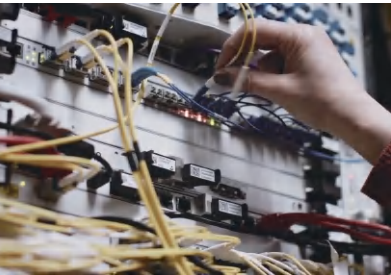




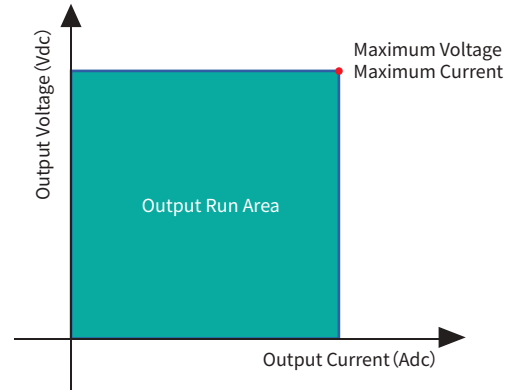
# HY-ZSU series

Portable Programmable DC Power Supply

Military Quality Power Supply Expert



# HY-ZSU Series Portable Programmable DC Power Supply



## Product Features

The volume of this power supply is only 2U high and 1/6U wide, flexible and convenient, can be any combination, **2 sets in series, 2-6 sets of master-slave parallel**, multi-channel test, intelligent and fast.

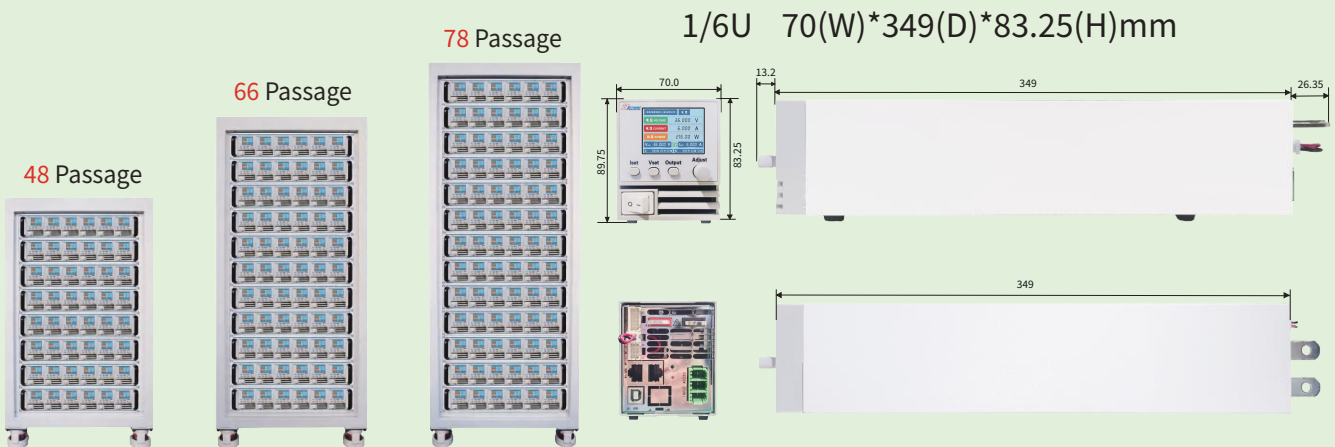
- A single machine for one channel, each channel is suitable for series or parallel
- Power density: 200W/400W/600W/800W
- Wide input voltage range: 85~265VAC
- Input standard PFC, power factor up to 0.99
- 16 bits D/A high precision converter, accurate output
- 20 bits A/D high precision converter, more accurate read back

## Application Field

HY-ZSU series power supply, through the series parallel form, can obtain more freedom of parameter selection, a wide range of applications, very suitable for integrated systems, in the military and intelligent manufacturing field is widely popular.

