY-PM Series Low Voltage Model Application

## HY-PM Series Low Voltage High Current Model Parameter Table

| HY-PM Series Power Supply Model Parameter Table1 (1kW~15kW) |  |              |              |  |              |   |               |
|---|--|--------------|--------------|--|--------------|---|---------------|
| <b>Models</b>   | HY-PM 10-100   | HY-PM 10-160 | HY-PM 10-250 | HY-PM 10-360   | HY-PM 10-500 | HY-PM 10-1000   | HY-PM 10-1500 |
| Rated output voltage  | 10V  | 10V          | 10V          | 10V  | 10V          | 10V   | 10V           |
| output current  | 100A   | 160A         | 250A         | 360A   | 500A         | 1000A   | 1500A         |
| Rated output power  | 1kW  | 1.6kW        | 2.5kW        | 3.6kW  | 5kW          | 10kW  | 15kW          |
| Efficiency  | 80%  | 81%          | 84%          | 83%  | 84%          | 88%   | 89%           |
| <b>Models</b>   | HY-PM 20-50  | HY-PM 20-80  | HY-PM 20-125 | HY-PM 20-180   | HY-PM 20-250 | HY-PM 20-500  | HY-PM 20-750  |
| Rated output voltage  | 20V  | 20V          | 20V          | 20V  | 20V          | 20V   | 20V           |
| output current  | 50A  | 80A          | 125A         | 180A   | 250A         | 500A  | 750A          |
| Rated output power  | 1kW  | 1.6kW        | 2.5kW        | 3.6kW  | 5kW          | 10kW  | 15kW          |
| Efficiency  | 85%  | 86%          | 87%          | 83%  | 86%          | 91%   | 91%           |
| <b>CC Mode</b>  |  |              |              |  |              |   |               |
| Settable output range                                       | 0-Rated output value   |              |              |  |              |   |               |
| Input adjustment rate                                       | Rated output current 0.01%+2mV<br>(AC input 220 V ± 15%, constant load)  |              |              | Rated output current 0.01%<br>(AC input 220 V ± 15%, constant load)          |              | current≥333A When Rated output current 0.1%;<br>current<333A When Rated output current 0.05%;<br>(AC input 380 V ± 15%, constant load)  |               |
| Load regulation   | Rated output current 0.05% +5mA<br>(No load to full load, constant input voltage)  |              |              | Rated output current 0.05%<br>(No load to full load, constant input voltage) |              | current≥333A When Rated output current 0.1%;<br>current<333A When Rated output current 0.075%;<br>(AC input 380 V ± 15%, constant load) |               |
| Output current rise time                                    | Transient test: <5ms、<10ms Optional; The temperature rise test does not require a rise time  |              |              |  |              |   |               |
| <b>CV Mode</b>  |  |              |              |  |              |   |               |
| Settable output range                                       | 0-Rated output value   |              |              |  |              |   |               |
| Input adjustment rate                                       | Rated output voltage 0.01% +2mV<br>(AC input 220 V ± 15%, constant load)   |              |              | Rated output voltage 0.01%<br>(AC input 220 V ± 15%, constant load)          |              | Rated output voltage 0.1%<br>(AC input 380 V ± 15%, constant load)  |               |
| Load regulation   | Rated output voltage 0.05% +5mV<br>(No load to full load, constant input voltage, Measure at the remote compensation point)  |              |              |  |              | Rated output voltage 0.1%<br>(No load to full load, constant input voltage, Measure at the remote compensation point)                   |               |
| <b>Programming And Read Back Accuracy &amp; Resolution</b>  |  |              |              |  |              |   |               |
| Voltage output programming accuracy                         | Rated output voltage 0.05%, Measurement at telemetry points  |              |              |  |              |   |               |
| Current output programming accuracy                         | Output current 0.1%+Rated output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |              |              |  |              |   |               |
| Voltage setting resolution                                  | 0.001V (≤60 V) ,0.01V (≤600 V) , 0.1V (> 600 V)  |              |              |  |              |   |               |
| Current setting resolution                                  | 0.001A (≤60 A) ,0.01A (≤600 A) , 0.1A (> 600 A)  |              |              |  |              |   |               |
| Voltage output readback accuracy                            | Rated output voltage 0.05%   |              |              |  |              |   |               |
| Current setting resolution                                  | Output current 0.1%+Rated output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |              |              |  |              |   |               |
| Voltage read back resolution                                | 0.00001 V ( ≤ 10 V ),0.0001 V ( ≤ 100 V ), 0.001 V ( 100 V < U ≤ 1000 V ), 0.01 V (> 1000 V)   |              |              |  |              |   |               |
| Current read back resolution                                | 0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )   |              |              |  |              |   |               |
| <b>Stability And Temperature Coefficient</b>                |  |              |              |  |              |   |               |
| Temperature drift   | U: 0.01%      I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)   |              |              |  |              |   |               |
| Emperature coefficient                                      | U: 50ppm/°C      I: 70ppm/°C (After 30 minutes of power on)  |              |              |  |              |   |               |

# HY-PM Series Low Voltage Model Technical Parameters

HY-PM Series Power Supply Model Parameter Table 2 (20kW~100kW)

| Models  | HY-PM 10-2000  | HY-PM 20-1000 | HY-PM 10-3000 | HY-PM 20-1500 | HY-PM 10-4000 | HY-PM 20-2000  | HY-PM 10-5000 |
|---|--|---------------|---------------|---------------|---------------|----------------|---------------|
| Rated output voltage                            | 10V  | 20V           | 10V           | 20V           | 10V           | 20V            | 10V           |
| Output current                                  | 2000A  | 1000A         | 3000A         | 1500A         | 4000A         | 2000A          | 5000A         |
| Rated output power                              | 20kW   | 20kW          | 30kW          | 30kW          | 40kW          | 40kW           | 50kW          |
| Models  | HY-PM 20-2500  | HY-PM 10-6000 | HY-PM 20-3000 | HY-PM 10-8000 | HY-PM 20-4000 | HY-PM 10-10000 | HY-PM 20-5000 |
| Rated output voltage                            | 20V  | 10V           | 20V           | 10V           | 20V           | 10V            | 20V           |
| Output current                                  | 2500A  | 6000A         | 3000A         | 8000A         | 4000A         | 10000A         | 5000A         |
| Rated output power                              | 50kW   | 60kW          | 60kW          | 80kW          | 80kW          | 100kW          | 100kW         |
| CC Mode   |  |               |               |               |               |                |               |
| Settable output range                           | 0-Rated output value   |               |               |               |               |                |               |
| Input adjustment rate                           | Rated output current 0.1% (AC input 380 V ± 15%, constant load)  |               |               |               |               |                |               |
| Load regulation                                 | Rated output current 0.1% (No load to full load, constant input voltage)   |               |               |               |               |                |               |
| CV Mode   |  |               |               |               |               |                |               |
| Settable output range                           | 0-Rated output value   |               |               |               |               |                |               |
| Input adjustment rate                           | Rated output voltage 0.1% (AC input 380 V ± 15%, constant load)  |               |               |               |               |                |               |
| Load regulation                                 | Rated output voltage 0.1% (No load to full load, constant input voltage, Measure at the remote compensation point)   |               |               |               |               |                |               |
| Programming And Read Back Accuracy & Resolution |  |               |               |               |               |                |               |
| Voltage output programming accuracy             | Rated output voltage 0.05%, Measurement at telemetry points  |               |               |               |               |                |               |
| Current output programming accuracy             | Output current 0.1%+Rated output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |               |               |               |               |                |               |
| Voltage setting resolution                      | 0.001V ( ≤60 V ), 0.01V ( ≤600 V ), 0.1V ( > 600 V )   |               |               |               |               |                |               |
| Current setting resolution                      | 0.001A ( ≤60 A ), 0.01A ( ≤600 A ), 0.1A ( > 600 A )   |               |               |               |               |                |               |
| Voltage output readback accuracy                | Rated output voltage 0.05%   |               |               |               |               |                |               |
| Current setting resolution                      | Output current 0.1%+Rated output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |               |               |               |               |                |               |
| Voltage read back resolution                    | 0.00001 V ( ≤ 10 V ), 0.0001 V ( ≤ 100 V ), 0.001 V ( 100 V < U ≤ 1000 V ), 0.01 V ( > 1000 V )  |               |               |               |               |                |               |
| Current read back resolution                    | 0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )   |               |               |               |               |                |               |
| Stability And Temperature Coefficient           |  |               |               |               |               |                |               |
| Temperature drift                               | 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                         | U: 50ppm/°C I: 70ppm/°C (After 30 minutes of power on)   |               |               |               |               |                |               |



