

## *Linked 3-Phase AC System*

» Product specification sheet



# Linked 3-Phase AC System

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## Contents

SPS300VAC1800W	-----	01
SPS300VAC3000W	-----	01
SPS300VAC4500W	-----	01
SPS300VAC6000W	-----	03
SPS300VAC9000W	-----	03
SPS300VAC12000W	-----	03
SPS300VAC15000W	-----	03

### Selection List :

Model	Size	Voltage	Power	Output Model	Corresponding page
SPS300VAC1800W	9U	150V/300V	1800W	1-Phase/3-Phase	P01
SPS300VAC3000W	9U	150V/300V	3000W	1-Phase/3-Phase	P01
SPS300VAC4500W	9U	150V/300V	4500W	1-Phase/3-Phase	P01
SPS300VAC6000W	17U	150V/300V	6000W	1-Phase/3-Phase	P03
SPS300VAC9000W	17U	150V/300V	9000W	1-Phase/3-Phase	P03
SPS300VAC12000W	17U	150V/300V	12000W	1-Phase/3-Phase	P03
SPS300VAC15000W	17U	150V/300V	15000W	1-Phase/3-Phase	P03

# Linked 3-Phase AC System

MODEL		SPS300VAC1800W	SPS300VAC3000W	SPS300VAC4500W	
<b>Input</b>					
Voltage		90~265VAC	90~265VAC	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 output,Full Load	>85.5% (Peak) >85% at 220VAC,50Hz input/220VAC,50Hz output,Full Load	>87.5% (Peak) >87% at 220VAC,50Hz input/220VAC,50Hz output, Full Load	
<b>3-Phase Output Mode(Per Phase)</b>					
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	
<b>1-Phase Output Mode</b>					
AC Power(Total) <sup>1)</sup>		1620VA	2700VA	4050VA	
Max.Current (r.m.s)	0~150V(L)	15.12A	24.84A	37.26A	
	0~300V(H)	7.56A	12.42A	18.62A	
Max.Current (Peak)	0~150V(L)	87.48A	149A	223.56A	
	0~300V(H)	43.47A	74.52A	111.78A	
DC Power (Per Phase)		1620W	2700W	4050W	
Max.Current (Total)	L 10.69A		L 17.55A	L 26.35A	
	H 5.1A		H 8.9A	H 13.18A	
<b>3-Phase Output Mode(Per Phase)</b>					
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 100~140VACat 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			
Voltage(DC)	Range	0~424VDC			
	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 H 1.89A	L 6.5A H 3.3A	L 9.76A H 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			
<b>Power Meter Function(Per Phase)</b>					
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.)			

MODEL		SPS300VAC1800W	SPS300VAC3000W	SPS300VAC4500W
Frequency	Range	15~1000Hz		
	Resolution	0.1Hz(15.0~99.9Hz),1Hz(100~1000Hz)		
	Accuracy	0.1% of setting		
Current <sup>[2]</sup> (r.m.s)	Range	H 0.15A~5.6A	H 0.3A~9.2A	H 0.3A~13.8A
		L 0.1A~3A	L 0.1A~3A	L 0.1A~3A
	Resolution	0.01A		
Accuracy	0.4%+1.0%F.S.			
Current <sup>[2]</sup> (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 <sub>rms</sub> , Calculated value		
Power Resistive (VAR)	Range	0~612VAR	0~1020VAR	0~1530VAR
	Resolution	0.1VAR		
	Accuracy	$\sqrt{(VA)^2-(W)^2}$ , Calculated value		
Power Factor (PF)	Range	0.00~1.00		
	Resolution	0.01		
	Accuracy	W/VA, Calculated value		
Harmonic	Range	Not Support		
<b>Extra Function</b>				
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, USB port for transfer and upgrading firmware			
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)			
<b>Environmental</b>				
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			
<b>Mechanical</b>				
Dimensions(WxHxD)	540.0x400.0x640.0 mm			
Package Dimensions (WxHxD)	660.0x710.0x760.0 mm			
Unit Weight	88.7kg			
Shipping Weight	108.7kg			
<b>Regulatory Compliance</b>				
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.

# Linked 3-Phase AC System

MODEL	SPS300VAC6000W		SPS300VAC9000W		SPS300VAC12000W		SPS300VAC15000W		
<b>Input</b>									
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		
<b>3-Phase Output Mode(Per Phase)</b>									
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		
<b>1-Phase Output Mode</b>									
AC Power(Total) <sup>(1)</sup>	5400VA		8100VA		10800VA		13500VA		
Max.Current (r.m.s)	0~150V(L)	43.2A	74.52A		86.4A		124.2A		
	0~300V(H)	21.6A	37.26A		43.2A		62.1A		
Max.Current (Peak)	0~150V(L)	216A	447.12A		432A		496.8A		
	0~300V(H)	108A	223.56A		216A		248.4A		
DC Power (Per Phase)	5400W		8100W		10800W		13500W		
Max.Current (Total)	L 30.51A		L 52.92A		L 61A		L 88A		
	H 15.26A		H 26.46A		H 30.51A		H 44A		
<b>3-Phase Output Mode(Per Phase)</b>									
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							
	Range	0~424VDC							
Voltage(DC)	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	L 19.6A		L 22.6A		L 32.6A	
	H 5.65A		H 9.8A		H 11.3A		H 16.3A		
	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 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								
<b>Power Meter Function(Per Phase)</b>									
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.)								

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 <sup>[2]</sup> (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 <sup>[2]</sup> (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 <sub>rms</sub> , Calculated value			
Power Resistive (VAR)	Range	0~2040VAR	0~3060VAR	0~4080VAR	0~5100VAR
	Resolution	0.1VAR			
	Accuracy	$\sqrt{(VA)^2 - (W)^2}$ , Calculated value			
Power Factor (PF)	Range	0.00~1.00			
	Resolution	0.01			
	Accuracy	W/VA, Calculated value			
Harmonic	Range	Not Support			
<b>Extra Function</b>					
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, USB port for transfer and upgrading firmware				
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(Option)				
<b>Environmental</b>					
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				
<b>Mechanical</b>					
Dimensions(WxHxD)	560.0x754.0x700.0 mm				
Package Dimensions (WxHxD)	680.0x1146.0x820.0 mm				
Unit Weight	134.0kg	157.0kg	157.0kg	157.0kg	
Shipping Weight	173.0kg	195.0kg	195.0kg	195.0kg	
<b>Regulatory Compliance</b>					
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.

