

SP-1U/2U Series High Performance Programmable DC Power Supply



**High Efficiency** 

**High Precision** 

00.0000V 00.0000A OFF

High Stability

# SP-1U/2U Series High Performance Programmable DC Power Supply







600W~1600W

	Output				R	ipple	Resp	onse	
Rated Voltage	Rated	Rated	Model	Size	Voltage	Current	Voltage increase	Voltage Drop	Certificates
voitage	Current	Power 600W	SP20VDC600W					≤150ms(No load), ≤20ms(Full load)	CE/RoHs
20V	60A	1000W	SP20VDC1000W	1U 1	40mVp-p/6mVrms	20mA (TYP Value)	≤10ms(No load), ≤10ms(Full load)	≤150ms(No load), ≤15ms(Full load)	CE/RoHs
201	00/1	1200W	SP20VDC1200W		ionitip p, onitine	2011/2011/2010/09		≤150ms(No load), ≤12ms(Full load)	CE/RoHs
		600W	SP32VDC600W					≤150ms(No load), ≤20ms(Full load)	CE/RoHs
		1000W	SP32VDC1000W	10 1			≤12ms(No load), ≤12ms(Full load)	≤150ms(No load), ≤15ms(Full load)	CE/RoHs/CSA/FCC
	50A	1200W	SP32VDC1200W		40mVp-p/6mVrms	20mA (TYP Value)		≤150ms(No load), ≤12ms(Full load)	CE/RoHs/CSA/FCC
		1600W	SP32VDC1600W	10			≤10ms(No load), ≤10ms(Full load)	≤150ms(No load), ≤10ms(Full load)	CE/RoHs/CSA/FCC
32V		1000W	SPS32VDC1000W				≤20ms(No load), ≤40ms(Full load)	≤500ms(No load), ≤45ms(Full load)	CE
		2000W	SP32VDC2000W	2U 6	60 M (60 M		≤20ms(No load), ≤30ms(Full load)	≤500ms(No load), ≤30ms(Full load)	CE
	200A	3000W	SP32VDC3000W	20 -	60mVp-p/10mVrms	200mA (TYP Value)	(00	≤500ms(No load), ≤25ms(Full load)	CE/RoHs
		4000W	SP32VDC4000W				≤20ms(No load), ≤20ms(Full load)	≤500ms(No load), ≤20ms(Full load)	CE
		600W	SP40VDC600W					≤150ms(No load), ≤20ms(Full load)	CE/RoHs
		1000W	SP40VDC1000W	1U 1				≤150ms(No load), ≤15ms(Full load)	CE/RoHs/CSA/FCC
	40A	1200W	SP40VDC1200W		40mVp-p/6mVrms	20mA (TYP Value)	≤10ms(No load), ≤10ms(Full load)	≤150ms(No load), ≤12ms(Full load)	CE/RoHs/CSA/FCC
		1600W	SP40VDC1600W	1U 🚺				≤150ms(No load), ≤10ms(Full load)	CE/RoHs/CSA/FCC
40V		1000W	SPS40VDC1000W						CE/RoHs
	120A	2000W	SP40VDC2000W	20 6	10m\/p.p./6m\/rmo		<10ma(Nalaad) <10ma(Full laad)	< 250me/Ne lead) < 10me/Full lead)	CE/RoHs
	1204	3000W	SP40VDC3000W	20 🔍	40mVp-p/6mVrms	ZUITA (TTP Value)	≤10ms(No load), ≤10ms(Full load)	≤350ms(No ioad), ≤ i 0ms(Fuil ioad)	CE/RoHs
		4000W	SP40VDC4000W						CE/RoHs
		600W	SP75VDC600W					≤160ms(No load) , ≤20ms(Full load)	CE/RoHs/CSA
	054	1000W	SP75VDC1000W	10 2	40mVp-p/6mVrms	10mA (TYP Value)	≤10ms(No load), ≤10ms(Full load)	≤160ms(No load) , ≤15ms(Full load)	CE/RoHs/CSA/FCC
75V	25A	1200W	SP75VDC1200W	10 -	401179-0/01171113	TomA (TTP value)	2 roms(no rodd), 2 roms(r un rodd)	≤160ms(No load) , ≤12ms(Full load)	CE/RoHs/CSA/FCC
		1500W	SP75VDC1500W					$\leq$ 160ms(No load), $\leq$ 10ms(Full load)	CE/RoHs/CSA/FCC
	60A	4000W	SP75VDC4000W	2U 🔮	40mVp-p/8mVrms	10mA (TYP Value)	$\leq$ 15ms(No load), $\leq$ 15ms(Full load)	$\leq$ 450ms(No load), $\leq$ 20ms(Full load)	CE/RoHs/CSA/FCC
		1000W	SP80VDC1000W						CE
80V	60A	2000W	SP80VDC2000W	2U 4	40mVp-p/6mVrms	10mA (TYP Value)	≤15ms(No load), ≤15ms(Full load)	≤450ms(No load), ≤30ms(Full load)	CE/RoHs
		3000W	SP80VDC3000W						CE/RoHs
		1000W	SPS120VDC1000W						CE/RoHs
120V	40A	2000W	SP120VDC2000W	20 4	80mVp-p/15mVrms	10mA (TYP Value)	<20ms(No load) <20ms(Full load)	≤350ms(No load), ≤21ms(Full load)	CE/RoHs/CSA/FCC
1200	404	3000W	SP120VDC3000W				(i = 1000),	(i air ioda)	CE/RoHs/CSA/FCC
		4000W	SP120VDC4000W						CE/RoHs
		600W	SP150VDC600W						CE/RoHs
	10A	1000W	SP150VDC1000W	1U 🕄	120mVp-p/40mVrms	10mA (TYP Value)	≤25ms(No load), ≤25ms(Full load)	≤400ms(No load), ≤32ms(Full load)	CE/RoHs
	IUA	1200W	SP150VDC1200W						CE/RoHs
150V		1500W	SP150VDC1500W						CE/RoHs
		1000W	SPS150VDC1000W						CE/RoHs
	30A	2000W	SP150VDC2000W	2U 🔮	80mVp-p/15mVrms	10mA (TYP Value)	≤25ms(No load), ≤25ms(Full load)	≤500ms(No load), ≤25ms(Full load)	CE/RoHs/CSA/FCC
	00/1	3000W	SP150VDC3000W						CE/RoHs/CSA/FCC
		4000W	SP150VDC4000W						CE/RoHs/CSA/FCC
		600W	SP200VDC600W					$\leq$ 600ms(No load), $\leq$ 50ms(Full load)	CE/RoHs
	8A	1000W	SP200VDC1000W	1U 🕄	120mVp-p/40mVrms	10mA (TYP Value)	≤30ms(No load), ≤30ms(Full load)	≤600ms(No load), ≤40ms(Full load)	CE/RoHs
		1200W	SP200VDC1200W					$\leq$ 600ms(No load), $\leq$ 36ms(Full load)	CE/RoHs
200V		1500W	SP200VDC1500W					≤600ms(No load), ≤30ms(Full load)	CE/RoHs
		1000W	SPS200VDC1000W						CE/RoHs
	24A	2000W	SP200VDC2000W	2U 🔮	150mVp-p/30mVrms	20mA (TYP Value)	≤30ms(No load), ≤30ms(Full load)	≤500ms(No load), ≤20ms(Full load)	CE/RoHs
		3000W	SP200VDC3000W						CE/RoHs
		4000W	SP200VDC4000W					≤800ms(No load), ≤110ms(Full load)	CE/RoHs
		1000W	SPS600VDC1000W					≤800ms(No load), ≤90ms(Full load)	CE/RoHs
600V	10A	2000W	SP600VDC2000W	2U 😏	350mVp-p/40mVrms	10mA (TYP Value)	$\leq$ 60ms(No load), $\leq$ 60ms(Full load)	≤800ms(No load), ≤90ms(Full load)	CE/RoHs
		3000W	SP600VDC3000W					≤800ms(No load), ≤75ms(Full load)	CE/RoHs
		4000W	SP600VDC4000W						CE/RoHs
		1000W	SPS800VDC1000W						CE/RoHs
800V	7.5A	2000W	SP800VDC2000W SP800VDC3000W	2U 😉	800mVp-p/200mVrms	10mA (TYP Value)	$\leq$ 60ms(No load), $\leq$ 60ms(Full load)	$\leq$ 800ms(No load), $\leq$ 60ms(Full load)	CE/RoHs
		3000W 4000W	SP800VDC3000W SP800VDC4000W						CE/RoHs
		400010	01000100400010						

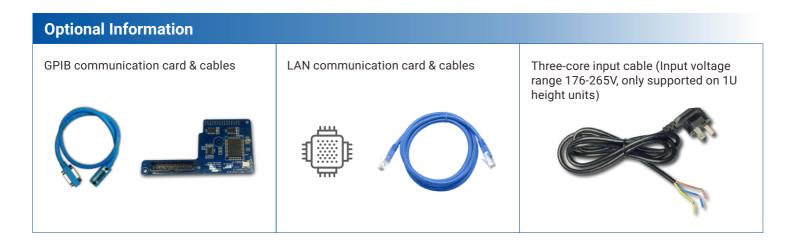
02 High Efficiency & High Precision & High Stability



### **Features**

- Low ripple and noise
- High accuracy and high resolution
- CC and CV working mode switch freely
- Support LIST/SEQUENCE file editing
- OVP/OCP/OPP/OTP/SCP

- Remote compensation
- With external analog control input interface
- Standard USB/RS485/RS232 communication interface
- Master/Slave parallel and series operation mode for up to 10 units