## Protection Function

|   |  |
|---|--|
| OVP Over voltage protection setting range | 10 - 110%, Immediate shutdown of output beyond limit |
| OCP Over current protection setting range | 0 - 105%, Immediate shutdown of output beyond limit  |
| OTP Over temperature protection           | Immediate shutdown of output beyond limit            |
| OPP Over power protection                 | 10 - 110%, Immediate shutdown of output beyond limit |

## Ambient Condition

|                                 |   |
|---------------------------------|---|
| Environment                     | Indoor use; Installation overvoltage level: II; Pollution level: P2; Class II equipment   |
| Ambient temperature             | 0°C to 50°C, optional -10°C to 50°C, -20°C to 50°C, -40°C to 50°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, front/side air inlet, rear air outlet   |
| Noise                           | ≤ 65dB(A), Weighted measurement with 1 m  |

## Control Panel

|                      |   |
|----------------------|---|
| Monitor              | 4-inch LCD display, touch screen  |
| Control function     | Numeric key 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 | Steps, ladder, gradients  |

## Input Power Supply

|                              |  |
|------------------------------|--|
| Frequency                    | 47 Hz - 63 Hz  |
| Connection                   | Single phase two wire+ground wire, 220 V ± 15%<br>Three phase three wire+ground wire, 380 V ± 15% (-3P Standard configuration model) |
| Power factor (typical value) | 0.99  0.94 (-3P)   |

## Size

|      |  |
|------|--|
| Size | 430 (W)* 500(D) * 88(H)mm, 2U<br>482.6(W) * 660(D) * 133(H)mm, 3U<br>The size can be changed according to user needs |
|------|--|

# HY-PM Series 1000W Model Technical Parameters

## DC 1000W (30V-150V)

| Models                                      |       | HY-PM 30-33   | HY-PM 40-25 | HY-PM 60-16.7 | HY-PM 80-12.5 | HY-PM 100-10 | HY-PM 150-6.7 |
|---|-------|---|-------------|---------------|---------------|--------------|---------------|
| Rated output voltage                        | V     | 30  | 40          | 60            | 80            | 100          | 150           |
| Output current                              | A     | 33  | 25          | 16.7          | 12.5          | 10           | 6.7           |
| Rated output power                          | W     | 1000  | 1000        | 1000          | 1000          | 1000         | 1000          |
| Efficiency                                  | %     | 85  | 87          | 87            | 87            | 87           | 87            |
| <b>CV Mode</b>                              |       |   |             |               |               |              |               |
| Settable output range                       | V     | 0-Rated output value  |             |               |               |              |               |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |             |               |               |              |               |
| Load regulation                             | mV    | rated output voltage 0.01% +2mV (No load to full load, constant input voltage, measurement at remote compensation point)  |             |               |               |              |               |
| Telemetry maximum compensation voltage      | V     | <30V时 2V; ≥30V时 8V; (Customizable according to demand)  |             |               |               |              |               |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 6   | 7           | 7             | 7             | 8            | 8             |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 50  | 60          | 60            | 75            | 75           | 75            |
| Output voltage rise time                    | ms    | 80  | 80          | 80            | 150           | 150          | 150           |
| Output voltage drop time (full load)        | ms    | 80  | 80          | 80            | 150           | 150          | 150           |
| Output voltage drop time (no-load)          | ms    | 900   | 1000        | 1100          | 1200          | 1500         | 2000          |
| Transient response time                     | ms    | The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V:<1ms, output models above 100V:<2ms. |             |               |               |              |               |
| <b>CC Mode</b>                              |       |   |             |               |               |              |               |
| Settable output range                       | A     | 0-Rated output value  |             |               |               |              |               |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |             |               |               |              |               |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |             |               |               |              |               |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 45  | 30          | 15            | 10            | 10           | 8             |

## DC 1000W (200V-500V)

| Models                                      |       | HY-PM 200-5   | HY-PM 250-4 | HY-PM 300-3.3 | HY-PM 350-3 | HY-PM 400-2.5 | HY-PM 500-2 |
|---|-------|---|-------------|---------------|-------------|---------------|-------------|
| Rated output voltage                        | V     | 200   | 250         | 300           | 350         | 400           | 500         |
| Output current                              | A     | 5   | 4           | 3.3           | 3           | 2.5           | 2           |
| Rated output power                          | W     | 1000  | 1000        | 1000          | 1000        | 1000          | 1000        |
| Efficiency                                  | %     | 87  | 87          | 87            | 87          | 87            | 87          |
| <b>CV Mode</b>                              |       |   |             |               |             |               |             |
| Settable output range                       | V     | 0-Rated output value  |             |               |             |               |             |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |             |               |             |               |             |
| Load regulation                             | mV    | rated output voltage 0.01% +2mV (No load to full load, constant input voltage, measurement at remote compensation point)  |             |               |             |               |             |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |             |               |             |               |             |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 12  | 16          | 20            | 30          | 30            | 45          |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 90  | 110         | 130           | 180         | 180           | 250         |
| Output voltage rise time                    | ms    | 150   | 150         | 150           | 150         | 150           | 200         |
| Output voltage drop time (full load)        | ms    | 150   | 150         | 150           | 150         | 150           | 200         |
| Output voltage drop time (no-load)          | ms    | 2100  | 2300        | 2500          | 3000        | 3000          | 3500        |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |             |               |             |               |             |
| <b>CC Mode</b>                              |       |   |             |               |             |               |             |
| Settable output range                       | A     | 0-Rated output value  |             |               |             |               |             |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |             |               |             |               |             |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |             |               |             |               |             |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 8   | 7           | 6             | 6           | 6             | 5           |

# HY-PM Series 1000W Model Technical Parameters

## DC 1000W (600V-1500V)

| Models                                      |       | HY-PM 600-1.7   | HY-PM 800-1.3 | HY-PM 1000-1 | HY-PM 1200-0.8 | HY-PM 1500-0.7 |
|---|-------|---|---------------|--------------|----------------|----------------|
| Rated output voltage                        | V     | 600   | 800           | 1000         | 1200           | 1500           |
| Output current                              | A     | 1.7   | 1.3           | 1            | 0.8            | 0.7            |
| Rated output power                          | W     | 1000  | 1000          | 1000         | 1000           | 1000           |
| Efficiency                                  | %     | 87  | 87            | 87           | 87             | 87             |
| <b>CV Mode</b>                              |       |   |               |              |                |                |
| Settable output range                       | V     | 0-Rated output value  |               |              |                |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |               |              |                |                |
| Load regulation                             | mV    | rated output voltage 0.01% +2mV (No load to full load, constant input voltage, measurement at remote compensation point)  |               |              |                |                |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |               |              |                |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 60  | 75            | 80           | 85             | 85             |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 300   | 350           | 350          | 380            | 400            |
| Output voltage rise time                    | ms    | 250   | 250           | 280          | 300            | 300            |
| Output voltage drop time (full load)        | ms    | 250   | 250           | 280          | 300            | 300            |
| Output voltage drop time (no-load)          | ms    | 4000  | 4500          | 5000         | 5500           | 6000           |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |               |              |                |                |
| <b>CC Mode</b>                              |       |   |               |              |                |                |
| Settable output range                       | A     | 0-Rated output value  |               |              |                |                |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |               |              |                |                |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |               |              |                |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 4   | 6             | 6            | 6              | 6              |

