



APM Technologies

SP Series 1500W Programmable DC Power Supply

SP Series 1500W 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

- *1.5 kW / 1U 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 (ports).
- *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	SP60VDC1500W	SP75VDC1500W	SP150VDC1500W	SP200VDC1500W
Input Voltage Range	90~265VAC	90~265VAC	90~265VAC	90~265VAC
Input Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Power Factor	>0.98	>0.98	>0.98	>0.98
Output Power Range	0~1500W	0~1500W	0~1500W	0~1500W
Output Voltage Range	0~60V	0~75V	0~150V	0~200V
Output Current Range	0~25A	0~20A	0~10A	0~8A
Voltage Display resolution	0.1mV	0.1mV	1mV	1mV
Current Display Resolution	0.2mA	0.2mA	0.2mA	0.1mA
Voltage Programmable Resolution	1.5mV	1.5mV	3mV	3mV
Current Programmable Resolution	1mA	1mA	1mA	1mA
Voltage Setting Accuracy	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV
Current Setting Accuracy	0.1%+25mA	0.1%+20mA	0.1%+10mA	0.1%+8mA
Voltage Measurement Accuracy	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV
Current Measurement Accuracy	0.1%+25mA	0.1%+20mA	0.1%+10mA	0.1%+8mA
Voltage Ripple	40mVp-p/6mVrms			
Current Ripple	25mA(Full Range) 10mA(TYP value)	20mA(Full Range) 10mA(TYP value)	40mA(Full Range) 10mA(TYP value)	40mA(Full Range) 10mA(TYP value)
Voltage Load Regulation	10mV	10mV	15mV	15mV
Current Load Regulation	25mA	20mA	10mA	8mA
Line Voltage Regulation	0.005%+1mV	0.005%+1mV	0.02%+8mV	0.02%+8mV
Line Current Regulation	4mA	4mA	10mA	30mA
Voltage Temperature Coefficient	100ppm/°C			
Current Temperature Coefficient	150ppm/°C			
DVM Resolution	0.1mV	0.1mV	1mV	1mV
DVM Accuracy	0.05%+15mV	0.05%+15mV	0.1%+15mV	0.1%+15mV
Operating Mode	Constant voltage (CV) / Constant Current (CC)			
Remote Compensation	4V MAX			
Response (Voltage Rise)	≤10ms	≤10ms	≤25ms	≤30ms
Response (Voltage Drop)	≤100ms(No Load)	≤100ms(No Load)	≤400ms(No Load)	≤600ms(No Load)
	≤10ms(Full Load)	≤10ms(Full Load)	≤18ms(Full Load)	≤30ms(Full Load)
Load Transient Recovery Time	≤1.5ms	≤1.5ms	≤2ms	≤3ms
Command Respond Time	50ms	50ms	50ms	50ms
Efficiency (Full Load)	91%	91%	90%	91%
Communication Modes	RS232/RS485/USB/LAN		1. RS232/RS485/USB/LAN; 2. RS232/RS485/USB/LAN/GPIB	
Protection Functions	OVP/OC/OTP/OPP/SCP protection functions			
Net Weight	8.9kg	8.9kg	9.5kg	9.5kg
Weight of Accessories	0.8kg	0.8kg	1.0kg	1.0kg
Dimensions (W x H x D)	483.0x44.0x531.0 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	SP400VDC1500W	SP600VDC1500W	SP800VDC1500W
Input Voltage Range	90~265VAC	90~265VAC	90~265VAC
Input Frequency Range	47~63Hz	47~63Hz	47~63Hz
Power Factor	>0.98	>0.98	>0.98
Output Power Range	0~1500W	0~1500W	0~1500W
Output Voltage Range	0~400V	0~600V	0~800V
Output Current Range	0~7.5A	0~5A	0~4A
Voltage Display resolution	1mV	1mV	1mV
Current Display Resolution	0.1mA	0.1mA	0.1mA
Voltage Programmable Resolution	8mV	12mV	16mV
Current Programmable Resolution	1mA	1mA	1mA
Voltage Setting Accuracy	0.05%+100mV	0.05%+150mV	0.05%+200mV
Current Setting Accuracy	0.1%+20mA	0.1%+16mA	0.1%+10mA
Voltage Measurement Accuracy	0.05%+100mV	0.05%+150mV	0.05%+200mV
Current Measurement Accuracy	0.1%+20mA	0.1%+16mA	0.1%+10mA
Voltage Ripple	180mVp-p/80mVrms		
Current Ripple	40mA(Full Range) 10mA(TYP value)	40mA(Full Range) 10mA(TYP value)	40mA(Full Range) 10mA(TYP value)
Voltage Load Regulation	30mV	30mV	40mV
Current Load Regulation	20mA	16mA	10mA
Line Voltage Regulation	0.02%+20mV	0.02%+30mV	0.02%+40mV
Line Current Regulation	10mA	8mA	10mA
Voltage Temperature Coefficient	100ppm/°C		
Current Temperature Coefficient	150ppm/°C		
DVM Resolution	8mV	12mV	16mV
DVM Accuracy	0.05%+100mV	0.05%+150mV	0.05%+200mV
Operating Mode	Constant voltage (CV) / Constant Current (CC)		
Remote Compensation	4V MAX		
Response (Voltage Rise)	≤60ms	≤60ms	≤60ms
Response (Voltage Drop)	≤800ms(No Load) ≤60ms(Full Load)	≤1200ms(No Load) ≤60ms(Full Load)	≤1200ms(No Load) ≤60ms(Full Load)
Load Transient Recovery Time	≤3ms	≤3ms	≤3ms
Command Respond Time	50ms	50ms	50ms
Efficiency (Full Load)	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	9.5kg	9.5kg	9.5kg
Weight of Accessories	1.0kg	1.0kg	1.0kg
Dimensions (W x H x D)	483.0x44.0x531.0 mm		
Operating Environment	Temperature: 0°C ~ 40°C Relative humidity 10%-90%(non-condensing)		
Cooling	Forced air-cooling		
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