## **Front Panel Introduction**

#### 1U Power Supply Front Panel



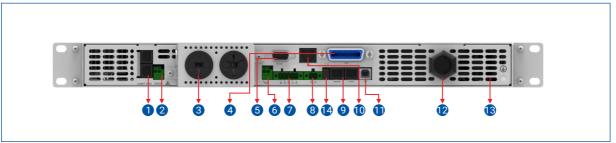
#### 2U Power Supply Front Panel



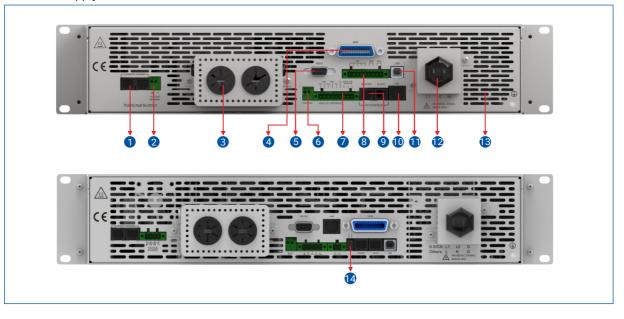
Кеу	Introduction
0~9	Numeric Key
Ō	Decimal Point
ESC	Escape
	UP, used for choose menu or increase set value in menu operation
$\bigtriangledown$	DOWN, used for choose menu or decrease set value in menu operation
Enter	Enter
V-set	Set power supply's output voltage value
I-set	Set power supply's output current-limiting value
Display	Press it to back to the main interface quickly
On/Off	Control ON/OFF of power supply
Menu	Menu
Shift	Work with functional keys to realize multifunction
LOCAL	Panel operation
RECALL	Recall stored setting value of power supply from internal storage
STORE	Store current settings of power supply to storage location
DVM/POWER	Display DVM value and power value

## **SP Series Back Panel Introduction**

#### 1U Power Supply Back Panel



#### 2U Power Supply Back Panel



- AVG1/AVG2 Connector, used for connecting between units to enable current sharing.
- 2 Voltage Remote Supporting Connector (VOLTAGE SENSING): Used to support wire voltage drops.
- **3** DC output terminal: Left (-), Right (+).
- 4 GPIB Communication connector.
- **5** RS-232 Communication connector.
- 6 DVM Connector.
- ANALONG INTERFACE signal connection terminal.
- 8 RS-485 Communication connector.
- 9 SYSTEM BUS control, used for transmission of master and slaves.
- LAN Communication Interface.
- 1 USB Communication Interface.
- AC Power Connection terminal.
- 13 The fan duct outlet.
- Image: Termination resistor for RS485 and CAN Communication.

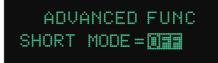
Note: There is a slight difference between these two kinds of rear panels of 2U units.

# SP-1U/2U Series High Performance Programmable DC Power Supply

#### **Short Mode**

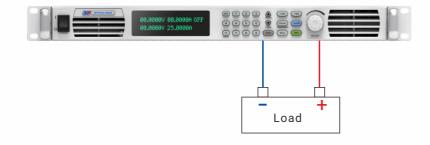
This function is applicable to cable/fuse current carrying capacity test, when activated, the power supply will shutdown the short circuit protection function and maintain ultra-low voltage to output rated current.





## **Timer Control Function**

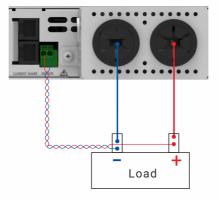
This function is applicable to unattended occasions, activate the timer and the output, the screen will show the countdown of the timer. Once it reaches down to zero, the supply will turn off the output automatically. And the full protection of the power supply will make sure the safe usage of this function.



TIMER 00:05:00 00.0000V 000.000A OFF 12.0000V 009.000A

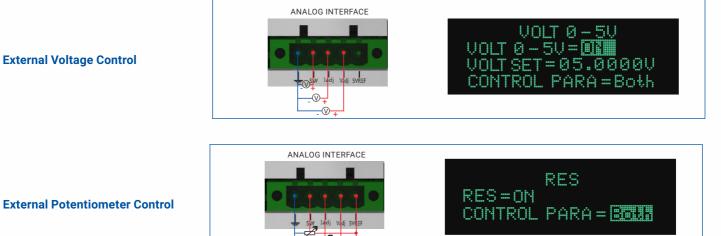
### **Remote Compensation Function**

This function is applicable to compensate the voltage drop on the load line in order to improve the accuracy of test. In practical applications, even if the voltage drop is negligible, it is best to connect the remote compensation cable to the output terminal. When using the remote compensation functionality, please disconnect the S+, S- from the power supply's output terminal, and connect them to both ends of the DUT. Maximum compensation voltage is up to 5V. The output power need be lower than 1.05% of the rated power after compensation.



## **External Control Function**

This series power supply can offer external voltage/ potentiometers control output, can be controlled by external voltage( $0 \sim 5V$ ) or external potentiometers( $5 \sim 10K$ ) in order to remotely adjust the power supply voltage and current regulation settings and the output status of the power supply.



## **LIST Waveform Editing Function**

This series power supply supports 3 kinds of LIST file editing format in order to meet the output elements of different test requirements. The minimum resolution of time setting is 1ms.

## **Impulse File Format**

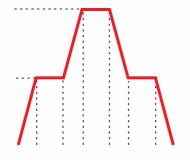
Sets the trend of the output voltage over time and its duration. Set the mode of the output waveform execution as required, LOOP, CONT, STEP.



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## **Slope File Format**

Support to set the slope of output voltage, achieve to slowly increase and drop of the output voltage. Set the mode of the output waveform execution as required, LOOP, CONT, STEP.





### **SEQUENCE Waveform Editing function**

This function is an upgrade version of the LIST file editing. Its every step is a complete LIST file. It can combine several LIST file and output, meanwhile, it can set the number of repetitions per LIST file and number of executions of the entire SEQUENCE file.





#### **Measure Average Function**

Under this mode, if the DUT has a sharp change in voltage and current, the averaging times can be adjusted to be FAST, MEDIUM or SLOW to make the displayed value more stable.

#### **Current Counting Function**

This function offers testing of the cutoff time of a breaker or a fuse.

Starts timing when the current reaches the circuit breaker or fuse's fusing current Ib, stops timing when disconnected, the timing resolution is up to 200ms.

V=00.0000V	I=00.0000A
Ib=10.0000A	OFF
00:00:	000 ms

#### **Quick Recall Function**

Support to recall the stored parameters directly by the numeric keys on the front panel.

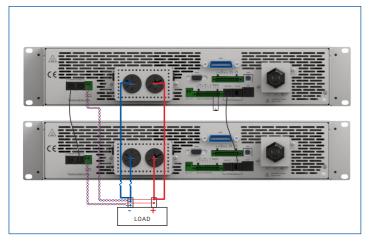
Firstly, user stores the frequently used data in the power supply's memory, press the numeric key directly after entering the quick recall mode, can quick recall the datas which are stored in  $[1] \sim [9]$ .

00.0000V	000.000A	OFF
12.00000	009.000A	[1]

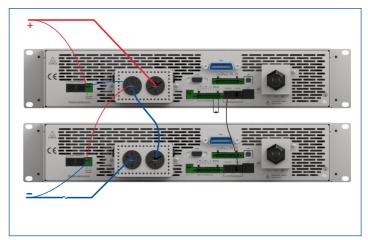
## Master/Slave Mode

This series power supply support Master/Slave parallel and series operation mode for up to 10 units, extended power up to 40kW. The current sharing function in parallel mode realizes the equalization of the power supplies the system, thereby ensuring the extended power without affecting the performance index of the power supply. CAN parallel mode realizes the same dynamic response of the system as single unit, realizing high-speed and non-delayed synchronous response of master and slave.

#### **Parallel Connection**

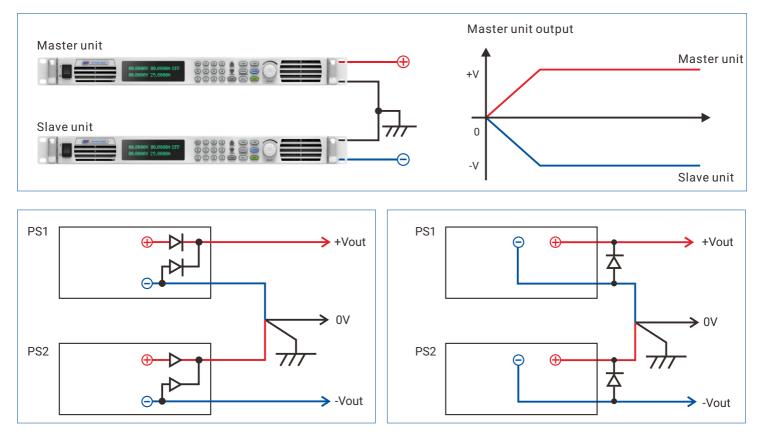


#### **Series Connection**



## Positive / Negative Voltage Output Mode

This mode which enables both positive and negative outputs simultaneously in master slave operation.

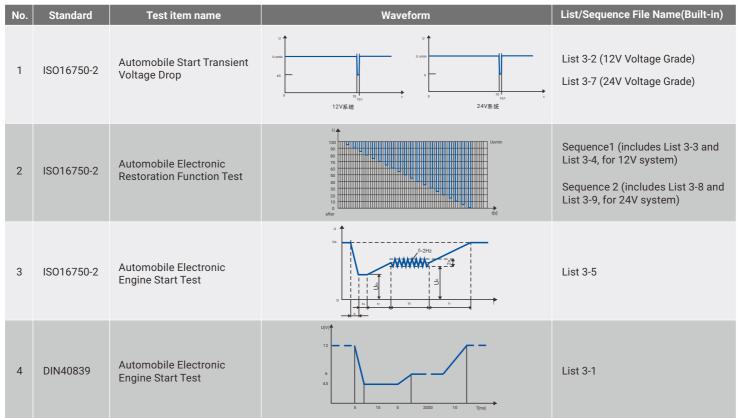


The power supply below 200A has been connected with anti reverse diode, so the external diode isn't needed in the actual connection, and the 200A power supply needs to connect the diode.