## Programming And Read Back Accuracy & Resolution

|                                     |  |
|-------------------------------------|--|
| Voltage output programming accuracy | rated output voltage 0.05%, Measurement at telemetry points  |
| Current output programming accuracy | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage setting resolution          | 0.001V (≤60 V), 0.01V (≤600 V), 0.1V (> 600 V)   |
| Current setting resolution          | 0.001A (≤60 A), 0.01A (≤600 A), 0.1A (> 600 A)   |
| Voltage output readback accuracy    | rated output voltage 0.05%   |
| Current output readback accuracy    | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage read back resolution        | 0.00001 V (≤ 10 V), 0.0001 V (≤ 100 V), 0.001 V (100 V < U ≤ 1000 V), 0.01 V (> 1000 V)  |
| Current read back resolution        | 0.00001 A (≤ 10 A), 0.0001 A (≤ 100 A), 0.001 A (100 A < I ≤ 1000 A)   |

## Stability & Temperature Coefficient

|                         |  |
|-------------------------|--|
| Temperature drift       | 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 | U: 50ppm/°C      I: 70ppm/°C (After 30 minutes of power on)  |

# HY-PM series 1600W Model technical parameters

## DC 1600W (30V-150V)

| Models                                      |       | HY-PM 30-53   | HY-PM 40-40 | HY-PM 60-26.7 | HY-PM 80-20 | HY-PM 100-16 | HY-PM 150-10.7 |
|---|-------|---|-------------|---------------|-------------|--------------|----------------|
| Rated output voltage                        | V     | 30  | 40          | 60            | 80          | 100          | 150            |
| Output current                              | A     | 53  | 40          | 26.7          | 20          | 16           | 10.7           |
| Rated output power                          | W     | 1600  | 1600        | 1600          | 1600        | 1600         | 1600           |
| Efficiency                                  | %     | 86  | 88          | 88            | 88          | 88           | 88             |
| <b>CV Mode</b>                              |       |   |             |               |             |              |                |
| Settable output range                       | V     | 0-Rated output value  |             |               |             |              |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |             |               |             |              |                |
| Load regulation                             | mV    | rated output voltage 0.01% +2mV (No load to full load, constant input voltage, measurement at remote compensation point)  |             |               |             |              |                |
| Telemetry maximum compensation voltage      | V     | <30V时 2V; ≥30V时 8V; (Customizable according to demand)  |             |               |             |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 6   | 7           | 7             | 7           | 8            | 8              |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 50  | 60          | 60            | 75          | 75           | 75             |
| Output voltage rise time                    | ms    | 80  | 80          | 80            | 150         | 150          | 150            |
| Output voltage drop time (full load)        | ms    | 80  | 80          | 80            | 150         | 150          | 150            |
| Output voltage drop time (no-load)          | ms    | 900   | 1000        | 1100          | 1200        | 1500         | 2000           |
| Transient response time                     | ms    | The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V:<1ms, output models above 100V:<2ms. |             |               |             |              |                |
| <b>CC Mode</b>                              |       |   |             |               |             |              |                |
| Settable output range                       | A     | 0-Rated output value  |             |               |             |              |                |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |             |               |             |              |                |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |             |               |             |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 60  | 65          | 60            | 40          | 20           | 15             |

## DC 1600W (200V-500V)

| Models                                      |       | HY-PM 200-8   | HY-PM 250-6.4 | HY-PM 300-5.3 | HY-PM 350-4.6 | HY-PM 400-4 | HY-PM 500-3.2 |
|---|-------|---|---------------|---------------|---------------|-------------|---------------|
| Rated output voltage                        | V     | 200   | 250           | 300           | 350           | 400         | 500           |
| Output current                              | A     | 8   | 6.4           | 5.3           | 4.6           | 4           | 3.2           |
| Rated output power                          | W     | 1600  | 1600          | 1600          | 1600          | 1600        | 1600          |
| Efficiency                                  | %     | 88  | 88            | 88            | 88            | 88          | 88            |
| <b>CV Mode</b>                              |       |   |               |               |               |             |               |
| Settable output range                       | V     | 0-Rated output value  |               |               |               |             |               |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |               |               |               |             |               |
| Load regulation                             | mV    | rated output voltage 0.01% +2mV (No load to full load, constant input voltage, measurement at remote compensation point)  |               |               |               |             |               |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |               |               |               |             |               |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 12  | 16            | 20            | 30            | 30          | 45            |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 90  | 110           | 130           | 190           | 190         | 250           |
| Output voltage rise time                    | ms    | 150   | 150           | 150           | 180           | 180         | 210           |
| Output voltage drop time (full load)        | ms    | 150   | 150           | 150           | 180           | 180         | 210           |
| Output voltage drop time (no-load)          | ms    | 2100  | 2300          | 2500          | 3000          | 3000        | 3500          |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |               |               |               |             |               |
| <b>CC Mode</b>                              |       |   |               |               |               |             |               |
| Settable output range                       | A     | 0-Rated output value  |               |               |               |             |               |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |               |               |               |             |               |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |               |               |               |             |               |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 15  | 15            | 15            | 10            | 10          | 8             |

# HY-PM series 1600W Model technical parameters

## DC 1600W (600V-1500V)

| Models                                      |       | HY-PM 600-2.7   | HY-PM 800-2 | HY-PM 1000-1.6 | HY-PM 1200-1.3 | HY-PM 1500-1.1 |
|---|-------|---|-------------|----------------|----------------|----------------|
| Rated output voltage                        | V     | 600   | 800         | 1000           | 1200           | 1500           |
| Output current                              | A     | 2.7   | 2           | 1.6            | 1.3            | 1.1            |
| Rated output power                          | W     | 1600  | 1600        | 1600           | 1600           | 1600           |
| Efficiency                                  | %     | 88  | 88          | 87             | 87             | 87             |
| <b>CV Mode</b>                              |       |   |             |                |                |                |
| Settable output range                       | V     | 0-Rated output value  |             |                |                |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |             |                |                |                |
| Load regulation                             | mV    | rated output voltage 0.01% +2mV (No load to full load, constant input voltage, measurement at remote compensation point)  |             |                |                |                |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |             |                |                |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 60  | 80          | 85             | 85             | 85             |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 300   | 400         | 450            | 450            | 500            |
| Output voltage rise time                    | ms    | 250   | 350         | 350            | 350            | 350            |
| Output voltage drop time (full load)        | ms    | 250   | 350         | 350            | 350            | 350            |
| Output voltage drop time (no-load)          | ms    | 4000  | 5000        | 5000           | 5000           | 5000           |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |             |                |                |                |
| <b>CC Mode</b>                              |       |   |             |                |                |                |
| Settable output range                       | A     | 0-Rated output value  |             |                |                |                |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |             |                |                |                |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |             |                |                |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 7   | 6           | 6              | 6              | 6              |

## Programming and read back accuracy&resolution

|                                     |  |
|-------------------------------------|--|
| Voltage output programming accuracy | rated output voltage 0.05%, Measurement at telemetry points  |
| Current output programming accuracy | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage setting resolution          | 0.001V (≤60 V) ,0.01V (≤600 V) , 0.1V (> 600 V)  |
| Current setting resolution          | 0.001A (≤60 A) ,0.01A (≤600 A) , 0.1A (> 600 A)  |
| Voltage output readback accuracy    | rated output voltage 0.05%   |
| Current output readback accuracy    | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage read back resolution        | 0.00001 V ( ≤ 10 V ),0.0001 V ( ≤ 100 V ), 0.001 V ( 100 V < U ≤ 1000 V ), 0.01 V (> 1000 V )  |
| Current read back resolution        | 0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )   |