- Stable power supply integration test
- Military industry
- Medical Care
- Power semiconductor

## Product Display



# HY-ZSU Series Product Selection Table

## Product Model Naming Rules

Product series	Output voltage	Output current	Optional function
HY-ZSU	10	- 40	- CF

Product model: HY-ZSU 10-40-CF  
 The model information is: Output voltage 0-10V, output current 0-40A  
 Custom features that users choose to purchase

Communication protocol	Standard communication interface	Optional communication interface
Modbus SCPI	RS-485 RS-232 Digital I/O	- LAN : Ethernet communication interface - CAN : CAN communication interface - GPIB : GPIB communication interface - IA : Analog quantity programming and monitoring interface (isolated type)

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

## HY-ZSU Series Product Model Selection And Parameters

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

### 200W Series Power supply selection

Models	Output voltage	Output current	Output power
HY-ZSU 10-20	10V	20A	200W
HY-ZSU 20-10	20V	10A	200W
HY-ZSU 36-6	36V	6A	216W
HY-ZSU 60-3.5	60V	3.5A	210W
HY-ZSU 100-2	100V	2A	200W
HY-ZSU 160-1.3	160V	1.3A	208W
HY-ZSU 320-0.65	320V	0.65A	208W
HY-ZSU 650-0.32	650V	0.32A	208W

### 400W Series Power supply selection

Models	Output voltage	Output current	Output power
HY-ZSU 10-40	10V	40A	400W
HY-ZSU 20-20	20V	20A	400W
HY-ZSU 36-12	36V	12A	432W
HY-ZSU 60-7	60V	7A	420W
HY-ZSU 100-4	100V	4A	400W
HY-ZSU 160-2.6	160V	2.6A	416W
HY-ZSU 320-1.3	320V	1.3A	416W
HY-ZSU 650-0.64	650V	0.64A	416W

### 600W Series Power supply selection

Models	Output voltage	Output current	Output power
HY-ZSU 10-60	10V	60A	600W
HY-ZSU 20-30	20V	30A	600W
HY-ZSU 36-18	36V	18A	648W
HY-ZSU 60-10	60V	10A	600W
HY-ZSU 100-6	100V	6A	600W
HY-ZSU 160-4	160V	4A	640W
HY-ZSU 320-2	320V	2A	640W
HY-ZSU 650-1	650V	1A	650W

### 800W Series Power supply selection

Models	Output voltage	Output current	Output power
HY-ZSU 10-72	10V	72A	720W
HY-ZSU 20-40	20V	40A	800W
HY-ZSU 36-24	36V	24A	864W
HY-ZSU 60-14	60V	14A	840W
HY-ZSU 100-8	100V	8A	800W
HY-ZSU 160-5	160V	5A	800W
HY-ZSU 320-2.5	320V	2.5A	800W
HY-ZSU 375-2.2	375V	2.2A	825W
HY-ZSU 650-1.25	650V	1.25A	812.5W

# HY-ZSU Series Technical Parameters

## DC 200W Low Voltage Output Series Technical Parameters

Models		HY-ZSU 10-20	HY-ZSU 20-10	HY-ZSU 36-6	HY-ZSU 60-3.5	HY-ZSU 100-2
Rated Output Voltage	V	10	20	36	60	100
Rated Output Current	A	20	10	6	3.5	2
Rated Output Power	W	200W	200W	216W	210W	200W
Efficiency	%	77.5	79	80.5	80.5	81
<b>Constant Pressure Mode (CV Mode)</b>						
Output Range Can Be Set	V	0- Rated Output Value				
Input Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Load Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Maximum Compensation Voltage For Telemetry	V	1	1	2	3	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	5	6	6	7	8
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	50	50	50	50	80
Output Voltage Rise Time10-90%	ms	15	30	35	50	50
Output Voltage Drop Time (Full Load)90-10%	ms	20	20	50	40	50
Output Voltage Drop Time (No Load)	ms	435	100	615	380	1200
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: < 1ms				
<b>Constant Current Mode (CC Mode)</b>						
Output Range Can Be Set	A	0- Rated Output Value				
Input Adjustment Rate	mA	0.01% +2mA of the rated output current				
Load Adjustment Rate	mA	0.02% +5mA of the rated output current				
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	25	15	8	4	3
<b>Stability And Temperature Coefficient</b>						
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)					
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)					
<b>Programming And Readback Accuracy &amp; Resolution</b>						
Voltage Output Programming Accuracy	0.05% of the rated output voltage					
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)					
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)					
Voltage Output Read-Back Accuracy	0.05% of the rated output voltage					
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A), 0.0001 A ( ≤ 100 A), 0.001 A ( 100 A < I ≤ 1000 A)					
<b>Input Power Supply</b>						
Frequency	47 Hz - 63 Hz					
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85-265VAC					
Power Factor (Typical Value)	0.99(Single-Phase Input)					
<b>Size And Weight</b>						
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm					
Weight	≤ 1.9kg / ≤ 2.4kg					
Colour	RAL 7035					

