

3 Phase Programmable AC Source

» Product specification sheet



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Selection List:

Model	Voltage	Current	Power	Corresponding page
SPS300VAC1800W	150V/300V	1800W	1-Phase/3-Phase	P01
SPS300VAC3000W	150V/300V	3000W	1-Phase/3-Phase	P01
SPS300VAC4500W	150V/300V	4500W	1-Phase/3-Phase	P01
SPS300VAC6000W	150V/300V	6000W	1-Phase/3-Phase	P03
SPS300VAC9000W	150V/300V	9000W	1-Phase/3-Phase	P03
SPS300VAC12000W	150V/300V	12000W	1-Phase/3-Phase	P03
SPS300VAC15000W	150V/300V	15000W	1-Phase/3-Phase	P03

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MODEL		SPS300VAC1800W	SPS300VAC3000W	SPS300VAC4500W	
INPUT					
Voltage		90~265VAC	100~265VAC	100~265VAC	
Frequency		47~63Hz			
Phase		3 Phase,4Wire+Groud/Y Connect			
Max.Current		30A	45A	57A	
Power Factor at 220VAC Input, Full Load		≥0.96 Active PFC	≥0.98 Active PFC	≥0.98 Active PFC	
Efficiency		>81% (Peak) >80% at 220VAC, 50Hz input/220VAC, 50Hz	>85.5% (Peak) >85% at 220VAC, 50Hz input/220VAC, 50Hz	>87.5% (Peak) >87% at 220VAC, 50Hz input/220VAC, 50Hz	
3-Phase Output Mode(Per Phase)					
AC Power(Total)		1800VA	3000VA	4500VA	
AC Power(Per Phase)		600VA	1000VA	1500VA	
Max.Current (r.m.s)	0~150V(L)	5.6A	9.2A	13.8A	
	0~300V(H)	2.8A	4.6A	6.9A	
Max.Current (Peak)	0~150V(L)	32.4A	55.2A	82.8A	
	0~300V(H)	16.2A	27.6A	41.4A	
1-Phase Output Mode					
AC Power(Total) ^①		1800VA	3000VA	4500VA	
Max.Current (r.m.s)	0~150V(L)	16.8A	27.6A	41.4A	
	0~300V(H)	8.4A	13.8A	20.7A	
Max.Current (Peak)	0~150V(L)	97.2A	165.6A	248.4A	
	0~300V(H)	48.6A	82.8A	124.2A	
DC Power (Per Phase)		1800W	3000W	4500W	
Max.Current (Total)	L	11.88A	19.5A	29.28A	
	H	5.67A	9.9A	14.64A	
3-Phase Output Mode(Per Phase)					
Total Harmonic Distortion (THD)		<0.5% (Resistive Load) at 15.0~70.0Hz and output voltage within the 80~140VAC at Low Range or the 160~280VAC at High Range; <1% (Resistive Load) at 70.1~500Hz and output voltage within the 80~140VAC at Low Range or the 160~280VAC at High Range; <1% (Resistive Load) at 501~1000Hz and output voltage within the 100~140VAC at Low Range or the 160~280VAC at High Rang;			
Crest Factor(CF)		≤ 6			
Load Regulation		± 0.2%F.S. (Resistive Load) at 15~100Hz ± 0.5%F.S. (Resistive Load) at >100Hz			
Line Regulation		± 0.1V			
Voltage(AC) (L-N)	Range	0~300VAC, 150V/300V/Auto Mode			
	Resolution	0.1V			
	Accuracy	0.2% of setting +0.4%F.S at Voltage>3V			
Phase Angle (Starting /Ending)	Range	0~359.9°			
	Resolution	0.1°			
	Accuracy	± 1° @45~65Hz			
	Range	0~424VDC			
Voltage(DC)	Resolution	0.1V			
	Accuracy	0.3% of setting +0.4%F.S at Voltage>3V			
	DC Power	600W	1000W	1500W	
	Max.Current	L	3.96A	6.5A	9.76A
		H	1.89A	3.3A	4.88A
	Ripple&Noise (Peak)	L <700mVrms @Bandwidth 20Hz to 1MHz		H <1100mVrms @Bandwidth 20Hz to 1MHz	
Ripple&Noise (r.m.s)	<4000mVp-p @Bandwidth 20Hz to 1MHz				
Current OC Fold Mode	Resolution	0.01A			
	Accuracy	0.5% of setting +1.0%F.S.			
	Response Time	<1400ms			
Frequency	Range	15~1000Hz			
	Resolution	0.1Hz(15.0~99.9Hz), 1Hz(100~1000Hz)			
	Accuracy	0.03% of setting			
Programmable Output Impedance		Not Support			
Harmonic & Interharmonics Simulation		Not Support			
Power Meter Function(Per Phase)					
Voltage	Range	AC 0~300VAC			
		DC 0~424VDC			
	Resolution	0.1V			
Accuracy	0.2% of setting +0.4%F.S. (Peak: 0.6% of setting +1%F.S.)				