## Stability&Temperature Coefficient

|                         |  |
|-------------------------|--|
| Temperature drift       | 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 | U: 50ppm/°C      I: 70ppm/°C (After 30 minutes of power on)  |

# HY-PM series 2500W Model technical parameters

## DC 2500W (30V-150V)

| Models                                      |       | HY-PM 30-83   | HY-PM 40-62.5 | HY-PM 60-41.7 | HY-PM 80-31 | HY-PM 100-25 | HY-PM 150-16.7 |
|---|-------|---|---------------|---------------|-------------|--------------|----------------|
| Rated output voltage                        | V     | 30  | 40            | 60            | 80          | 100          | 150            |
| Output current                              | A     | 83  | 62.5          | 41.7          | 31          | 25           | 16.7           |
| Rated output power                          | W     | 2500  | 2500          | 2500          | 2500        | 2500         | 2500           |
| Efficiency                                  | %     | 87  | 88            | 88            | 88          | 88           | 88             |
| <b>CV Mode</b>                              |       |   |               |               |             |              |                |
| Settable output range                       | V     | 0-Rated output value  |               |               |             |              |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |               |               |             |              |                |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |               |               |             |              |                |
| Telemetry maximum compensation voltage      | V     | <30V时 2V; ≥30V时 8V; (Customizable according to demand)  |               |               |             |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 6   | 6             | 6             | 7           | 10           | 20             |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 55  | 55            | 60            | 60          | 70           | 90             |
| Output voltage rise time                    | ms    | 15  | 20            | 30            | 40          | 40           | 60             |
| Output voltage drop time (full load)        | ms    | 20  | 20            | 30            | 50          | 50           | 80             |
| Output voltage drop time (no-load)          | ms    | 600   | 700           | 1100          | 1200        | 1500         | 2500           |
| Transient response time                     | ms    | The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: <1ms, output models above 100V: <2ms. |               |               |             |              |                |
| <b>CC Mode</b>                              |       |   |               |               |             |              |                |
| Settable output range                       | A     | 0-Rated output value  |               |               |             |              |                |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |               |               |             |              |                |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |               |               |             |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 150   | 90            | 60            | 40          | 30           | 12             |

## DC 2500W (200V-500V)

| Models                                      |       | HY-PM 200-12.5  | HY-PM 250-10 | HY-PM 300-8.3 | HY-PM 350-7 | HY-PM 400-6.3 | HY-PM 500-5 |
|---|-------|---|--------------|---------------|-------------|---------------|-------------|
| Rated output voltage                        | V     | 200   | 250          | 300           | 350         | 400           | 500         |
| Output current                              | A     | 12.5  | 10           | 8.3           | 7           | 6.3           | 5           |
| Rated output power                          | W     | 2500  | 2500         | 2500          | 2500        | 2500          | 2500        |
| Efficiency                                  | %     | 88  | 88           | 88            | 88          | 88            | 88          |
| <b>CV Mode</b>                              |       |   |              |               |             |               |             |
| Settable output range                       | V     | 0-Rated output value  |              |               |             |               |             |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |              |               |             |               |             |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |              |               |             |               |             |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |              |               |             |               |             |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 25  | 35           | 45            | 50          | 50            | 55          |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 110   | 130          | 150           | 180         | 180           | 210         |
| Output voltage rise time                    | ms    | 65  | 70           | 80            | 85          | 85            | 90          |
| Output voltage drop time (full load)        | ms    | 85  | 90           | 100           | 100         | 100           | 100         |
| Output voltage drop time (no-load)          | ms    | 2500  | 2500         | 3000          | 3000        | 3000          | 3000        |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |              |               |             |               |             |
| <b>CC Mode</b>                              |       |   |              |               |             |               |             |
| Settable output range                       | A     | 0-Rated output value  |              |               |             |               |             |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |              |               |             |               |             |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |              |               |             |               |             |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 11  | 10           | 10            | 8           | 8             | 7           |



# HY-PM Series 2500W Model technical parameters

## DC 2500W (600V-1500V)

| Models                                    |       | HY-PM 600-4.2   | HY-PM 800-3.1 | HY-PM 1000-2.5 | HY-PM 1200-2 | HY-PM 1500-1.7 |
|---|-------|---|---------------|----------------|--------------|----------------|
| Rated output voltage                      | V     | 600   | 800           | 1000           | 1200         | 1500           |
| Output current                            | A     | 4.2   | 3.1           | 2.5            | 2            | 1.7            |
| Rated output power                        | W     | 2500  | 2500          | 2500           | 2500         | 2500           |
| Efficiency                                | %     | 88  | 88            | 88             | 88           | 88             |
| <b>CV Mode</b>                            |       |   |               |                |              |                |
| Settable output range                     | V     | 0-Rated output value  |               |                |              |                |
| Input adjustment rate                     | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |               |                |              |                |
| Load regulation                           | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |               |                |              |                |
| Telemetry maximum compensation voltage    | V     | 8V (Customizable according to demand)   |               |                |              |                |
| Ripple effective value rms (3Hz - 300kHz) | mVrms | 60  | 80            | 80             | 80           | 80             |
| Noise peak to peak p-p (20Hz - 20MHz)     | mVpp  | 240   | 320           | 320            | 320          | 320            |
| Output voltage rise time                  | ms    | 100   | 120           | 120            | 120          | 120            |
| Output voltage drop time (full load)      | ms    | 100   | 120           | 120            | 120          | 120            |
| Output voltage drop time (no-load)        | ms    | 3000  | 4000          | 4000           | 4000         | 4000           |
| Transient response time                   | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |               |                |              |                |
| <b>CC Mode</b>                            |       |   |               |                |              |                |
| Settable output range                     | A     | 0-Rated output value  |               |                |              |                |
| Input adjustment rate                     | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |               |                |              |                |
| Load regulation                           | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |               |                |              |                |
| Ripple effective value rms (3Hz - 300kHz) | mArms | 5   | 4             | 4              | 4            | 4              |

## Programming and read back accuracy&resolution

|                                     |  |
|-------------------------------------|--|
| Voltage output programming accuracy | rated output voltage 0.05%, Measurement at telemetry points  |
| Current output programming accuracy | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage setting resolution          | 0.001V (≤60 V) ,0.01V (≤600 V) , 0.1V (> 600 V)  |
| Current setting resolution          | 0.001A (≤60 A) ,0.01A (≤600 A) , 0.1A (> 600 A)  |
| Voltage output readback accuracy    | rated output voltage 0.05%   |
| Current output readback accuracy    | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage read back resolution        | 0.00001 V (≤ 10 V) ,0.0001 V (≤ 100 V) , 0.001 V (100 V < U ≤ 1000 V) , 0.01 V (> 1000 V)  |
| Current read back resolution        | 0.00001 A (≤ 10 A) , 0.0001 A (≤ 100 A) , 0.001 A (100 A < I ≤ 1000 A)   |

## Stability&Temperature Coefficient

|                         |  |
|-------------------------|--|
| Temperature drift       | 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 | U: 50ppm/°C      I: 70ppm/°C (After 30 minutes of power on)  |

