



SP Series 2000W Programmable DC Power Supply

SP Series 2000W programmable DC power supply has the features including high precision and resolution, high efficiency low ripple, complete multiple protection, Master/Slave Series/Parallel modes, and multiple communication interfaces, which allow a more flexible and convenience use of the power supply.



Features



- * 2 kW / 2U high power density.
- * Master /slave parallel & series operation modes for up to 4 units.
- * With accurate voltage and current measurement capability.
- * High-speed programmable interface.
- * Coded knob, multifunctional keyboard.
- * Freely switchover between constant voltage (CV) and constant current (CC) operating modes.
- * Voltage rate of rise and drop functions.
- * Equips with LIST waveform editing function.
- * Protection functions: OVP, OCP, OPP, SCP and OTP.
- * Standard RS232, RS485, LAN and USB communication interfaces and optional GPIB.
- * Use the Standard Commands for Programmable Instrumentation (SCPI) communication protocol.
- * Standard analog external remote inputs.
- * Remote sensing line voltage-drop compensation.
- * DVM independent measurement function.
- * Have obtained CE, UL, CSA, FCC and other certifications.

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Model	SP20VDC2000W	SP40VDC2000W	SP75VDC2000W	SP80VDC2000W
Input Voltage Range	190~265VAC	190~265VAC	190~265VAC	190~265VAC
Input Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Power Factor	>0.98	>0.98	>0.98	>0.98
Output Power Range	0~2000W	0~2000W	0~2000W	0~2000W
Output Voltage Range	0~20V	0~40V	0~75V	0~80V
Output Current Range	0~200A	0~120A	0~50A	0~60A
Voltage Display resolution	0.1mV	0.1mV	0.1mV	0.1mV
Current Display Resolution	1mA	1mA	0.1mA	0.1mA
Voltage Programmable Resolution	1mV	1mV	2mV	2mV
Current Programmable Resolution	3mA	3mA	2mA	2mA
Voltage Setting Accuracy	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV
Current Setting Accuracy	0.1%+200mA	0.1%+120mA	0.1%+50mA	0.1%+60mA
Voltage Measurement Accuracy	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV
Current Measurement Accuracy	0.1%+200mA	0.1%+120mA	0.1%+50mA	0.1%+60mA
Voltage Ripple	40mVp-p/6mVrms			
Current Ripple	150mA(Full Range) 40mA(TYP value)	150mA(Full Range) 20mA(TYP value)	50mA(Full Range) 10mA(TYP value)	50mA(Full Range) 10mA(TYP value)
Voltage Load Regulation	15mV	15mV	15mV	15mV
Current Load Regulation	200mA	120mA	50mA	60mA
Line Voltage Regulation	0.01%+8mV	0.01%+8mV	0.01%+8mV	0.01%+8mV
Line Current Regulation	30mA	30mA	30mA	30mA
Voltage Temperature Coefficient	100ppm/°C			
Current Temperature Coefficient	150ppm/°C			
DVM Resolution	0.1mV	0.1mV	0.1mV	0.1mV
DVM Accuracy	0.05%+15mV	0.05%+15mV	0.05%+15mV	0.05%+15mV
Operating Mode	Constant voltage (CV) / Constant Current (CC)			
Remote Compensation	4V MAX			
Response (Voltage Rise)	≤10ms	≤10ms	≤15ms	≤15ms
Response (Voltage Drop)	≤200ms(No Load) ≤15ms(Full Load)	≤350ms(No Load) ≤18ms(Full Load)	≤450ms(No Load) ≤30ms(Full Load)	≤450ms(No Load) ≤30ms(Full Load)
Load Transient Recovery Time	≤2ms	≤2ms	≤2ms	≤2ms
Command Respond Time	50ms	50ms	50ms	50ms
Efficiency (Full Load)	86%	88%	88%	89%
Communication Modes	1. RS232/RS485/USB/LAN; 2. RS232/RS485/USB/LAN/GPIB			
Protection Functions	OVP/OCP/OTP/OPP/SCP protection functions			
Net Weight	14.7kg	14.7kg	13.2kg	13.2kg
Weight of Accessories	1.0kg	1.0kg	1.0kg	1.0kg
Dimensions (W x H x D)	483.0x87.0x626.0 mm		483.0x87.0x581.0 mm	
Operating Environment	Temperature: 0°C ~ 40°C Relative humidity 10%-90%(non-condensing)			
Cooling	Forced air-cooling			
Certification	CE/UL/CSA/FCC			

