

Efficiency, Stability, Reliable, Precision



## *High Power DC Power Supply*

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# High Power DC Power Supply

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## Selection List:

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SP80VDC6000W	80V	200A	6000W	P01
SP80VDC12000W	80V	400A	12000W	P01
SP80VDC18000W	80V	600A	18000W	P01
SP80VDC24000W	80V	800A	24000W	P03
SP80VDC30000W	80V	1000A	30000W	P03
SP80VDC36000W	80V	1200A	36000W	P03
SP165VDC12000W	165V	200A	12000W	P05
SP165VDC24000W	165V	400A	24000W	P05
SP250VDC18000W	250V	200A	18000W	P07
SP250VDC36000W	250V	400A	36000W	P07
SP500VDC6000W	500V	32A	6000W	P09
SP500VDC12000W	500V	64A	12000W	P09
SP500VDC18000W	500V	96A	18000W	P09
SP500VDC24000W	500V	128A	24000W	P11
SP500VDC30000W	500V	160A	30000W	P11
SP500VDC36000W	500V	192A	36000W	P11
SP1000VDC12000W	1000V	32A	12000W	P13
SP1000VDC24000W	1000V	64A	24000W	P13
SP1500VDC18000W	1500V	32A	18000W	P15
SP1500VDC36000W	1500V	64A	36000W	P15

# High Power DC Power Supply

MODEL	SP80VDC6000W	SP80VDC12000W	SP80VDC18000W	
<b>INPUT</b>				
Voltage <sup>[1]</sup>	187~253VAC			
	340~460VAC			
Current <sup>[1]</sup>	3P208 L1-0, L2,L3-38A	3P208 L1-60A, L2,L3-38A	3P208 L1,L2,L3-60A	
	3P400 L1-0, L2,L3-19A	3P400 L1-30A, L2,L3-19A	3P400 L1,L2,L3-30A	
Frequency	45~65Hz			
Connection	2ph, PE	3ph, PE	3ph, PE	
Fusing (Internal) <sup>[1]</sup>	T50A*2pcs			
	T30A*2pcs			
Power Factor	>0.99			
Input Power	7.3KVAmx	14.6KVAmx	22KVAmx	
Efficiency <sup>[1]</sup>	3P208 90.5%@80V, 3P208 86.5%@200A			
	3P400 92.2%@80V, 3P400 87.8%@200A			
<b>OUTPUT</b>				
Voltage Range	0~80V			
Current Range <sup>[2]</sup>	0~200A	0~400A	0~600A	
Power Range	0~6000W	0~12000W	0~18000W	
Max. Setup Range	Voltage	0~84V(0~105%)		
	Current	0~210A(0~105%)	0~420A(0~105%)	0~630A(0~105%)
	Power	0~6300W(0~105%)	0~12600W(0~105%)	0~18900W(0~105%)
	Internal Resistance	0~12Ω	0~6Ω	0~4Ω
Accuracy	Voltage	<0.1%Umax(80mV)		
	Current	<0.2%Imax(400mA)	<0.2%Imax(800mA)	<0.2%Imax(1200mA)
	Power	<0.5%+30W	<0.5%+60W	<0.5%+90W
	Internal Resistance	R<2% Rmax, I<0.3% Imax		
Line Regulation	Voltage	<0.02%Umax(16mV)		
	Current	<0.05%Imax(100mA)	<0.05%Imax(200mA)	<0.05%Imax(300mA)
	Power	<0.05%Pmax		
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(40mV) @Rated Voltage, <0.1%Umax(80mV) @Rated Current		
	Current	<0.15%Imax(300mA)	<0.15%Imax(600mA)	<0.15%Imax(900mA)
	Power	<0.75%Pmax		
Rise Time	Voltage	<15ms (No Load) <30ms (Full Load)		
Drop Time	Voltage	<850ms (No Load) <15ms (Full Load)		
Transient Response Time	Voltage	≤1.5ms/0.8V		
Display Resolution	Voltage	0.001V		
	Current	0.001A		
	Power	0.1W		
	Internal Resistance	0.0001Ω		
Measurement Accuracy	Voltage	<0.1%Umax(80mV)		
	Current	<0.2%Imax(400mA)	<0.2%Imax(800mA)	<0.2%Imax(1200mA)
	Power	<0.5%Pmax		
	Internal Resistance	<0.4%Rmax		
Ripple <sup>[4]</sup>	Voltage	<180mVpp, <15mVrms	<288mVpp, <23mVrms	<320mVpp, <25mVrms
	Current	<100mArms	<200mArms	<300mArms
Remote Compensation	Voltage	5%Umax(4V)		
<b>Sink Function</b>				
Input Voltage	0~80V			
Input Current	0~99A	0~198A	0~297A	
Input Power	0~325W	0~650W	0~1000W	
Min. Operating Voltage	1.8V@5A			
CC Resolution	10mA			