# HY-PM Series 3600W Model technical parameters

## DC 3600W (30V-150V)

| Models                                      |       | HY-PM 30-120  | HY-PM 40-90 | HY-PM 60-60 | HY-PM 80-45 | HY-PM 100-36 | HY-PM 150-24 |
|---|-------|---|-------------|-------------|-------------|--------------|--------------|
| Rated output voltage                        | V     | 30  | 40          | 60          | 80          | 100          | 150          |
| Output current                              | A     | 120   | 90          | 60          | 45          | 36           | 24           |
| Rated output power                          | W     | 3600  | 3600        | 3600        | 3600        | 3600         | 3600         |
| Efficiency                                  | %     | 86  | 86          | 88          | 88          | 88           | 87           |
| <b>CV Mode</b>                              |       |   |             |             |             |              |              |
| Settable output range                       | V     | 0-Rated output value  |             |             |             |              |              |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |             |             |             |              |              |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |             |             |             |              |              |
| Telemetry maximum compensation voltage      | V     | <30V时 2V; ≥30V时 8V; (Customizable according to demand)  |             |             |             |              |              |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 7   | 7           | 7           | 20          | 25           | 20           |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 55  | 55          | 60          | 70          | 100          | 100          |
| Output voltage rise time                    | ms    | 80  | 80          | 150         | 150         | 150          | 150          |
| Output voltage drop time (full load)        | ms    | 160   | 160         | 160         | 300         | 300          | 300          |
| Output voltage drop time (no-load)          | ms    | 900   | 1000        | 1100        | 1200        | 1500         | 2000         |
| Transient response time                     | ms    | The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: <1ms, output models above 100V: <2ms. |             |             |             |              |              |
| <b>CC Mode</b>                              |       |   |             |             |             |              |              |
| Settable output range                       | A     | 0-Rated output value  |             |             |             |              |              |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |             |             |             |              |              |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |             |             |             |              |              |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 250   | 150         | 70          | 60          | 50           | 40           |

## DC 3600W (200V-500V)

| Models                                      |       | HY-PM 200-18  | HY-PM 250-14.4 | HY-PM 300-12 | HY-PM 350-10.3 | HY-PM 400-9 | HY-PM 500-7.2 |
|---|-------|---|----------------|--------------|----------------|-------------|---------------|
| Rated output voltage                        | V     | 200   | 250            | 300          | 350            | 400         | 500           |
| Output current                              | A     | 18  | 14.4           | 12           | 10.3           | 9           | 7.2           |
| Rated output power                          | W     | 2500  | 2500           | 2500         | 2500           | 2500        | 2500          |
| Efficiency                                  | %     | 87  | 87             | 87           | 87             | 87          | 87            |
| <b>CV Mode</b>                              |       |   |                |              |                |             |               |
| Settable output range                       | V     | 0-Rated output value  |                |              |                |             |               |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |                |              |                |             |               |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |                |              |                |             |               |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |                |              |                |             |               |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 70  | 75             | 80           | 80             | 80          | 80            |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 275   | 280            | 300          | 220            | 220         | 330           |
| Output voltage rise time                    | ms    | 200   | 200            | 200          | 200            | 200         | 250           |
| Output voltage drop time (full load)        | ms    | 300   | 300            | 300          | 400            | 400         | 450           |
| Output voltage drop time (no-load)          | ms    | 3000  | 3300           | 3500         | 3600           | 3600        | 3800          |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |                |              |                |             |               |
| <b>CC Mode</b>                              |       |   |                |              |                |             |               |
| Settable output range                       | A     | 0-Rated output value  |                |              |                |             |               |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |                |              |                |             |               |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |                |              |                |             |               |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 11  | 10             | 10           | 8              | 8           | 7             |

# HY-PM Series 3600W Model technical parameters

## DC 3600W (600V-1500V)

| Models                                      |       | HY-PM 600-6   | HY-PM 800-4.5 | HY-PM 1000-3.6 | HY-PM 1200-3 | HY-PM 1500-2.4 |
|---|-------|---|---------------|----------------|--------------|----------------|
| Rated output voltage                        | V     | 600   | 800           | 1000           | 1200         | 1500           |
| Output current                              | A     | 6   | 4.5           | 3.6            | 3            | 2.4            |
| Rated output power                          | W     | 3600  | 3600          | 3600           | 3600         | 3600           |
| Efficiency                                  | %     | 87  | 88            | 88             | 88           | 88             |
| <b>CV Mode</b>                              |       |   |               |                |              |                |
| Settable output range                       | V     | 0-Rated output value  |               |                |              |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% +2mV (AC input 220 V ± 15%, constant load)   |               |                |              |                |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |               |                |              |                |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |               |                |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 80  | 110           | 120            | 130          | 140            |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 350   | 700           | 800            | 900          | 1400           |
| Output voltage rise time                    | ms    | 250   | 130           | 160            | 200          | 240            |
| Output voltage drop time (full load)        | ms    | 500   | 270           | 340            | 400          | 510            |
| Output voltage drop time (no-load)          | ms    | 4000  | 4000          | 5000           | 6000         | 8000           |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |               |                |              |                |
| <b>CC Mode</b>                              |       |   |               |                |              |                |
| Settable output range                       | A     | 0-Rated output value  |               |                |              |                |
| Input adjustment rate                       | mA    | output current 0.01% +2mA (AC input 220 V ± 15%, constant load)   |               |                |              |                |
| Load regulation                             | mA    | output current 0.02% +5mA (No load to full load, constant input voltage)  |               |                |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 8   | 8             | 4              | 3            | 2              |

## Programming and Read Back Accuracy&resolution

|                                     |  |
|-------------------------------------|--|
| Voltage output programming accuracy | rated output voltage 0.05%, Measurement at telemetry points  |
| Current output programming accuracy | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage setting resolution          | 0.001V (≤60 V) ,0.01V (≤600 V) , 0.1V (> 600 V)  |
| Current setting resolution          | 0.001A (≤60 A) ,0.01A (≤600 A) , 0.1A (> 600 A)  |
| Voltage output readback accuracy    | rated output voltage 0.05%   |
| Current output readback accuracy    | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage read back resolution        | 0.00001 V (≤ 10 V),0.0001 V (≤ 100 V) , 0.001 V (100 V < U ≤ 1000 V) , 0.01 V (> 1000 V)   |
| Current read back resolution        | 0.00001 A (≤ 10 A) , 0.0001 A (≤ 100 A) , 0.001 A (100 A < I ≤ 1000 A)   |

## Stability&Temperature Coefficient

|                         |  |
|-------------------------|--|
| Temperature drift       | 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 | U: 50ppm/°C      I: 70ppm/°C (After 30 minutes of power on)  |

# HY-PM Series 5000W Model technical parameters

## DC 5000W (30V-150V)

| Models                                      |       | HY-PM 30-166.7  | HY-PM 40-125 | HY-PM 60-83 | HY-PM 80-62.5 | HY-PM 100-50 | HY-PM 150-33.3 |
|---|-------|---|--------------|-------------|---------------|--------------|----------------|
| Rated output voltage                        | V     | 30  | 40           | 60          | 80            | 100          | 150            |
| Output current                              | A     | 166.7   | 125          | 83          | 62.5          | 50           | 33.3           |
| Rated output power                          | W     | 5000  | 5000         | 5000        | 5000          | 5000         | 5000           |
| Efficiency                                  | %     | 86  | 86           | 88          | 88            | 88           | 87             |
| <b>CV Mode</b>                              |       |   |              |             |               |              |                |
| Settable output range                       | V     | 0-Rated output value  |              |             |               |              |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% (AC input 220 V ± 15%, constant load)  |              |             |               |              |                |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |              |             |               |              |                |
| Telemetry maximum compensation voltage      | V     | <30V时 2V; ≥30V时 8V; (Customizable according to demand)  |              |             |               |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 10  | 8            | 8           | 15            | 15           | 20             |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 70  | 70           | 70          | 80            | 90           | 120            |
| Output voltage rise time                    | ms    | 30  | 30           | 50          | 50            | 50           | 50             |
| Output voltage drop time (full load)        | ms    | 80  | 80           | 80          | 100           | 100          | 100            |
| Output voltage drop time (no-load)          | ms    | 800   | 900          | 1000        | 1100          | 1200         | 1500           |
| Transient response time                     | ms    | The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: <1ms, output models above 100V: <2ms. |              |             |               |              |                |
| <b>CC Mode</b>                              |       |   |              |             |               |              |                |
| Settable output range                       | A     | 0-Rated output value  |              |             |               |              |                |
| Input adjustment rate                       | mA    | output current 0.05% (AC input 220 V ± 15%, constant load)  |              |             |               |              |                |
| Load regulation                             | mA    | output current 0.1% (No load to full load, constant input voltage)  |              |             |               |              |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 350   | 150          | 120         | 80            | 50           | 50             |