## DC 400W Low Voltage Output Series Technical Parameters

Models		HY-ZSU 10-40	HY-ZSU 20-20	HY-ZSU 36-12	HY-ZSU 60-7	HY-ZSU 100-4
Rated Output Voltage	V	10	20	36	60	100
Rated Output Current	A	40	20	12	7	4
Rated Output Power	W	400W	400W	432W	420W	400W
Efficiency	%	82	83	85	85	86
<b>Constant Pressure Mode (CV Mode)</b>						
Output Range Can Be Set	V	0- Rated Output Value				
Input Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Load Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Maximum Compensation Voltage For Telemetry	V	1	1	2	3	5
Ripple Effective Value rms (5Hz -1MHz)	mVrms	3	6	6	7	8
Noise Peak-To-Peak Value p-p (20 MHz)	mVpp	50	50	50	50	80
Output Voltage Rise Time10-90%	ms	16	30	30	50	50
Output Voltage Drop Time (Full Load)90-10%	ms	6	10	15	30	50
Output Voltage Drop Time (No Load)	ms	415	155	320	380	1200
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: < 1ms				
<b>Constant Current Mode (CC Mode)</b>						
Output Range Can Be Set	A	0- Rated Output Value				
Input Adjustment Rate	mA	0.01% +2mA of the rated output current				
Load Adjustment Rate	mA	0.02% +5mA of the rated output current				
Ripple Effective Value rms (5Hz -1MHz)	mArms	70	40	15	8	3
<b>Stability And Temperature Coefficient</b>						
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)					
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)					
<b>Programming And Readback Accuracy &amp; Resolution</b>						
Voltage Output Programming Accuracy	0.05% of the rated output voltage					
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)					
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)					
Voltage Output Read-Back Accuracy	0.05% of the rated output voltage					
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A), 0.0001 A ( ≤ 100 A), 0.001 A ( 100 A < I ≤ 1000 A)					
<b>Input Power Supply</b>						
Frequency	47 Hz - 63 Hz					
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85~265VAC					
Power Factor (Typical Value)	0.99(Single-Phase Input)					
<b>Size And Weight</b>						
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm					
Weight	≤ 1.9kg / ≤ 2.4kg					
Colour	RAL 7035					