#### **Built-in Standard Automobile Electric Test Waveform**

It can be used to simulate the transient interference of power supply which may often be encountered in the process of automobile startup and operation. In accordance with industry standards, this series power supply has built-in voltage curves under the DIN40839 and ISO 16750-2 standards for 12V and 24V test grades. User can call the voltage curve directly for testing or edit as desired.

#### The built-in standard waveform cutline and file names are as below:



## Anti reverse irrigation/Power Sink Function

This series power supply has protection against reverse irrigation, so as to cut off the current of DUT in a certain test condition to the direction of power supply, and prevent the damage to the power supply hardware circuit from DUT.



Meanwhile, this series power supply comes standard with short circuit copper sheet, When the test requires the power supply to absorb the spike generated by DUT to ensure the safety of the operation, the short-circuit copper piece can be connected, and the energy is absorbed by the output capacitor inside the power supply and other circuits.



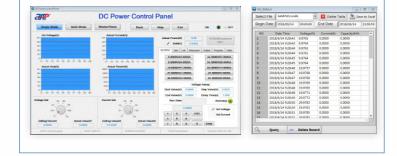
Note: Please consult your sales representative to get detailed information about anti reverse irrigation protection for power supply models above 200A.

## **Monitoring Software**

All power supplies come standard with graphical monitoring software, which supports all communication interfaces and covers almost all functions of the power supply front panel operation. In the communication selection interface, users can select the communication interface and search for the connected power supply according to the actual connection.

₩₽°			DC	Power Contr	ol Panel			
Communi	cation Sele	ction		Port	and Power Me	ssages		
20.00	BeatRate		Port	Addr.	Power Name	SN	Mester/Slave	
R5232	DALIFICARE	9000 -	COMI	NaN	SP32VDC4000W	1234567991234667	Maeter	
	Parky	None .	USBO	USB0:0x0952:0x8201:98785	SPERVOC2007W	9676543217854321	Manher	
R5485	Stop Bits	1.0 .						
10000								
	M5483 Dari							
USB								
	End a	649.						
GPIB	5.30							
LAN	LAN Port	2001						
LAN	DAN POR	2001						
						Communication Ch	eck OK	
APM Tech							mar 100, 101,00	

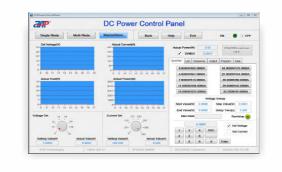
When the communication port has only one power supply connection, it enters the Single Mode interface. Includes the basic settings of voltage and current and measurement function, and List waveform editing/ saved test data function.



When the communication port has more than one power supply connection, it enters the Multi Mode interface. Supports switching control or display current power supply's settings.



When the communication port connects the power supply that is the Master unit, it enters Master/Slave interface. The Master/Slave interface only maintains communication with the Master unit, and the parameters are synchronously written to the slaves.



### **WebServer Function**

Use can control the power supply on a computer using a web browser. No need to install the monitoring software, just open web browser and input IP address to control the unit, which can meet basic setting and monitoring requirements.



Model	SP20VDC600W	SP32VDC600W	SP40VDC600W	SP75VDC600W	SP150VDC600W	SP200VDC600W		
			Input					
nput Voltage	90~265VAC							
nput Frequency	47~63Hz							
Power Factor	>0.98							
nput Power	750VA(MAX)							
			Output					
Output Voltage Range	0~20V	0~32V	0~40V	0~75V	0~150V	0~200V		
Output Current Range	0~60A	0~50A	0~40A	0~25A	0~10A	0~8A		
Output Power Range	0~600W							
oltage Load Regulation	10mV	10mV	10mV	10mV	15mV	15mV		
Current Load Regulation	60mA	50mA	40mA	25mA	10mA	8mA		
oltage Display Resolution	0.1mV	0.1mV	0.1mV	0.1mV	1mV	1mV		
Current Display Resolution	0.2mA	0.2mA	0.2mA	0.2mA	0.2mA	0.1mA		
oltage Programmable Resolution	1.5mV	1.5mV	1.5mV	1.5mV	3mV	3mV		
urrent Programmable Resolution	2mA	2mA	2mA	1mA	1mA	1mA		
/oltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV		
Current Setting Accuracy	0.1%+60mA	0.1%+50mA	0.1%+40mA	0.1%+25mA	0.1%+10mA	0.1%+8mA		
oltage Measurement Accuracy <sup>(1)</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV		
Current Measurement Accuracy	0.1%+60mA	0.1%+50mA	0.1%+40mA	0.1%+25mA	0.1%+10mA	0.1%+8mA		
/oltage Ripple <sup>[2]</sup>	40mVp-p 6mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	120mVp-p 40mVrms	120mVp-p 40mVrms		
Current Ripple <sup>[3]</sup>	60mA (Full Range) 20mA (TYP Value)	50mA (Full Range) 20mA (TYP Value)	40mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)		
ine Regulation(Voltage)	0.005%+1mV	0.005%+1mV	0.005%+1mV	0.005%+1mV	0.02%+8mV	0.02%+8mV		
ine Regulation(Current)	4mA	4mA	4mA	4mA	10mA	30mA		
oltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C							
urrent Temperature Coefficient <sup>[4]</sup>	150ppm/°C							
OVM Resolution	0.1mV	0.1mV	0.1mV	0.1mV	4mV	1mV		
VM Precision <sup>11</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+30mV	0.1%+15mV		
perating Mode	Constant voltage (CV) / C							
Remote Compensation	4V MAX							
Aaster-slave Control	Yes							
Response (Voltage Increase)	≤10ms	≤12ms	≤10ms	≤10ms	≤25ms	≤30ms		
Response (Voltage Drop)	≤150ms (no load) ≤20ms (full load)	≤150ms (no load) ≤20ms (full load)	≤150ms (no load) ≤20ms (full load)	≤160ms (no load) ≤20ms (full load)	≤400ms (no load) ≤32ms (full load)	≤600ms (no load) ≤30ms (full load)		
.oad Transient Recovery Time <sup>(5)</sup>	≤2ms	≤2ms	≤2ms	≤2ms	≤3ms	≤3ms		
command Response Time	50ms	121110	-21110	-2000	20110	20110		
Series Capability 6	Up to 10 units	Up to 8 units	Up to 6 units					
Parallel Capability	Up to 10 units		op to to units		op to o unito	op to o dinto		
Current Sharing <sup>[7]</sup>	9V	9V	12V	20V	40V	50V		
fficiency (full load)	85%		87%	88%	88%	87%		
	05%	86%	Other	00%	00%	07 %		
Protection Function	OVP/OCP/OTP/OPP/SCI	P/EQLDBACK						
Anti Reverse rrigation Protection	Yes	TIOLDBACK						
nput Fuse	20A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	10A, 125VAC/250VAC, fast-acting type	10A, 125VAC/250VA fast-acting type		
Jnit Weight/Shipping Weight	9.2kg/12kg	9.2kg/12kg	9.2kg/12kg	8.9kg/11.7kg	9.3kg/12.7kg	9.3kg/12.7kg		
imensions(WxHxD)	423.0x44.0x447.0 mm				ong, - 2.7 hg	2.0.1g, 12.7 hg		
nterface	USB, RS485, RS232(Stand	ard): LAN CPIR(Option)						
Dperating Environment			condensation): Pollution dos	ree 2, Installation category II,	Indooruse			
Cooling Mode	•	10 %~90 %(110	condensation), Pollution deg	nee 2, mstanation category II,	muoor use.			
	Forced air-cooling							
Altitude	2000m							