## DC 5000W (200V-500V)

| Models                                      |       | HY-PM 200-25  | HY-PM 250-20 | HY-PM 300-16.7 | HY-PM 350-14.3 | HY-PM 400-12.5 | HY-PM 500-10 |
|---|-------|---|--------------|----------------|----------------|----------------|--------------|
| Rated output voltage                        | V     | 200   | 250          | 300            | 350            | 400            | 500          |
| Output current                              | A     | 25  | 20           | 16.7           | 14.3           | 12.5           | 10           |
| Rated output power                          | W     | 5000  | 5000         | 5000           | 5000           | 5000           | 5000         |
| Efficiency                                  | %     | 88  | 88           | 88             | 88             | 88             | 88           |
| <b>CV Mode</b>                              |       |   |              |                |                |                |              |
| Settable output range                       | V     | 0-Rated output value  |              |                |                |                |              |
| Input adjustment rate                       | mV    | rated output voltage 0.01% (AC input 220 V ± 15%, constant load)  |              |                |                |                |              |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |              |                |                |                |              |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |              |                |                |                |              |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 45  | 50           | 60             | 70             | 70             | 70           |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 200   | 300          | 200            | 350            | 350            | 400          |
| Output voltage rise time                    | ms    | 50  | 50           | 50             | 65             | 65             | 80           |
| Output voltage drop time (full load)        | ms    | 100   | 100          | 100            | 135            | 135            | 170          |
| Output voltage drop time (no-load)          | ms    | 2000  | 2300         | 2500           | 3000           | 3000           | 3000         |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |              |                |                |                |              |
| <b>CC Mode</b>                              |       |   |              |                |                |                |              |
| Settable output range                       | A     | 0-Rated output value  |              |                |                |                |              |
| Input adjustment rate                       | mA    | output current 0.05% (AC input 220 V ± 15%, constant load)  |              |                |                |                |              |
| Load regulation                             | mA    | output current 0.1% (No load to full load, constant input voltage)  |              |                |                |                |              |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 50  | 35           | 20             | 15             | 15             | 10           |

# HY-PM Series 5000W Model technical parameters

## DC 5000W (600V-1500V)

| Models                                      |       | HY-PM 600-8.3   | HY-PM 800-6.3 | HY-PM 1000-5 | HY-PM 1200-4.2 | HY-PM 1500-3.3 |
|---|-------|---|---------------|--------------|----------------|----------------|
| Rated output voltage                        | V     | 600   | 800           | 1000         | 1200           | 1500           |
| Output current                              | A     | 8.3   | 6.3           | 5            | 4.2            | 3.3            |
| Rated output power                          | W     | 5000  | 5000          | 5000         | 5000           | 5000           |
| Efficiency                                  | %     | 88  | 88            | 88           | 88             | 88             |
| <b>CV Mode</b>                              |       |   |               |              |                |                |
| Settable output range                       | V     | 0-Rated output value  |               |              |                |                |
| Input adjustment rate                       | mV    | rated output voltage 0.01% (AC input 220 V ± 15%, constant load)  |               |              |                |                |
| Load regulation                             | mV    | rated output voltage 0.015% +5mV (No load to full load, constant input voltage, measurement at remote compensation point)   |               |              |                |                |
| Telemetry maximum compensation voltage      | V     | 8V (Customizable according to demand)   |               |              |                |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mVrms | 100   | 110           | 120          | 130            | 140            |
| Noise peak to peak p-p (20 Hz - 20 MHz)     | mVpp  | 450   | 700           | 800          | 900            | 1400           |
| Output voltage rise time                    | ms    | 100   | 130           | 160          | 200            | 240            |
| Output voltage drop time (full load)        | ms    | 200   | 270           | 340          | 400            | 510            |
| Output voltage drop time (no-load)          | ms    | 3000  | 4000          | 5000         | 6000           | 8000           |
| Transient response time                     | ms    | <2ms. The time for the output voltage to recover to within 0.5% of the rated voltage. The variation value of the output current is between 10% and 90% of the rated value. Output voltage setting range: 10-100%, local sampling. |               |              |                |                |
| <b>CC Mode</b>                              |       |   |               |              |                |                |
| Settable output range                       | A     | 0-Rated output value  |               |              |                |                |
| Input adjustment rate                       | mA    | output current 0.05% (AC input 220 V ± 15%, constant load)  |               |              |                |                |
| Load regulation                             | mA    | output current 0.1% (No load to full load, constant input voltage)  |               |              |                |                |
| Ripple effective value rms (3 Hz - 300 kHz) | mArms | 10  | 10            | 5            | 3              | 2              |

## Programming and read back accuracy&resolution

|                                     |  |
|-------------------------------------|--|
| Voltage output programming accuracy | rated output voltage 0.05%, Measurement at telemetry points  |
| Current output programming accuracy | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage setting resolution          | 0.001V (≤60 V), 0.01V (≤600 V), 0.1V (> 600 V)   |
| Current setting resolution          | 0.001A (≤60 A), 0.01A (≤600 A), 0.1A (> 600 A)   |
| Voltage output readback accuracy    | rated output voltage 0.05%   |
| Current output readback accuracy    | Output current 0.1%+output current 0.05% (When in constant current programming mode, the accuracy of reading back and monitoring does not include the influence of heating drift and load temperature change rate) |
| Voltage read back resolution        | 0.00001 V (≤ 10 V), 0.0001 V (≤ 100 V), 0.001 V (100 V < U ≤ 1000 V), 0.01 V (> 1000 V)  |
| Current read back resolution        | 0.00001 A (≤ 10 A), 0.0001 A (≤ 100 A), 0.001 A (100 A < I ≤ 1000 A)   |

## Stability&Temperature Coefficient

|                         |  |
|-------------------------|--|
| Temperature drift       | 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 | U: 50ppm/°C      I: 70ppm/°C (After 30 minutes of power on)  |

## Protection Function

|   |  |
|---|--|
| OVP Over voltage protection setting range | 10 - 110%, Immediate shutdown of output beyond limit |
| OCP Over current protection setting range | 0 - 105%, Immediate shutdown of output beyond limit  |
| OTP Over temperature protection           | Immediate shutdown of output beyond limit            |
| OPP Over power protection                 | 10 - 110%, Immediate shutdown of output beyond limit |

## Ambient Condition

|                                 |   |
|---------------------------------|---|
| Environment                     | Indoor use; Installation overvoltage level: II; Pollution level: P2; Class II equipment   |
| Ambient temperature             | 0°C to 50°C, optional-10°C to 50°C, -20°C to 50°C, -40°C to 50°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, front/side air inlet, rear air outlet   |
| Noise                           | ≤ 65dB(A), Weighted measurement with 1 m  |

## Control Panel

|                      |   |
|----------------------|---|
| Monitor              | 4/7-inch LCD display, touch screen  |
| Control function     | Numeric key 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 | Steps, ladder, gradients  |