MODEL	SP80VDC6000W	SP80VDC12000W	SP80VDC18000W
CC Accuracy	<0.2%Imax(198mA)	<0.2%Imax(396mA)	<0.2%Imax(594mA)
CV Resolution	<4mV		
CV Accuracy	<0.1%Umax(80mV)		
CP Resolution	0.5W		
CP Accuracy	<0.5%Pmax(1625mW)	<0.5%Pmax(3250mW)	<0.5%Pmax(5000mW)
Slew Rate	0.01~2.5A/us		
Dynamic Mode	20ms~50s		
GENERAL			
Graphic Display	4.3"Color touch LCD		
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, Support USB disk		
Rack Mount Handles	Yes		
FAN	Temperature control		
Protection	OCP, OVP, OPP, OTP, HARD FALL		
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)		
Command Response Time	<3ms		
ANALOG INTERFACE(Optional)			
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power		
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.		
Accuracy U/I/P/R	<0.2% F.S		
Actual Output U/I	<0.2%		
Control Signals	DC ON/OFF, Remote Control ON/OFF		
Status Signals	CV, OVP, OT		
Sample Rate of Input&Output	45Hz		
Galvanic Isolation to the Device	1.5kVDC		
MASTER/SLAVE CONTROL			
Serial Output	MAX 2 units		
Parallel Output	MAX 16 units		
ENVIRONMENTAL			
Operating Temperature <sup>[2]</sup>	0~40°C		
Storage Temperature	-20~70°C		
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)		
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C		
Altitude	<2000m@40°C		
Fan Noise	45dB Idle; 71dB Max;	45dB Idle; 73dB Max;	45dB Idle; 75dB Max;
MECHANICAL			
Dimensions ( WxHxD )	483.0x132.0x800.0 mm		
Package Dimensions ( WxHxD )	665.0x347.0x1009.0 mm		
Unit Net Weight	23kg	34kg	45kg
Net Weight	32kg	43kg	54kg
MISCELLANEOUS			
Over Voltage Category	II		
Protection Class	I		
Pollution Degree	2		
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC		

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.

# High Power DC Power Supply

MODEL	SP80VDC24000W	SP80VDC30000W	SP80VDC36000W	
<b>INPUT</b>				
Voltage <sup>[1]</sup>	200~253VAC			
	340~460VAC			
Current <sup>[1]</sup>	3P208 L1-60A, L2,L3-103A	3P208 L1-125A,L2,L3-103A	3P208 L1,L2,L3-125A	
	3P400 L1-30A, L2,L3-49A	3P400 L1-63A,L2,L3-49A	3P400 L1,L2,L3-63A	
Frequency	45~65Hz			
Connection	3ph, PE			
Fusing (Internal) <sup>[1]</sup>	T50A*2pcs			
	T30A*2pcs			
Power Factor	>0.99			
Input Power	26.6KVAmx	33.3KVAmx	44.0KVAmx	
Efficiency <sup>[1]</sup>	3P208 90.5%@80V, 3P208 86.5%@200A			
	3P400 92.2%@80V, 3P400 87.8%@200A			
<b>OUTPUT</b>				
Voltage Range	0~80V			
Current Range <sup>[2]</sup>	0~800A	0~1000A	0~1200A	
Power Range	0~24000W	0~30000W	0~36000W	
Max. Setup Range	Voltage	0~84V(0~105%)		
	Current	0~840A(0~105%)	0~1050A(0~105%)	0~1260A(0~105%)
	Power	0~26400W(0~105%)	0~31500W(0~105%)	0~37800W(0~105%)
	Internal Resistance	0~3.0Ω	0~2.4Ω	0~2.0Ω
Accuracy	Voltage	<0.1%Umax(80mV)		
	Current	<0.2%Imax(1600mA)	<0.2%Imax(2000mA)	<0.2%Imax(2400mA)
	Power	<1%+120W	<1%+150W	<1%+180W
	Internal Resistance	R<2% Rmax, I<0.3% Imax		
Line Regulation	Voltage	<0.02%Umax(16mV)		
	Current	<0.05%Imax(400mA)	<0.05%Imax(500mA)	<0.05%Imax(600mA)
	Power	<0.05%Pmax		
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(40mV) @Rated Voltage, <0.1%Umax(80mV) @Rated Current		
	Current	<0.15%Imax(1200mA)	<0.15%Imax(1500mA)	<0.15%Imax(1800mA)
	Power	<0.75%Pmax		
Rise Time	Voltage <15ms (No Load) <30ms (Full Load)			
Drop Time	Voltage <850ms (No Load) <15ms (Full Load)			
Transient Response Time	Voltage ≤1.5ms/0.8V			
Display Resolution	Voltage	0.001V		
	Current	0.001A	0.01A	0.01A
	Power	0.1W		
	Internal Resistance	0.0001Ω		
Measurement Accuracy	Voltage	<0.1%Umax(80mV)		
	Current	<0.2%Imax(1600mA)	<0.2%Imax(2000mA)	<0.2%Imax(2400mA)
	Power	<0.5%Pmax		
	Internal Resistance	<0.4%Rmax		
Ripple <sup>[4]</sup>	Voltage	<320mVpp, <25mVrms		
	Current	<360mArms	<450mArms	<540mArms
Remote Compensation	Voltage	5%Umax(4V)		
<b>Sink Function</b>				
Input Voltage	0~80V			
Input Current	0~396A	0~495A	0~594A	
Input Power	0~1300W	0~1600W	0~2000W	
Min. Operating Voltage	1.8V@5A			
CC Resolution	10mA			



MODEL	SP80VDC24000W	SP80VDC30000W	SP80VDC36000W
CC Accuracy	<0.2%Imax(792mA)	<0.2%Imax(990mA)	<0.2%Imax(1188mA)
CV Resolution	<4mV		
CV Accuracy	<0.1%Umax(80mV)		
CP Resolution	0.5W		
CP Accuracy	<0.5%Pmax(6500mW)	<0.5%Pmax(8000mW)	<0.5%Pmax(10000mW)
Slew Rate	0.01~2.5A/us		
Dynamic Mode	20ms~50s		
GENERAL			
Graphic Display	4.3"Color touch LCD		
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, Support USB disk		
Rack Mount Handles	Yes		
FAN	Temperature control		
Protection	OCP, OVP, OPP, OTP, HARD FALL		
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)		
Command Response Time	<3ms		
ANALOG INTERFACE(Optional)			
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power		
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.		
Accuracy U/I/P/R	<0.2% F.S		
Actual Output U/I	<0.2%		
Control Signals	DC ON/OFF, Remote Control ON/OFF		
Status Signals	CV, OVP, OT		
Sample Rate of Input&Output	45Hz		
Galvanic Isolation to the Device	1.5kVDC		
MASTER/SLAVE CONTROL			
Serial Output	MAX 2 units		
Parallel Output	MAX 16 units		
ENVIRONMENTAL			
Operating Temperature <sup>[2]</sup>	0~40°C		
Storage Temperature	-20~70°C		
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)		
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C		
Altitude	<2000m@40°C		
Fan Noise	48dB Idle; 77dB Max;	48dB Idle; 80dB Max;	48dB Idle; 82dB Max;
MECHANICAL			
Dimensions ( WxHxD )	483.0x265.0x883.0 mm 483.0x365.0x883.0 mm (Wheels included)		
Package Dimensions ( WxHxD )	/		
Unit Net Weight	67.6kg	78.8kg	90kg
Net Weight	97.6kg	108.8kg	120kg
MISCELLANEOUS			
Over Voltage Category	II		
Protection Class	I		
Pollution Degree	2		
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC		

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.

# High Power DC Power Supply

MODEL		SP165VDC12000W	SP165VDC24000W
<b>INPUT</b>			
Voltage <sup>[1]</sup>		187~253VAC	200~253VAC
		340~460VAC	
Current <sup>[1]</sup>		3P208 L1-60A, L2,L3-38A	3P208 L1-125A,L2,L3-103A
		3P400 L1-30A, L2,L3-19A	3P400 L1-63A,L2,L3-49A
Frequency		45~65Hz	
Connection		3ph, PE	
Fusing (Internal) <sup>[1]</sup>		T50A*2pcs	
		T30A*2pcs	
Power Factor		>0.99	
Input Power		14.6KVAmx	26.6KVAmx
Efficiency <sup>[1]</sup>		3P208 90.2%@80V, 3P208 84.5%@200A	
		3P400 91.8%@80V, 3P400 85.6%@200A	
<b>OUTPUT</b>			
Voltage Range		0~165V	
Current Range <sup>[2]</sup>		0~200A	0~400A
Power Range		0~12000W	0~24000W
Max. Setup Range	Voltage	0~173.25V(0~105%)	
	Current	0~210A(0~105%)	0~420A(0~105%)
	Power	0~12600W(0~105%)	0~25200W(0~105%)
	Internal Resistance	0~24.8Ω	0~12.4Ω
Accuracy	Voltage	<0.1%Umax(165mV)	
	Current	<0.2%Imax(400mA)	<0.2%Imax(800mA)
	Power	<0.5%+60W	<1%+120W
	Internal Resistance	R<2% Rmax, I<0.3% Imax	
Line Regulation	Voltage	<0.02%Umax(33mV)	
	Current	<0.05%Imax(100mA)	<0.05%Imax(200mA)
	Power	<0.05%Pmax	
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(82.5mV) @Rated Voltage, <0.1%Umax(165mV) @Rated Current	
	Current	<0.15%Imax(300mA)	<0.15%Imax(600mA)
	Power	<0.75%Pmax	
Rise Time	Voltage	<15ms (No Load) <30ms (Full Load)	
Drop Time	Voltage	<900ms (No Load) <15ms (Full Load)	
Transient Response Time	Voltage	≤1.5ms/1.6V	
Display Resolution	Voltage	0.001V	
	Current	0.001A	
	Power	0.1W	
	Internal Resistance	0.0001Ω	
Measurement Accuracy	Voltage	<0.1%Umax(165mV)	
	Current	<0.2%Imax(400mA)	<0.2%Imax(800mA)
	Power	<0.5%Pmax	
	Internal Resistance	<0.4%Rmax	
Ripple <sup>[4]</sup>	Voltage	<580mVpp, <50mVrms	
	Current	<100mArms	<200mArms
Remote Compensation	Voltage	2%Umax(3.3V)	
<b>GENERAL</b>			
Graphic Display		4.3"Color touch LCD	
Operation Key Feature		Soft keys, Numeric keys, Rotary knob, Support USB disk	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OCP, OVP, OPP, OTP, HARD FALL	

MODEL	SP165VDC12000W	SP165VDC24000W
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)	
Command Response Time	<3ms	
<b>ANALOG INTERFACE(Optional)</b>		
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R	<0.2% F.S	
Actual Output U/I	<0.2%	
Control Signals	DC ON/OFF, Remote Control ON/OFF	
Status Signals	CV, OVP, OT	
Sample Rate of Input&Output	45Hz	
Galvanic Isolation to the Device	1.5kVDC	
<b>MASTER/SLAVE CONTROL</b>		
Serial Output	MAX 2 units	
Parallel Output	MAX 16 units	
<b>ENVIRONMENTAL</b>		
Operating Temperature <sup>[2]</sup>	0~40°C	
Storage Temperature	-20~70°C	
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)	
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude	<2000m@40°C	
Fan Noise	45dB Idle; 73dB Max;	48dB Idle; 80dB Max;
<b>MECHANICAL</b>		
Dimensions ( WxHxD )	483.0x132.0x800.0 mm	483.0x265.0x883.0 mm 483.0x365.0x883.0 mm (Wheels included)
Package Dimensions ( WxHxD )	665.0x347.0x1009.0 mm	/
Unit Net Weight	34kg	67.6kg
Net Weight	43kg	97.6kg
<b>MISCELLANEOUS</b>		
Over Voltage Category	II	
Protection Class	I	
Pollution Degree	2	
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC	

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.



# High Power DC Power Supply

MODEL		SP250VDC18000W	SP250VDC36000W
<b>INPUT</b>			
Voltage <sup>[1]</sup>		190~253VAC	200~253VAC
		340~460VAC	
Current <sup>[1]</sup>		3P208 L1,L2,L3-60A	3P208 L1,L2,L3-125A
		3P400 L1,L2,L3-30A	3P400 L1,L2,L3-63A
Frequency		45~65Hz	
Connection		3ph, PE	
Fusing (Internal) <sup>[1]</sup>		T50A*2pcs	
		T30A*2pcs	
Power Factor		>0.99	
Input Power		22KVAmx	44KVAmx
Efficiency <sup>[1]</sup>		3P208 90.2%@80V, 3P208 84.5%@200A	
		3P400 91.8%@80V, 3P400 85.6%@200A	
<b>OUTPUT</b>			
Voltage Range		0~250V	
Current Range <sup>[2]</sup>		0~200A	0~400A
Power Range		0~18000W	0~36000W
Max. Setup Range	Voltage	0~262.5V(0~105%)	
	Current	0~210A(0~105%)	0~420A(0~105%)
	Power	0~18900W(0~105%)	0~37800W(0~105%)
	Internal Resistance	0~37.5Ω	0~18.8Ω
Accuracy	Voltage	<0.1%Umax(250mV)	
	Current	<0.2%Imax(400mA)	<0.2%Imax(800mA)
	Power	<0.5%+90W	<1%+180W
	Internal Resistance	R<2% Rmax, I<0.3% Imax	
Line Regulation	Voltage	<0.02%Umax(50mV)	
	Current	<0.05%Imax(100mA)	<0.05%Imax(200mA)
	Power	<0.05%Pmax	
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(125mV) @Rated Voltage, <0.1%Umax(250mV) @Rated Current	
	Current	<0.15%Imax(300mA)	<0.15%Imax(600mA)
	Power	<0.75%Pmax	
Rise Time	Voltage	<15ms (No Load) <30ms (Full Load)	
Drop Time	Voltage	<950ms (No Load) <15ms (Full Load)	
Transient Response Time	Voltage	≤1.5ms/2.5V	
Display Resolution	Voltage	0.001V	
	Current	0.001A	
	Power	0.1W	
	Internal Resistance	0.0001Ω	
Measurement Accuracy	Voltage	<0.1%Umax(250mV)	
	Current	<0.2%Imax(400mA)	<0.2%Imax(800mA)
	Power	<0.5%Pmax	
	Internal Resistance	<0.4%Rmax	
Ripple <sup>[4]</sup>	Voltage	<550mVpp, <50mVrms	
	Current	<100mArms	<200mArms
Remote Compensation	Voltage	1%Umax(2.5V)	
<b>GENERAL</b>			
Graphic Display		4.3"Color touch LCD	
Operation Key Feature		Soft keys, Numeric keys, Rotary knob, Support USB disk	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OCP, OVP, OPP, OTP, HARD FALL	

MODEL	SP250VDC18000W	SP250VDC36000W
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)	
Command Response Time	<3ms	
<b>ANALOG INTERFACE(Optional)</b>		
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R	<0.2% F.S	
Actual Output U/I	<0.2%	
Control Signals	DC ON/OFF, Remote Control ON/OFF	
Status Signals	CV, OVP, OT	
Sample Rate of Input&Output	45Hz	
Galvanic Isolation to the Device	1.5kVDC	
<b>MASTER/SLAVE CONTROL</b>		
Serial Output	MAX 2 units	
Parallel Output	MAX 16 units	
<b>ENVIRONMENTAL</b>		
Operating Temperature <sup>[2]</sup>	0~40°C	
Storage Temperature	-20~70°C	
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)	
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude	<2000m@40°C	
Fan Noise	45dB Idle; 75dB Max;	48dB Idle; 82dB Max;
<b>MECHANICAL</b>		
Dimensions ( WxHxD )	483.0x132.0x800.0 mm	483.0x265.0x883.0 mm 483.0x365.0x883.0 mm (Wheels included)
Package Dimensions ( WxHxD )	665.0x347.0x1009.0 mm	/
Unit Net Weight	45kg	90kg
Net Weight	54kg	120kg
<b>MISCELLANEOUS</b>		
Over Voltage Category	II	
Protection Class	I	
Pollution Degree	2	
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC	

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.