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

~265VAC ~63Hz .98 00VA(MAX) 20V 600A .1000W mV mA mV mA 20mA 20mA 20mA 305%+15mV 1%+60mA 205%+15mV 1%+60mA 205%+15mV 1%+60mA 205%+15mV	0~32V 0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms 50mA (Full Range)	Input           Input           0~40V           0~40A           0~40A           10mV           40mA           0.1mV           0.2mA           1.5mV           2mA           0.05%+15mV           0.1%+40mA           0.05%+15mV           0.1%+40mA           40mVp-p           6mVrms	0~75V           0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~150V 0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+10mA 0.1%+10mA	0~200V 0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA 0.1%+15mV		
~63Hz .98 00VA(MAX) 20V 60A 60A 60A 60A 60A 60A 60A 60A 60A 60A	0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0~40V 0~40A 10mV 40mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+40mA 0.05%+15mV 0.1%+40mA 40mVp-p	0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+15mV 0.1%+15mV	0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA		
98 00VA(MAX) 20V 60A 60A 1000W mV mA mV 2mA 2mA 2mA 2mA 2mA 3mV 2mA 3mV 3mV 3mV 3mV 3mV 3mV 3mV 3mV 3mV 3mV	0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0~40V 0~40A 10mV 40mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+40mA 0.05%+15mV 0.1%+40mA 40mVp-p	0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+15mV 0.1%+15mV	0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA		
00VA(MAX) 20V 20V 60A 1000W mV mA mV 2mA 2mA 2mA 2mA 2mA 2mA 2mA 2mA	0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0~40V 0~40A 10mV 40mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+40mA 0.05%+15mV 0.1%+40mA 40mVp-p	0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+15mV 0.1%+15mV	0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA		
220V 60A 1000W mV mA 22mA 22mA 22mA 22mA 25%+15mV 1%+60mA 25%+15mV 1%+60mA 25%+15mV 1%+60mA mVp-p 1%rms mA (Full Range) mA (TYP Value)	0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0~40V 0~40A 10mV 40mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+40mA 0.05%+15mV 0.1%+40mA 40mVp-p	0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+15mV 0.1%+15mV	0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA		
60A 1000W mV mA 2mA 2mA 2mA 2mA 2mA 2mA 2mA	0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0~40V 0~40A 10mV 40mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+40mA 0.05%+15mV 0.1%+40mA 40mVp-p	0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+15mV 0.1%+15mV	0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA		
60A 1000W mV mA 2mA 2mA 2mA 2mA 2mA 2mA 2mA	0~50A 10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0~40A 10mV 40mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+40mA 0.05%+15mV 0.1%+40mA	0~25A           10mV           25mA           0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	0~10A 15mV 10mA 1mV 0.2mA 3mV 1mA 0.1%+15mV 0.1%+15mV 0.1%+15mV	0~8A 15mV 8mA 1mV 0.1mA 3mV 1mA 0.1%+15mV 0.1%+8mA		
1000W mV mA mA 2mA 2mA 2mA 2mA 2mA 2mA 2mA 2mA 2	10mV 50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	10mV         40mA         0.1mV         0.2mA         1.5mV         2mA         0.05%+15mV         0.1%+40mA         0.05%+15mV         0.1%+40mA         40mVp-p	10mV         25mA         0.1mV         0.2mA         1.5mV         1mA         0.05%+15mV         0.1%+25mA         0.1%+25mA	15mV         10mA         1mV         0.2mA         3mV         1mA         0.1%+15mV         0.1%+15mV         0.1%+15mV	15mV           8mA           1mV           0.1mA           3mV           1mA           0.1%+15mV           0.1%+8mA		
mV mA mV 2mA 2mA 3mV 3mV 35%+15mV %+60mA 35%+15mV %+60mA %+60mA mVp-p 1Vrms mA (Full Range) mA (TYP Value)	50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	40mA         0.1mV         0.2mA         1.5mV         2mA         0.05%+15mV         0.1%+40mA         0.05%+15mV         0.1%+40mA         40mVp-p	25mA       0.1mV       0.2mA       1.5mV       1mA       0.05%+15mV       0.1%+25mA       0.1%+25mA	10mA         1mV         0.2mA         3mV         1mA         0.1%+15mV         0.1%+15mV         0.1%+15mV	8mA           1mV           0.1mA           3mV           1mA           0.1%+15mV           0.1%+8mA		
mA ImV 2mA 2mA 3mV 3mV 35%+15mV %+60mA 35%+15mV %+60mA %+60mA mVp-p 1Vrms mA (Full Range) mA (TYP Value)	50mA 0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	40mA           0.1mV           0.2mA           1.5mV           2mA           0.05%+15mV           0.1%+40mA           0.05%+15mV           0.1%+40mA           40mVp-p	25mA       0.1mV       0.2mA       1.5mV       1mA       0.05%+15mV       0.1%+25mA       0.1%+25mA	10mA         1mV         0.2mA         3mV         1mA         0.1%+15mV         0.1%+15mV         0.1%+15mV	8mA           1mV           0.1mA           3mV           1mA           0.1%+15mV           0.1%+8mA		
ImV 2mA 2mA 2mA 2mA 2mV 25%+15mV 25%+15mV 25%+15mV 25%+15mV 25%+15mV 25%+15mV 27% 27% 27% 27% 27% 27% 27% 27% 27% 27%	0.1mV 0.2mA 1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0.1mV         0.2mA         1.5mV         2mA         0.05%+15mV         0.1%+40mA         0.05%+15mV         0.1%+40mA         40mVp-p	0.1mV           0.2mA           1.5mV           1mA           0.05%+15mV           0.1%+25mA           0.1%+25mA	1mV           0.2mA           3mV           1mA           0.1%+15mV           0.1%+10mA           0.1%+15mV	1mV           0.1mA           3mV           1mA           0.1%+15mV           0.1%+8mA		
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mV nA 05%+15mV 1%+60mA 05%+15mV %+60mA mVp-p 1Vrms mA (Full Range) mA (TYP Value)	1.5mV 2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	1.5mV         2mA         0.05%+15mV         0.1%+40mA         0.05%+15mV         0.1%+40mA         40mVp-p	1.5mV         1mA         0.05%+15mV         0.1%+25mA         0.05%+15mV         0.1%+25mA	3mV           1mA           0.1%+15mV           0.1%+10mA           0.1%+15mV	3mV 1mA 0.1%+15mV 0.1%+8mA		
nA 15%+15mV 1%+60mA 15%+15mV 1%+60mA mVp-p 1Vrms mA (Full Range) mA (TYP Value)	2mA 0.05%+15mV 0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	2mA           0.05%+15mV           0.1%+40mA           0.05%+15mV           0.1%+40mA           40mVp-p	1mA           0.05%+15mV           0.1%+25mA           0.05%+15mV           0.1%+25mA	1mA 0.1%+15mV 0.1%+10mA 0.1%+15mV	1mA 0.1%+15mV 0.1%+8mA		
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%+60mA )5%+15mV I%+60mA mVp-p nVrms mA (Full Range) mA (TYP Value)	0.1%+50mA 0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0.1%+40mA 0.05%+15mV 0.1%+40mA 40mVp-p	0.1%+25mA 0.05%+15mV 0.1%+25mA	0.1%+10mA 0.1%+15mV	0.1%+8mA		
05%+15mV 1%+60mA mVp-p nVrms mA (Full Range) mA (TYP Value)	0.05%+15mV 0.1%+50mA 40mVp-p 6mVrms	0.05%+15mV 0.1%+40mA 40mVp-p	0.05%+15mV 0.1%+25mA	0.1%+15mV			
%+60mA mVp-p iVrms mA (Full Range) mA (TYP Value)	0.1%+50mA 40mVp-p 6mVrms	0.1%+40mA 40mVp-p	0.1%+25mA		0.1%+15mV		
mVp-p iVrms mA (Full Range) mA (TYP Value)	40mVp-p 6mVrms	40mVp-p		0.1%+10mA			
nVrms mA (Full Range) mA (TYP Value)	6mVrms				0.1%+8mA		
mA (TYP Value)	50mA (Full Range)	5	40mVp-p 6mVrms	120mVp-p 40mVrms	120mVp-p 40mVrms		
, ,	20mA (TYP Value)	40mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)		
	0.005%+1mV	0.005%+1mV	0.005%+1mV	0.02%+8mV	0.02%+8mV		
۱A		4mA			30mA		
100ppm/°C							
0ppm/°C							
mV	0.1mV	0.1mV	0.1mV	4mV	1mV		
					0.1%+15mV		
MAX							
Oms	≤12ms	≤10ms	≤10ms	≤25ms	≤30ms		
50ms (no load) 0ms (full load)	≤150ms (no load) <15ms (full load)	≤150ms (no load) ≤15ms (full load)	≤160ms (no load) ≤15ms (full load)	≤400ms (no load) <25ms (full load)	≤600ms (no load) ≤40ms (full load)		
. ,		. ,		. ,			
ms	SZIIIS	SZIIIS	SZIIIS	\$3111S	≤3ms		
	Up to 10 units	Up to 10 units	Up to 10 units	Up to 8 units	Up to 6 units		
	op to to units	op to to units	op to to units	op to o unito	op to o dilits		
	0)/	121/	201/	401/	50V		
76	89%		89%	89%	87%		
		Other					
s	FULDBACK						
A, 125VAC/250VAC,	30A, 125VAC/250VAC,	30A, 125VAC/250VAC,	30A, 125VAC/250VAC,	30A, 125VAC/250VAC,	30A, 125VAC/250VAC		
	9.2Kg/12Kg	9.2Kg/12Kg	8.9кg/11./кg	9.3Kg/12.7Kg	9.3kg/12.7kg		
	<i>// / / /</i>						
•	tive Humidity 10%~90%(no	condensation); Pollution deg	ree 2, Installation category II,	Indoor use.			
rced air-cooling							
00m							
0pp 0pp 0pp 0pp 0pp 0p 0p 0p 0p 0p 0p 0p	ppm/°C ppm/°C ppm/°C ppm/°C v v %+15mV stant voltage (CV) / Co AX ans ms (no load) ns (full load) s s b 10 units 10 units 10 units 125VAC/250VAC, acting type g/12kg 0x44.0x447.0 mm RS485, RS232(Stand: perature 0~40°C, Relat ed air-cooling m nput <->DC output, 42	ppm/°C ppm/°C NV 0.1mV %+15mV 0.05%+15mV stant voltage (CV) / Constant current (CC) MAX AX ans ≤12ms stant voltage (CV) / Constant current (CC) MAX ans (no load) ≤15ms (no load) ≤15ms (no load) ≤15ms (full load) s ≤2ms s s b 10 units Up to 10 units b 10 units 9V 89% 7/OCP/OTP/OPP/SCP/FOLDBACK 125VAC/250VAC, astrong type g/12kg 9.2kg/12kg 0x44.0x447.0 mm RS485, RS232(Stand=rd); LAN, GPIB(Option) perature 0~40°C, Relative Humidity 10%~90%(no ed air-cooling 0m	pm/°C pm/°C NV 0.1mV 0.1mV %+15mV 0.05%+15mV 0.05%+15mV stant voltage (CV) / Constant current (CC) MAX ns (CV) / Constant current (CC) MAX s ≤12ms ≤10ms (full load) ≤150ms (no load) ≤150ms (no load) ≤15ms (full load) ≤150ms (no load) ≤15ms (full load) s ≤2ms ≤2ms ≤2ms s 2ms b 10 units Up to 10 units Up to 10 units b 10 units Up to 10 units Up to 10 units b 10 units 9V 12V 89% 89% COCP/OTP/OPP/SCP/FOLDBACK 125VAC/250VAC, add, 125VAC/250VAC, fast-acting type g/12kg 9.2kg/12kg 9.2kg/12kg 0x44.0x447.0 mm RS485, RS232(Standard); LAN, GPIB(Option) perature 0~40°C, Relative Humidity 10%~90%(no condensation); Pollution deg ed air-cooling Im puput <->DC output, 4242VDC, AC input <-> PE, 2121VDC	pm/"C $ivities in the second seco$	pm/*C         Juny         0.1mV         0.1mV         0.1mV         0.1mV         4mV           %+15mV         0.05%+15mV         0.05%+15mV         0.05%+15mV         0.1%+30mV           %tatan voltage (CV) / Constant current (CC)         Juny         0.1mV         0.1%+30mV           MAX         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)           MAX         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)           MAX         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)           MAX         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)           MAX         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)           Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)         Stant voltage (CV) / Constant current (CC)           Stant voltage (CV) / Constant current voltage (CV) / Constant current (CV)         Stant voltage (CV) / Constant current (CV)         Stant voltage (CV) / Constant current (CV)           Stanting (		