## Input Power Supply

|                              |   |
|------------------------------|---|
| Frequency                    | 47 Hz - 63 Hz   |
| Connection                   | Single phase two wire+ground wire, 220 V ± 15%<br>Single phase two wire+ground wire, 380 V ± 15% (-3P Standard configuration model) |
| Power factor (typical value) | 0.99   0.94 (-3P)   |

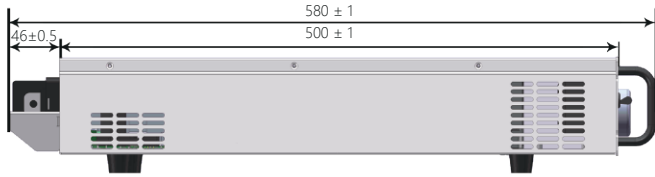
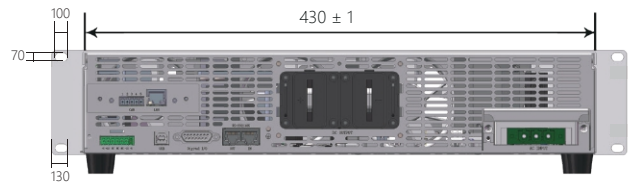
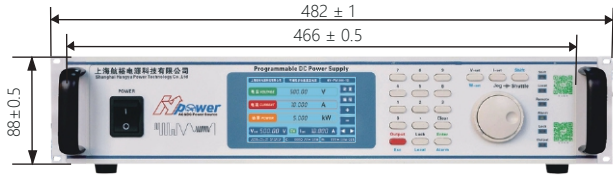
## Size and Weight

|        |   |
|--------|---|
| Size   | 2U: 430(W) * 500(D) * 88(H) mm<br>3U: 482.6(W) * 660(D) * 133(H) mm |
| Weight | 15kg/2U, 60Kg/3U  |
| Colour | RAL 7035  |

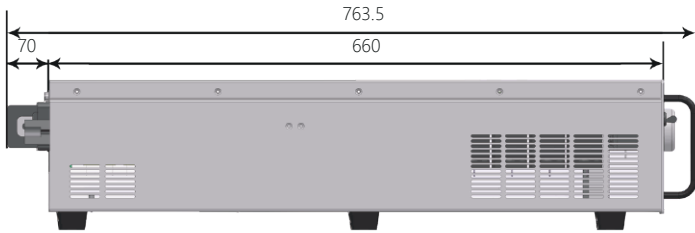
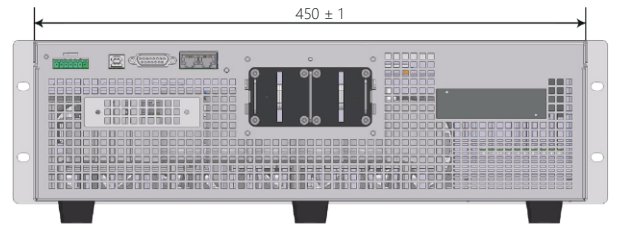
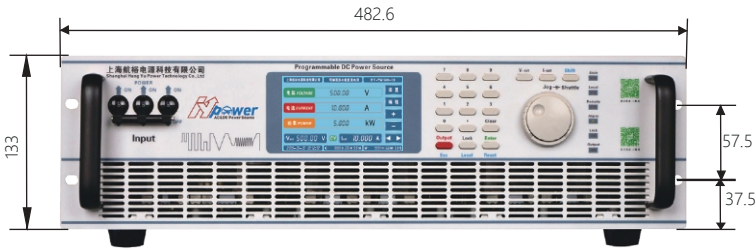


# Appearance&Size Outline Dimension

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

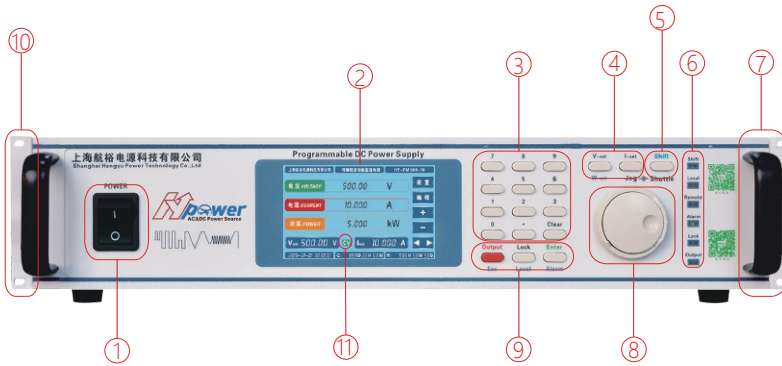


3U 482.6(W) \* 660(D) \* 133(H) mm



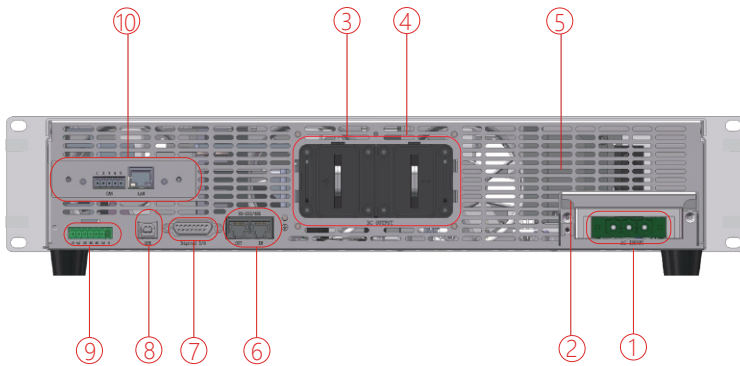
# Display and Control Panel Display & Control Panel

## Control Panel



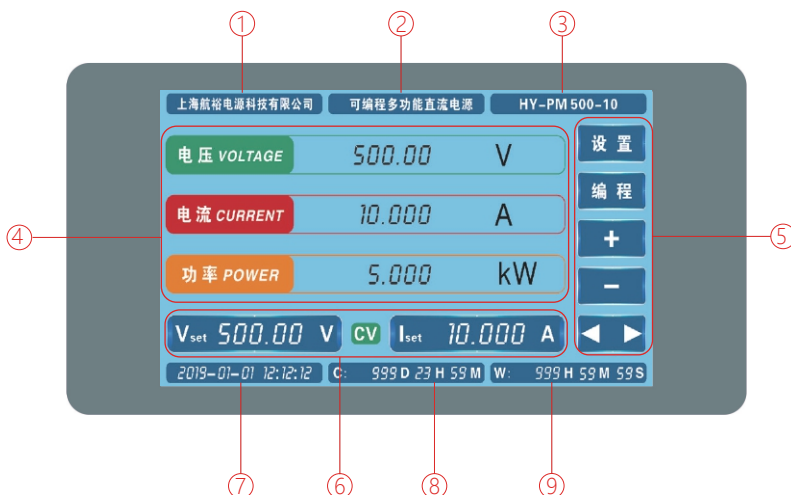
- ① Note: For more detailed information on appearance and display, please refer to page P111 to learn about power input circuit breakers (2U single-phase, 3U three-phase)
- ② LCD display (4-inch, touch screen)
- ③ Number input keyboard
- ④ Voltage/current setting key
- ⑤ Shift Function reset key
- ⑥ Status
- ⑦ Chassis handle
- ⑧ Multistage shuttle adjustment knob (inner circle fine adjustment/outer circle coarse adjustment)
- ⑨ Lock, Enter to confirm, Esc to exit Local, Reset restart Output ON/OFF switch
- ⑩ 19 inch standard rack mounting holes
- ⑪ CC/CV Priority can be set

