

# SPS-M/A Series DC Power Supply System

- High Efficiency
- High Precision
- High Stability

# SPS-M/A Series DC Power Supply System

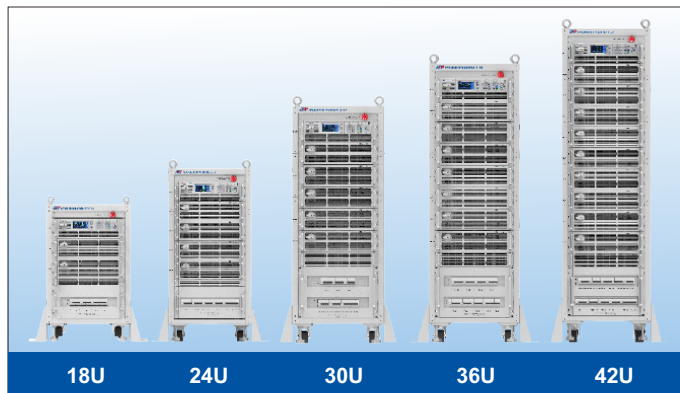
## SPS-M/A Series DC Power Supply System

The SPS-M/A Series DC Power Supply System supports two series cabinets based on the control mode : SPSM and SPSA. The maximum output voltage and current of a single cabinet is up to 2250V and 3000A respectively. Output power of a single cabinet is up to 180kW. Support master-slave configuration to increase the output capacity to 576kW.

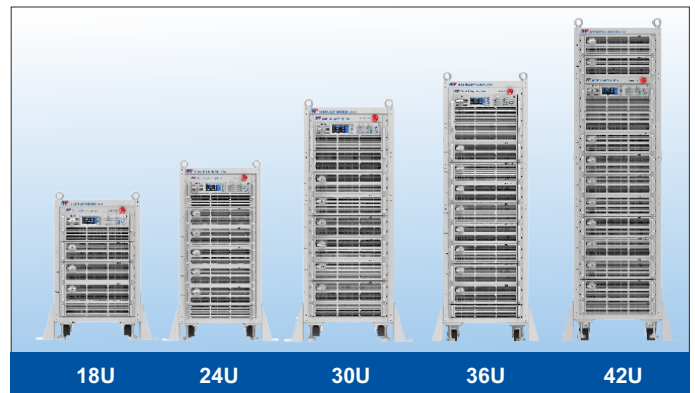
SPSM series cabinets use world famous circuit breaker to control the input of each power module inside. After power on, the specified 3U or 6U height power supply will be configured as a Master to control all of the slave units.

CSP is the Master in SPSA series cabinets, which is equipped with a PDU (Power Distribution Unit) and a CSP (Control & Supervisory Panel). The PDU consolidate microprocessor and management of hundreds of thousand VA AC mains in a 5U/8U height chassis. The CSP will display the input and output parameters of this system. The touchpanel provides a complete, intuitive user interface for users to easily manage all configuration, setup and update. Full protection designs prevent potential injury.

Manual Type



Automatic Type



## System Configuration

SPSM Series Cabinets					
Cabinet Height	18U	24U	30U	36U	42U
Capacity for Power Supplies	9U	15U	18U	24U	30U
Capacity (3U height unit)	3	4~5	4~6	7~8	9~10
Capacity (6U height unit)	1	2	3	4	5
PDU Height	4U	4U	7U	7U	7U
EMS Panel Height	1U	1U	1U	1U	1U
Cabinet Frame	2U	2U	2U	2U	2U
Wiring Height	2U	2U	2U	2U	2U

SPSA Series Cabinets					
Cabinet Height	18U	24U	30U	36U	42U
Capacity for Power Supplies	9U	15U	18U	24U	30U
Capacity (3U height unit)	3	4~5	4~6	7~8	9~10
Capacity (6U height unit)	1	2	3	4	5
CSP Height	5U	5U	8U	8U	8U
Cabinet Frame	2U	2U	2U	2U	2U
Wiring Height	2U	2U	2U	2U	2U

Note: PDU or CSP will be equipped based on the connected DC power supplies.

Rated Voltage	Output		Model (Manual Type)	Model (Automatic Type)	Size	Certificates
	Rated Power	Rated Current				
80V	36KW	1200A	SPSM80VDC36000W-3-18	SPSA80VDC36000W-3-18	18U (1)	CE
	54KW	1800A	SPSM80VDC54000W-3-18	SPSA80VDC54000W-3-18	24U (2)	
	72KW	2400A	SPSM80VDC72000W-3-24	SPSA80VDC72000W-3-24		
	90KW	3000A	SPSM80VDC90000W-3-24	SPSA80VDC90000W-3-24	30U (3)	
	108KW	3000A	SPSM80VDC108000W-3-30	SPSA80VDC108000W-3-30		
	126KW	3000A	SPSM80VDC126000W-3-36	SPSA80VDC126000W-3-36	36U (4)	
	144KW	3000A	SPSM80VDC144000W-3-36	SPSA80VDC144000W-3-36		
	162KW	3000A	SPSM80VDC162000W-3-42	SPSA80VDC162000W-3-42	42U (5)	
180KW	3000A	SPSM80VDC180000W-3-42	SPSA80VDC180000W-3-42			
165V	24KW	360A	SPSM165VDC24000W-3-18	SPSA165VDC24000W-3-18	18U (1)	CE
	36KW	540A	SPSM165VDC36000W-3-18	SPSA165VDC36000W-3-18	24U (2)	
	48KW	720A	SPSM165VDC48000W-3-24	SPSA165VDC48000W-3-24		
	60KW	900A	SPSM165VDC60000W-3-24	SPSA165VDC60000W-3-24	30U (3)	
	72KW	1080A	SPSM165VDC72000W-3-30	SPSA165VDC72000W-3-30		
	84KW	1260A	SPSM165VDC84000W-3-36	SPSA165VDC84000W-3-36	36U (4)	
	96KW	1440A	SPSM165VDC96000W-3-36	SPSA165VDC96000W-3-36		
	108KW	1620A	SPSM165VDC108000W-3-42	SPSA165VDC108000W-3-42	42U (5)	
120KW	1800A	SPSM165VDC120000W-3-42	SPSA165VDC120000W-3-42			
250V	36KW	360A	SPSM250VDC36000W-3-18	SPSA250VDC36000W-3-18	18U (1)	CE
	54KW	540A	SPSM250VDC54000W-3-18	SPSA250VDC54000W-3-18	24U (2)	
	72KW	720A	SPSM250VDC72000W-3-24	SPSA250VDC72000W-3-24		
	90KW	900A	SPSM250VDC90000W-3-24	SPSA250VDC90000W-3-24	30U (3)	
	108KW	1080A	SPSM250VDC108000W-3-30	SPSA250VDC108000W-3-30		
	126KW	1260A	SPSM250VDC126000W-3-36	SPSA250VDC126000W-3-36	36U (4)	
	144KW	1440A	SPSM250VDC144000W-3-36	SPSA250VDC144000W-3-36		
	162KW	1620A	SPSM250VDC162000W-3-42	SPSA250VDC162000W-3-42	42U (5)	
180KW	1800A	SPSM250VDC180000W-3-42	SPSA250VDC180000W-3-42			
360V	36KW	255A	SPSM360VDC36000W-3-18	SPSA360VDC36000W-3-18	18U (1)	CE
	54KW	382.5A	SPSM360VDC54000W-3-18	SPSA360VDC54000W-3-18	24U (2)	
	72KW	510A	SPSM360VDC72000W-3-24	SPSA360VDC72000W-3-24		
	90KW	637.5A	SPSM360VDC90000W-3-24	SPSA360VDC90000W-3-24	30U (3)	
	108KW	765A	SPSM360VDC108000W-3-30	SPSA360VDC108000W-3-30		
	126KW	892.5A	SPSM360VDC126000W-3-36	SPSA360VDC126000W-3-36	36U (4)	
	144KW	1020A	SPSM360VDC144000W-3-36	SPSA360VDC144000W-3-36		
	162KW	1147.5A	SPSM360VDC162000W-3-42	SPSA360VDC162000W-3-42	42U (5)	
180KW	1275A	SPSM360VDC180000W-3-42	SPSA360VDC180000W-3-42			
500V	36KW	192A	SPSM500VDC36000W-3-18	SPSA500VDC36000W-3-18	18U (1)	CE
	54KW	288A	SPSM500VDC54000W-3-18	SPSA500VDC54000W-3-18	24U (2)	
	72KW	384A	SPSM500VDC72000W-3-24	SPSA500VDC72000W-3-24		
	90KW	480A	SPSM500VDC90000W-3-24	SPSA500VDC90000W-3-24	30U (3)	
	108KW	576A	SPSM500VDC108000W-3-30	SPSA500VDC108000W-3-30		
	126KW	672A	SPSM500VDC126000W-3-36	SPSA500VDC126000W-3-36	36U (4)	
	144KW	768A	SPSM500VDC144000W-3-36	SPSA500VDC144000W-3-36		
	162KW	864A	SPSM500VDC162000W-3-42	SPSA500VDC162000W-3-42	42U (5)	
180KW	960A	SPSM500VDC180000W-3-42	SPSA500VDC180000W-3-42			

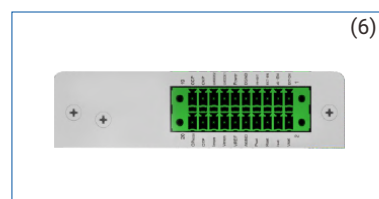
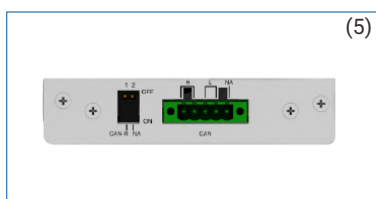
Rated Voltage	Output		Model (Manual Type)	Model (Automatic Type)	Size	Certificates
	Rated Power	Rated Current				
750V	36KW	126A	SPSM750VDC36000W-3-18	SPSA750VDC36000W	18U (1)	CE
	54KW	189A	SPSM750VDC54000W-3-18	SPSA750VDC54000W	24U (2)	
	72KW	252A	SPSM750VDC72000W-3-24	SPSA750VDC72000W		
	90KW	315A	SPSM750VDC90000W-3-24	SPSA750VDC90000W	30U (3)	
	108KW	378A	SPSM750VDC108000W-3-30	SPSA750VDC108000W-3-30		
	126KW	441A	SPSM750VDC126000W-3-36	SPSA750VDC126000W-3-36	36U (4)	
	144KW	504A	SPSM750VDC144000W-3-36	SPSA750VDC144000W-3-36		
	162KW	567A	SPSM750VDC162000W-3-42	SPSA750VDC162000W-3-42	42U (5)	
180KW	630A	SPSM750VDC180000W-3-42	SPSA750VDC180000W-3-42			
1000V	24KW	64A	SPSM1000VDC24000W-3-18	SPSA1000VDC24000W-3-18	18U (1)	CE
	36KW	96A	SPSM1000VDC36000W-3-18	SPSA1000VDC36000W-3-18	24U (2)	
	48KW	128A	SPSM1000VDC48000W-3-24	SPSA1000VDC48000W-3-24		
	60KW	160A	SPSM1000VDC60000W-3-24	SPSA1000VDC60000W-3-24	30U (3)	
	72KW	192A	SPSM1000VDC72000W-3-30	SPSA1000VDC72000W-3-30		
	84KW	224A	SPSM1000VDC84000W-3-36	SPSA1000VDC84000W-3-36	36U (4)	
	96KW	256A	SPSM1000VDC96000W-3-36	SPSA1000VDC96000W-3-36		
	108KW	288A	SPSM1000VDC108000W-3-42	SPSA1000VDC108000W-3-42	42U (5)	
120KW	320A	SPSM1000VDC120000W-3-42	SPSA1000VDC120000W-3-42			
1500V	36KW	64A	SPSM1500VDC36000W-3-18	SPSA1500VDC36000W-3-18	18U (1)	CE
	54KW	96A	SPSM1500VDC54000W-3-18	SPSA1500VDC54000W-3-18	24U (2)	
	72KW	128A	SPSM1500VDC72000W-3-24	SPSA1500VDC72000W-3-24		
	90KW	160A	SPSM1500VDC90000W-3-24	SPSA1500VDC90000W-3-24	30U (3)	
	108KW	192A	SPSM1500VDC108000W-3-30	SPSA1500VDC108000W-3-30		
	126KW	224A	SPSM1500VDC126000W-3-36	SPSA1500VDC126000W-3-36	36U (4)	
	144KW	256A	SPSM1500VDC144000W-3-36	SPSA1500VDC144000W-3-36		
	162KW	288A	SPSM1500VDC162000W-3-42	SPSA1500VDC162000W-3-42	42U (5)	
180KW	320A	SPSM1500VDC180000W-3-42	SPSA1500VDC180000W-3-42			
2250V	36KW	42A	SPSM2250VDC36000W-3-18	SPSA2250VDC36000W-3-18	18U (1)	CE
	54KW	63A	SPSM2250VDC54000W-3-18	SPSA2250VDC54000W-3-18	24U (2)	
	72KW	84A	SPSM2250VDC72000W-3-24	SPSA2250VDC72000W-3-24		
	90KW	105A	SPSM2250VDC90000W-3-24	SPSA2250VDC90000W-3-24	30U (3)	
	108KW	126A	SPSM2250VDC108000W-3-30	SPSA2250VDC108000W-3-30		
	126KW	147A	SPSM2250VDC126000W-3-36	SPSA2250VDC126000W-3-36	36U (4)	
	144KW	168A	SPSM2250VDC144000W-3-36	SPSA2250VDC144000W-3-36		
	162KW	189A	SPSM2250VDC162000W-3-42	SPSA2250VDC162000W-3-42	42U (5)	
180KW	210A	SPSM2250VDC180000W-3-42	SPSA2250VDC180000W-3-42			