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

Model	SP20VDC1200W	SP32VDC1200W	SP40VDC1200W	SP75VDC1200W	SP150VDC1200W	SP200VDC1200W
Input Voltage	90~265VAC		Input			
nput Frequency	47~63Hz					
Power Factor	>0.98					
nput Power	1500VA(MAX)					
	1000171(111707)		Output			
Output Voltage Range	0~20V	0~32V	0~40V	0~75V	0~150V	0~200V
Output Current Range	0~60A	0~50A	0~40A	0~25A	0~10A	0~8A
Output Power Range	0~1200W					
/oltage Load Regulation	10mV	10mV	10mV	10mV	15mV	15mV
Current Load Regulation	60mA	50mA	40mA	25mA	10mA	8mA
/oltage Display Resolution	0.1mV	0.1mV	0.1mV	0.1mV	1mV	1mV
Current Display Resolution	0.2mA	0.2mA	0.2mA	0.2mA	0.2mA	0.1mA
/oltage Programmable Resolution	1.5mV	1.5mV	1.5mV	1.5mV	3mV	3mV
current Programmable Resolution	2mA	2mA	2mA	1mA	1mA	1mA
/oltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV
Current Setting Accuracy	0.1%+60mA	0.1%+50mA	0.1%+40mA	0.1%+25mA	0.1%+10mA	0.1%+8mA
/oltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV
Current Measurement Accuracy	0.1%+60mA	0.1%+50mA	0.1%+40mA	0.1%+25mA	0.1%+10mA	0.1%+8mA
/oltage Ripple <sup>[2]</sup>	40mVp-p 6mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	120mVp-p 40mVrms	120mVp-p 40mVrms
Current Ripple <sup>(3)</sup>	60mA (Full Range) 20mA (TYP Value)	50mA (Full Range) 20mA (TYP Value)	40mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)
ine Regulation(Voltage)	0.005%+1mV	0.005%+1mV	0.005%+1mV	0.005%+1mV	0.02%+8mV	0.02%+8mV
ine Regulation(Current)	4mA	4mA	4mA	4mA	10mA	30mA
'oltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C					
current Temperature Coefficient [4]	150ppm/°C					
OVM Resolution	0.1mV	0.1mV	0.1mV	0.1mV	4mV	1mV
VM Precision <sup>(1)</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+30mV	0.1%+15mV
perating Mode	Constant voltage (CV) / C	constant current (CC)				
Remote Compensation	4V MAX					
Aaster-slave Control	Yes					
esponse (Voltage Increase)	≤10ms	≤10ms	≤10ms	≤10ms	≤25ms	≤30ms
Response (Voltage Drop)	≤150ms (no load) ≤12ms (full load)	≤150ms (no load) ≤12ms (full load)	≤150ms (no load) ≤12ms (full load)	≤160ms (no load) ≤12ms (full load)	≤400ms (no load) ≤21ms (full load)	≤600ms (no load) ≤36ms (full load)
oad Transient Recovery Time [5]	≤2ms	≤2ms	≤2ms	≤2ms	≤3ms	≤3ms
command Response Time	50ms					
Series Capability 6	Up to 10 units	Up to 8 units	Up to 6 units			
Parallel Capability	Up to 10 units					
Current Sharing 71	9V	9V	12V	20V	40V	50V
fficiency (full load)	84%	84%	89%	90%	89%	90%
			Other			
Protection Function	OVP/OCP/OTP/OPP/SC	P/FOLDBACK				
nti Reverse rrigation Protection	Yes					
nput Fuse	20A, 125VAC/250VAC, fast-acting type	20A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC fast-acting type			
Init Weight/Shipping Weight	9.2kg/12kg	9.2kg/12kg	9.2kg/12kg	8.9kg/11.7kg	9.3kg/12.7kg	9.3kg/12.7kg
imensions(WxHxD)	423.0x44.0x447.0 mm					-
nterface	USB, RS485, RS232(Stand	dard); LAN, GPIB(Option)				
Dperating Environment			condensation); Pollution dec	gree 2, Installation category II	, Indoor use.	
Cooling Mode	Forced air-cooling		,,			
Altitude	2000m					
nsulation		242VDC, AC input <-> PE, 2				

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

Model	SP75VDC1500W	SP150VDC1500W	SP200VDC1500W
		Input	
Input Voltage	90~265VAC		
Input Frequency	47~63Hz		
Power Factor	>0.98		
Input Power	1900VA(MAX)		
		Output	
Output Voltage Range	0~75V	0~150V	0~200V
Output Current Range	0~25A	0~10A	0~8A
Output Power Range	0~1500W		
Voltage Load Regulation	10mV	15mV	15mV
Current Load Regulation	25mA	10mA	8mA
Voltage Display Resolution	0.1mV	1mV	1mV
Current Display Resolution	0.2mA	0.2mA	0.1mA
Voltage Programmable Resolution	1.5mV	3mV	3mV
Current Programmable Resolution	1mA	1mA	1mA
Voltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV
Current Setting Accuracy	0.1%+25mA	0.1%+10mA	0.1%+8mA
Voltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV	0.1%+15mV	0.1%+15mV
Current Measurement Accuracy	0.1%+25mA	0.1%+10mA	0.1%+8mA
Voltage Ripple [2]	40mVp-p 6mVrms	120mVp-p 40mVrms	120mVp-p 40mVrms
Current Ripple <sup>[3]</sup>	25mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)	40mA (Full Range) 10mA (TYP Value)
Line Regulation(Voltage)	0.005%+2mV	0.02%+8mV	0.02%+8mV
Line Regulation(Current)	4mA	10mA	30mA
Voltage Temperature Coefficient [4]	100ppm/°C		
Current Temperature Coefficient [4]	150ppm/°C		
DVM Resolution	0.1mV	4mV	1mV
DVM Precision [1]	0.05%+15mV	0.1%+30mV	0.1%+15mV
Operating Mode	Constant voltage (CV) / Constant current (CC)		
Remote Compensation	4V MAX		
Master-slave Control	Yes		
Response (Voltage Increase)	≤10ms	≤25ms	≤30ms
Response (Voltage Drop)	≤160ms (no load) ≤10ms (full load)	≤400ms (no load) ≤18ms (full load)	≤600ms (no load) ≤30ms (full load)
Load Transient Recovery Time 15	≤2ms	≤3ms	≤3ms
Command Response Time	50ms		
Series Capability [6]	Up to 10 units	Up to 8 units	Up to 6 units
Parallel Capability	Up to 10 units		
Current Sharing 7	20V	40V	50V
Efficiency (full load)	91%	90%	91%
		Other	
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLDBACK		
Anti Reverse Irrigation Protection	Yes		
Input Fuse	30A, 125VAC/250VAC, fast-acting type		
Unit Weight/Shipping Weight	8.9kg/11.7kg	9.3kg/12.7kg	9.3kg/12.7kg
Dimensions(WxHxD)	423.0x44.0x447.0 mm		
Interface	USB, RS485, RS232(Standard); LAN, GPIB(Option)	1	
Operating Environment	Temperature 0~40°C, Relative Humidity 10%~90%		ation category II, Indoor use.
Cooling Mode	Forced air-cooling		
Altitude	2000m		
Insulation	AC input <->DC output, 4242VDC, AC input <-> P	E, 2121VDC	
[1] % output+offcot when output v	oltage less than 5V, offset voltage is 30mV.		

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

Model	SP32VDC1600W		SP40VDC1600W
		Input	
Input Voltage	90~265VAC		
Input Frequency	47~63Hz		
Power Factor	>0.98		
Input Power	2000VA(MAX)		
		Output	
Output Voltage Range	0~32V		0~40V
Output Current Range	0~50A		0~40A
Output Power Range	0~1600W		
Voltage Load Regulation	10mV		
Current Load Regulation	50mA		40mA
Voltage Display Resolution	0.1mV		
Current Display Resolution	0.2mA		
Voltage Programmable Resolution	1.5mV		
Current Programmable Resolution	2mA		
Voltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV		
Current Setting Accuracy	0.1%+50mA		0.1%+40mA
Voltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV		0.05%+15mV
Current Measurement Accuracy	0.1%+50mA		0.1%+40mA
Voltage Ripple <sup>[2]</sup>	40mVp-p 6mVrms		
Current Ripple <sup>[3]</sup>	50mA (Full Range)		40mA (Full Range)
	20mA (TYP Value)		20mA (TYP Value)
Line Regulation(Voltage)	0.005%+1mV		
Line Regulation(Current)	4mA		
Voltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C		
Current Temperature Coefficient (4)	150ppm/°C		
DVM Resolution	0.1mV		
DVM Precision <sup>[1]</sup>	0.05%+15mV		
Operating Mode	Constant voltage (CV) / Constant current (CC)		
Remote Compensation	4V MAX		
Master-slave Control	Yes		
Response (Voltage Increase)	≤12ms		≤10ms
Response (Voltage Drop)	≤150ms (no load) ≤10ms (full load)		
Load Transient Recovery Time <sup>[5]</sup>	≤2ms		
Command Response Time	50ms		
Series Capability 6	Up to 10 units		
Parallel Capability	Up to 10 units		
Current Sharing 7	9V		12V
Efficiency (full load)	89%		90%
		Other	
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLDBACK		
Anti Reverse Irrigation Protection	Yes		
Input Fuse	30A, 125VAC/250VAC, fast-acting type		
Unit Weight/Shipping Weight	9.2kg/12kg		
Dimensions(WxHxD)	423.0x44.0x447.0 mm		
Interface	USB, RS485, RS232(Standard); LAN, GPIB(Option)		
Operating Environment	Temperature 0~40°C, Relative Humidity 10%~90%(no conden	sation): Pollution dear	e 2 Installation category II Indoor use
Cooling Mode	Forced air-cooling	sation, ronution degre	a Lymolananon outogory ny matori aoo.
Altitude	2000m		
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC	<u>^</u>	
	AC input <->PE, 2121VDC		