## Rear Panel



- ① AC input terminal
- ② AC input terminal protective cover
- ③ Output copper bar
- ④ DC output terminal protective cover
- ⑤ Heat dissipation air outlet
- ⑥ RS-485 & RS-232 communication interface
- ⑦ Digital I/O communication interface
- ⑧ USB communication interface
- ⑨ Remote compensation measurement terminal
- ⑩ Purchase communication interface (one out of three)
  - LAN & CAN communication interface
  - GPIB communication interface
  - Analog programming and monitoring interface (isolated type)

## 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 Setpoints&CV/CC Status
- ⑦ TIME
- ⑧ Accumulated running time
- ⑨ This run time

## Cooperative Clients (Partial)

### Power Semiconductor Customers



### Enterprises in The Field of Automotive Electronics



### High Tech R&D Enterprises



# Cooperative Clients (Partial)

## Aerospace and National Defense Military Industry Research Institute



china  
aerospace



CASIC



aviation  
industry



China  
Aerospace



CETC



CSSC



CSIC

- |   |   |  |
|---|---|--|
| CASC 800 institute (Shanghai Aerospace Precision Machinery Research Institute)                | AVIC 603 institute (AVIC Xi'an Aircraft Design and Research Institute)                                    | CETC 14 institute (Nanjing Institute of Electronic Technology)                                       |
| CASC 801 institute (Shanghai Institute of Space Propulsion)                                   | AVIC 613 institute (China Aviation Industry Group Luoyang Electro Optic Equipment Research Institute)     | CETC 21 institute (Shanghai Micromotor Research Institute)   |
| CASC 803 institute (Shanghai Institute of Space Propulsion)                                   | AVIC 615 institute (China Aviation Industry Group Luoyang Electro Optic Equipment Research Institute)     | CETC 23 institute (Shanghai Transmission Line Research Institute)                                    |
| CASC 804 institute (Shanghai Aerospace Electronic Communication Equipment Research Institute) | AVIC 618 institute (Xi'an Automatic Flight Research Institute of China Radio Aviation Research Institute) | CETC 36 institute (Jiangnan Electronic Communication Research Institute)                             |
| CASC 805 institute (Shanghai Aerospace Systems Engineering Research Institute)                | AVIC 631 institute (AVIC Aerospace Computing Technology Research Institute)                               | CETC 38 institute (East China Electronic Engineering Research Institute)                             |
| CASC 808 institute (Shanghai Institute of Precision Metrology and Testing)                    | AVIC 105 factory (Tianjin Aviation Electromechanical Co., Ltd)  | CETC 50 institute (Shanghai Microwave Technology Research Institute)                                 |
| CASC 811 institute (Shanghai Space Power Research Institute)                                  | AVIC 115 factory (Shaanxi Aviation Electric Co., Ltd)   | CETC 51 institute (Shanghai Microwave Equipment Research Institute)                                  |
| CASC 812 institute (Shanghai Satellite Equipment Research Institute)                          | AVIC 118 factory (Shanghai Aviation Electrical Appliances Co., Ltd)                                       | CETC 54 institute (Shijiazhuang Communication Measurement and Control Technology Research Institute) |
| CASC 502 institute (Beijing Institute of Control Engineering)                                 | AVIC 181 factory (Wuhan Aviation Instrument Co., Ltd)   | CETC 55 institute (Nanjing Institute of Electronic Devices)  |
| CASC 510 institute (Lanzhou Institute of Space Technology Physics)                            | AVIC 607 institute (China Leihua Electronic Technology Research Institute)                                | CSIC 707 institute (Tianjin Institute of Navigation Instruments)                                     |
| CASIC 206 institute (Beijing Institute of Mechanical Equipment)                               | AVIC 304 institute (Beijing Great Wall Metrology and Testing Technology Research Institute)               | CSIC 7107 institute (Shaanxi Aerospace Navigation Equipment Co., Ltd)                                |
| CASIC 307 factory (Aerosun Corporation)   | AEECC 606 institute (Shenyang Engine Research Institute)  | CSIC 719 institute (Wuhan Second Ship Design and Research Institute)                                 |
| CASIC 33 institute (Institute 33 of Aerospace Science and Industry Third Institute)           |   | CSIC 704 institute (Shanghai Shipbuilding Equipment Research Institute)                              |
| CASIC 3651 factory (Guizhou Aerospace Linquan Motor Co., Ltd)                                 |   | CSIC 726 institute (Shanghai Institute of Ship Electronic Equipment)                                 |
- Jiangnan Shipbuilding (Group) Co., Ltd  
Nanjing Panda Electronics Co., Ltd  
State owned 741 Factory (Nanjing East China Electronics Group Co., Ltd.)

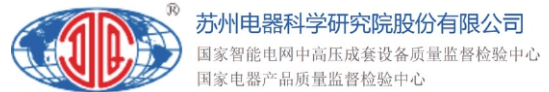
## Scientific Research&Third Party Quality Inspection Institutions



Institute of Physical and Chemical Technology (Beijing)  
Urban Environment Research Institute (Xiamen)



Institute of Electrical Engineering (Beijing)  
Institute of Applied Physics (Shanghai)





# Cooperative Clients (Partial)

## The Chinese People's Liberation Army

South China Sea Fleet  
 East China Sea Fleet  
 North Sea Fleet  
 Navy Factory 701/702  
 4724 Factory (Shanghai Haiying Machinery Factory)  
 95861 Unit (Air First Base)  
 The 5720th Factory of the People's Liberation Army of China

## Commercial Aviation



## Military Academies and Local Universities



Official WeChat:  
hypower-cn



# About Us

Hangyu Power was founded in 2011 and is a national high-tech enterprise. Located in Songjiang, the birthplace of the G60 Science and Technology Innovation Corridor in the Yangtze River Delta, for over a decade Strive to provide customers with accurate, intelligent, and convenient testing power solutions Plan.

Our company adheres to the product positioning of "specialty, precision, specialty, and novelty", and On the basis of targeting the market demand for "import substitution", propose "poor The development strategy of "differentiated import substitution" and "high-quality manufacturing" is committed to Innovative development of testing power supply technology in China, promoting the rejuvenation of science and technology in China The national cause is thriving.

Hangyu Power Series products cover power semiconductors, automotive electronics Aerospace, Defense and Military Industry, Low Voltage Electrical Appliances, Medical, Sensors Capacitors, inductors, smart grids, airborne, shipborne, weapons, ships.

Radar, communication, rail transit, power electronics, and other testing and other disciplines In the field of research, we strive to achieve perfect import substitution, with excellent military quality and service,

Win unanimous praise from users.

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neo@hangyupower.com

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website: www.hangyupower.com

- 2009 ● Establishing Shanghai Ouzu Electronics Brand
- 2010 ● Successfully delivered 400kVA high-power AC power supply
- 2011 ● Hangyu Power Supply was established and officially put into operation as a three-phase precision AC power supply and military Using a gyroscope to test the power supply, replacing Russian made products
- 2012 ● Formal production of programmable variable frequency power supply and AC constant current source
- 2013 ● Formal production of programmable AC/DC power supply and HY-AE excitation power supply
- 2014 ● Formal production of high-power bipolar testing power supply
- 2015 ● Formal production of HY-PM series and HY-GT series new models Dual phase/three-phase gyroscope power supply
- 2016 ● HY-HP series programmable high-power DC power supply officially put into operation
- 2017 ● HY-HV series programmable high-voltage DC power supply officially put into operation
- 2018 ● HY-CTL/CTS capacitor testing high-frequency high current testing power supply And successfully delivered 100kHz, 100Arms
- 2019 ● Official production of high-speed power supply for automotive electronic testing within 500kHz
- 2020 ● Officially put into operation LV123 new energy vehicle testing high-voltage ripple testing power supply
- 2021 ● HY-UHS series ultra-high stability magnet power supply officially put into operation
- 2022 ● HY-HVL series linear high-voltage programmable DC power supply officially put into operation