\* This formula is the standard cabinet for SP-3U model. It could extend to 576W via SP-6U model. It is available to select cabinet with different specification according to exact situation. Detail please consults our area manager.

## Optional Information

- (1) US standard, input voltage range: 187~305Vac\*
- (3) Continuous source & sink function\*
- (5) CAN communication card

- (2) European standard, input voltage range: 340~480Vac\*
- (4) GPIB & LAN communication card & cables
- (6) TTL/Analog control card



\* These options must be specified at the time of order as they are installed at the factory prior to shipment.

## Dimensions & Weight



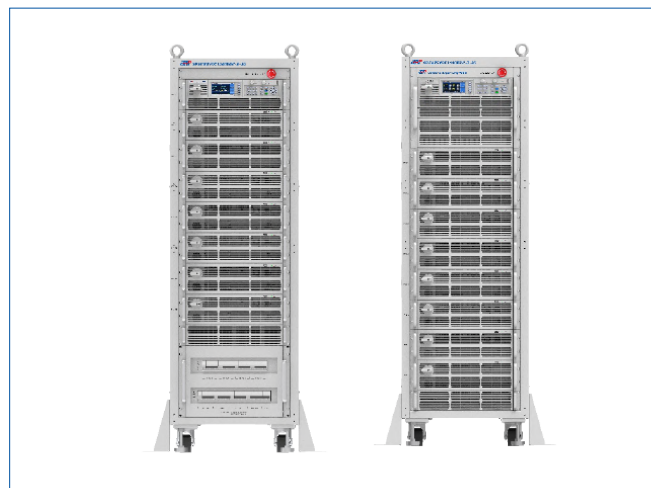
① 560.0x790.0x920.0 mm & 225kg



② 560.0x1056.0x920.0 mm & 350kg



③ 560.0x1324.0x920.0 mm & 416kg



④ 560.0x1590.0x920.0 mm & 535kg



⑤ 560.0x1857.0x920.0 mm & 653kg

### Features

- Large color touch screen, rotary knob and keys provide an excellent operational experience.
- 3-phase input voltage meets worldwide power distribution regulation, AC mains 187~305Vac/340~480Vac for optional.
- Constant voltage (CV), constant current (CC) and constant power (CP) operation mode, CC or CV working priority setting.
- Adjustable voltage/current slew rate.
- Smart 3-stage charging algorithm simulation.
- Full protection: OVP, OCP, OPP and OTP protection.
- Equipped with Emergency Stop, physically off all managed DC power supplies at once.
- Back door with protect switch, safe to the operator.
- List/ Step mode programming.
- Standard RS232/RS485/USB interface, optional LAN & GPIB interface, optional CAN interface.
- SCPI compatible, provide web GUI function.

### SPSA Series Advantage

- CSP5/CSP8\*, connect with 5 units /10 units 3U height DC power supply or 2 units /5 units 6U height DC power supply.
- Built-in power meter, to monitor the AC mains parameters such as V, A, Frequency, Power and PF.
- Support efficiency calculation and electrical quantities recording.
- Built-in Timer, allows to set output running time.
- Easy to enable the output of each power supply from the touch screen, sequence On/Off DC power supplies.
- Display the output parameters of each DC power supply in the same system.
- PDU significantly simplifies the wiring for DC power system.
- User-defined AC input protection parameters such as OVP, UVP, OFP, UFP, OCP and Phase loss.
- Provide web GUI function to monitor & control the CSP via ethernet.

\* Even the same model CSP may be configured differently, which is based on the connected DC power supplies.

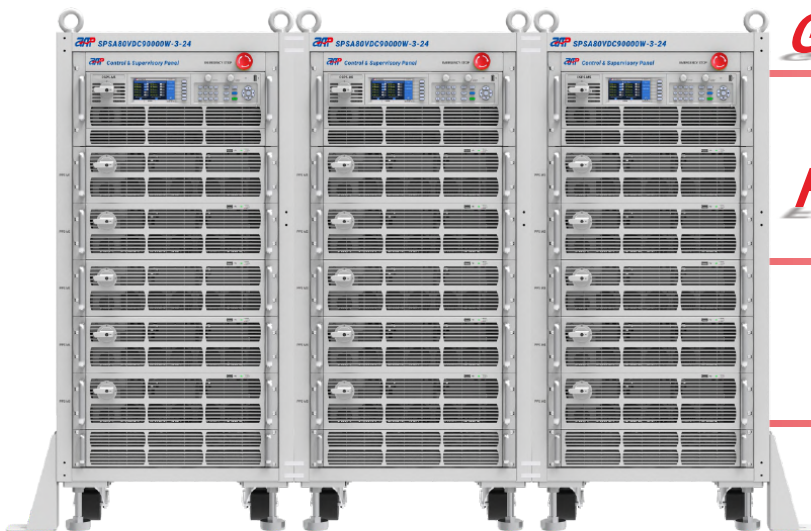
## Connecting the cabinet

### 1. The cabinets can be connected in parallel in order to increase output power.

- Maximum 16 units 3U height same model DC power supplies or 6U height same model DC power supplies can be connected via the bus.
- 16 units each with a power of 18kW are connected together to a 288kW system.
- 16 units each with a power of 36kW are connected together to a 576kW system.

### 2. Different height cabinets can be connected in parallel.

- Use parallel bars to simplify the connection between multiple rack cabinets.
- Realized the gapless connection between multiple rack cabinets.



**GAPLESS** connection

**FLEXIBLE ASSEMBLY**  
and disassembly

Up to **576kW**

CSP Panel Introduction

Front Panel Description

- 1 Emergency Stop, physically off all managed DC power supplies at once.
- 2 CSP power switch
- 3 Color touch screen
- 4 Selection soft keys
- 5 Voltage/Current & Power knob
- 6 Numeric and functional keys
- 7 USB port, for data transfers and firmware upgrading
- 8 Stylus

Rear Panel Description

- 1 RS485/RS232/USB communication interface (standard), LAN&GPIB communication interface (optional), CAN communication interface (optional)\*
- 2 External TTL/Analog control interface.
- 3 System Bus, for master/slave system data transmission
- 4 Termination resistor CAN-R
- 5 PDU AC output terminals to each DC power supply
- 6 FAN & EMS AC input terminals
- 7 PDU AC input terminals
- 8 Protective earth (ground) terminals

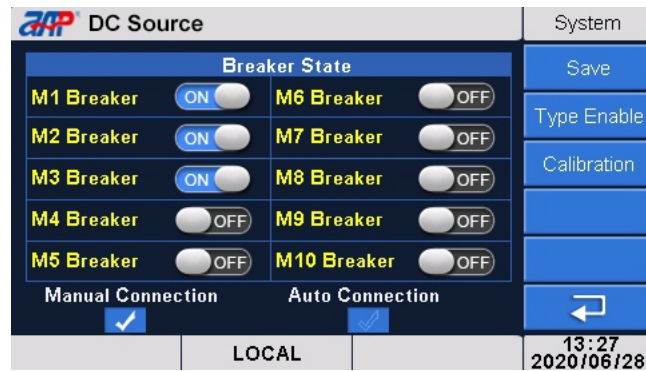
\* These interface option installs in place of the standard RS485/RS232/USB interfaces, occupies the same physical slot.

## Displays of CSP

CSP provides below menus which allows user to control and monitor the power supply system via front panel.

### System

Master-slave system configuration page.



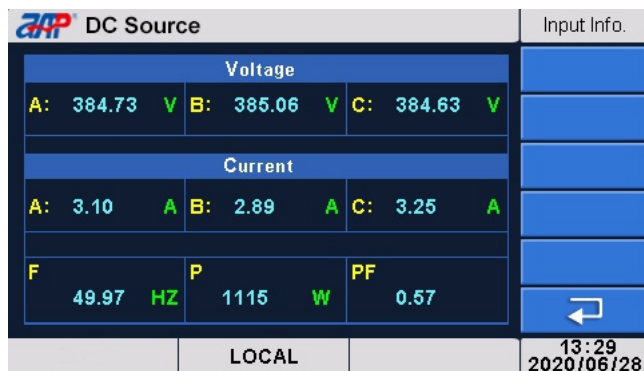
### Submodule

DC output parameters reading page.



### Input Info.

AC input parameters measurement page.



### OP Value

AC input protection parameters setting page.