# HY-ZSU Series Technical Parameters

## DC 600W Low Voltage Output Series Technical Parameters

Models		HY-ZSU 10-60	HY-ZSU 20-30	HY-ZSU 36-18	HY-ZSU 60-10	HY-ZSU 100-6
Rated Output Voltage	V	10	20	36	60	100
Rated Output Current	A	60	30	18	10	6
Rated Output Power	W	600W	600W	648W	600W	600W
Efficiency	%	83	86	87	87	87
<b>Constant Pressure Mode (CV Mode)</b>						
Output Range Can Be Set	V	0- Rated Output Value				
Input Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Load Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Maximum Compensation Voltage For Telemetry	V	1	1	2	3	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	5	5	5	12	15
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	50	50	50	50	80
Output Voltage Rise Time10-90%	ms	50	50	45	50	100
Output Voltage Drop Time (Full Load)90-10%	ms	25	25	20	25	80
Output Voltage Drop Time (No Load)	ms	285	425	660	610	1370
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: < 1ms				
<b>Constant Current Mode (CC Mode)</b>						
Output Range Can Be Set	A	0- Rated Output Value				
Input Adjustment Rate	mA	0.01% +2mA of the rated output current				
Load Adjustment Rate	mA	0.01% +5mA of the rated output current				
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	150	75	25	8	5
<b>Stability And Temperature Coefficient</b>						
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)					
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)					
<b>Programming And Readback Accuracy &amp; Resolution</b>						
Voltage Output Programming Accuracy	0.05% of the rated output voltage					
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)					
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)					
Voltage Output Read-Back Accuracy	0.05% of the rated output voltage					
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A), 0.0001 A ( ≤ 100 A), 0.001 A ( 100 A < I ≤ 1000 A)					
<b>Input Power Supply</b>						
Frequency	47 Hz - 63 Hz					
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85-265VAC					
Power Factor (Typical Value)	0.99(Single-Phase Input)					
<b>Size And Weight</b>						
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm					
Weight	≤ 1.9kg / ≤ 2.4kg					
Colour	RAL 7035					

# HY-ZSU Series Technical Parameters

## DC 800W Low Voltage Output Series Technical Parameters

Models		HY-ZSU 10-72	HY-ZSU 20-40	HY-ZSU 36-24	HY-ZSU 60-14	HY-ZSU 100-8
Rated Output Voltage	V	10	20	36	60	100
Rated Output Current	A	72	40	24	14	8
Rated Output Power	W	720W	800W	864W	840W	800W
Efficiency	%	83	86	87	87	87
<b>Constant Pressure Mode (CV Mode)</b>						
Output Range Can Be Set	V	0- Rated Output Value				
Input Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Load Adjustment Rate	mV	0.01% +2mV of rated output voltage				
Maximum Compensation Voltage For Telemetry	V	1	1	1.2	3	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	5	5	5	12	15
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	50	50	50	60	80
Output Voltage Rise Time10-90%	ms	50	50	45	50	100
Output Voltage Drop Time (Full Load)90-10%	ms	25	25	15	25	80
Output Voltage Drop Time (No Load)	ms	285	425	625	570	1370
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling. Output models below 100V: < 1ms				
<b>Constant Current Mode (CC Mode)</b>						
Output Range Can Be Set	A	0- Rated Output Value				
Input Adjustment Rate	mA	0.01% +2mA of the rated output current				
Load Adjustment Rate	mA	0.02% +5mA of the rated output current				
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	180	100	31	28	12
<b>Stability And Temperature Coefficient</b>						
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)					
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)					
<b>Programming And Readback Accuracy &amp; Resolution</b>						
Voltage Output Programming Accuracy	0.05% of the rated output voltage					
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)					
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)					
Voltage Output Read-Back Accuracy	0.05% of the rated output voltage					
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)					
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )					
<b>Input Power Supply</b>						
Frequency	47 Hz - 63 Hz					
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85~265VAC					
Power Factor (Typical Value)	0.99(Single-Phase Input)					
<b>Size And Weight</b>						
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm					
Weight	≤ 1.9kg / ≤ 2.4kg					
Colour	RAL 7035					