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MODEL		SPS300VAC1800W	SPS300VAC3000W	SPS300VAC4500W
Frequency	Range	15~1000Hz		
	Resolution	0.1Hz(15.0~99.9Hz), 1Hz(100~1000Hz)		
	Accuracy	0.1% of setting		
Current ^[2] (r.m.s)	Range	H 0.15A~5.6A	B.3A~9.2A	H 0.3A~13.8A
		L 0.1A~3A	D.1A~3A	L 0.1A~3A
	Resolution	0.01A		
	Accuracy	0.4%+1.0%F.S.		
Current ^[2] (Peak)	Range	0A~32.4A	0A~55.2A	0A~82.8A
	Resolution	0.01A		
	Accuracy	0.4%+1.5%F.S.		
Power	Range	0~612W	0~1020W	0~1530W
	Resolution	0.1W		
	Accuracy	0.4% of setting +0.3%F.S. at PF>0.2, Voltage >5V		
Power Apparent(VA)	Range	0~612VA	0~1020VA	0~1530VA
	Resolution	0.1VA		
	Accuracy	Voltage*I _{rms} , Calculated value		
Power Resistive (VAR)	Range	0~612VAR	0~1020VAR	0~1530VAR
	Resolution	0.1VAR		
	Accuracy	$\sqrt{(\text{VA})^2 - (\text{W})^2}$, Calculated value		
Power Factor (PF)	Range	0.00~1.00		
	Resolution	0.01		
	Accuracy	W/VA, Calculated value		
Harmonic	Range	Not Support		
EXTRA FUNCTION				
Slew Rate	Range	AC Voltage 0.001~1200.000V/ms and Disable		
		DC Voltage 0.001~1000.000V/ms and Disable		
		Frequency 0.001~1600.000Hz/ms and Disable		
Remote Sense	Range	5V(rms), Max. Total power less than rated power		
Calibration	Firmware-based calibration through the digital interface or front panel display			
Test Function	Not Support			
Graphic Display	4.3" Color touch LCD			
Operation Key Feature	Soft key, Numeric key, Rotary Knob, Support USB disk			
Rack mount Handles	Yes			
FAN	Temperature Control			
Protection Circuits	OCP, OVP, OPP, OTP, RCP, PRI_UVP, PRI_OVP, PRI_OTP, PRI_OCP, USB_OCP			
Interface	USB, RS485, RS232, LAN(Optional); GPIB(Optional)			
ENVIRONMENTAL				
Operating Temperature	0°C~40°C			
Storage Temperature	-40°C~85°C			
Altitude	2000m			
Relative Humidity	5%~95%, non-condensing			
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current, 100ppm/°C at Frequency			
MECHANICAL				
Dimensions(W*H*D)	540.0*400.0*640.0 mm			
Package Dimensions (W*H*D)	660.0*575.0*800.0 mm			
Unit Net Weight	88.7kg	88.7kg	88.7kg	
Accessories Weight	0.4kg			
Gross Weight	108.7kg	108.7kg	108.7kg	
REGULATORY COMPLIANCE				
CE Mark	Installation Overvoltage Category II;Class II equipment;indoor use only.			

[1] In single phase mode, the current shall be reduced to 90% for the consideration of current sharing.

[2] The tolerance will change slightly in high frequency condition;

All specifications are subject to change without notice.

3 Phase Programmable AC Source

MODEL		SPS300VAC6000W	SPS300VAC9000W	SPS300VAC12000W	SPS300VAC15000W
INPUT					
Voltage		190~265VAC			
Frequency		47~63Hz			
Phase		3 Phase,4Wire+Groud/Y Connect			
Max.Current		42A	60A	75A	90A
Power Factor at 220VAC Input, Full Load		≥0.99 Active PFC	≥0.98 Active PFC	≥0.99 Active PFC	≥0.99 Active PFC
Efficiency		>87% (Peak) >86% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load	>86% (Peak) >85% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load	>87% (Peak) >86% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load	>87% (Peak) >86% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load
3-Phase Output Mode(Per Phase)					
AC Power(Total)		6000VA	9000VA	12000VA	15000VA
AC Power(Per Phase)		2000VA	3000VA	4000VA	5000VA
Max.Current (r.m.s)	0~150V(L)	16A	27.6A	32A	46A
	0~300V(H)	8A	13.8A	16A	23A
Max.Current (Peak)	0~150V(L)	80A	165.6A	160A	184A
	0~300V(H)	40A	82.8A	80A	92A
1-Phase Output Mode					
AC Power(Total) ⁽¹⁾		6000VA	9000VA	12000VA	15000VA
Max.Current (r.m.s)	0~150V(L)	48A	82.8A	96A	138A
	0~300V(H)	24A	41.4A	48A	69A
Max.Current (Peak)	0~150V(L)	240A	496.8A	480A	552A
	0~300V(H)	120A	248.4A	240A	276A
DC Power (Per Phase)		6000W	9000W	12000W	15000W
Max.Current (Total)	L	33.9A	58.8A	67.8A	97.8A
	H	16.95A	29.4A	33.9A	48.9A
3-Phase Output Mode(Per Phase)					
Total Harmonic Distortion (THD)		<0.5% (Resistive Load) at 15.0~70.0Hz and output voltage within the 80~140VAC at Low Range or the 160~280VAC at High Range; <1% (Resistive Load) at 70.1~500Hz and output voltage within the 80~140VAC at Low Range or the 160~280VAC at High Range; <1% (Resistive Load) at 501~1000Hz and output voltage within the 100~140VAC at Low Range or the 160~280VAC at High Rang;			
Crest Factor(CF)		≤5	≤6	≤5	≤4
Load Regulation		±0.2%F.S. (Resistive Load) at 15~100Hz ±0.5%F.S. (Resistive Load) at >100Hz			
Line Regulation		±0.1V			
Voltage(AC) (L-N)	Range	0~300VAC, 150V/300V/Auto Mode			
	Resolution	0.1V			
	Accuracy	0.2% of setting +0.4%F.S at Voltage>3V			
Phase Angle (Starting /Ending)	Range	0~359.9°			
	Resolution	0.1°			
	Accuracy	±1° @45~65Hz			
Voltage(DC)	Range	0~424VDC			
	Resolution	0.1V			
	Accuracy	0.3% of setting +0.4%F.S at Voltage>3V			
	DC Power	2000W	3000W	4000W	5000W
	Max.Current	L 11.3A H 5.65A	L 19.6A H 9.8A	L 22.6A H 11.3A	L 32.6A H 16.3A
	Ripple&Noise (Peak) Ripple&Noise (r.m.s)	L <700mVrms @Bandwidth 20Hz to 1MHz H <1100mVrms @Bandwidth 20Hz to 1MHz <4000mVp-p @Bandwidth 20Hz to 1MHz			
Current CC Fold Mode	Resolution	0.01A			
	Accuracy	2.0% of setting +1.0%F.S.			
	Response Time	<1400ms			
Frequency	Range	15~1000Hz			
	Resolution	0.1Hz(15.0~99.9Hz), 1Hz(100~1000Hz)			
	Accuracy	0.03% of setting			
Programmable Output Impedance	Not Support				
Harmonic & Interharmonics Simulation	Not Support				
Power Meter Function(Per Phase)					
Voltage	Range	AC 0~300VAC			
		DC 0~424VDC			
	Resolution	0.1V			
Accuracy	0.2% of setting +0.4%F.S. (Peak: 0.6% of setting +1%F.S.)				

3 Phase Programmable AC Source

MODEL		SPS300VAC6000W	SPS300VAC9000W	SPS300VAC12000W	SPS300VAC15000W
Frequency	Range	15~1000Hz			
	Resolution	0.1Hz(15.0~99.9Hz), 1Hz(100~1000Hz)			
	Accuracy	0.1% of setting			
Current ^[2] (r.m.s)	Range	H 0.15A~20A	H 0.3A~27.6A	H 0.3A~32A	H 0.3A~46A
		M -	M 0.2A~20A	M 0.2A~20A	M 0.2A~20A
		L 0.1A~5A	L 0.1A~5A	L 0.1A~5A	L 0.1A~5A
		mA 0.02A~1.5A	mA 0.02A~1.5A	mA 0.02A~1.5A	mA 0.02A~1.5A
	Resolution	0.01A			
Accuracy	0.4%+1.0%F.S.				
Current ^[2] (Peak)	Range	0A~81.5A	0A~168.6A	0A~163A	0A~188A
	Resolution	0.01A			
	Accuracy	0.4%+1.5%F.S.			
Power	Range	0~2040W	0~3060W	0~4080W	0~5100W
	Resolution	0.1W			
	Accuracy	0.4% of setting +0.3%F.S. at PF>0.2, Voltage >5V			
Power Apparent(VA)	Range	0~2040VA	0~3060VA	0~4080VA	0~5100VA
	Resolution	0.1VA			
	Accuracy	Voltage*I _{rms} , Calculated value			
Power Resistive (VAR)	Range	0~2040VAR	0~3060VAR	0~4080VAR	0~5100VAR
	Resolution	0.1VAR			
	Accuracy	$\sqrt{(\text{VA})^2 - (\text{W})^2}$, Calculated value			
Power Factor (PF)	Range	0.00~1.00			
	Resolution	0.01			
	Accuracy	W/VA, Calculated value			
Harmonic	Range	Not Support			
EXTRA FUNCTION					
Slew Rate	Range	AC Voltage 0.001~1200.000V/ms and Disable			
		DC Voltage 0.001~1000.000V/ms and Disable			
		Frequency 0.001~1600.000Hz/ms and Disable			
Remote Sense	Range	5V(rms), Max. Total power less than rated power			
Calibration	Firmware-based calibration through the digital interface or front panel display				
Test Function	Not Support				
Graphic Display	5.6" Color touch LCD				
Operation Key Feature	Soft key, Numeric key, Rotary Knob, Support USB disk				
Rack mount Handles	Yes				
FAN	Temperature Control				
Protection Circuits	OCP, OVP, OPP, OTP, RCP, PRI_UVP, PRI_OVP, PRI_OTP, PRI_OCP, USB_OCP				
Interface	USB, RS485, RS232, LAN(Standard); GPIB(Optional)				
ENVIRONMENTAL					
Operating Temperature	0°C~40°C				
Storage Temperature	-40°C~85°C				
Altitude	2000m				
Relative Humidity	5%~95%, non-condensing				
Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current, 100ppm/°C at Frequency				
MECHANICAL					
Dimensions(W*H*D)	560.0*945.0*700.0 mm				
Package Dimensions (W*H*D)	680.0*1120.0*860.0 mm				
Unit Net Weight	134.0kg	157.0kg	157.0kg	157.0kg	157.0kg
Accessories Weight	0.4kg				
Gross Weight	173.0kg	195.0kg	195.0kg	195.0kg	195.0kg
REGULATORY COMPLIANCE					
CE Mark	Installation Overvoltage Category II;Class II equipment;indoor use only.				

[1] In single phase mode, the current shall be reduced to 90% for the consideration of current sharing.

[2] The tolerance will change slightly in high frequency condition;

All specifications are subject to change without notice.

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