## SPS-M/A Series DC Power Supply System

MODEL	SPSM80VDC54000W-3-18	SPSM80VDC90000W-3-24	SPSM80VDC108000W-3-30	SPSM80VDC144000W-3-36	SPSM80VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~90.5%@80V, 3P208 ~86.5%@1800A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	
	3P400 ~92.2%@80V, 3P400 ~87.8%@1800A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	
<b>Output</b>						
Output Voltage	0~80V					
Output Current <sup>[2]</sup>	0~1800A	0~3000A	0~3000A	0~3000A	0~3000A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~1.4Ω	0~0.8Ω	0~0.7Ω	0~0.5Ω	0~0.4Ω	
Load Regulation <sup>[3]</sup>	Voltage	120mV	200mV	240mV	320mV	400mV
	Current	<0.15%Imax(2700mA)	<0.15%Imax(4500mA)	<0.15%Imax(4500mA)	<0.15%Imax(4500mA)	<0.15%Imax(4500mA)
Line Regulation	Voltage	<0.02%Umax(16mV)				
	Current	<0.05%Imax(900mA)	<0.05%Imax(1500mA)	<0.05%Imax(1500mA)	<0.05%Imax(1500mA)	<0.05%Imax(1500mA)
Voltage Setting	Range	0~84V(0~105%)				
	Resolution	0.001V (F.S. ≤ 999.999V)				
	Accuracy	<0.1% Umax(80mV)				
Current Setting	Range	0~1818A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(3600mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~1.4Ω	0~0.8Ω	0~0.7Ω	0~0.5Ω	0~0.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[4]</sup>	Voltage	<480mVpp, <37.5mVrms	<800mVpp, <62.5mVrms	<960mVpp, <75mVrms	<1280mVpp, <100mVrms	<1600mVpp, <125mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~84V(0~105%)				
	Resolution	0.001V (F.S. ≤ 999.999V)				
	Accuracy	<0.1%Umax(80mV)				
Current	Range	0~1818A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(3600mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)
Ro	Range	0~1.4Ω	0~0.8Ω	0~0.7Ω	0~0.5Ω	0~0.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSM80VDC54000W-3-18	SPSM80VDC90000W-3-24	SPSM80VDC108000W-3-30	SPSM80VDC144000W-3-36	SPSM80VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~80V					
Input Current	0~900A	0~1500A	0~1800A	0~2400A	0~3000A	
Input Power	0~3000W	0~5000W	0~6000W	0~8000W	0~10000W	
Min.Operating Voltage	3V@900	3V@1500	3V@1800	3V@2400	3V@3000	
CC Resolution	90mA	150mA	180mA	240mA	300mA	
CC Accuracy	<0.2%Imax(1800mA)	<0.2%Imax(3000mA)	<0.2%Imax(3600mA)	<0.2%Imax(4800mA)	<0.2%Imax(6000mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(80mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(15000mW)	<0.5%Pmax(25000mW)	<0.5%Pmax(30000mW)	<0.5%Pmax(40000mW)	<0.5%Pmax(50000mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature <sup>[1]</sup>	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSM165VDC36000W-3-18	SPSM165VDC60000W-3-24	SPSM165VDC72000W-3-30	SPSM165VDC96000W-3-36	SPSM165VDC120000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-123A	3P208 L1,L2,L3-200A	3P208 L1,L2,L3-247A	3P208 L1,L2,L3-330A	3P208 L1,L2,L3-414A	
	3P400 L1,L2,L3-67A	3P400 L1,L2,L3-100A	3P400 L1,L2,L3-132A	3P400 L1,L2,L3-175A	3P400 L1,L2,L3-221A	
Input Power Max	45KVA	75KVA	90KVA	120KVA	150KVA	
Efficiency <sup>[1]</sup>	3P208 ~90.5%@165V, 3P208 ~85%@540A	3P208 ~90.5%@165V, 3P208 ~85%@900A	3P208 ~90.5%@165V, 3P208 ~85%@1080A	3P208 ~90.5%@165V, 3P208 ~85%@1440A	3P208 ~90.5%@165V, 3P208 ~85%@1800A	
	3P400 ~91.5%@165V, 3P400 ~85.5%@540A	3P400 ~91.5%@165V, 3P400 ~85.5%@900A	3P400 ~91.5%@165V, 3P400 ~85.5%@1080A	3P400 ~91.5%@165V, 3P400 ~85.5%@1440A	3P400 ~91.5%@165V, 3P400 ~85.5%@1800A	
<b>Output</b>						
Output Voltage	0~165V					
Output Current <sup>[2]</sup>	0~540A	0~900A	0~1080A	0~1440A	0~1800A	
Output Power	0~36000W	0~60000W	0~72000W	0~96000W	0~120000W	
Ro	0~9.2Ω	0~5.5Ω	0~4.6Ω	0~3.5Ω	0~2.8Ω	
Load Regulation <sup>[3]</sup>	Voltage	247.5mV	412.5mV	495mV	660mV	825mV
	Current	<0.15%Imax(810mA)	<0.15%Imax(1350mA)	<0.15%Imax(1620mA)	<0.15%Imax(2160mA)	<0.15%Imax(2700mA)
Line Regulation	Voltage	<0.02%Umax(33mV)				
	Current	<0.05%Imax(270mA)	<0.05%Imax(450mA)	<0.05%Imax(540mA)	<0.05%Imax(720mA)	<0.05%Imax(900mA)
Voltage Setting	Range	0~173.25V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (165mV)				
Current Setting	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Power Setting	Range	0~36900W(0~102.5%)	0~61500W(0~102.5%)	0~73800W(0~102.5%)	0~98400W(0~102.5%)	0~123000W(0~102.5%)
	Resolution	0.1W(F.S.≤ 99.9KW),1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~9.2Ω	0~5.5Ω	0~4.6Ω	0~3.5Ω	0~2.8Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[4]</sup>	Voltage	<870mVpp, <75mVrms	<1350mVpp, <125mVrms	<1740mVpp, <150mVrms	<2320mVpp, <200mVrms	<2900mVpp, <250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~173.25V(0~105%)				
	Resolution	0.001V F.S. ≤999.999V				
	Accuracy	<0.1% Umax (165mV)				
Current	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Ro	Range	0~9.2Ω	0~5.5Ω	0~4.6Ω	0~3.5Ω	0~2.8Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSM165VDC36000W-3-18	SPSM165VDC60000W-3-24	SPSM165VDC72000W-3-30	SPSM165VDC96000W-3-36	SPSM165VDC120000W-3-42	
Power	Range	0~36900W(0~102.5%)	0~61500W(0~102.5%)	0~73800W(0~102.5%)	0~98400W(0~102.5%)	0~123000W(0~102.5%)
	Resolution	0.1W(F.S.≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature <sup>[2]</sup>	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 78dB Max	52dB Min, 80dB Max	53dB Min, 81dB Max	55dB Min, 83dB Max	56dB Min, 84dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSM250VDC54000W-3-18	SPSM250VDC90000W-3-24	SPSM250VDC108000W-3-30	SPSM250VDC144000W-3-36	SPSM250VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1, L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~90.5%@250V, 3P208 ~85%@540A	3P208 ~90.5%@250V, 3P208 ~85%@900A	3P208 ~90.5%@250V, 3P208 ~85%@1080A	3P208 ~90.5%@250V, 3P208 ~85%@1440A	3P208 ~90.5%@250V, 3P208 ~85%@1800A	
	3P400 ~91.5%@250V, 3P400 ~85.5%@540A	3P400 ~91.5%@250V, 3P400 ~85.5%@900A	3P400 ~91.5%@250V, 3P400 ~85.5%@1080A	3P400 ~91.5%@250V, 3P400 ~85.5%@1440A	3P400 ~91.5%@250V, 3P400 ~85.5%@1800A	
<b>Output</b>						
Output Voltage	0~250V					
Output Current <sup>[2]</sup>	0~540A	0~900A	0~1080A	0~1440A	0~1800A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~13.9Ω	0~8.3Ω	0~7.0Ω	0~5.2Ω	0~4.2Ω	
Load Regulation <sup>[3]</sup>	Voltage	375mV	625mV	750mV	1000mV	1250mV
	Current	<0.15%Imax(810mA)	<0.15%Imax(1350mA)	<0.15%Imax(1620mA)	<0.15%Imax(2160mA)	<0.15%Imax(2700mA)
Line Regulation	Voltage	<0.02%Umax(50mV)				
	Current	<0.05%Imax(270mA)	<0.05%Imax(450mA)	<0.05%Imax(540mA)	<0.05%Imax(720mA)	<0.05%Imax(900mA)
Voltage Setting	Range	0~262.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax(250mV)				
Current Setting	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~13.9Ω	0~8.3Ω	0~7.0Ω	0~5.2Ω	0~4.2Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[4]</sup>	Voltage	<825mVpp, <75mVrms	<2125mVpp, <187.5mVrms	<1650mVpp, <150mVrms	<2200mVpp, <200mVrms	<2750mVpp, <250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~262.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (250mV)				
Current	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Ro	Range	0~13.9Ω	0~8.3Ω	0~7.0Ω	0~5.2Ω	0~4.2Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSM250VDC54000W-3-18	SPSM250VDC90000W-3-24	SPSM250VDC108000W-3-30	SPSM250VDC144000W-3-36	SPSM250VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature <sup>[2]</sup>	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL		SPSM360VDC54000W-3-18	SPSM360VDC90000W-3-24	SPSM360VDC108000W-3-30	SPSM360VDC144000W-3-36	SPSM360VDC180000W-3-42
<b>Input</b>						
Voltage <sup>[1]</sup>		3P208 187~305VAC				
		3P400 340~480VAC				
		ΔConnect				
Frequency		45-65Hz				
Phase		3 Phase, 3Wire+Groud, ΔConnect				
Power Factor		>0.99(Rate Input Voltage, Full Load)				
Max.Current <sup>[1]</sup>		3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A
		3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A
Input Power Max		67KVA	112KVA	135KVA	180KVA	225KVA
Efficiency <sup>[1]</sup>		3P208 ~94%@360V, 3P208 ~93%@382.5A	3P208 ~94%@360V, 3P208 ~93%@637.5A	3P208 ~94%@360V, 3P208 ~93%@765A	3P208 ~94%@360V, 3P208 ~93%@1020A	3P208 ~94%@360V, 3P208 ~93%@1275A
		3P400 ~96%@360V, 3P400 ~95%@382.5A	3P400 ~96%@360V, 3P400 ~95%@637.5A	3P400 ~96%@360V, 3P400 ~95%@765A	3P400 ~96%@360V, 3P400 ~95%@1020A	3P400 ~96%@360V, 3P400 ~95%@1275A
<b>Output</b>						
Output Voltage		0~360V				
Output Current		0~382.5A	0~637.5A	0~765A	0~1020A	0~1275A
Output Power		0~54000W	0~90000W	0~108000W	0~144000W	0~180000W
Ro		0~28.2Ω	0~16.9Ω	0~14.1Ω	0~10.6Ω	0~8.5Ω
Load Regulation <sup>[2]</sup>	Voltage	540mV	900mV	1080mV	1440mV	1800mV
	Current	<0.15%Imax(574mA)	<0.15%Imax(956mA)	<0.15%Imax(1147mA)	<0.15%Imax(1530mA)	<0.15%Imax(1912mA)
Line Regulation	Voltage	<0.02%Umax(72mV)				
	Current	<0.05%Imax(191mA)	<0.05%Imax(318mA)	<0.05%Imax(382mA)	<0.05%Imax(510mA)	<0.05%Imax(637mA)
Voltage Setting	Range	0~378V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (360mV)				
Current Setting	Range	0~401.6A(0~105%)	0~669.3A(0~105%)	0~803.2A(0~105%)	0~1071A(0~105%)	0~1338.7A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax (765mA)	<0.2%Imax(1275mA)	<0.2%Imax(1530mA)	<0.2%Imax(2040mA)	<0.2%Imax(2550mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~28.2Ω	0~16.9Ω	0~14.1Ω	0~10.5Ω	0~8.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<480mVpp, <82.5mVrms	<800mVpp, <137.5mVrms	<960mVpp, <165mVrms	<1280mVpp, <220mVrms	<1600mVpp, <275mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~378V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1%Umax(360mV)				
Current	Range	0~401.6A(0~105%)	0~669.3A(0~105%)	0~803.2A(0~105%)	0~1071A(0~105%)	0~1338.7A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(765mA)	<0.2%Imax(1275mA)	<0.2%Imax(1530mA)	<0.2%Imax(2040mA)	<0.2%Imax(2550mA)
Ro	Range	0~28.2Ω	0~16.9Ω	0~14.1Ω	0~10.5Ω	0~8.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSM360VDC54000W-3-18	SPSM360VDC90000W-3-24	SPSM360VDC108000W-3-30	SPSM360VDC144000W-3-36	SPSM360VDC180000W-3-42
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~360V					
Input Current	0~120A	0~200A	0~240A	0~320A	0~400A	
Input Power	0~2925W	0~4875W	0~5850W	0~7800W	0~9750W	
Min.Operating Voltage	8V@120A	8V@200A	8V@240A	8V@320A	8V@400A	
CC Resolution	9mA	15mA	18mA	24mA	30mA	
CC Accuracy	<0.2%Imax(240mA)	<0.2%Imax(400mA)	<0.2%Imax(480mA)	<0.2%Imax(640mA)	<0.2%Imax(800mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(360mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(14625mW)	<0.5%Pmax(24375mW)	<0.5%Pmax(29250mW)	<0.5%Pmax(39000mW)	<0.5%Pmax(48750mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.



## SPS-M/A Series DC Power Supply System

MODEL	SPSM500VDC54000W-3-18	SPSM500VDC90000W-3-24	SPSM500VDC108000W-3-30	SPSM500VDC144000W-3-36	SPSM500VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92.5%@500V, 3P208 ~91%@288A	3P208 ~92.5%@500V, 3P208 ~91%@480A	3P208 ~92.5%@500V, 3P208 ~91%@576A	3P208 ~92.5%@500V, 3P208 ~91%@768A	3P208 ~92.5%@500V, 3P208 ~91%@960A	
	3P400 ~94%@500V, 3P400 ~92.5%@288A	3P400 ~94%@500V, 3P400 ~92.5%@480A	3P400 ~94%@500V, 3P400 ~92.5%@576A	3P400 ~94%@500V, 3P400 ~92.5%@768A	3P400 ~94%@500V, 3P400 ~92.5%@960A	
<b>Output</b>						
Output Voltage	0~500V					
Output Current	0~288A	0~480A	0~576A	0~768A	0~960A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~53Ω	0~31Ω	0~27Ω	0~20Ω	0~16Ω	
Load Regulation <sup>[2]</sup>	Voltage	750mV	1250mV	1500mV	2000mV	2500mV
	Current	<0.15%Imax(432mA)	<0.15%Imax(720mA)	<0.15%Imax(864mA)	<0.15%Imax(1152mA)	<0.15%Imax(1440mA)
Line Regulation	Voltage	<0.02%Umax(100mV)				
	Current	<0.05%Imax(144mA)	<0.05%Imax(240mA)	<0.05%Imax(288mA)	<0.05%Imax(384mA)	<0.05%Imax(480mA)
Voltage Setting	Range	0~525V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (500mV)				
Current Setting	Range	0~302.4A(0~105%)	0~504A(0~105%)	0~604.80A(0~105%)	0~806.4A(0~105%)	0~1008A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax (576mA)	<0.2%Imax(960mA)	<0.2%Imax(1152mA)	<0.2%Imax(1536mA)	<0.2%Imax(1920mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~53Ω	0~31Ω	0~27Ω	0~20Ω	0~16Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<975mVpp, <240mVrms	<1625mVpp, <400mVrms	<1950mVpp, <480mVrms	<2600mVpp, <640mVrms	<3250mVpp, <800mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~525V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1%Umax(500mV)				
Current	Range	0~302.4A(0~105%)	0~504A(0~105%)	0~604.80A(0~105%)	0~806.4A(0~105%)	0~1008A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(576mA)	<0.2%Imax(960mA)	<0.2%Imax(1152mA)	<0.2%Imax(1536mA)	<0.2%Imax(1920mA)
Ro	Range	0~53Ω	0~31Ω	0~27Ω	0~20Ω	0~16Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSM500VDC54000W-3-18	SPSM500VDC90000W-3-24	SPSM500VDC108000W-3-30	SPSM500VDC144000W-3-36	SPSM500VDC180000W-3-42
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~500V					
Input Current	0~120A	0~200A	0~240A	0~320A	0~400A	
Input Power	0~2925W	0~4875W	0~5850W	0~7800W	0~9750W	
Min.Operating Voltage	8V@120A	8V@200A	8V@240A	8V@320A	8V@400A	
CC Resolution	9mA	15mA	18mA	24mA	30mA	
CC Accuracy	<0.2%Imax(240mA)	<0.2%Imax(400mA)	<0.2%Imax(480mA)	<0.2%Imax(640mA)	<0.2%Imax(800mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(500mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(14625mW)	<0.5%Pmax(24375mW)	<0.5%Pmax(29250mW)	<0.5%Pmax(39000mW)	<0.5%Pmax(48750mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSM750VDC54000W-3-18	SPSM750VDC90000W-3-24	SPSM750VDC108000W-3-30	SPSM750VDC144000W-3-36	SPSM750VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92.5%@750V, 3P208 ~91%@189A	3P208 ~92.5%@750V, 3P208 ~91%@315A	3P208 ~92.5%@750V, 3P208 ~91%@378A	3P208 ~92.5%@750V, 3P208 ~91%@504A	3P208 ~92.5%@750V, 3P208 ~91%@630A	
	3P400 ~92.7%@750V, 3P400 ~92%@189A	3P400 ~92.7%@750V, 3P400 ~92%@315A	3P400 ~92.7%@750V, 3P400 ~92%@378A	3P400 ~92.7%@750V, 3P400 ~92%@504A	3P400 ~92.7%@750V, 3P400 ~92%@630A	
<b>Output</b>						
Output Voltage	0~750V					
Output Current	0~189A	0~315A	0~378A	0~504A	0~630A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~120Ω	0~71Ω	0~60Ω	0~45Ω	0~36Ω	
Load Regulation <sup>[2]</sup>	Voltage	1110mV	1850mV	2220mV	2960mV	3700mV
	Current	<0.15%Imax(283.5mA)	<0.15%Imax(472.5mA)	<0.15%Imax(567mA)	<0.15%Imax(756mA)	<0.15%Imax(945mA)
Line Regulation	Voltage	<0.02%Umax(150mV)				
	Current	<0.05%Imax(94.5mA)	<0.05%Imax(157.5mA)	<0.05%Imax(189mA)	<0.05%Imax(252mA)	<0.05%Imax(315mA)
Voltage Setting	Range	0~787.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (750mV)				
Current Setting	Range	0~198.45A(0~105%)	0~330.75A(0~105%)	0~396.9A(0~105%)	0~529.2A(0~105%)	0~661.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax (378mA)	<0.2%Imax(630mA)	<0.2%Imax(756mA)	<0.2%Imax(1008mA)	<0.2%Imax(1260mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~120Ω	0~71Ω	0~60Ω	0~45Ω	0~36Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<1500mVpp, <375mVrms	<2500mVpp, <625mVrms	<3000mVpp, <750mVrms	<4000mVpp, <1000mVrms	<5000mVpp, <1250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~787.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1%Umax(750mV)				
Current	Range	0~198.45A(0~105%)	0~330.75A(0~105%)	0~396.9A(0~105%)	0~529.2A(0~105%)	0~661.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(378mA)	<0.2%Imax(630mA)	<0.2%Imax(756mA)	<0.2%Imax(1008mA)	<0.2%Imax(1260mA)
Ro	Range	0~120Ω	0~71Ω	0~60Ω	0~45Ω	0~36Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSM750VDC54000W-3-18	SPSM750VDC90000W-3-24	SPSM750VDC108000W-3-30	SPSM750VDC144000W-3-36	SPSM750VDC180000W-3-42
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~750V					
Input Current	0~75A	0~125A	0~150A	0~200A	0~250A	
Input Power	0~2925W	0~4875W	0~5850W	0~7800W	0~9750W	
Min.Operating Voltage	5V@75A	5V@125A	5V@150A	5V@200A	5V@250A	
CC Resolution	9mA	15mA	18mA	24mA	30mA	
CC Accuracy	<0.2%Imax(150mA)	<0.2%Imax(250mA)	<0.2%Imax(300mA)	<0.2%Imax(400mA)	<0.2%Imax(500mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(750mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(14625mW)	<0.5%Pmax(24375mW)	<0.5%Pmax(29250mW)	<0.5%Pmax(39000mW)	<0.5%Pmax(48750mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSM1000VDC36000W-3-18	SPSM1000VDC60000W-3-24	SPSM1000VDC72000W-3-30	SPSM1000VDC96000W-3-36	SPSM1000VDC120000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1, L2,L3-123A	3P208 L1, L2,L3-200A	3P208 L1, L2,L3-247A	3P208 L1,L2,L3-330A	3P208 L1,L2,L3-414A	
	3P400 L1, L2,L3-67A	3P400 L1, L2,L3-100A	3P400 L1, L2,L3-132A	3P400 L1,L2,L3-175A	3P400 L1,L2,L3-221A	
Input Power Max	45KVA	75KVA	90KVA	120KVA	150KVA	
Efficiency <sup>[1]</sup>	3P208 ~92%@1000V, 3P208 ~90%@96A	3P208 ~92%@1000V, 3P208 ~90%@160A	3P208 ~92%@1000V, 3P208 ~90%@192A	3P208 ~92%@1000V, 3P208 ~90%@256A	3P208 ~92%@1000V, 3P208 ~90%@320A	
	3P400 ~93.5%@1000V, 3P400 ~92%@96A	3P400 ~93.5%@1000V, 3P400 ~92%@160A	3P400 ~93.5%@1000V, 3P400 ~92%@192A	3P400 ~93.5%@1000V, 3P400 ~92%@256A	3P400 ~93.5%@1000V, 3P400 ~92%@320A	
<b>Output</b>						
Output Voltage	0~1000V					
Output Current	0~96A	0~160A	0~192A	0~256A	0~320A	
Output Power	0~36000W	0~60000W	0~72000W	0~96000W	0~120000W	
Ro	0~312.5Ω	0~187.5Ω	0~156.25Ω	0~117.19Ω	0~93.75Ω	
Load Regulation <sup>[2]</sup>	Voltage	1500mV	2500mV	3000mV	4000mV	5000mV
	Current	<0.15%Imax(144mA)	<0.15%Imax(240mA)	<0.15%Imax(288mA)	<0.15%Imax(384mA)	<0.15%Imax(480mA)
Line Regulation	Voltage	<0.02%Umax(200mV)				
	Current	<0.05%Imax(48mA)	<0.05%Imax(80mA)	<0.05%Imax(96mA)	<0.05%Imax(128mA)	<0.05%Imax(160mA)
Voltage Setting	Range	0~1050V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1000mV)				
Current Setting	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Power Setting	Range	0~36900W(0~102.5%)	0~61500W(0~102.5%)	0~73800W(0~102.5%)	0~98400W(0~102.5%)	0~123000W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~312.5Ω	0~187.5Ω	0~156.25Ω	0~117.19Ω	0~93.75Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<2250mVpp, <480mVrms	<3750mVpp, <800mVrms	<4500mVpp, <960mVrms	<6000mVpp, <1280mVrms	<7500mVpp, <1600mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~1050V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1000mV)				
Current	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Ro	Range	0~312.5Ω	0~187.5Ω	0~156.25Ω	0~117.19Ω	0~93.75Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSM1000VDC36000W-3-18	SPSM1000VDC60000W-3-24	SPSM1000VDC72000W-3-30	SPSM1000VDC96000W-3-36	SPSM1000VDC120000W-3-42	
Power	Range	0~36900W(0~102.5%)	0~61500W(0~102.5%)	0~73800W(0~102.5%)	0~98400W(0~102.5%)	0~123000W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 78dB Max	52dB Min, 80dB Max	53dB Min, 81dB Max	55dB Min, 83dB Max	56dB Min, 84dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSM1500VDC54000W-3-18	SPSM1500VDC90000W-3-24	SPSM1500VDC108000W-3-30	SPSM1500VDC144000W-3-36	SPSM1500VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1, L2,L3-180A	3P208 L1, L2,L3-300A	3P208 L1, L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1, L2,L3-90A	3P400 L1, L2,L3-150A	3P400 L1, L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92%@1500V, 3P208 ~90%@96A	3P208 ~92%@1500V, 3P208 ~90%@160A	3P208 ~92%@1500V, 3P208 ~90%@192A	3P208 ~92%@1500V, 3P208 ~90%@256A	3P208 ~92%@1500V, 3P208 ~90%@320A	
	3P400 ~93.5%@1500V, 3P400 ~92%@96A	3P400 ~93.5%@1500V, 3P400 ~92%@160A	3P400 ~93.5%@1500V, 3P400 ~92%@192A	3P400 ~93.5%@1500V, 3P400 ~92%@256A	3P400 ~93.5%@1500V, 3P400 ~92%@320A	
<b>Output</b>						
Output Voltage	0~1500V					
Output Current	0~96A	0~160A	0~192A	0~256A	0~320A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~468.75Ω	0~281.25Ω	0~234.38Ω	0~175.79Ω	0~140.63Ω	
Load Regulation <sup>[2]</sup>	Voltage	2250mV	3750mV	4500mV	6000mV	7500mV
	Current	<0.15%Imax(144mA)	<0.15%Imax(240mA)	<0.15%Imax(288mA)	<0.15%Imax(384mA)	<0.15%Imax(480mA)
Line Regulation	Voltage	<0.02%Umax(300mV)				
	Current	<0.05%Imax(48mA)	<0.05%Imax(80mA)	<0.05%Imax(96mA)	<0.05%Imax(128mA)	<0.05%Imax(160mA)
Voltage Setting	Range	0~1575V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1500mV)				
Current Setting	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~468.75Ω	0~281.25Ω	0~234.38Ω	0~175.79Ω	0~140.63Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<2925mVpp, <975mVrms	<4875mVpp, <1625mVrms	<5850mVpp, <1950mVrms	<7800mVpp, <2600mVrms	<9750mVpp, <3250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~1575V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1500mV)				
Current	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Ro	Range	0~468.75Ω	0~281.25Ω	0~234.38Ω	0~175.79Ω	0~140.63Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSM1500VDC54000W-3-18	SPSM1500VDC90000W-3-24	SPSM1500VDC108000W-3-30	SPSM1500VDC144000W-3-36	SPSM1500VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.



## SPS-M/A Series DC Power Supply System

MODEL		SPSM2250VDC54000W-3-18	SPSM2250VDC90000W-3-24	SPSM2250VDC108000W-3-30	SPSM2250VDC144000W-3-36	SPSM2250VDC180000W-3-42
<b>Input</b>						
Voltage <sup>[1]</sup>		3P208 187~305VAC				
		3P400 340~480VAC				
		ΔConnect				
Frequency		45-65Hz				
Phase		3 Phase, 3Wire+Groud, ΔConnect				
Power Factor		>0.99(Rate Input Voltage, Full Load)				
Max.Current <sup>[1]</sup>		3P208 L1, L2,L3-180A	3P208 L1, L2,L3-300A	3P208 L1, L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A
		3P400 L1, L2,L3-90A	3P400 L1, L2,L3-150A	3P400 L1, L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A
Input Power Max		67KVA	112KVA	135KVA	180KVA	225KVA
Efficiency <sup>[1]</sup>		3P208 92%@2250V, 3P208 90.5%@63A	3P208 92%@2250V, 3P208 90.5%@105A	3P208 92%@2250V, 3P208 90.5%@126A	3P208 92%@2250V, 3P208 90.5%@168A	3P208 92%@2250V, 3P208 90.5%@210A
		3P400 92.5%@2250V, 3P400 91.5%@63A	3P400 92.5%@2250V, 3P400 91.5%@105A	3P400 92.5%@2250V, 3P400 91.5%@126A	3P400 92.5%@2250V, 3P400 91.5%@168A	3P400 92.5%@2250V, 3P400 91.5%@210A
<b>Output</b>						
Output Voltage		0~2250V				
Output Current		0~63A	0~105A	0~126A	0~168A	0~210A
Output Power		0~54000W	0~90000W	0~108000W	0~144000W	0~180000W
Ro		0~1072Ω	0~642Ω	0~536Ω	0~402Ω	0~322Ω
Load Regulation <sup>[2]</sup>	Voltage	2850mV	4750mV	5700mV	7600mV	9500mV
	Current	<0.15%Imax(94.5mA)	<0.15%Imax(157.5mA)	<0.15%Imax(189mA)	<0.15%Imax(252mA)	<0.15%Imax(315mA)
Line Regulation	Voltage	<0.02%Umax(450mV)				
	Current	<0.05%Imax(31.5mA)	<0.05%Imax(52.5mA)	<0.05%Imax(63mA)	<0.05%Imax(84mA)	<0.05%Imax(105mA)
Voltage Setting	Range	0~2362.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (2250mV)				
Current Setting	Range	0~66.15A(0~105%)	0~110.25A(0~105%)	0~132.3A(0~105%)	0~176.4A(0~105%)	0~220.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(126mA)	<0.2%Imax(210mA)	<0.2%Imax(252mA)	<0.2%Imax(336mA)	<0.2%Imax(420mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~1072Ω	0~642Ω	0~536Ω	0~402Ω	0~322Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<4800mVpp, <1125mVrms	<8000mVpp, <1875mVrms	<9600mVpp, <2250mVrms	<12800mVpp, <3000mVrms	<16000mVpp, <3750mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~2362.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (2250mV)				
Current	Range	0~66.15A(0~105%)	0~110.25A(0~105%)	0~132.3A(0~105%)	0~176.4A(0~105%)	0~220.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(126mA)	<0.2%Imax(210mA)	<0.2%Imax(252mA)	<0.2%Imax(336mA)	<0.2%Imax(420mA)
Ro	Range	0~1072Ω	0~642Ω	0~536Ω	0~402Ω	0~322Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSM2250VDC54000W-3-18	SPSM2250VDC90000W-3-24	SPSM2250VDC108000W-3-30	SPSM2250VDC144000W-3-36	SPSM2250VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>General</b>						
Graphic Display	4.3" Color touch LCD					
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware					
Rack Mount Handles	Yes					
FAN	Temperature control					
Protection	OCP, OVP, OPP, OTP, HARD FAIL					
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)					
Command Response Time	<3ms					
Emergency Stop Button	Yes					
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSA80VDC54000W-3-18	SPSA80VDC90000W-3-24	SPSA80VDC108000W-3-30	SPSA80VDC144000W-3-36	SPSA80VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~90.5%@80V, 3P208 ~86.5%@1800A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	3P208 ~90.5%@80V, 3P208 ~86.5%@3000A	
	3P400 ~92.2%@80V, 3P400 ~87.8%@1800A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	3P400 ~92.2%@80V, 3P400 ~87.8%@3000A	
<b>Output</b>						
Output Voltage	0~80V					
Output Current <sup>[2]</sup>	0~1800A	0~3000A	0~3000A	0~3000A	0~3000A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~1.4Ω	0~0.8Ω	0~0.7Ω	0~0.5Ω	0~0.4Ω	
Load Regulation <sup>[3]</sup>	Voltage	120mV	200mV	240mV	320mV	400mV
	Current	<0.15%Imax(2700mA)	<0.15%Imax(4500mA)	<0.15%Imax(4500mA)	<0.15%Imax(4500mA)	<0.15%Imax(4500mA)
Line Regulation	Voltage	<0.02%Umax(16mV)				
	Current	<0.05%Imax(900mA)	<0.05%Imax(1500mA)	<0.05%Imax(1500mA)	<0.05%Imax(1500mA)	<0.05%Imax(1500mA)
Voltage Setting	Range	0~84V(0~105%)				
	Resolution	0.001V (F.S. ≤ 999.999V)				
	Accuracy	<0.1% Umax(80mV)				
Current Setting	Range	0~1818A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(3600mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~1.4Ω	0~0.8Ω	0~0.7Ω	0~0.5Ω	0~0.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[4]</sup>	Voltage	<480mVpp, <37.5mVrms	<800mVpp, <62.5mVrms	<960mVpp, <75mVrms	<1280mVpp, <100mVrms	<1600mVpp, <125mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~84V(0~105%)				
	Resolution	0.001V (F.S. ≤ 999.999V)				
	Accuracy	<0.1%Umax(80mV)				
Current	Range	0~1818A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)	0~3030A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(3600mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)	<0.2%Imax(6000mA)
Ro	Range	0~1.4Ω	0~0.8Ω	0~0.7Ω	0~0.5Ω	0~0.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSA80VDC54000W-3-18	SPSA80VDC90000W-3-24	SPSA80VDC108000W-3-30	SPSA80VDC144000W-3-36	SPSA80VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~80V					
Input Current	0~900A	0~1500A	0~1800A	0~2400A	0~3000A	
Input Power	0~3000W	0~5000W	0~6000W	0~8000W	0~10000W	
Min.Operating Voltage	3V@900	3V@1500	3V@1800	3V@2400	3V@3000	
CC Resolution	90mA	150mA	180mA	240mA	300mA	
CC Accuracy	<0.2%Imax(1800mA)	<0.2%Imax(3000mA)	<0.2%Imax(3600mA)	<0.2%Imax(4800mA)	<0.2%Imax(6000mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(80mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(15000mW)	<0.5%Pmax(25000mW)	<0.5%Pmax(30000mW)	<0.5%Pmax(40000mW)	<0.5%Pmax(50000mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5			CSP8		
<b>Environmental</b>						
Operating Temperature <sup>[2]</sup>	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	< 2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSA165VDC36000W-3-18	SPSA165VDC60000W-3-24	SPSA165VDC72000W-3-30	SPSA165VDC96000W-3-36	SPSA165VDC120000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-123A	3P208 L1,L2,L3-200A	3P208 L1,L2,L3-247A	3P208 L1,L2,L3-330A	3P208 L1,L2,L3-414A	
	3P400 L1,L2,L3-67A	3P400 L1,L2,L3-100A	3P400 L1,L2,L3-132A	3P400 L1,L2,L3-175A	3P400 L1,L2,L3-221A	
Input Power Max	45KVA	75KVA	90KVA	120KVA	150KVA	
Efficiency <sup>[1]</sup>	3P208 ~90.5%@165V, 3P208 ~85%@540A	3P208 ~90.5%@165V, 3P208 ~85%@900A	3P208 ~90.5%@165V, 3P208 ~85%@1080A	3P208 ~90.5%@165V, 3P208 ~85%@1440A	3P208 ~90.5%@165V, 3P208 ~85%@1800A	
	3P400 ~91.5%@165V, 3P400 ~85.5%@540A	3P400 ~91.5%@165V, 3P400 ~85.5%@900A	3P400 ~91.5%@165V, 3P400 ~85.5%@1080A	3P400 ~91.5%@165V, 3P400 ~85.5%@1440A	3P400 ~91.5%@165V, 3P400 ~85.5%@1800A	
<b>Output</b>						
Output Voltage	0~165V					
Output Current <sup>[2]</sup>	0~540A	0~900A	0~1080A	0~1440A	0~1800A	
Output Power	0~36000W	0~60000W	0~72000W	0~96000W	0~120000W	
Ro	0~9.2Ω	0~5.5Ω	0~4.6Ω	0~3.5Ω	0~2.8Ω	
Load Regulation <sup>[3]</sup>	Voltage	247.5mV	412.5mV	495mV	660mV	825mV
	Current	<0.15%Imax(810mA)	<0.15%Imax(1350mA)	<0.15%Imax(1620mA)	<0.15%Imax(2160mA)	<0.15%Imax(2700mA)
Line Regulation	Voltage	<0.02%Umax(33mV)				
	Current	<0.05%Imax(270mA)	<0.05%Imax(450mA)	<0.05%Imax(540mA)	<0.05%Imax(720mA)	<0.05%Imax(900mA)
Voltage Setting	Range	0~173.25V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (165mV)				
Current Setting	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Power Setting	Range	0~36900W(0~102.5%)	0~61500W(0~102.5%)	0~73800W(0~102.5%)	0~98400W(0~102.5%)	0~123000W(0~102.5%)
	Resolution	0.1W(F.S.≤ 99.9KW),1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~9.2Ω	0~5.5Ω	0~4.6Ω	0~3.5Ω	0~2.8Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[4]</sup>	Voltage	<870mVpp, <75mVrms	<1350mVpp, <125mVrms	<1740mVpp, <150mVrms	<2320mVpp, <200mVrms	<2900mVpp, <250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~173.25V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (165mV)				
Current	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Ro	Range	0~9.2Ω	0~5.5Ω	0~4.6Ω	0~3.5Ω	0~2.8Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSA165VDC36000W-3-18	SPSA165VDC60000W-3-24	SPSA165VDC72000W-3-30	SPSA165VDC96000W-3-36	SPSA165VDC120000W-3-42
Power	Range	0~36900W(0~102.5%)	0~61500W(0~102.5%)	0~73800W(0~102.5%)	0~98400W(0~102.5%)	0~123000W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5			CSP8		
<b>Environmental</b>						
Operating Temperature <sup>[2]</sup>	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 78dB Max	52dB Min, 80dB Max	53dB Min, 81dB Max	55dB Min, 83dB Max	56dB Min, 84dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSA250VDC54000W-3-18	SPSA250VDC90000W-3-24	SPSA250VDC108000W-3-30	SPSA250VDC144000W-3-36	SPSA250VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1, L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~90.5%@250V, 3P208 ~85%@540A	3P208 ~90.5%@250V, 3P208 ~85%@900A	3P208 ~90.5%@250V, 3P208 ~85%@1080A	3P208 ~90.5%@250V, 3P208 ~85%@1440A	3P208 ~90.5%@250V, 3P208 ~85%@1800A	
	3P400 ~91.5%@250V, 3P400 ~85.5%@540A	3P400 ~91.5%@250V, 3P400 ~85.5%@900A	3P400 ~91.5%@250V, 3P400 ~85.5%@1080A	3P400 ~91.5%@250V, 3P400 ~85.5%@1440A	3P400 ~91.5%@250V, 3P400 ~85.5%@1800A	
<b>Output</b>						
Output Voltage	0~250V					
Output Current <sup>[2]</sup>	0~540A	0~900A	0~1080A	0~1440A	0~1800A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~13.9Ω	0~8.3Ω	0~7.0Ω	0~5.2Ω	0~4.2Ω	
Load Regulation <sup>[3]</sup>	Voltage	375mV	625mV	750mV	1000mV	1250mV
	Current	<0.15%Imax(810mA)	<0.15%Imax(1350mA)	<0.15%Imax(1620mA)	<0.15%Imax(2160mA)	<0.15%Imax(2700mA)
Line Regulation	Voltage	<0.02%Umax(50mV)				
	Current	<0.05%Imax(270mA)	<0.05%Imax(450mA)	<0.05%Imax(540mA)	<0.05%Imax(720mA)	<0.05%Imax(900mA)
Voltage Setting	Range	0~262.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax(250mV)				
Current Setting	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~13.9Ω	0~8.3Ω	0~7.0Ω	0~5.2Ω	0~4.2Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[4]</sup>	Voltage	<825mVpp, <75mVrms	<2125mVpp, <187.5mVrms	<1650mVpp, <150mVrms	<2200mVpp, <200mVrms	<2750mVpp, <250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~262.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (250mV)				
Current	Range	0~545.4A(0~101%)	0~909A(0~101%)	0~1090.8A(0~101%)	0~1454.4A(0~101%)	0~1818A(0~101%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(1080mA)	<0.2%Imax(1800mA)	<0.2%Imax(2160mA)	<0.2%Imax(2880mA)	<0.2%Imax(3600mA)
Ro	Range	0~13.9Ω	0~8.3Ω	0~7.0Ω	0~5.2Ω	0~4.2Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSA250VDC54000W-3-18	SPSA250VDC90000W-3-24	SPSA250VDC108000W-3-30	SPSA250VDC144000W-3-36	SPSA250VDC180000W-3-42
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5			CSP8		
<b>Environmental</b>						
Operating Temperature <sup>[2]</sup>	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] It is recommended that the output current is derated by 10% when the operation environment is higher than 30°C.

[3] Load transient from 0% to 100% of rated output.

[4] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.



## SPS-M/A Series DC Power Supply System

MODEL	SPSA360VDC54000W-3-18	SPSA360VDC90000W-3-24	SPSA360VDC108000W-3-30	SPSA360VDC144000W-3-36	SPSA360VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92.2%@360V, 3P208 ~90.5%@382.5A	3P208 ~92.2%@360V, 3P208 ~90.5%@637.5A	3P208 ~92.2%@360V, 3P208 ~90.5%@765A	3P208 ~92.2%@360V, 3P208 ~90.5%@1020A	3P208 ~92.2%@360V, 3P208 ~90.5%@1275A	
	3P400 ~92.5%@360V, 3P400 ~91%@382.5A	3P400 ~92.5%@360V, 3P400 ~91%@637.5A	3P400 ~92.5%@360V, 3P400 ~91%@765A	3P400 ~92.5%@360V, 3P400 ~91%@1020A	3P400 ~92.5%@360V, 3P400 ~91%@1275A	
<b>Output</b>						
Output Voltage	0~360V					
Output Current	0~382.5A	0~637.5A	0~765A	0~1020A	0~1275A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~28.2Ω	0~16.9Ω	0~14.1Ω	0~10.6Ω	0~8.5Ω	
Load Regulation <sup>[2]</sup>	Voltage	540mV	900mV	1080mV	1440mV	1800mV
	Current	<0.15%Imax(574mA)	<0.15%Imax(956mA)	<0.15%Imax(1147mA)	<0.15%Imax(1530mA)	<0.15%Imax(1912mA)
Line Regulation	Voltage	<0.02%Umax(72mV)				
	Current	<0.05%Imax(191mA)	<0.05%Imax(318mA)	<0.05%Imax(382mA)	<0.05%Imax(510mA)	<0.05%Imax(637mA)
Voltage Setting	Range	0~378V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1% Umax (360mV)				
Current Setting	Range	0~401.6A(0~105%)	0~669.3A(0~105%)	0~803.2A(0~105%)	0~1071A(0~105%)	0~1338.7A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax (765mA)	<0.2%Imax(1275mA)	<0.2%Imax(1530mA)	<0.2%Imax(2040mA)	<0.2%Imax(2550mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~28.2Ω	0~16.9Ω	0~14.1Ω	0~10.5Ω	0~8.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<480mVpp, <82.5mVrms	<800mVpp, <137.5mVrms	<960mVpp, <165mVrms	<1280mVpp, <220mVrms	<1600mVpp, <275mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~378V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V)				
	Accuracy	<0.1%Umax(360mV)				
Current	Range	0~401.6A(0~105%)	0~669.3A(0~105%)	0~803.2A(0~105%)	0~1071A(0~105%)	0~1338.7A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(765mA)	<0.2%Imax(1275mA)	<0.2%Imax(1530mA)	<0.2%Imax(2040mA)	<0.2%Imax(2550mA)
Ro	Range	0~28.2Ω	0~16.9Ω	0~14.1Ω	0~10.5Ω	0~8.4Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSA360VDC54000W-3-18	SPSA360VDC90000W-3-24	SPSA360VDC108000W-3-30	SPSA360VDC144000W-3-36	SPSA360VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~360V					
Input Current	0~225A	0~375A	0~450A	0~600A	0~750A	
Input Power	0~2925W	0~4875W	0~5850W	0~7800W	0~9750W	
Min.Operating Voltage	8V@120A	8V@200A	8V@240A	8V@320A	8V@400A	
CC Resolution	18mA	30mA	36mA	48mA	60mA	
CC Accuracy	<0.2%Imax(450mA)	<0.2%Imax(750mA)	<0.2%Imax(900mA)	<0.2%Imax(1200mA)	<0.2%Imax(1500mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(360mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(14625mW)	<0.5%Pmax(24375mW)	<0.5%Pmax(29250mW)	<0.5%Pmax(39000mW)	<0.5%Pmax(48750mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5		CSP8			
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	< 2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSA500VDC54000W-3-18	SPSA500VDC90000W-3-24	SPSA500VDC108000W-3-30	SPSA500VDC144000W-3-36	SPSA500VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92.5%@500V, 3P208 ~91%@288A	3P208 ~92.5%@500V, 3P208 ~91%@480A	3P208 ~92.5%@500V, 3P208 ~91%@576A	3P208 ~92.5%@500V, 3P208 ~91%@768A	3P208 ~92.5%@500V, 3P208 ~91%@960A	
	3P400 ~94%@500V, 3P400 ~92.5%@288A	3P400 ~94%@500V, 3P400 ~92.5%@480A	3P400 ~94%@500V, 3P400 ~92.5%@576A	3P400 ~94%@500V, 3P400 ~92.5%@768A	3P400 ~94%@500V, 3P400 ~92.5%@960A	
<b>Output</b>						
Output Voltage	0~500V					
Output Current	0~288A	0~480A	0~576A	0~768A	0~960A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~53Ω	0~31Ω	0~27Ω	0~20Ω	0~16Ω	
Load Regulation <sup>[2]</sup>	Voltage	750mV	1250mV	1500mV	2000mV	2500mV
	Current	<0.15%Imax(432mA)	<0.15%Imax(720mA)	<0.15%Imax(864mA)	<0.15%Imax(1152mA)	<0.15%Imax(1440mA)
Line Regulation	Voltage	<0.02%Umax(100mV)				
	Current	<0.05%Imax(144mA)	<0.05%Imax(240mA)	<0.05%Imax(288mA)	<0.05%Imax(384mA)	<0.05%Imax(480mA)
Voltage Setting	Range	0~525V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (500mV)				
Current Setting	Range	0~302.4A(0~105%)	0~504A(0~105%)	0~604.80A(0~105%)	0~806.4A(0~105%)	0~1008A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax (576mA)	<0.2%Imax(960mA)	<0.2%Imax(1152mA)	<0.2%Imax(1536mA)	<0.2%Imax(1920mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~53Ω	0~31Ω	0~27Ω	0~20Ω	0~16Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<975mVpp, <240mVrms	<1625mVpp, <400mVrms	<1950mVpp, <480mVrms	<2600mVpp, <640mVrms	<3250mVpp, <800mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~525V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1%Umax(500mV)				
Current	Range	0~302.4A(0~105%)	0~504A(0~105%)	0~604.80A(0~105%)	0~806.4A(0~105%)	0~1008A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(576mA)	<0.2%Imax(960mA)	<0.2%Imax(1152mA)	<0.2%Imax(1536mA)	<0.2%Imax(1920mA)
Ro	Range	0~53Ω	0~31Ω	0~27Ω	0~20Ω	0~16Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSA500VDC54000W-3-18	SPSA500VDC90000W-3-24	SPSA500VDC108000W-3-30	SPSA500VDC144000W-3-36	SPSA500VDC180000W-3-42
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~500V					
Input Current	0~120A	0~200A	0~240A	0~320A	0~400A	
Input Power	0~2925W	0~4875W	0~5850W	0~7800W	0~9750W	
Min.Operating Voltage	8V@120A	8V@200A	8V@240A	8V@320A	8V@400A	
CC Resolution	9mA	15mA	18mA	24mA	30mA	
CC Accuracy	<0.2%Imax(240mA)	<0.2%Imax(400mA)	<0.2%Imax(480mA)	<0.2%Imax(640mA)	<0.2%Imax(800mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(500mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(14625mW)	<0.5%Pmax(24375mW)	<0.5%Pmax(29250mW)	<0.5%Pmax(39000mW)	<0.5%Pmax(48750mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5			CSP8		
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	< 2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSA750VDC54000W-3-18	SPSA750VDC90000W-3-24	SPSA750VDC108000W-3-30	SPSA750VDC144000W-3-36	SPSA750VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1,L2,L3-180A	3P208 L1,L2,L3-300A	3P208 L1,L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1,L2,L3-90A	3P400 L1,L2,L3-150A	3P400 L1,L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92.5%@750V, 3P208 ~91%@189A	3P208 ~92.5%@750V, 3P208 ~91%@315A	3P208 ~92.5%@750V, 3P208 ~91%@378A	3P208 ~92.5%@750V, 3P208 ~91%@504A	3P208 ~92.5%@750V, 3P208 ~91%@630A	
	3P400 ~92.7%@750V, 3P400 ~92%@189A	3P400 ~92.7%@750V, 3P400 ~92%@315A	3P400 ~92.7%@750V, 3P400 ~92%@378A	3P400 ~92.7%@750V, 3P400 ~92%@504A	3P400 ~92.7%@750V, 3P400 ~92%@630A	
<b>Output</b>						
Output Voltage	0~750V					
Output Current	0~189A	0~315A	0~378A	0~504A	0~630A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~120Ω	0~71Ω	0~60Ω	0~45Ω	0~36Ω	
Load Regulation <sup>[2]</sup>	Voltage	1110mV	1850mV	2220mV	2960mV	3700mV
	Current	<0.15%Imax(283.5mA)	<0.15%Imax(472.5mA)	<0.15%Imax(567mA)	<0.15%Imax(756mA)	<0.15%Imax(945mA)
Line Regulation	Voltage	<0.02%Umax(150mV)				
	Current	<0.05%Imax(94.5mA)	<0.05%Imax(157.5mA)	<0.05%Imax(189mA)	<0.05%Imax(252mA)	<0.05%Imax(315mA)
Voltage Setting	Range	0~787.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (750mV)				
Current Setting	Range	0~198.45A(0~105%)	0~330.75A(0~105%)	0~396.9A(0~105%)	0~529.2A(0~105%)	0~661.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax (378mA)	<0.2%Imax(630mA)	<0.2%Imax(756mA)	<0.2%Imax(1008mA)	<0.2%Imax(1260mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~120Ω	0~71Ω	0~60Ω	0~45Ω	0~36Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<1500mVpp, <375mVrms	<2500mVpp, <625mVrms	<3000mVpp, <750mVrms	<4000mVpp, <1000mVrms	<5000mVpp, <1250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~787.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1%Umax(750mV)				
Current	Range	0~198.45A(0~105%)	0~330.75A(0~105%)	0~396.9A(0~105%)	0~529.2A(0~105%)	0~661.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(378mA)	<0.2%Imax(630mA)	<0.2%Imax(756mA)	<0.2%Imax(1008mA)	<0.2%Imax(1260mA)
Ro	Range	0~120Ω	0~71Ω	0~60Ω	0~45Ω	0~36Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSA750VDC54000W-3-18	SPSA750VDC90000W-3-24	SPSA750VDC108000W-3-30	SPSA750VDC144000W-3-36	SPSA750VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Sink Function</b>						
Input Voltage	0~750V					
Input Current	0~75A	0~125A	0~150A	0~200A	0~250A	
Input Power	0~2925W	0~4875W	0~5850W	0~7800W	0~9750W	
Min.Operating Voltage	5V@75A	5V@125A	5V@150A	5V@200A	5V@250A	
CC Resolution	9mA	15mA	18mA	24mA	30mA	
CC Accuracy	<0.2%Imax(150mA)	<0.2%Imax(250mA)	<0.2%Imax(300mA)	<0.2%Imax(400mA)	<0.2%Imax(500mA)	
CV Resolution	< 4mV					
CV Accuracy	<0.1%Umax(750mV)					
CP Resolution	4.5W	7.5W	9W	12W	15W	
CP Accuracy	<0.5%Pmax(14625mW)	<0.5%Pmax(24375mW)	<0.5%Pmax(29250mW)	<0.5%Pmax(39000mW)	<0.5%Pmax(48750mW)	
Slew Rate	0.01~2.5A/us					
Dynamic Mode	20~50ms					
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5		CSP8			
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	< 2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL	SPSA1000VDC36000W-3-18	SPSA1000VDC60000W-3-24	SPSA1000VDC72000W-3-30	SPSA1000VDC96000W-3-36	SPSA1000VDC120000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Ground, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1, L2,L3-123A	3P208 L1, L2,L3-200A	3P208 L1, L2,L3-247A	3P208 L1,L2,L3-330A	3P208 L1,L2,L3-414A	
	3P400 L1, L2,L3-67A	3P400 L1, L2,L3-100A	3P400 L1, L2,L3-132A	3P400 L1,L2,L3-175A	3P400 L1,L2,L3-221A	
Input Power Max	45KVA	75KVA	90KVA	120KVA	150KVA	
Efficiency <sup>[1]</sup>	3P208 ~92%@1000V, 3P208 ~90%@96A	3P208 ~92%@1000V, 3P208 ~90%@160A	3P208 ~92%@1000V, 3P208 ~90%@192A	3P208 ~92%@1000V, 3P208 ~90%@256A	3P208 ~92%@1000V, 3P208 ~90%@320A	
	3P400 ~93.5%@1000V, 3P400 ~92%@96A	3P400 ~93.5%@1000V, 3P400 ~92%@160A	3P400 ~93.5%@1000V, 3P400 ~92%@192A	3P400 ~93.5%@1000V, 3P400 ~92%@256A	3P400 ~93.5%@1000V, 3P400 ~92%@320A	
<b>Output</b>						
Output Voltage	0~1000V					
Output Current	0~96A	0~160A	0~192A	0~256A	0~320A	
Output Power	0~36000W	0~60000W	0~72000W	0~96000W	0~120000W	
Ro	0~312.5Ω	0~187.5Ω	0~156.25Ω	0~117.19Ω	0~93.75Ω	
Load Regulation <sup>[2]</sup>	Voltage	1500mV	2500mV	3000mV	4000mV	5000mV
	Current	<0.15%Imax(144mA)	<0.15%Imax(240mA)	<0.15%Imax(288mA)	<0.15%Imax(384mA)	<0.15%Imax(480mA)
Line Regulation	Voltage	<0.02%Umax(200mV)				
	Current	<0.05%Imax(48mA)	<0.05%Imax(80mA)	<0.05%Imax(96mA)	<0.05%Imax(128mA)	<0.05%Imax(160mA)
Voltage Setting	Range	0~1050V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1000mV)				
Current Setting	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~312.5Ω	0~187.5Ω	0~156.25Ω	0~117.19Ω	0~93.75Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<2250mVpp, <480mVrms	<3750mVpp, <800mVrms	<4500mVpp, <960mVrms	<6000mVpp, <1280mVrms	<7500mVpp, <1600mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~1050V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1000mV)				
Current	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Ro	Range	0~312.5Ω	0~187.5Ω	0~156.25Ω	0~117.19Ω	0~93.75Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL		SPSA1000VDC36000W-3-18	SPSA1000VDC60000W-3-24	SPSA1000VDC72000W-3-30	SPSA1000VDC96000W-3-36	SPSA1000VDC120000W-3-42
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5			CSP8		
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	< 2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 78dB Max	52dB Min, 80dB Max	53dB Min, 81dB Max	55dB Min, 83dB Max	56dB Min, 84dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x HxD)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.



## SPS-M/A Series DC Power Supply System

MODEL	SPSA1500VDC54000W-3-18	SPSA1500VDC90000W-3-24	SPSA1500VDC108000W-3-30	SPSA1500VDC144000W-3-36	SPSA1500VDC180000W-3-42	
<b>Input</b>						
Voltage <sup>[1]</sup>	3P208 187~305VAC					
	3P400 340~480VAC					
	ΔConnect					
Frequency	45-65Hz					
Phase	3 Phase, 3Wire+Groud, ΔConnect					
Power Factor	>0.99(Rate Input Voltage, Full Load)					
Max.Current <sup>[1]</sup>	3P208 L1, L2,L3-180A	3P208 L1, L2,L3-300A	3P208 L1, L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A	
	3P400 L1, L2,L3-90A	3P400 L1, L2,L3-150A	3P400 L1, L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A	
Input Power Max	67KVA	112KVA	135KVA	180KVA	225KVA	
Efficiency <sup>[1]</sup>	3P208 ~92%@1500V, 3P208 ~90%@96A	3P208 ~92%@1500V, 3P208 ~90%@160A	3P208 ~92%@1500V, 3P208 ~90%@192A	3P208 ~92%@1500V, 3P208 ~90%@256A	3P208 ~92%@1500V, 3P208 ~90%@320A	
	3P400 ~93.5%@1500V, 3P400 ~92%@96A	3P400 ~93.5%@1500V, 3P400 ~92%@160A	3P400 ~93.5%@1500V, 3P400 ~92%@192A	3P400 ~93.5%@1500V, 3P400 ~92%@256A	3P400 ~93.5%@1500V, 3P400 ~92%@320A	
<b>Output</b>						
Output Voltage	0~1500V					
Output Current	0~96A	0~160A	0~192A	0~256A	0~320A	
Output Power	0~54000W	0~90000W	0~108000W	0~144000W	0~180000W	
Ro	0~468.75Ω	0~281.25Ω	0~234.38Ω	0~175.79Ω	0~140.63Ω	
Load Regulation <sup>[2]</sup>	Voltage	2250mV	3750mV	4500mV	6000mV	7500mV
	Current	<0.15%Imax(144mA)	<0.15%Imax(240mA)	<0.15%Imax(288mA)	<0.15%Imax(384mA)	<0.15%Imax(480mA)
Line Regulation	Voltage	<0.02%Umax(300mV)				
	Current	<0.05%Imax(48mA)	<0.05%Imax(80mA)	<0.05%Imax(96mA)	<0.05%Imax(128mA)	<0.05%Imax(160mA)
Voltage Setting	Range	0~1575V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1500mV)				
Current Setting	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~468.75Ω	0~281.25Ω	0~234.38Ω	0~175.79Ω	0~140.63Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<2925mVpp, <975mVrms	<4875mVpp, <1625mVrms	<5850mVpp, <1950mVrms	<7800mVpp, <2600mVrms	<9750mVpp, <3250mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~1575V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (1500mV)				
Current	Range	0~100.8A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)	0~268.8A(0~105%)	0~336A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(192mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)	<0.2%Imax(512mA)	<0.2%Imax(640mA)
Ro	Range	0~468.75Ω	0~281.25Ω	0~234.38Ω	0~175.79Ω	0~140.63Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSA1500VDC54000W-3-18	SPSA1500VDC90000W-3-24	SPSA1500VDC108000W-3-30	SPSA1500VDC144000W-3-36	SPSA1500VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5		CSP8			
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	<2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x HxD)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

## SPS-M/A Series DC Power Supply System

MODEL		SPSA2250VDC54000W-3-18	SPSA2250VDC90000W-3-24	SPSA2250VDC108000W-3-30	SPSA2250VDC144000W-3-36	SPSA2250VDC180000W-3-42
<b>Input</b>						
Voltage <sup>[1]</sup>		3P208 187~305VAC				
		3P400 340~480VAC				
		ΔConnect				
Frequency		45-65Hz				
Phase		3 Phase, 3Wire+Ground, ΔConnect				
Power Factor		>0.99(Rate Input Voltage, Full Load)				
Max.Current <sup>[1]</sup>		3P208 L1, L2,L3-180A	3P208 L1, L2,L3-300A	3P208 L1, L2,L3-400A	3P208 L1,L2,L3-480A	3P208 L1,L2,L3-600A
		3P400 L1, L2,L3-90A	3P400 L1, L2,L3-150A	3P400 L1, L2,L3-180A	3P400 L1,L2,L3-240A	3P400 L1,L2,L3-300A
Input Power Max		67KVA	112KVA	135KVA	180KVA	225KVA
Efficiency <sup>[1]</sup>		3P208 92%@2250V, 3P208 90.5%@63A	3P208 92%@2250V, 3P208 90.5%@105A	3P208 92%@2250V, 3P208 90.5%@126A	3P208 92%@2250V, 3P208 90.5%@168A	3P208 92%@2250V, 3P208 90.5%@210A
		3P400 92.5%@2250V, 3P400 91.5%@63A	3P400 92.5%@2250V, 3P400 91.5%@105A	3P400 92.5%@2250V, 3P400 91.5%@126A	3P400 92.5%@2250V, 3P400 91.5%@168A	3P400 92.5%@2250V, 3P400 91.5%@210A
<b>Output</b>						
Output Voltage		0~2250V				
Output Current		0~63A	0~105A	0~126A	0~168A	0~210A
Output Power		0~54000W	0~90000W	0~108000W	0~144000W	0~180000W
Ro		0~1072Ω	0~642Ω	0~536Ω	0~402Ω	0~322Ω
Load Regulation <sup>[2]</sup>	Voltage	2850mV	4750mV	5700mV	7600mV	9500mV
	Current	<0.15%Imax(94.5mA)	<0.15%Imax(157.5mA)	<0.15%Imax(189mA)	<0.15%Imax(252mA)	<0.15%Imax(315mA)
Line Regulation	Voltage	<0.02%Umax(450mV)				
	Current	<0.05%Imax(31.5mA)	<0.05%Imax(52.5mA)	<0.05%Imax(63mA)	<0.05%Imax(84mA)	<0.05%Imax(105mA)
Voltage Setting	Range	0~2362.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (2250mV)				
Current Setting	Range	0~66.15A(0~105%)	0~110.25A(0~105%)	0~132.3A(0~105%)	0~176.4A(0~105%)	0~220.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(126mA)	<0.2%Imax(210mA)	<0.2%Imax(252mA)	<0.2%Imax(336mA)	<0.2%Imax(420mA)
Power Setting	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
Ro Setting	Range	0~1072Ω	0~642Ω	0~536Ω	0~402Ω	0~322Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				
Ripple <sup>[3]</sup>	Voltage	<4800mVpp, <1125mVrms	<8000mVpp, <1875mVrms	<9600mVpp, <2250mVrms	<12800mVpp, <3000mVrms	<16000mVpp, <3750mVrms
	Current	NA				
<b>Measurement</b>						
Voltage	Range	0~2362.5V(0~105%)				
	Resolution	0.001V (F.S. ≤999.999V), 0.01V(F.S. > 999.999V)				
	Accuracy	<0.1% Umax (2250mV)				
Current	Range	0~66.15A(0~105%)	0~110.25A(0~105%)	0~132.3A(0~105%)	0~176.4A(0~105%)	0~220.5A(0~105%)
	Resolution	0.001A(F.S. ≤ 999.999A), 0.01A(F.S. > 999.999A)				
	Accuracy	<0.2%Imax(126mA)	<0.2%Imax(210mA)	<0.2%Imax(252mA)	<0.2%Imax(336mA)	<0.2%Imax(420mA)
Ro	Range	0~1072Ω	0~642Ω	0~536Ω	0~402Ω	0~322Ω
	Resolution	0.0001Ω				
	Accuracy	R<2%Rmax,I<0.3%Imax				

## SPS-M/A Series DC Power Supply System

MODEL	SPSA2250VDC54000W-3-18	SPSA2250VDC90000W-3-24	SPSA2250VDC108000W-3-30	SPSA2250VDC144000W-3-36	SPSA2250VDC180000W-3-42	
Power	Range	0~55350W(0~102.5%)	0~92250W(0~102.5%)	0~110700W(0~102.5%)	0~147600W(0~102.5%)	0~184500W(0~102.5%)
	Resolution	0.1W(F.S. ≤ 99.9KW), 1W(F.S. > 99.9KW)				
	Accuracy	<0.5%F.S.+ 270W	<0.5%F.S.+ 450W	<0.5%F.S.+ 540W	<0.5%F.S.+ 720W	<0.5%F.S.+ 900W
<b>Control &amp; Supervisory Panel</b>						
Model	CSP5		CSP8			
<b>Environmental</b>						
Operating Temperature	0°C~40°C					
Storage Temperature	-20°C~70°C					
Altitude	< 2000m					
Relative Humidity	<95%RH(Non-condensing)@35°C, <80%RH(Non-condensing)@40°C					
Noise	50dB Min, 80dB Max	52dB Min, 82dB Max	53dB Min, 83dB Max	55dB Min, 85dB Max	56dB Min, 86dB Max	
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current					
<b>Mechanical</b>						
Dimensions(W x H x D)	560.0x790.0x920.0 mm	560.0x1056.0x920.0 mm	560.0x1324.0x920.0 mm	560.0x1590.0x920.0 mm	560.0x1857.0x920.0 mm	
Package Dimensions (W x H x D)	/	/	/	/	/	
Unit Weight	/	/	/	/	/	
Shipping Weight	/	/	/	/	/	
<b>Regulatory Compliance</b>						
CE Mark	Installation Overvoltage Category II; Class II equipment; indoor use only.					

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.

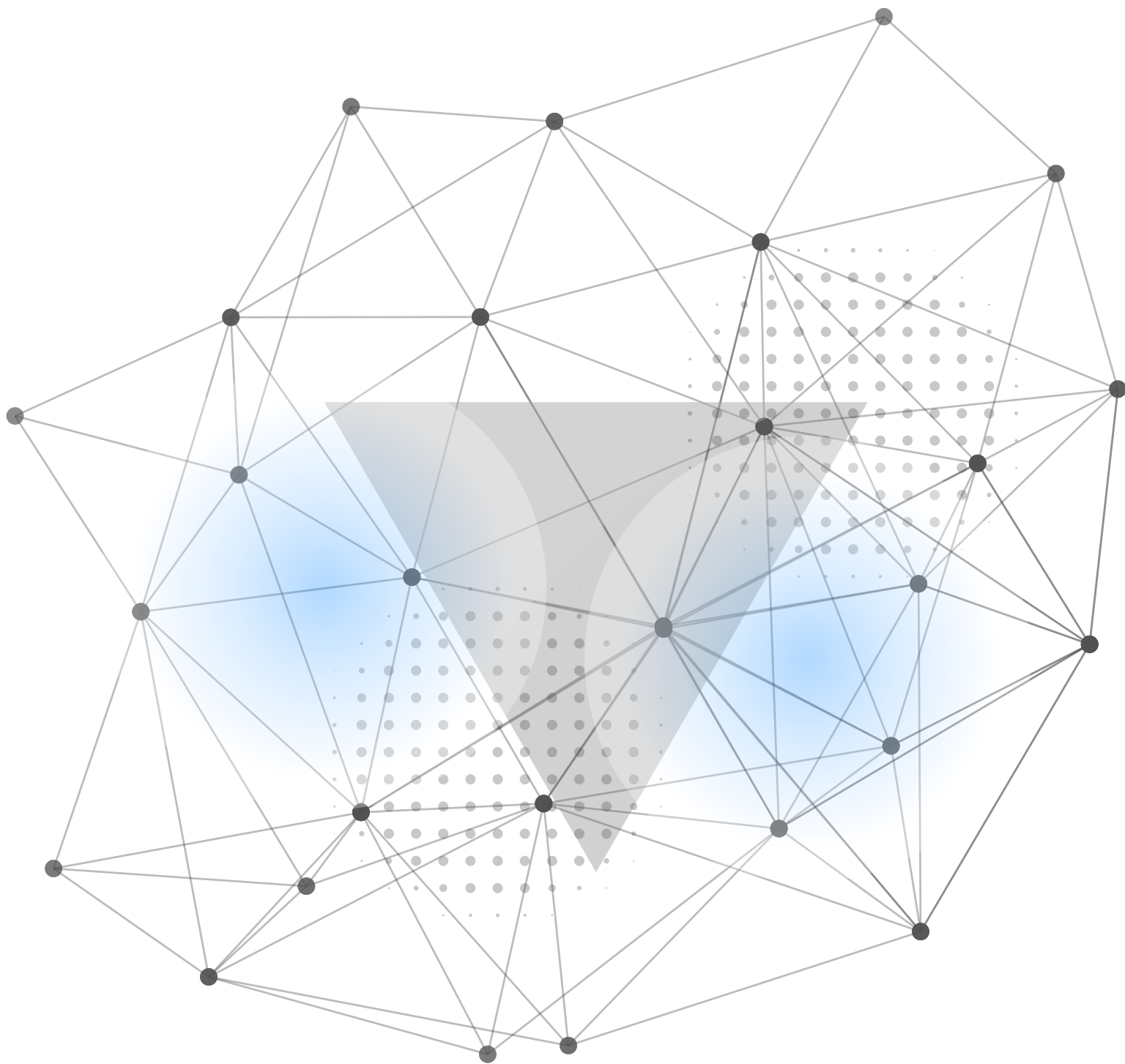
[2] Load transient from 0% to 100% of rated output.

[3] Vrms @ 300kHz, Vpp @ 20MHz, Arms @ 300kHz.

All specifications are subject to change without notice.

Model		CSP8		CSP5	
Control Unit		1~10 (3U Height Unit)	1~5 (6U Height Unit)	1~5 (3U Height Unit)	1~2 (6U Height Unit)
<b>Input</b>					
Input Voltage Range (L-L) <sup>[1]</sup>		187~305VAC	/	187~305VAC	/
Rated Voltage (L-L) <sup>[1]</sup>		340~480VAC			
Input Frequency Range		45-65Hz			
Wires		3ph, PE			
Max Current <sup>[1]</sup>		800A@208V Input	800A@208V Input	400A@208V Input	400A@208V Input
		400A@400V Input	400A@400V Input	200A@400V Input	200A@400V Input
Max Power		230kVA	230kVA	120kVA	120kVA
<b>Timer Setting</b>					
Power OFF Timer		DDD/HH/MM			
<b>Sequential Control Settings</b>					
Power ON Sequence		From the first Slave unit to the last Slave unit			
Power OFF Sequence		All slave units Power Off at the same time			
ON/OFF Control		Manual/Timer/Remote			
<b>Power Meter</b>					
Voltage(L1/L2/L3)	Range	180~460VAC			
	Resolution	0.01V			
	Accuracy	± 0.2%			
Frequency	Resolution	0.01Hz			
	Accuracy	± 0.2%			
Current(L1/L2/L3)	Range	0~800A		0~400A	
	Resolution	0.01A			
	Accuracy	± 0.8%			
Power	Resolution	0.001kW			
	Accuracy	± 1.5%			
Power Factor	Resolution	0.01			
	Accuracy	± 1%			
<b>Protection</b>					
OVP		+10% of Nominal Input			
UVP		-10% of Nominal Input			
OCP		+10% of Max. Input Current			
OFF/UFP		50Hz±5Hz/60Hz±5Hz			
Phase Loss		Alarm and stop operation when lose any phase			
<b>Safety</b>					
Emergency Stop		Multiple rack cabinet EMS can be connected in series			
		Extendable EMS switch			
<b>General Specification</b>					
Controller Power Supply	Input Voltage	187~253VAC			
		340~460VAC			
	Frequency	45-65Hz			
	Power Consumption	55W	60W	44W	50W
	Standby Power	28W	28W	28W	28W
Graphic Display		4.3" Color touch LCD			
Operation Key Feature		Soft keys, Numeric keys, Rotary knob, USB port for transfer and upgrading firmware			
Interface		RS232/RS485/USB(Standard), GPIB & LAN(Optional), CAN(Optional)			
Command Response Time		<3ms			
<b>Environmental</b>					
Operating Temperature		0~40°C			
Storage Temperature		-20~70°C			
Temperature Coefficient		<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C			
Relative Humidity		<2000m			
Cooling Method		Forced air cooling			
<b>Mechanical</b>					
Dimensions(WxHxD)		423.0 x 353.0 x 578.0 mm		423.0 x 220.0 x 578.0 mm	
Unit Weight		28kg		20kg	
<b>Withstanding Voltage</b>					
Primary - Chassis		DC 2121V			
Primary - Secondary		DC 4242V			
Secondary - Chassis		DC 2121V			

[1] For different input voltage standard option must be specified at the time of order as they are installed at the factory prior to shipment.



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