# HY-ZSU Series Technical Parameters

## DC 200W High Voltage Output Series Technical Parameters

Models		HY-ZSU 160-1.3	HY-ZSU 320-0.65	HY-ZSU 650-0.32
Rated Output Voltage	V	160	320	650
Rated Output Current	A	1.3	0.65	0.32
Rated Output Power	W	208W		
Efficiency	%	81	81	81
<b>Constant Pressure Mode (CV Mode)</b>				
Output Range Can Be Set	V	0- Rated Output Value		
Input Adjustment Rate	mV	0.01% of the rated output voltage	0.03% of the rated output voltage	
Load Adjustment Rate	mV	0.01% of the rated output voltage		
Maximum Compensation Voltage For Telemetry	V	5	5	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	10	25	60
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	100	10	250
Output Voltage Rise Time10-90%	ms	110	185	170
Output Voltage Drop Time (Full Load)90-10%	ms	180	295	270
Output Voltage Drop Time (No Load)	ms	2	1.5	3
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling, < 2ms.		
<b>Constant Current Mode (CC Mode)</b>				
Output Range Can Be Set	A	0- Rated Output Value		
Input Adjustment Rate	mA	0.02% of the rated output current		
Load Adjustment Rate	mA	0.09% of the rated output current		
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	1.2	14	0.5
<b>Stability And Temperature Coefficient</b>				
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)			
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)			
<b>Programming And Readback Accuracy &amp; Resolution</b>				
Voltage Output Programming Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage			
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)			
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)			
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)			
Voltage Output Read-Back Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage			
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)			
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )			
<b>Input Power Supply</b>				
Frequency	47 Hz - 63 Hz			
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85~265VAC			
Power Factor (Typical Value)	0.99(Single-Phase Input)			
<b>Size And Weight</b>				
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm			
Weight	≤ 1.9kg / ≤ 2.4kg			
Colour	RAL 7035			



# HY-ZSU Series Technical Parameters

## DC 400W High Voltage Output Series Technical Parameters

Models		HY-ZSU 160-2.6	HY-ZSU 320-1.3	HY-ZSU 650-0.64
Rated Output Voltage	V	160	320	650
Rated Output Current	A	2.6	1.3	0.64
Rated Output Power	W	416	416	416
Efficiency	%	86	86	86
<b>Constant Pressure Mode (CV Mode)</b>				
Output Range Can Be Set	V	0- Rated Output Value		
Input Adjustment Rate	mV	0.01% of the rated output voltage		
Load Adjustment Rate	mV	0.01% of the rated output voltage		
Maximum Compensation Voltage For Telemetry	V	5	5	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	10	25	60
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	100	150	250
Output Voltage Rise Time10-90%	ms	80	150	150
Output Voltage Drop Time (Full Load)90-10%	ms	100	150	150
Output Voltage Drop Time (No Load)	ms	2	2.5	3
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling. < 2ms.		
<b>Constant Current Mode (CC Mode)</b>				
Output Range Can Be Set	A	0- Rated Output Value		
Input Adjustment Rate	mA	0.02% of the rated output current		
Load Adjustment Rate	mA	0.09% of the rated output current		
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	1.5	1	0.6
<b>Stability And Temperature Coefficient</b>				
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)			
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)			
<b>Programming And Readback Accuracy &amp; Resolution</b>				
Voltage Output Programming Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage			
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)			
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)			
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)			
Voltage Output Read-Back Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage			
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)			
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )			
<b>Input Power Supply</b>				
Frequency	47 Hz - 63 Hz			
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85~265VAC			
Power Factor (Typical Value)	0.99(Single-Phase Input)			
<b>Size And Weight</b>				
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm			
Weight	≤ 1.9kg / ≤ 2.4kg			
Colour	RAL 7035			

# HY-ZSU Series Technical Parameters

## DC 600W High Voltage Output Series Technical Parameters

Models		HY-ZSU 160-4	HY-ZSU 320-2	HY-ZSU 650-1
Rated Output Voltage	V	160	320	650
Rated Output Current	A	4	2	1
Rated Output Power	W	640	640	650
Efficiency	%	88.5	88.5	88.5
<b>Constant Pressure Mode (CV Mode)</b>				
Output Range Can Be Set	V	0- Rated Output Value		
Input Adjustment Rate	mV	0.01% of the rated output voltage		
Load Adjustment Rate	mV	0.01% of the rated output voltage		
Maximum Compensation Voltage For Telemetry	V	5	5	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	20	30	60
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	100	150	250
Output Voltage Rise Time10-90%	ms	55	75	75
Output Voltage Drop Time (Full Load)90-10%	ms	65	85	85
Output Voltage Drop Time (No Load)	ms	2	2.5	3
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling. < 2ms.		
<b>Constant Current Mode (CC Mode)</b>				
Output Range Can Be Set	A	0- Rated Output Value		
Input Adjustment Rate	mA	0.02% of the rated output current		
Load Adjustment Rate	mA	0.09% of the rated output current		
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	2	1.5	1
<b>Stability And Temperature Coefficient</b>				
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)			
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)			
<b>Programming And Readback Accuracy &amp; Resolution</b>				
Voltage Output Programming Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage			
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)			
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)			
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)			
Voltage Output Read-Back Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage			
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)			
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )			
<b>Input Power Supply</b>				
Frequency	47 Hz - 63 Hz			
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85~265VAC			
Power Factor (Typical Value)	0.99(Single-Phase Input)			
<b>Size And Weight</b>				
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm			
Weight	≤ 1.9kg / ≤ 2.4kg			
Colour	RAL 7035			