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Model	SP120VDC2000W	SP150VDC2000W	SP200VDC2000W	SP400VDC2000W	SP600VDC2000W	SP800VDC2000W
Input Voltage Range	190~265VAC	190~265VAC	190~265VAC	190~265VAC	190~265VAC	190~265VAC
Input Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Power Factor	>0.98	>0.98	>0.98	>0.98	>0.98	>0.98
Output Power Range	0~2000W	0~2000W	0~2000W	0~2000W	0~2000W	0~2000W
Output Voltage Range	0~120V	0~150V	0~200V	0~400V	0~600V	0~800V
Output Current Range	0~40A	0~30A	0~24A	0~15A	0~10A	0~7.5A
Voltage Display resolution	1mV	1mV	1mV	1mV	1mV	1mV
Current Display Resolution	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA
Voltage Programmable Resolution	3mV	3mV	4mV	8mV	12mV	16mV
Current Programmable Resolution	1mA	1mA	1mA	1mA	1mA	1mA
Voltage Setting Accuracy	0.1%+15mV	0.1%+15mV	0.1%+15mV	0.05%+100mV	0.05%+150mV	0.05%+200mV
Current Setting Accuracy	0.1%+40mA	0.1%+30mA	0.1%+24mA	0.1%+24mA	0.1%+15mA	0.1%+20mA
Voltage Measurement Accuracy	0.1%+15mV	0.1%+15mV	0.1%+15mV	0.05%+100mV	0.05%+150mV	0.05%+200mV
Current Measurement Accuracy	0.1%+40mA	0.1%+30mA	0.1%+24mA	0.1%+24mA	0.1%+15mA	0.1%+20mA
Voltage Ripple	80mVp-p/15mVrms		150mVp-p/30mVrms	180mVp-p/80mVrms		
Current Ripple	60mA(Full Range) 10mA(TYP value)	60mA(Full Range) 10mA(TYP value)	50mA(Full Range) 20mA(TYP value)	40mA(Full Range) 10mA(TYP value)	40mA(Full Range) 10mA(TYP value)	40mA(Full Range) 10mA(TYP value)
Voltage Load Regulation	15mV	15mV	15mV	30mV	30mV	40mV
Current Load Regulation	30mA	30mA	24mA	24mA	30mA	20mA
Line Voltage Regulation	0.02%+8mV	0.02%+8mV	0.02%+8mV	0.01%+20mV	0.01%+30mV	0.01%+40mV
Line Current Regulation	30mA	30mA	30mA	24mA	15mA	20mA
Voltage Temperature Coefficient	100ppm/°C					
Current Temperature Coefficient	150ppm/°C					
DVM Resolution	1mV	1mV	1mV	8mV	12mV	16mV
DVM Accuracy	0.1%+15mV	0.1%+15mV	0.1%+15mV	0.05%+100mV	0.05%+150mV	0.05%+200mV
Operating Mode	Constant voltage (CV) / Constant Current (CC)					
Remote Compensation	5V MAX					
Response (Voltage Rise)	≤20ms	≤25ms	≤30ms	≤60ms	≤60ms	≤60ms
Response (Voltage Drop)	≤350ms(No Load) ≤27ms(Full Load)	≤500ms(No Load) ≤36ms(Full Load)	≤500ms(No Load) ≤30ms(Full Load)	≤1200ms(No Load) ≤90ms(Full Load)	≤1200ms(No Load) ≤90ms(Full Load)	≤1200ms(No Load) ≤90ms(Full Load)
Load Transient Recovery Time	≤3ms	≤3ms	≤3ms	≤3ms	≤3ms	≤3ms
Command Respond Time	50ms	50ms	50ms	50ms	50ms	50ms
Efficiency (Full Load)	89%	90%	90%	91%	91%	91%
Communication Modes	1. RS232/RS485/USB/LAN; 2. RS232/RS485/USB/LAN/GPIB					
Protection Functions	OVP/OCP/OTP/OPP/SCP protection functions					
Net Weight	13.2kg	13.2kg	13.2kg	14.7kg	14.7kg	14.7kg
Weight of Accessories	1.0kg	1.0kg	1.0kg	1.0kg	1.0kg	1.0kg
Dimensions (W x H x D)	483.0x87.0x581.0 mm					
Operating Environment	Temperature: 0°C ~ 40°C Relative humidity 10%-90%(non-condensing)					
Cooling	Forced Cooling					
Certification	CE/UL/CSA/FCC					

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