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

## 1000W in 2U(1)

Model	SPS32VDC1000W	SPS40VDC1000W	SPS80VDC1000W	SPS120VDC1000W
		Input		
Input Voltage	90~265VAC			
Input Frequency	47~63Hz			
Power Factor	>0.98	>0.98	>0.97	>0.98
Input Power	1500VA(MAX)	1300VA(MAX)	1200VA(MAX)	1300VA(MAX)
		Output		
Output Voltage Range	0~32V	0~40V	0~80V	0~120V
Output Current Range	0~200A	0~120A	0~60A	0~40A
Output Power Range	0~1000W			
Voltage Load Regulation	30mV	15mV	15mV	15mV
Current Load Regulation	200mA	120mA	60mA	40mA
Voltage Display Resolution	0.1mV	0.1mV	0.1mV	1mV
Current Display Resolution	1mA	1mA	0.2mA	0.1mA
Voltage Programmable Resolution	1mV	1mV	1.5mV	3mV
Current Programmable Resolution	6mA	3mA	2mA	1mA
Voltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV
Current Setting Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA
Voltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV
Current Measurement Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA
Voltage Ripple <sup>[2]</sup>	60mVp-p 10mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	80mVp-p 15mVrms
Current Ripple <sup>(3)</sup>	400mA (Full Range) 200mA (TYP Value)	150mA (Full Range) 20mA (TYP Value)	50mA (Full Range) 10mA (TYP Value)	60mA (Full Range) 10mA (TYP Value)
Line Regulation(Voltage)	0.01%+8mV	0.02%+8mV	0.01%+8mV	0.02%+8mV
Line Regulation(Current)	200mA	30mA	30mA	40mA
Voltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C			
Current Temperature Coefficient <sup>14</sup>	150ppm/°C			
DVM Resolution	0.1mV	0.1mV	0.1mV	1mV
DVM Precision <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV
Operating Mode	Constant voltage (CV) / Constant current	(CC)		
Remote Compensation	4V MAX	4V MAX	4V MAX	5V MAX
Master-slave Control	Yes			
Response (Voltage Increase)	≤20ms (no load) ≤40ms (full load)	≤10ms	≤15ms	≤20ms
Response (Voltage Drop)	≤500ms (no load) ≤45ms (full load)	≤350ms (no load) ≤10ms (full load)	≤450ms (no load) ≤30ms (full load)	≤350ms (no load) ≤21ms (full load)
Load Transient Recovery Time [5]	≤2ms			
Command Response Time	50ms			
Series Capability <sup>[6]</sup>	Up to 10 units			
Parallel Capability	Up to 10 units			
Current Sharing <sup>[7]</sup>	12V	12V	20V	30V
Efficiency (full load)	85%	87%	89%	88%
· · · · ·	· · · · · · · · · · · · · · · · · · ·	Other		
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLDBACK			
Anti Reverse Irrigation Protection	No(customers can purchase other accessories to achieve this function, please consult the	Yes	Yes	Yes
Input Fuse	salesrepresentative for details) 20A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type
Unit Weight/Shipping Weight	14.7kg/18.7kg	14.7kg/18.7kg	13.2kg/16.8kg	13.2kg/16.8kg
Dimensions(WxHxD)	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm
× ,			420.0x07.0x409.0 mm	420.0007.00409.01111
Interface Operating Environment	USB, RS485, RS232(Standard); LAN, GPI Temperature 0~40°C, Relative Humidity 1		degree 2 Installation category II. Indoor	lise
Cooling Mode			asg. es 2, motuliation category 11, 110001	
cooning mode	Forced air-cooling			
Altitude	2000m			

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

### 1000W in 2U(2)

Model	SPS150VDC1000W	SPS200VDC1000W	SPS600VDC1000W	SPS800VDC1000W		
Input Voltage	00 2651/40	Input				
nput Voltage	90~265VAC					
nput Frequency Power Factor	47~63Hz >0.98					
nput Power	1300VA(MAX)	Output				
Dutput Voltage Range	0~150V	0~200V	0~600V	0~800V		
Output Current Range	0~30A	0~24A	0~10A	0~7.5A		
Output Power Range	0~1000W	0240	010A	0.7.34		
Voltage Load Regulation	15mV	15mV	30mV	200mV		
Current Load Regulation	30mA	24mA	10mA	20mA		
/oltage Display Resolution	1mV	2-1103	10m/	2011/1		
Current Display Resolution	0.1mA					
/oltage Programmable Resolution	3mV	4mV	12mV	24mV		
Current Programmable Resolution	1mA		12.111	271117		
Voltage Setting Accuracy <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Setting Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
/oltage Measurement Accuracy <sup>(1)</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Measurement Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
	80mVp-p	150mVp-p	350mVp-p	800mVp-p		
Voltage Ripple <sup>[2]</sup>	15mVrms	30mVrms	40mVrms	200mVrms		
Current Ripple <sup>[3]</sup>	60mA (Full Range) 10mA (TYP Value)	50mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)		
ine Regulation(Voltage)	0.02%+8mV	0.02%+8mV	0.01%+30mV	0.01%+40mV		
ine Regulation(Current)	30mA	30mA	15mA	15mA		
/oltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C			·		
Current Temperature Coefficient [4]	150ppm/°C					
OVM Resolution	1mV	1mV	12mV	12mV		
OVM Precision [1]	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Operating Mode	Constant voltage (CV) / Constant	current (CC)				
Remote Compensation	5V MAX					
Aaster-slave Control	Yes					
Response (Voltage Increase)	≤25ms	≤30ms	≤60ms	≤60ms		
Response (Voltage Drop)	≤500ms (no load) ≤25ms (full load)	≤500ms (no load) ≤35ms (full load)	≤800ms (no load) ≤110ms (full load)	≤800ms (no load) ≤60ms (full load)		
oad Transient Recovery Time <sup>(5)</sup>	≤2ms	≤2ms	≤3ms	≤3ms		
Command Response Time	50ms					
Series Capability <sup>[6]</sup>	Up to 8 units	Up to 6 units	Up to 2 units	NotRecommended		
Parallel Capability	Up to 10 units					
Current Sharing <sup>171</sup>	40V	50V	200V	250V		
fficiency (full load)	88%	88%	86%	85%		
		Other				
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLD	BACK				
Anti Reverse rrigation Protection	Yes					
nput Fuse	30A, 125VAC/250VAC, fast-acting type					
Init Weight/Shipping Weight	13.2kg/16.8kg	14.7kg/18.7kg	13.2kg/16.8kg	13.2kg/16.8kg		
imensions(WxHxD)	423.0x87.0x469.0 mm 423.0x87.0x469.0 mm 423.0x87.0x514.0 mm 423.0x87.0x514.0 mm					
nterface	USB, RS485, RS232(Standard); L	AN, GPIB(Option)				
Operating Environment	Temperature 0~40°C, Relative Hu	midity 10%~90%(no condensation); Pollution	n degree 2, Installation category II, Indoor	use.		
Cooling Mode	Forced air-cooling					
Altitude	2000m					
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC					

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.
 [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

## 2000W in 2U(1)

Model	SP32VDC2000W	SP40VDC2000W	SP80VDC2000W	SP120VDC2000W	
		Input			
Input Voltage	190~265VAC				
Input Frequency	47~63Hz				
Power Factor	>0.98				
Input Power	2600VA(MAX)	2400VA(MAX)	2400VA(MAX)	2400VA(MAX)	
		Output			
Output Voltage Range	0~32V	0~40V	0~80V	0~120V	
Output Current Range	0~200A	0~120A	0~60A	0~40A	
Output Power Range	0~2000W				
Voltage Load Regulation	30mV	15mV	15mV	15mV	
Current Load Regulation	200mA	120mA	60mA	40mA	
Voltage Display Resolution	0.1mV	0.1mV	0.1mV	1mV	
Current Display Resolution	1mA	1mA	0.2mA	0.1mA	
Voltage Programmable Resolution	1mV	1mV	1.5mV	3mV	
Current Programmable Resolution	6mA	3mA	2mA	1mA	
Voltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	
Current Setting Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA	
Voltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	
Current Measurement Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA	
Voltage Ripple <sup>[2]</sup>	60mVp-p 10mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	80mVp-p 15mVrms	
Current Ripple <sup>[3]</sup>	400mA (Full Range) 200mA (TYP Value)	150mA (Full Range) 20mA (TYP Value)	50mA (Full Range) 10mA (TYP Value)	60mA (Full Range) 10mA (TYP Value)	
Line Regulation(Voltage)	0.01%+8mV	0.01%+8mV	0.01%+8mV	0.02%+8mV	
Line Regulation(Current)	200mA	30mA	30mA	30mA	
Voltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C				
Current Temperature Coefficient [4]	150ppm/°C				
DVM Resolution	0.1mV	0.1mV	0.1mV	1mV	
DVM Precision [1]	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	
Operating Mode	Constant voltage (CV) / Constant current	t (CC)			
Remote Compensation	4V MAX	4V MAX	4V MAX	5V MAX	
Master-slave Control	Yes				
Response (Voltage Increase)	≤20ms (no load) ≤30ms (full load)	≤10ms	≤15ms	≤20ms	
Response (Voltage Drop)	≤500ms (no load) ≤30ms (full load)	≤350ms (no load) ≤10ms (full load)	≤450ms (no load) ≤30ms (full load)	≤350ms (no load) ≤21ms (full load)	
Load Transient Recovery Time <sup>[5]</sup>	≤2ms	≤2ms	≤2ms	≤3ms	
Command Response Time	50ms				
Series Capability 6	Up to 10 units	Up to 10 units	Up to 10 units	Up to 8 units	
Parallel Capability	Up to 10 units				
Current Sharing 71	12V	12V	20V	30V	
Efficiency (full load)	91%	88%	89%	89%	
	·	Other	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLDBACK				
Anti Reverse Irrigation Protection	No(customers can purchase other accessories to achieve this function, please consult the	Yes	Yes	Yes	
Input Fuse	salesrepresentative for details) 20A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	
Unit Weight/Shipping Weight	14.7kg/18.7kg	14.7kg/18.7kg	13.2kg/16.8kg	13.2kg/16.8kg	
	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm	
Dimensions(WxHxD)			120.0007.00409.011111	420.0007.00409.0 11111	
Interface	USB, RS485, RS232(Standard); LAN, GPI			100	
Operating Environment		io %~90%(no condensation); Pollution	n degree 2, Installation category II, Indoor	use.	
Cooling Mode	Forced air-cooling				
Altitude	2000m				
Insulation	AC input <->DC output, 4242VDC, AC in	put <-> PE, 2121VDC			