# HY-ZSU Series Technical Parameters

## DC 800W High Voltage Output Series Technical Parameters

Models		HY-ZSU 160-5	HY-ZSU 320-2.5	HY-ZSU 375-2.2	HY-ZSU 650-1.25
Rated Output Voltage	V	160	320	375	650
Rated Output Current	A	4.7-5	2.35-2.5	2-2.2	1.15-1.25
Rated Output Power	W	752-800	752-800	750-825	747.5-812.5
Efficiency	%	88.5	89	89.5	89
<b>Constant Pressure Mode (CV Mode)</b>					
Output Range Can Be Set	V	0- Rated Output Value			
Input Adjustment Rate	mV	0.01% of the rated output voltage			
Load Adjustment Rate	mV	0.01% of the rated output voltage			
Maximum Compensation Voltage For Telemetry	V	5	5	5	5
Ripple Effective Value rms ( 5Hz -1MHz)	mVrms	25	30	30	60
Noise Peak-To-Peak Value p-p ( 20 MHz)	mVpp	100	150	150	250
Output Voltage Rise Time10-90%	ms	45	55	55	55
Output Voltage Drop Time (Full Load)90-10%	ms	55	95	65	65
Output Voltage Drop Time (No Load)	ms	2	355	2.5	3
Transient Response Time	ms	The time when the output voltage is restored to within 0.5% of the rated voltage. The variation of the output current is 10-90% of the rated value. Output voltage setting range: 10-100%, local sampling, < 2ms.			
<b>Constant Current Mode (CC Mode)</b>					
Output Range Can Be Set	A	0- Rated Output Value			
Input Adjustment Rate	mA	0.02% of the rated output current			
Load Adjustment Rate	mA	0.09% of the rated output current			
Ripple Effective Value rms ( 5Hz -1MHz)	mArms	2	1.5	1.5	1
<b>Stability And Temperature Coefficient</b>					
Temperature Drift (Rated Output Voltage/Current)	U: 0.01% I: 0.01% (After 30 minutes of power on at a certain input voltage and load ambient temperature, 8 hours)				
Temperature Coefficient (Rated Output Voltage/Current)	U: 50ppm/°C I: 70ppm/°C (30 minutes after power on)				
<b>Programming And Readback Accuracy &amp; Resolution</b>					
Voltage Output Programming Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage				
Current Output Programming Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)				
Voltage Setting Resolution	0.001 V (≤60 V), 0.01 V (≤600 V), 0.1 V (> 600 V)				
Current Setting Resolution	0.001 A (≤60 A), 0.01 A (≤600 A), 0.1 A (>600 A)				
Voltage Output Read-Back Accuracy	0.05% of the actual voltage + 0.05% of the rated voltage				
Current Output Read-Back Accuracy	0.1% of the output current + 0.05% of the rated output current (in constant current programming mode, the readback and monitoring accuracy do not include the influence of heating drift and load temperature change rate)				
Voltage Read Back Display	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 Display	0.00001 A ( ≤ 10 A ), 0.0001 A ( ≤ 100 A ), 0.001 A ( 100 A < I ≤ 1000 A )				
<b>Input Power Supply</b>					
Frequency	47 Hz - 63 Hz				
Connection Mode	Single-phase two-wire + ground, wide input voltage range: 85~265VAC				
Power Factor (Typical Value)	0.99(Single-Phase Input)				
<b>Size And Weight</b>					
Size	70(W)*349(D)*83.25(H)mm/105(W)*363(D)*90(H)mm				
Weight	≤ 1.9kg / ≤ 2.4kg				
Colour	RAL 7035				