# High Power DC Power Supply

MODEL	SP500VDC6000W	SP500VDC12000W	SP500VDC18000W	
<b>INPUT</b>				
Voltage <sup>[1]</sup>	187~253VAC			
	340~460VAC			
Current <sup>[1]</sup>	3P208 L1-0, L2,L3-38A	3P208 L1-60A, L2,L3-38A	3P208 L1,L2,L3-60A	
	3P400 L1-0, L2,L3-19A	3P400 L1-30A, L2,L3-19A	3P400 L1,L2,L3-30A	
Frequency	45~65Hz			
Connection	2ph, PE	3ph, PE	3ph, PE	
Fusing (Internal) <sup>[1]</sup>	T50A*2pcs			
	T30A*2pcs			
Power Factor	>0.99			
Input Power	7.3KVAmx	14.6KVAmx	22KVAmx	
Efficiency <sup>[1]</sup>	3P208 92.5%@500V, 3P208 91%@32A			
	3P400 94%@500V, 3P400 92.5%@32A			
<b>OUTPUT</b>				
Voltage Range	0~500V			
Current Range <sup>[2]</sup>	0~32A	0~64A	0~96A	
Power Range	0~6000W	0~12000W	0~18000W	
Max. Setup Range	Voltage	0~525V(0~105%)		
	Current	0~33.6A(0~105%)	0~67.2A(0~105%)	0~100.8A(0~105%)
	Power	0~6300W(0~105%)	0~12600W(0~105%)	0~18900W(0~105%)
	Internal Resistance	0~469Ω	0~235Ω	0~157Ω
Accuracy	Voltage	<0.1%Umax(500mV)		
	Current	<0.2%Imax(64mA)	<0.2%Imax(128mA)	<0.2%Imax(192mA)
	Power	<1%+60W	<1%+90W	<1%+120W
	Internal Resistance	R<2% Rmax, I<0.3% Imax		
Line Regulation	Voltage	<0.02%Umax(100mV)		
	Current	<0.05%Imax(16mA)	<0.05%Imax(32mA)	<0.05%Imax(48mA)
	Power	<0.05%Pmax		
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(250mV) @Rated Voltage, <0.1%Umax(500mV) @Rated Current		
	Current	<0.15%Imax(48mA)	<0.15%Imax(96mA)	<0.15%Imax(144mA)
	Power	<0.75%Pmax		
Rise Time	Voltage	<15ms (No Load) <50ms (Full Load)		
Drop Time	Voltage	<1300ms (No Load) <15ms (Full Load)		
Transient Response Time	Voltage	≤1.5ms/5V		
Display Resolution	Voltage	0.01V		
	Current	0.001A		
	Power	0.001kW		
	Internal Resistance	0.001Ω		
Measurement Accuracy	Voltage	<0.1%Umax(500mV)		
	Current	<0.2%Imax(64mA)	<0.2%Imax(128mA)	<0.2%Imax(192mA)
	Power	<0.5%Pmax		
	Internal Resistance	<0.4%Rmax		
Ripple <sup>[4]</sup>	Voltage	<600mVpp, <150mVrms	<650mVpp, <160mVrms	<650mVpp, <160mVrms
	Current	<16mArms	<32mArms	<48mArms
Remote Compensation	Voltage	3%Umax(15V)		
<b>Sink Function</b>				
Input Voltage	0~500V			
Input Current	0~16A	0~24A	0~40A	
Input Power	0~325W	0~650W	0~975W	
Min. Operating Voltage	8V@3.7A			
CC Resolution	1mA			

MODEL	SP500VDC6000W	SP500VDC12000W	SP500VDC18000W
CC Accuracy	<0.2%Imax(32mA)	<0.2%Imax(64mA)	<0.2%Imax(96mA)
CV Resolution	<4mV		
CV Accuracy	<0.1%Umax(500mV)		
CP Resolution	0.5W		
CP Accuracy	<0.5%Pmax(1625mW)	<0.5%Pmax(3250mW)	<0.5%Pmax(4875mW)
Slew Rate	0.01~2.5A/us		
Dynamic Mode	20ms~50s		
GENERAL			
Graphic Display	4.3"Color touch LCD		
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, Support USB disk		
Rack Mount Handles	Yes		
FAN	Temperature control		
Protection	OCP, OVP, OPP, OTP, HARD FALL		
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)		
Command Response Time	<3ms		
ANALOG INTERFACE(Optional)			
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power		
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.		
Accuracy U/I/P/R	<0.2% F.S		
Actual Output U/I	<0.2%		
Control Signals	DC ON/OFF, Remote Control ON/OFF		
Status Signals	CV, OVP, OT		
Sample Rate of Input&Output	45Hz		
Galvanic Isolation to the Device	1.5kVDC		
MASTER/SLAVE CONTROL			
Serial Output	MAX 2 units		
Parallel Output	MAX 16 units		
ENVIRONMENTAL			
Operating Temperature <sup>[2]</sup>	0~40°C		
Storage Temperature	-20~70°C		
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)		
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C		
Altitude	<2000m@40°C		
Fan Noise	45dB Idle; 71dB Max;	45dB Idle; 73dB Max;	45dB Idle; 75dB Max;
MECHANICAL			
Dimensions ( WxHxD )	483.0x132.0x800.0 mm		
Package Dimensions ( WxHxD )	665.0x347.0x1009.0 mm		
Unit Net Weight	23kg	34kg	45kg
Net Weight	32kg	43kg	54kg
MISCELLANEOUS			
Over Voltage Category	II		
Protection Class	I		
Pollution Degree	2		
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC		

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.

# High Power DC Power Supply

MODEL	SP500VDC24000W	SP500VDC30000W	SP500VDC36000W	
<b>INPUT</b>				
Voltage <sup>[1]</sup>	200~253VAC			
	340~460VAC			
Current <sup>[1]</sup>	3P208 L1-60A, L2,L3-103A	3P208 L1-125A,L2,L3-103A	3P208 L1,L2,L3-125A	
	3P400 L1-30A, L2,L3-49A	3P400 L1-63A,L2,L3-49A	3P400 L1,L2,L3-63A	
Frequency	45~65Hz			
Connection	3ph, PE			
Fusing (Internal) <sup>[1]</sup>	T50A*2pcs			
	T30A*2pcs			
Power Factor	>0.99			
Input Power	26.6KVAmx	33.3KVAmx	44KVAmx	
Efficiency <sup>[1]</sup>	3P208 92.5%@500V, 3P208 91%@32A			
	3P400 94%@500V, 3P400 92.5%@32A			
<b>OUTPUT</b>				
Voltage Range	0~500V			
Current Range <sup>[2]</sup>	0~128A	0~160A	0~192A	
Power Range	0~24000W	0~30000W	0~36000W	
Max. Setup Range	Voltage	0~525V(0~105%)		
	Current	0~134.4A(0~105%)	0~168A(0~105%)	0~201.6A(0~105%)
	Power	0~26400W(0~105%)	0~31500W(0~105%)	0~37800W(0~105%)
	Internal Resistance	0~118Ω	0~94Ω	0~79Ω
Accuracy	Voltage	<0.1%Umax(500mV)		
	Current	<0.2%Imax(256mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)
	Power	<1%+180W	<1%+240W	<1%+360W
	Internal Resistance	R<2% Rmax, I<0.3% Imax		
Line Regulation	Voltage	<0.02%Umax(100mV)		
	Current	<0.05%Imax(64mA)	<0.05%Imax(80mA)	<0.05%Imax(96mA)
	Power	<0.05%Pmax		
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(250mV) @Rated Voltage, <0.1%Umax(500mV) @Rated Current		
	Current	<0.15%Imax(192mA)	<0.15%Imax(240mA)	<0.15%Imax(288mA)
	Power	<0.75%Pmax		
Rise Time	Voltage	<15ms (No Load) <50ms (Full Load)		
Drop Time	Voltage	<1300ms (No Load) <15ms (Full Load)		
Transient Response Time	Voltage	≤1.5ms/5V		
Display Resolution	Voltage	0.01V		
	Current	0.001A		
	Power	0.001kW		
	Internal Resistance	0.001Ω		
Measurement Accuracy	Voltage	<0.1%Umax(500mV)		
	Current	<0.2%Imax(256mA)	<0.2%Imax(320mA)	<0.2%Imax(384mA)
	Power	<0.5%Pmax		
	Internal Resistance	<0.4%Rmax		
Ripple <sup>[4]</sup>	Voltage	<650mVpp, <160mVrms		
	Current	<64mArms	<80mArms	<96mArms
Remote Compensation	Voltage	3%Umax(15V)		
<b>Sink Function</b>				
Input Voltage	0~500V			
Input Current	0~56A	0~64A	0~80A	
Input Power	0~1300W	0~1625W	0~1950W	
Min. Operating Voltage	8V@3.7A			
CC Resolution	1mA			

MODEL	SP500VDC24000W	SP500VDC30000W	SP500VDC36000W
CC Accuracy	<0.2%Imax(128mA)	<0.2%Imax(160mA)	<0.2%Imax(192mA)
CV Resolution	<4mV		
CV Accuracy	<0.1%Umax(500mV)		
CP Resolution	0.5W		
CP Accuracy	<0.5%Pmax(6500mW)	<0.5%Pmax(8125mW)	<0.5%Pmax(9750mW)
Slew Rate	0.01~2.5A/us		
Dynamic Mode	20ms~50s		
GENERAL			
Graphic Display	4.3"Color touch LCD		
Operation Key Feature	Soft keys, Numeric keys, Rotary knob, Support USB disk		
Rack Mount Handles	Yes		
FAN	Temperature control		
Protection	OCP, OVP, OPP, OTP, HARD FALL		
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)		
Command Response Time	<3ms		
ANALOG INTERFACE(Optional)			
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power		
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.		
Accuracy U/I/P/R	<0.2% F.S		
Actual Output U/I	<0.2%		
Control Signals	DC ON/OFF, Remote Control ON/OFF		
Status Signals	CV, OVP, OT		
Sample Rate of Input&Output	45Hz		
Galvanic Isolation to the Device	1.5kVDC		
MASTER/SLAVE CONTROL			
Serial Output	MAX 2 units		
Parallel Output	MAX 16 units		
ENVIRONMENTAL			
Operating Temperature <sup>[2]</sup>	0~40°C		
Storage Temperature	-20~70°C		
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)		
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C		
Altitude	<2000m@40°C		
Fan Noise	48dB Idle; 77dB Max;	48dB Idle; 80dB Max;	48dB Idle; 82dB Max;
MECHANICAL			
Dimensions ( WxHxD )	483.0x265.0x883.0 mm 483.0x365.0x883.0 mm (Wheels included)		
Package Dimensions ( WxHxD )	/		
Unit Net Weight	67.6kg	78.8kg	90kg
Net Weight	97.6kg	108.8kg	120kg
MISCELLANEOUS			
Over Voltage Category	II		
Protection Class	I		
Pollution Degree	2		
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC		

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.