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

## 2000W in 2U(2)

Model	SP150VDC2000W	SP200VDC2000W	SP600VDC2000W	SP800VDC2000W		
		Input				
Input Voltage	190~265VAC					
nput Frequency	47~63Hz					
Power Factor	>0.98					
nput Power	2400VA(MAX)					
		Output				
Output Voltage Range	0~150V	0~200V	0~600V	0~800V		
Output Current Range	0~30A	0~24A	0~10A	0~7.5A		
Output Power Range	0~2000W					
/oltage Load Regulation	15mV	15mV	30mV	200mV		
Current Load Regulation	30mA	24mA	10mA	20mA		
/oltage Display Resolution	1mV					
Current Display Resolution	0.1mA					
/oltage Programmable Resolution	3mV	4mV	12mV	24mV		
Current Programmable Resolution	1mA					
/oltage Setting Accuracy <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Setting Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
/oltage Measurement Accuracy <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Measurement Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
/oltage Ripple <sup>[2]</sup>	40mVp-p 6mVrms	150mVp-p 30mVrms	350mVp-p 40mVrms	800mVp-p 200mVrms		
Current Ripple <sup>[3]</sup>	60mA (Full Range) 10mA (TYP Value)	50mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)		
Line Regulation(Voltage)	0.02%+8mV	0.02%+8mV	0.01%+30mV	0.01%+40mV		
ine Regulation(Current)	30mA	30mA	15mA	20mA		
/oltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C					
Current Temperature Coefficient 14	150ppm/°C					
OVM Resolution	1mV	1mV	12mV	12mV		
OVM Precision [1]	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Dperating Mode	Constant voltage (CV) / Constan	t current (CC)				
Remote Compensation	5V MAX					
Master-slave Control	Yes					
Response (Voltage Increase)	≤25ms	≤30ms	≤60ms	≤60ms		
Response (Voltage Drop)	≤500ms (no load) ≤25ms (full load)	≤500ms (no load) ≤20ms (full load)	≤800ms (no load) ≤90ms (full load)	≤800ms (no load) ≤60ms (full load)		
oad Transient Recovery Time <sup>(5)</sup>	≤3ms					
Command Response Time	50ms					
Series Capability <sup>6</sup>	Up to 8 units	Up to 6 units	Up to 2 units	Not Recommended		
Parallel Capability	Up to 10 units	op to o anito				
Current Sharing 7	40V	50V	200V	250V		
Efficiency (full load)	90%	90%	90%	91%		
		Other	2078			
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLD					
Anti Reverse rrigation Protection	Yes					
nput Fuse	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	20A, 125VAC/250VAC, fast-acting type	20A, 125VAC/250VAC, fast-acting type		
Init Weight/Shipping Weight	13.2kg/16.8kg	13.2kg/16.8kg	14.7kg/18.7kg	14.7kg/18.7kg		
vimensions(WxHxD)	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm		
nterface	USB, RS485, RS232(Standard); LAN, GPIB(Option)					
Operating Environment	Temperature 0~40°C, Relative Hu	midity 10%~90%(no condensation); Pollutio	on degree 2, Installation category II, Indoor	use.		
Cooling Mode	Forced air-cooling					
Altitude	2000m					
nsulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC					

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.
 [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

## **3000W in 2U(1)**

Model	SP32VDC3000W	SP40VDC3000W	SP80VDC3000W	SP120VDC3000W		
		Input				
nput Voltage	190~265VAC					
nput Frequency	47~63Hz					
Power Factor	>0.98					
nput Power	3700VA(MAX)	3400VA(MAX)	3400VA(MAX)	3400VA(MAX)		
		Output				
Output Voltage Range	0~32V	0~40V	0~80V	0~120V		
Output Current Range	0~200A	0~120A	0~60A	0~40A		
Output Power Range	0~3000W					
/oltage Load Regulation	30mV	15mV	15mV	15mV		
Current Load Regulation	200mA	120mA	60mA	40mA		
Voltage Display Resolution	0.1mV	0.1mV	0.1mV	1mV		
Current Display Resolution	1mA	1mA	0.2mA	0.1mA		
/oltage Programmable Resolution	1mV	1mV	1.5mV	3mV		
Current Programmable Resolution	6mA	2mA	2mA	1mA		
Voltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV		
Current Setting Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA		
/oltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV		
Current Measurement Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA		
Voltage Ripple <sup>[2]</sup>	60mVp-p 10mVrms	40mVp-p 6mVrms	40mVp-p 6mVrms	80mVp-p 15mVrms		
Current Ripple 🛛	400mA (Full Range) 200mA (TYP Value)	150mA (Full Range) 20mA (TYP Value)	50mA (Full Range) 10mA (TYP Value)	60mA (Full Range) 10mA (TYP Value)		
ine Regulation(Voltage)	0.01%+8mV	0.01%+8mV	0.01%+8mV	0.02%+8mV		
ine Regulation(Current)	200mA	30mA	30mA	30mA		
/oltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C					
Current Temperature Coefficient <sup>(4)</sup>	150ppm/°C					
DVM Resolution	0.1mV	0.1mV	0.1mV	1mV		
OVM Precision <sup>(1)</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV		
Operating Mode	Constant voltage (CV) / Constant curren	t (CC)				
Remote Compensation	4V MAX	4V MAX	4V MAX	5V MAX		
Master-slave Control	Yes					
Response (Voltage Increase)	≤20ms (no load) ≤20ms (full load)	≤10ms	≤15ms	≤20ms		
Response (Voltage Drop)	≤500ms (no load) ≤25ms (full load)	≤350ms (no load) ≤10ms (full load)	≤450ms (no load) ≤30ms (full load)	≤350ms (no load) ≤21ms (full load)		
oad Transient Recovery Time	≤2ms					
Command Response Time	50ms					
Series Capability 6	Up to 10 units					
Parallel Capability	Up to 10 units					
Current Sharing <sup>[7]</sup>	12V	12V	20V	30V		
Efficiency (full load)	91%	88%	91%	91%		
		Other				
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLDBACK					
Anti Reverse	No(customers can purchase other accessories					
rrigation Protection	to achieve this function, please consult the salesrepresentative for details)	Yes	Yes	Yes		
nput Fuse	30A, 125VAC/250VAC, fast-acting type	40A, 125VAC/250VAC, fast-acting type	40A, 125VAC/250VAC, fast-acting type	40A, 125VAC/250VAC, fast-acting type		
Jnit Weight/Shipping Weight	14.7kg/18.7kg	14.7kg/18.7kg	13.2kg/16.8kg	13.2kg/16.8kg		
Dimensions(WxHxD)	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm		
nterface	USB, RS485, RS232(Standard); LAN, GP	B(Option)				
Operating Environment	Temperature 0~40°C, Relative Humidity	10%~90%(no condensation); Pollutior	degree 2, Installation category II, Indoor	use.		
Cooling Mode	Forced air-cooling					
Altitude	2000m					
Insulation	AC input <->DC output, 4242VDC, AC ir	uput <-> PE. 2121VDC				

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

#### **3000W in 2U(2)**

Model	SP150VDC3000W	SP200VDC3000W	SP600VDC3000W	SP800VDC3000W		
		Input				
nput Voltage	190~265VAC					
nput Frequency	47~63Hz					
Power Factor	>0.98					
nput Power	3400VA(MAX)					
		Output				
Output Voltage Range	0~150V	0~200V	0~600V	0~800V		
Output Current Range	0~30A	0~24A	0~10A	0~7.5A		
Output Power Range	0~3000W					
Voltage Load Regulation	15mV	15mV	30mV	200mV		
Current Load Regulation	30mA	24mA	10mA	20mA		
Voltage Display Resolution	1mV					
Current Display Resolution	0.1mA					
/oltage Programmable Resolution	3mV	4mV	12mV	24mV		
Current Programmable Resolution	1mA					
Voltage Setting Accuracy <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Setting Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
/oltage Measurement Accuracy <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Measurement Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
Voltage Ripple <sup>[2]</sup>	80mVp-p 15mVrms	150mVp-p 30mVrms	350mVp-p 40mVrms	800mVp-p 200mVrms		
Current Ripple <sup>(3)</sup>	60mA (Full Range) 10mA (TYP Value)	50mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)		
Line Regulation(Voltage)	0.02%+8mV	0.02%+8mV	0.01%+30mV	0.01%+40mV		
ine Regulation(Current)	30mA	30mA	15mA	20mA		
Voltage Temperature Coefficient [4]	100ppm/°C					
Current Temperature Coefficient [4]	150ppm/°C					
DVM Resolution	1mV	1mV	12mV	12mV		
DVM Precision <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Operating Mode	Constant voltage (CV) / Constant	current (CC)				
Remote Compensation	5V MAX					
Master-slave Control	Yes					
Response (Voltage Increase)	≤25ms	≤30ms	≤60ms	≤60ms		
Response (Voltage Drop)	≤500ms (no load) ≤25ms (full load)	≤500ms (no load) ≤20ms (full load)	≤800ms (no load) ≤75ms (full load)	≤800ms (no load) ≤60ms (full load)		
Load Transient Recovery Time <sup>(5)</sup>	≤2.5ms	≤3ms	≤3ms	≤3ms		
Command Response Time	50ms					
Series Capability <sup>161</sup>	Up to 8 units	Up to 6 units	Up to 2 units	Not Recommended		
Parallel Capability	Up to 10 units					
Current Sharing <sup>[7]</sup>	40V	50V	200V	250V		
Efficiency (full load)	92%	91%	91%	91%		
		Other	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLD					
Anti Reverse Irrigation Protection	Yes					
Input Fuse	40A, 125VAC/250VAC, fast-acting type	40A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type	30A, 125VAC/250VAC, fast-acting type		
Jnit Weight/Shipping Weight	13.2kg/16.8kg	13.2kg/16.8kg	14.7kg/18.7kg	14.7kg/18.7kg		
Dimensions(WxHxD)	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm		
nterface	USB, RS485, RS232(Standard); L/					
Dperating Environment		midity 10%~90%(no condensation); Pollution	n degree 2 Installation category IL Indoor	9211		
Cooling Mode	•	many 1070 9076(no condensation), Poliution	racgive 2, instantion category II, III000			
Jooning Mode	Forced air-cooling					
Altitude		2000m AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC				

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.
 [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

## 4000W in 2U(1)

Model	SP32VDC4000W	SP40VDC4000W	SP75VDC4000W	SP120VDC4000W	
		Input			
Input Voltage	190~265VAC				
Input Frequency	47~63Hz				
Power Factor	>0.98				
Input Power	4800VA(MAX)	4500VA(MAX)	4500VA(MAX)	4500VA(MAX)	
		Output			
Output Voltage Range	0~32V	0~40V	0~75V	0~120V	
Output Current Range	0~200A	0~120A	0~60A	0~40A	
Output Power Range	0~4000W				
Voltage Load Regulation	30mV	15mV	15mV	15mV	
Current Load Regulation	200mA	120mA	60mA	40mA	
Voltage Display Resolution	0.1mV	0.1mV	0.1mV	1mV	
Current Display Resolution	1mA	1mA	0.1mA	0.1mA	
Voltage Programmable Resolution	1mV	1mV	2mV	3mV	
Current Programmable Resolution	бmА	3mA	2mA	1mA	
Voltage Setting Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV	
Current Setting Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA	
Voltage Measurement Accuracy <sup>[1]</sup>	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV	
Current Measurement Accuracy	0.1%+200mA	0.1%+120mA	0.1%+60mA	0.1%+40mA	
Voltage Ripple <sup>[2]</sup>	60mVp-p 10mVrms	40mVp-p 6mVrms	40mVp-p 8mVrms	80mVp-p 15mVrms	
Current Ripple <sup>[3]</sup>	400mA (Full Range) 200mA (TYP Value)	150mA (Full Range) 20mA (TYP Value)	60mA (Full Range) 10mA (TYP Value)	60mA (Full Range) 10mA (TYP Value)	
Line Regulation(Voltage)	0.01%+8mV	0.01%+8mV	0.01%+8mV	0.02%+8mV	
Line Regulation(Current)	200mA	30mA	30mA	30mA	
Voltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C				
Current Temperature Coefficient [4]	150ppm/°C				
DVM Resolution	0.1mV	0.1mV	0.1mV	1mV	
DVM Precision <sup>(1)</sup>	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.1%+15mV	
Operating Mode	Constant voltage (CV) / Constant curren	t (CC)			
Remote Compensation	4V MAX	4V MAX	5V MAX	5V MAX	
Master-slave Control	Yes				
Response (Voltage Increase)	≤20ms (no load) ≤20ms (full load)	≤10ms	≤15ms	≤20ms	
Response (Voltage Drop)	≤500ms (no load) ≤20ms (full load)	≤350ms (no load) ≤10ms (full load)	≤450ms (no load) ≤20ms (full load)	≤350ms (no load) ≤21ms (full load)	
Load Transient Recovery Time [5]	≤2ms				
Command Response Time	50ms				
Series Capability 6	Up to 10 units				
Parallel Capability	Up to 10 units				
Current Sharing <sup>[7]</sup>	12V	12V	20V	30V	
Efficiency (full load)	91%	91%	91%	92%	
	·	Other	· · · · · · · · · · · · · · · · · · ·		
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLDBACK				
Anti Reverse Irrigation Protection	No(customers can purchase other accessories to achieve this function, please consult the salesrepresentative for details)	Yes	Yes	Yes	
Input Fuse	40A, 125VAC/250VAC, fast-acting type				
Unit Weight/Shipping Weight	14.7kg/18.7kg	14.7kg/18.7kg	13.2kg/16.8kg	13.2kg/16.8kg	
Dimensions(WxHxD)	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm	
Interface	USB, RS485, RS232(Standard); LAN, GP				
Operating Environment	, , ,	,	degree 2, Installation category II, Indoor	use.	
Cooling Mode	Forced air-cooling		,		
Altitude	2000m				
Insulation	AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC				
madation	voltage less than 5V, offset voltage is 30mV.	•			

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value. [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

### 4000W in 2U(2)

Model	SP150VDC4000W	SP200VDC4000W	SP600VDC4000W	SP800VDC4000W		
		Input				
Input Voltage	190~265VAC					
Input Frequency	47~63Hz					
Power Factor	>0.98					
nput Power	4500VA(MAX)					
		Output				
Output Voltage Range	0~150V	0~200V	0~600V	0~800V		
Output Current Range	0~30A	0~24A	0~10A	0~7.5A		
Output Power Range	0~4000W					
/oltage Load Regulation	15mV	25mV	30mV	200mV		
Current Load Regulation	30mA	24mA	10mA	20mA		
/oltage Display Resolution	1mV					
Current Display Resolution	0.1mA					
/oltage Programmable Resolution	3mV	4mV	12mV	24mV		
Current Programmable Resolution	1mA					
Voltage Setting Accuracy <sup>[1]</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Setting Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
/oltage Measurement Accuracy <sup>(1)</sup>	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Current Measurement Accuracy	0.1%+30mA	0.1%+24mA	0.1%+10mA	0.1%+7.5mA		
Voltage Ripple <sup>[2]</sup>	80mVp-p 15mVrms	150mVp-p 30mVrms	350mVp-p 40mVrms	800mVp-p 200mVrms		
Current Ripple <sup>[3]</sup>	60mA (Full Range) 10mA (TYP Value)	50mA (Full Range) 20mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)	25mA (Full Range) 10mA (TYP Value)		
Line Regulation(Voltage)	0.02%+8mV	0.02%+8mV	0.01%+30mV	0.01%+40mV		
ine Regulation(Current)	30mA	30mA	15mA	20mA		
/oltage Temperature Coefficient <sup>[4]</sup>	100ppm/°C					
Current Temperature Coefficient [4]	150ppm/°C					
OVM Resolution	1mV	1mV	12mV	12mV		
OVM Precision [1]	0.1%+15mV	0.1%+15mV	0.05%+150mV	0.05%+200mV		
Operating Mode	Constant voltage (CV) / Constant	current (CC)				
Remote Compensation	5V MAX					
Master-slave Control	Yes					
Response (Voltage Increase)	≤25ms	≤30ms	≤60ms	≤60ms		
Response (Voltage Drop)	≤500ms (no load) ≤25ms (full load)	≤500ms (no load) ≤20ms (full load)	≤800ms (no load) ≤60ms (full load)	≤800ms (no load) ≤60ms (full load)		
oad Transient Recovery Time <sup>(5)</sup>	≤2.5ms	≤3ms	≤3ms	≤3ms		
Command Response Time	50ms					
Series Capability <sup>[6]</sup>	Up to 8 units	Up to 6 units	Up to 2 units	NotRecommended		
Parallel Capability	Up to 10 units					
Current Sharing <sup>171</sup>	40V	50V	200V	250V		
fficiency (full load)	93%	92%	92%	92%		
		Other				
Protection Function	OVP/OCP/OTP/OPP/SCP/FOLD	BACK				
Anti Reverse rrigation Protection	Yes					
nput Fuse	40A, 125VAC/250VAC, fast-acting type					
Init Weight/Shipping Weight	13.2kg/16.8kg	13.2kg/16.8kg	14.7kg/18.7kg	14.7kg/18.7kg		
imensions(WxHxD)	423.0x87.0x469.0 mm	423.0x87.0x469.0 mm	423.0x87.0x514.0 mm	423.0x87.0x514.0 mm		
nterface	USB, RS485, RS232(Standard); L	AN, GPIB(Option)				
Dperating Environment	Temperature 0~40°C, Relative Hu	midity 10%~90%(no condensation); Pollutio	n degree 2, Installation category II, Indoor	use.		
Cooling Mode	Forced air-cooling					
Altitude	2000m					
	AC input <->DC output, 4242VDC, AC input <-> PE, 2121VDC					

[1] %output+offset, when output voltage less than 5V, offset voltage is 30mV.

[2] Vp-p@20MHz, Vrms@1.25MHz.

The 20V/32V/40V/75V models voltage ripple is 50mVp-p/6mVrms @ 1V. For the 600V and 800V models, the voltage ripple from 0~5V is out of the range show above.

[3] Arms@1.25MHz, the TYP Value is measured at the rated output voltage with 100% resistive load, and the measured value at full range of output voltage with 100% resistive load is less than the Full Range value.
 [4] 0~40°C.

[5] Time for output voltage to recover within 0.5% (0.75% @800V models) of its rated output for a load change from 10% to 90% of its rated output current. Voltage set point from 10% to 90% of rated output. [6] The communication must insulated users from output when using remote control and the output voltage exceeds 800VDC.

[7] Current Share error le<(lav\*2.5% + 5% F.S) A, F.S is the full scale of the current. lav=lsum/n, where lav is average current, lsum is total current and n is number of parallel units.

Note: Output voltage must be higher than 30% of maximum output voltage when Current Share function properly.

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