# HY-ZSU Series Technical Parameters

## Protection Function

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

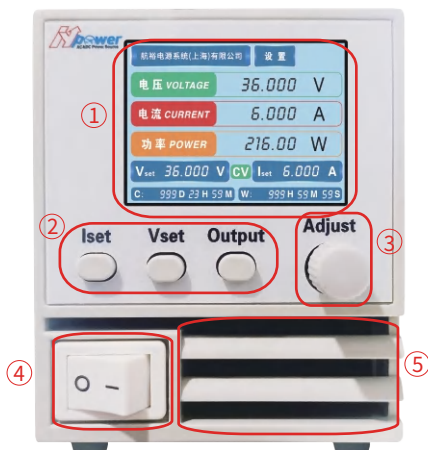
## Environmental Condition

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

## Control Panel

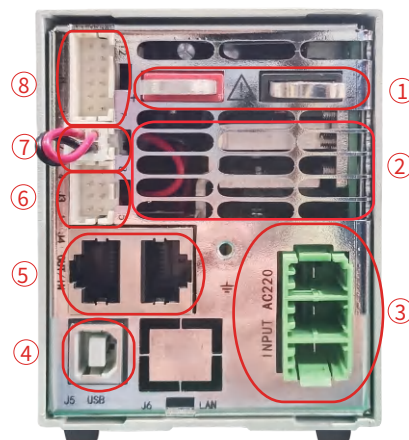
Display	LCD Display
Control Function	Flying shuttle knob adjustment, Output ON/OFF switch Vset, Iset, Output keys

## Front Panel



- ① Liquid crystal display
- ② Current/voltage setting key, output key
- ③ Adjust button, rotate to fine-tune the number, press to confirm the command
- ④ Power switch
- ⑤ Air inlet

## Rear Panel



- ① Output connection: 6V-100V model is bus type
- ② exhaust port
- ③ Input port
- ④ USB interface
- ⑤ RS232/RS485 communication port
- ⑥ Isolation control and signal interface
- ⑦ Telemetry interface
- ⑧ Analog control and monitoring interface

## Power Semiconductor Customer



## Enterprise In The Field Of Automotive Electronics



## High-Tech R&D Enterprise



# Cooperative Clients (Partial)

## Aerospace & Defense Military Industry Research Institute



CASC



CASIC



AVIC



AECC



CETC



CSSC



CSIC

CASC 800 ( Shanghai Aerospace Precision Machinery Research Institute )

CASC 801 ( Shanghai Institute of Space Propulsion )

CASC 803 ( Shanghai Aerospace Control Technology Institute )

CASC 804 ( Shanghai Aerospace Electronic Communication Equipment Research Institute )

CASC 805 ( Shanghai Aerospace System Engineering Institute )

CASC 808 ( Shanghai Precision Measurement and Testing Institute )

CASC 811 ( Shanghai Space Power Research Institute )

CASC 812 ( Shanghai Satellite Equipment Research Institute )

CASC 502 ( Beijing Control Engineering Research Institute )

CASC 510 ( Lanzhou Institute of Space Technology Physics )

CASC 203 ( China Ordnance Industry 203 Research Institute )

CASIC 206 ( Beijing Machinery and Equipment Research Institute )

CASIC 242 Factory ( Lanzhou Flight Control Co., LTD. )

CASIC 307 Factory ( Aerospace Chenguang Co., LTD. )

CASIC 33 ( 33 Aerospace Science and Industry Institutes )

CASIC 3651 Factory ( Shanghai Aerospace Control Technology Institute )

AVIC 603 ( AVIC Xi 'an Aircraft Design and Research Institute )

AVIC 613 ( Luoyang Electro-Optical Equipment Research Institute of Aviation Industry Corporation of China )

AVIC 615 ( Aeronautical Radio Electronics Research Institute of China )

AVIC 618 ( Xi 'an Flight Automatic Control Research Institute )

AVIC 631 ( Aviation Computing Technology Research Institute of AVIC )