# High Power DC Power Supply

MODEL		SP1000VDC12000W	SP1000VDC24000W
<b>INPUT</b>			
Voltage <sup>[1]</sup>		187~253VAC	200~253VAC
		340~460VAC	
Current <sup>[1]</sup>		3P208 L1-60A, L2,L3-38A	3P208 L1-60A, L2,L3-103A
		3P400 L1-30A, L2,L3-19A	3P400 L1-30A, L2,L3-49A
Frequency		45~65Hz	
Connection		3ph, PE	
Fusing (Internal) <sup>[1]</sup>		T50A*2pcs	
		T30A*2pcs	
Power Factor		>0.99	
Input Power		14.6KVAmx	26.6KVAmx
Efficiency <sup>[1]</sup>		3P208 92%@1000V, 3P208 90.5%@32A	
		3P400 93.5%@1000V, 3P400 92.5%@32A	
<b>OUTPUT</b>			
Voltage Range		0~1000V	
Current Range <sup>[2]</sup>		0~32A	0~64A
Power Range		0~12000W	0~24000W
Max. Setup Range	Voltage	0~1050V(0~105%)	
	Current	0~33.6A(0~105%)	0~67.2A(0~105%)
	Power	0~12600W(0~105%)	0~26400W(0~105%)
	Internal Resistance	0~937.5Ω	0~468.75Ω
Accuracy	Voltage	<0.1%Umax(1000mV)	
	Current	<0.2%Imax(64mA)	<0.2%Imax(128mA)
	Power	<1%+90W	<1%+180W
	Internal Resistance	R<2% Rmax, I<0.3% Imax	
Line Regulation	Voltage	<0.02%Umax(200mV)	
	Current	<0.05%Imax(16mA)	<0.05%Imax(32mA)
	Power	<0.05%Pmax	
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(500mV) @Rated Voltage, <0.08%Umax(800mV) @Rated Current	
	Current	<0.15%Imax(48mA)	<0.15%Imax(96mA)
	Power	<0.75%Pmax	
Rise Time	Voltage	<15ms (No Load) <55ms (Full Load)	
Drop Time	Voltage	<1700ms (No Load) <15ms (Full Load)	
Transient Response Time	Voltage	≤2ms/10V	
Display Resolution	Voltage	0.01V	
	Current	0.001A	
	Power	0.001kW	
	Internal Resistance	0.001Ω	
Measurement Accuracy	Voltage	<0.1%Umax(1V)	
	Current	<0.2%Imax(64mA)	<0.2%Imax(128mA)
	Power	<0.5%Pmax	
	Internal Resistance	<0.4%Rmax	
Ripple <sup>[4]</sup>	Voltage	<1300mVpp, <320mVrms	
	Current	<22mArms	<26mArms
Remote Compensation	Voltage	3%Umax(30V)	
<b>GENERAL</b>			
Graphic Display		4.3"Color touch LCD	
Operation Key Feature		Soft keys, Numeric keys, Rotary knob, Support USB disk	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OCP, OVP, OPP, OTP, HARD FALL	

MODEL	SP1000VDC12000W	SP1000VDC24000W
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)	
Command Response Time	<3ms	
<b>ANALOG INTERFACE(Optional)</b>		
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R	<0.2% F.S	
Actual Output U/I	<0.2%	
Control Signals	DC ON/OFF, Remote Control ON/OFF	
Status Signals	CV, OVP, OT	
Sample Rate of Input&Output	45Hz	
Galvanic Isolation to the Device	1.5kVDC	
<b>MASTER/SLAVE CONTROL</b>		
Serial Output	Not supported	
Parallel Output	MAX 16 units	
<b>ENVIRONMENTAL</b>		
Operating Temperature <sup>[2]</sup>	0~40°C	
Storage Temperature	-20~70°C	
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)	
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude	<2000m@45°C	
Fan Noise	45dB Idle; 73dB Max;	48dB Idle; 80dB Max;
<b>MECHANICAL</b>		
Dimensions ( WxHxD )	483.0x132.0x800.0 mm	483.0x265.0x883.0 mm 483.0x365.0x883.0 mm (Wheels included)
Package Dimensions ( WxHxD )	665.0x347.0x1009.0 mm	/
Unit Net Weight	34kg	67.6kg
Net Weight	43kg	97.6kg
<b>MISCELLANEOUS</b>		
Over Voltage Category	II	
Protection Class	I	
Pollution Degree	2	
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC	

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.

# High Power DC Power Supply

MODEL		SP1500VDC18000W	SP1500VDC36000W
<b>INPUT</b>			
Voltage <sup>[1]</sup>		187~253VAC	200~253VAC
		340~460VAC	
Current <sup>[1]</sup>		3P208 L1,L2,L3-60A	3P208 L1,L2,L3-125A
		3P400 L1,L2,L3-30A	3P400 L1,L2,L3-63A
Frequency		45~65Hz	
Connection		3ph, PE	
Fusing (Internal) <sup>[1]</sup>		T50A*2pcs	
		T30A*2pcs	
Power Factor		>0.99	
Input Power		22KVAmx	44KVAmx
Efficiency <sup>[1]</sup>		3P208 92%@1000V, 3P208 90.5%@32A	
		3P400 93.5%@1000V, 3P400 92.5%@32A	
<b>OUTPUT</b>			
Voltage Range		0~1500V	
Current Range <sup>[2]</sup>		0~32A	0~64A
Power Range		0~18000W	0~36000W
Max. Setup Range	Voltage	0~1575V(0~105%)	
	Current	0~33.6A(0~105%)	0~67.2A(0~105%)
	Power	0~18900W(0~105%)	0~37800W(0~105%)
	Internal Resistance	0~1406.25Ω	0~703.13Ω
Accuracy	Voltage	<0.1%Umax(1.5V)	
	Current	<0.2%Imax(64mA)	<0.2%Imax(128mA)
	Power	<0.5%+90W	<1%+180W
	Internal Resistance	R<2% Rmax, l<0.3% Imax	
Line Regulation	Voltage	<0.02%Umax(300mV)	
	Current	<0.05%Imax(16mA)	<0.05%Imax(32mA)
	Power	<0.05%Pmax	
Load Regulation <sup>[3]</sup>	Voltage	<0.05%Umax(750mV) @Rated Voltage, <0.08%Umax(1200mV) @Rated Current	
	Current	<0.15%Imax(48mA)	<0.15%Imax(96mA)
	Power	<0.75%Pmax	
Rise Time	Voltage	<15ms (No Load) <60ms (Full Load)	
Drop Time	Voltage	<1800ms (No Load) <15ms (Full Load)	
Transient Response Time	Voltage	≤3ms/15V	
Display Resolution	Voltage	0.01V	
	Current	0.001A	
	Power	0.1W	
	Internal Resistance	0.001Ω	
Measurement Accuracy	Voltage	<0.1%Umax(1.5V)	
	Current	<0.2%Imax(64mA)	<0.2%Imax(128mA)
	Power	<0.5%Pmax	
	Internal Resistance	<0.4%Rmax	
Ripple <sup>[4]</sup>	Voltage	<1950mVpp, <650mVrms	
	Current	<22mArms	<26mArms
Remote Compensation	Voltage	3%Umax(45V)	
<b>GENERAL</b>			
Graphic Display		4.3"Color touch LCD	
Operation Key Feature		Soft keys, Numeric keys, Rotary knob, Support USB disk	
Rack Mount Handles		Yes	
FAN		Temperature control	
Protection		OCP, OVP, OPP, OTP, HARD FALL	

MODEL	SP1500VDC18000W	SP1500VDC36000W
Interface	RS232/RS485/USB(Standard), GPIB/LAN(Optional), CAN(Optional)	
Command Response Time	<3ms	
<b>ANALOG INTERFACE(Optional)</b>		
Set Value Inputs	Analog input 0~5V/0~10V or 0~5kΩ/0~10kΩ to set 0~105% voltage, current and power	
Actual Value Output	Analog output 0~5V/0~10V to monitor the voltage and current.	
Accuracy U/I/P/R	<0.2% F.S	
Actual Output U/I	<0.2%	
Control Signals	DC ON/OFF, Remote Control ON/OFF	
Status Signals	CV, OVP, OT	
Sample Rate of Input&Output	45Hz	
Galvanic Isolation to the Device	1.5kVDC	
<b>MASTER/SLAVE CONTROL</b>		
Serial Output	Not supported	
Parallel Output	MAX 16 units	
<b>ENVIRONMENTAL</b>		
Operating Temperature <sup>[2]</sup>	0~40°C	
Storage Temperature	-20~70°C	
Temperature Coefficient	100ppm/°C(voltage), 150ppm/°C(current)	
Relative Humidity	<95%RH(non-condensing)@35°C, <80%RH(non-condensing)@40°C	
Altitude	<2000m@40°C	
Fan Noise	45dB Idle; 75dB Max;	48dB Idle; 82dB Max;
<b>MECHANICAL</b>		
Dimensions ( WxHxD )	483.0x132.0x800.0 mm	483.0x265.0x883.0 mm 483.0x365.0x883.0 mm (Wheels included)
Package Dimensions ( WxHxD )	665.0x347.0x1009.0 mm	/
Unit Net Weight	45kg	90kg
Net Weight	54kg	120kg
<b>MISCELLANEOUS</b>		
Over Voltage Category	II	
Protection Class	I	
Pollution Degree	2	
Insulation	AC input <->DC out put, 4242VDC, AC input <-> PE, 2818VDC	

[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 10% to 90% of rated output.

[4] RMS Value 300kHz; PP Value 20MHz.

APM Technologies (Dongguan) Co., Ltd

Add: #7, Link Information Industry Park, Shuilianshan Road,  
Nancheng, Dongguan, Guangdong, China

Tel: +86 769-2202 8588 ext:2892 Fax: +86 769-2202 6771

E-mail: [overseas@apmtech.cn](mailto:overseas@apmtech.cn) Web: [en.apmtech.cn](http://en.apmtech.cn)