AVIC 105 Factory ( Tianjin Aviation Electromechanical Co., LTD. )

AVIC 115 Factory ( Shaanxi Aero Electric Co., LTD. )

AVIC 118 Factory ( Shanghai Aviation Electric Appliance Co., LTD. )

AVIC 135 Factory ( State-owned Wanli Electromechanical Factory )

AVIC 181 Factory ( Wuhan Aviation Instrument Co., LTD. )

AVIC 304 ( Beijing Great Wall Institute of Measurement and Testing Technology )

AECC 606 ( Shenyang Engine Research Institute )

AVIC 607 ( China Leihua Electronic Technology Institute )

Jiangnan Shipbuilding (Group) Co., LTD

Nanjing Panda Electronics Co., LTD

State-owned 741 Factory (Nanjing Huadong Electronics Group Co., LTD.)

Institute of Modern Physics, Chinese Academy of Sciences

CETC 14 ( Nanjing Institute of Electronic Technology )

CETC 21 ( Shanghai Micromotor Research Institute )

CETC 23 ( Shanghai Transmission Line Research Institute )

CETC 36 ( Gangnam Electronics and Communication Research Institute )

CETC 38 ( East China Institute of Electronic Engineering )

CETC 50 ( Shanghai Microwave Technology Research Institute )

CETC 51 ( Shanghai Microwave Equipment Research Institute )

CETC 54 ( Shijiazhuang Communication Measurement and Control Technology Research Institute )

CETC 55 ( Nanjing Institute of Electronic Devices )

CSIC 707 ( Tianjin Institute of Marine Instruments )

CSIC 7107 ( Shaanxi Aerospace Navigation Equipment Co., LTD. )

CSIC 719 ( Wuhan Second Ship Design Institute )

CSIC 704 ( Shanghai Marine Equipment Research Institute )

CSIC 726 ( Shanghai Marine Electronic Equipment Research Institute )

## Scientific Research & Third Party Quality Inspection Agency



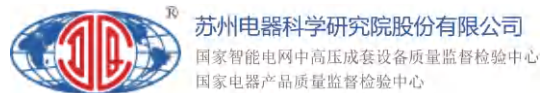
Technical Institute of Physics and Chemistry (Beijing)

Institute of Urban Environment (Xiamen)



Electrotechnical Research Institute (Beijing)

Institute of Applied Physics (Shanghai)





# Cooperative Clients (Partial)

## The Chinese People's Liberation Army

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

## Commercial Aviation



Guangzhou Aircraft Maintenance Engineering Co., LTD



Rockwell Collins



Beijing Aircraft Maintenance Engineering Co., LTD

## Military Academies & Local Universities



National University of Defense Technology



Aerospace Engineering University



Army Engineering University



Air Force Engineering University



Naval University of Engineering



Dalian Naval Academy



Naval Aviation University



Beihang University



Beijing Institute of Technology



Harbin Institute of Technology



Harbin Engineering University



Nanjing University of Aeronautics and Astronautics



Nanjing University of Science and Technology



Northwestern Polytechnical University



University of Science and Technology of China



Tsinghua University



Peking University



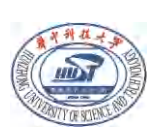
Shanghai Jiaotong University



Zhejiang University



Tianjin University



Huazhong University of Science and Technology



University of Electronic Science and Technology



Shanghai University



Beijing University of Technology



Shanghai Maritime University



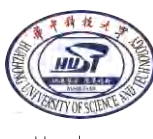
Dalian University of Technology



Dalian Maritime University



South China University of Technology



Huazhong University of Science and Technology



Xi'an Electronic Technology



Xi'an Jiaotong University



Sichuan University



Donghua University



North China Institute of Aerospace Engineering



Fudan University



Xiamen University



North China Electric Power University



Changchun Institute of Technology



Xiangtan University



Zhejiang University of Technology



Xi'an University of Technology



University of Electronic Science and Technology of China



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All technical data and instructions are based on the actual product

If there is any change, Hangyu Power has the final interpretation right

Authorized distributor: