

Efficiency, Stability, Reliable, Precision

Middle Power Single Phase AC Source

>>> Product specification sheet



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Selection List:

Model	Voltage	Current	Power	Corresponding page
SP300VAC600W	150V/300V	5.6A/2.8A	600W	P01
SP300VAC1000W	150V/300V	9.2A/4.6A	1000W	P01
SP300VAC1500W	150V/300V	13.8A/6.9A	1500W	P01
SP300VAC2000W	150V/300V	16A/8A	2000W	P03
SP300VAC3000W	150V/300V	27.6A/13.8A	3000W	P03
SP300VAC4000W	150V/300V	32A/16A	4000W	P03
SP300VAC5000W	150V/300V	46A/23A	5000W	P03

Model		SP300VAC600W	SP300VAC1000W	SP300VAC1500W		
Voltage			Input OO 265VAC	100 265/40		
Voltage		90~265VAC	90~265VAC	100~265VAC		
Frequency Phase		47~63Hz				
Max. Current		1 Phase, 2Wire+Groud 10A	15A	19A		
	0VAC Input, Full Load	≥ 0.91 Active PFC	≥ 0.95 Active PFC	≥ 0.97 Active PFC		
rower ractor at 22	OVAC IIIput, I uli Loau					
Efficiency		> 82%(Peak) > 80% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load	> 86%(Peak) > 84% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load	> 87%(Peak) > 86% at 220VAC, 50Hz input/230VAC, 50Hz output, Full Load		
AC Power		Output				
	0 150\/(L)	600VA	1000VA	1500VA		
Max. Current (r.m.s)	0~150V(L) 0~300V(H)	5.6A 2.8A	9.2A 4.6A	13.8A 6.9A		
` '	0~150V(L)	32.4A	55.2A	82.8A		
Max. Current (Peak)	0~300V(H)	16.2A	27.6A	41.4A		
Phase	0 0001(11)	1 Phase	27.0A	41.40		
Tiluoc			z and output voltage within 80~140VAC at L	ow Range or 160~280VAC at High Range.		
			and output voltage within 80~140VAC at Lo			
Total Harmonic Dis	stortion (THD)		and output voltage within 100~140VAC at L			
			and output voltage within 100~140VAC at L	Low Range or 160~280VAC at High Range.		
0 15 : '==		Note: 1001~1200Hz only available to	Protessional Version Models.			
Crest Factor (CF)		< 6				
Load Regulation		± 0.1%F.S. @15~70Hz (Resistive Load)				
		± 0.5%F.S. @Others Freq. (Resistive Load)				
Line Regulation		± 0.1V				
Rise/Fall Time (DC)		< 250us				
	Range	0~300VAC, 150V/300V/Auto				
Voltage (AC)	Resolution	0.1V				
	Accuracy	0.2% of setting + 0.2%F.S.				
Phase Angle	Range	0~359.9°				
(Starting / Ending)	Resolution	0.1°				
, ,	Accuracy	± 1°@45~65Hz				
	Range Resolution	0~424VDC				
	Accuracy	0.1V				
	Max. Power	0.2% of setting + 0.2%F.S.	1000W	1500W		
Voltage (DC)	Max. Current	L 3.96A	L 6.5A	L 9.76A		
Voltage (DC)	(L/H Range)	H1.89A	H 3.3A	H 4.88A		
				114.00A		
	Ripple & Noise (r.m.s)	L <700mVrms @Bandwidth 20Hz to 1MHz H <1100mVrms @Bandwidth 20Hz to 1MHz				
	Ripple & Noise (Peak)	<4000mVp-p @Bandwidth 20Hz to 1MHz				
	Resolution	0.01A				
Current CC	Accuracy	0.5% of setting + 1.0%F.S.				
Fold Mode	Response Time	<1400ms				
	Range ^[1]	15~1200Hz Full Range ADJ				
Frequency	Resolution	0.1Hz(15.0~99.9Hz),1Hz(100~100	0Hz), 5Hz (1001~1200Hz)			
	Accuracy	0.03% of setting				
Programmable Out	put Impedance ^[2]	$0\Omega+0mH\sim1\Omega+1mH$				
Harmonics & Inter-	harmonics Simulation[3]	2400Hz				
		Mea	surement			
	Range	AC 0~300VAC				
Valtari	90	DC 0~424VDC				
Voltage	Resolution	0.1V				
	Accuracy	0.2% of setting + 0.2%F.S.				
	Range ^[1]	15~1200Hz				
Frequency	Resolution	0.1Hz(15.0~99.9Hz),1Hz(100~1000Hz),5Hz(1001~1200Hz)				
	Accuracy	0.1% of setting				
		H 0.15A~5.6A	H 0.15A~9.2A	H 0.15A~13.8A		
	Range	M -	M -	M -		
Current		L 0.1A~3A	L 0.1A~3A	L 0.1A~3A		
(r.m.s)		mA - mA -				
	Resolution	0.01A				
	A	0.4%+1.0%F.S. L 0.4%+1.5%F.S.				
	Accuracy					
	Range	0~32.4A	0~55.2A	0~82.8A		
Current	-	0~32.4A 0.01A	0~55.2A	0~82.8A		
Current (Peak)	Range	0~32.4A	0~55.2A	0~82.8A		

Model		SP300VAC600W	SP300VAC1000W	SP300VAC1500W		
	Range	0~600W	0~1000W	0~1500W		
Power	Resolution	0.1W				
	Accuracy	0.4% of setting + 1.0% F.S. at PF	5>0.2. Voltage>5V			
Power	Range	0~612VA				
Apparent	Resolution	0.1VA				
(VA)	Accuracy	Voltage*Irms, Calculated value				
Power	Range	0~612VAR	0~1020VAR	0~1530VAR		
Resistive	Resolution	0.1VAR				
(VAR)	Accuracy	$\sqrt{(VA)^2-(W)^2}$, Calculated value				
Power	Range	0.00~1.00				
Factor	Resolution	0.01				
(PF)	Accuracy	W/VA, Calculated value				
Harmonic	Range ^[4]	2~40 orders				
			Extra Function			
Remote Sense	Range	5V(rms), Max. Total power less	than rated power.			
		AC Voltage 0.001~1200.000V/I	ns and Disable			
Slew Rate	Range	DC Voltage 0.001~1000.000V/r	ms and Disable			
		Frequency 0.001~1600.000Hz/	ms and Disable			
Transient		Trans-Start: 0.0~66.5ms @ 15H	z, Resolution: 0.1ms			
Generator		Trans-Volt: -212V~+212V(L), -42	24V~+424V(H), Resolution: 0.1V			
(only for	Range	Trans-Time: 0.0~66.5ms @ 15H	Iz. Resolution: 0.1ms			
15~70Hz)		Trans-Count: 0~9999, Constant	<u> </u>			
Calibration			ugh the digital interface or front panel			
Test Function		Yes	agir the digital interrupe of front pariet			
Parallel Output for 1	1 Phase		phase Link Card)			
Series Output for 1		Yes, 4 Units Max. (Option: Multiphase Link Card) Yes, 2 Units Max. (Option: Multiphase Link Card)				
Link Output for 3 Ph		Yes, (Option: Multiphase Link C				
Ziiiik Gatpat ioi G i		res, (epitem maniphaes ziint s	General			
Graphic Display		4.3" Color touch LCD				
Operation Key Feat	ure	Soft key, Numeric key, Rotary Knob, USB port for transfer and upgrading firmware				
Rack mount Handle	es	Yes				
FAN		Temperature Control				
Protection Circuits		OCP,OVP,OPP,OTP,RCP, PRI	_UVP,PRI_OVP, PRI_OTP, PRI_OCP, USE	_OCP		
Interface		Standard USB, RS-485, RS-232,	GPIB & LAN is Optional			
		Remote Control Inpu	t/Output Signal Characteristics (Option)			
Remote Input Signa	al	Signal input for external trigger for execution of programmed value				
, ,		Signal: ON/OFF, RESET, KEEP OFF, Recall program memory 1 through 7				
Remote Output Sigr	nal	Signal output indicating that a test mode is present				
		Signal: PASS, FAIL, TEST-IN-PR				
External Signal Way	eform Input	Signal input for output voltage waveform programming by external analog				
External oignal trai		reference via BNC type. Betwee	n the sync signal and the output wave will be	0.5ms time difference		
			Environment			
Operating Temperat		0°C ~ 40°C				
Storage Temperatur	re	-40°C ~ 85°C				
Fan Noise		73dBA Max.				
Altitude		2000m				
Relative Humidity		5%~95%, non-condensing				
Temperature Coeffi	icient	100ppm/°C at Voltage, 300ppm	/°C at Current, 100ppm/°C at Frequency			
Dimensions (W/*LI*F	0)	423 0v87 0v520 0 mm	Mechanical			
Dimensions (W*H*D) Package Dimensions (W*H*D)		423.0x87.0x520.0 mm 594.0x241.0x744.0 mm				
Unit Weight	is (vv iiD)		15.9kg			
Shipping Weight	·					
Simpling Weight		-	Regulatory Compliance			
			014/30/EU/EN61326-1: 2013 Class A for emi	ssions		
EMC			red for EU CE Mark. FCC Verification of conf			
Safety				-		
CE Mark			CE marked for LVD Directive 2014/35/EU/EN61010-1-third edition as required for EU CE Mark. Installation Overvoltage Category II; Pollution Degree 2; Class II equipment; indoor use only.			
Isolation Voltage		3000VAC,input to output; 1500				
RoHS Meet to EU Directive 2011/65/EU for restriction of hazardous substances in Electrical and Electronic Equipment.				2.004.1041 4114 Electronic Equipment.		

^[1] Only Professional Version units support 15.00~1200.00Hz.

^[2] Only Professional Version units support Programmable Output Impedance function.

^[3] Only Professional Version units support Harmonics & Inter-harmonics Simulation function.

^[4] Only Professional Version units support Harmonics function.

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Model		SP300VAC2000W	SP300VAC3000W	SP300VAC4000W	SP300VAC5000W	
Voltage		190~265VAC	Input			
Frequency		47~63Hz				
Phase		1 Phase, 2Wire+Groud				
Max. Current		14A	20A	25A	30A	
	OVAC Input, Full Load	≥0.99, ActivePFC	≥0.98, ActivePFC	≥0.99, ActivePFC	≥ 0.99, ActivePFC	
ower ruotor at 22	ovito input, i un coud					
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 Loa	> 87%(Peak) > 86% at 220VAC, 50Hz input id 230VAC,50Hz output, Full Lo	
			Output			
AC Power		2000VA	3000VA	4000VA	5000VA	
Max. Current	0~150V(L)	16A	27.6A	32A	46A	
r.m.s)	0~300V(H)	8A	13.8A	16A	23A	
Max. Current	0~150V(L)	80A	165.6A	160A	184A	
(Peak)	0~300V(H)	40A	82.8A	80A	92A	
Phase		1 Phase				
		<0.5% (Resistive Load) at 15.0	~70.0Hz and output voltage wit	hin 80~140VAC at Low Range	or 160~280VAC at High Range	
		<1% (Resistive Load) at 70.1~	500Hz and output voltage with	in 80~140VAC at Low Range	or 160~280VAC at High Range	
Total Harmonic Dis	stortion (THD)					
	()		1000Hz and output voltage withi			
			-1200Hz and output voltage with		e or 160~280VAC at High Rang	
O (05)		-	lable to Professional Version Mo			
Crest Factor (CF)		≤ 5	≤ 6	≤ 5	≤ 4	
Load Regulation		± 0. 1%F.S. @15~70Hz (Resistiv	· · · · · · · · · · · · · · · · · · ·			
		± 0. 5%F.S. @Others Freq. (Resi	stive Load)			
Line Regulation		± 0.1V				
Rise/Fall Time (DC)	<180us				
	Range	0~300VAC, 150V/300V/Au	to			
Voltage (AC)	Resolution	0.1V				
	Accuracy	0.2% of setting + 0.2%F.S.				
Phase Angle	Range	0~359.9°				
Starting / Ending)	Resolution	0.1°				
otarting / Enamy)	Accuracy	±1°@45~65Hz				
	Range	0~424VDC				
	Resolution	0.1V				
	Accuracy	0.2% of setting + 0.2%F.S.				
	Max. Power	2000W	3000W	4000W	5000W	
Voltage (DC)	Max. Current	L11.3A	L19.6A	L 22.6A	L32.6A	
3 ()	(L/H Range)	H 5.65A	H 9.8A	H11.3A	H 16.3A	
	· · · · · · · · · · · · · · · · · ·	L <700mVrms @Bandwidth 20H	Iz to 1MHz		'	
	Ripple & Noise (r.m.s)	H <1100mVrms @Bandwidth 20Hz to 1MHz				
	Ripple & Noise (Peak)	<4000mVp-p @Bandwidth 20Hz to 1MHz				
	Resolution	0.01A				
Current CC	Accuracy	0.5% of setting + 1.0%F.S.				
Fold Mode	Response Time	<1400ms				
	Range ^[1]	15~1200Hz Full Range ADJ				
reguerov	Resolution		00~1000Hz), 5Hz (1001~1200	OHz)		
Frequency	Accuracy	0.03% of setting	10002/, 01.12 (1001 1200	/		
Programmable Out	•	0.03% of setting $0\Omega + 0$ mH $\sim 1\Omega + 1$ mH				
	harmonics Simulation[3]	2400Hz				
rannonics & inter-	namonics sinulation	2700112	Measurement			
		AC 0~300VAC	Wedsdrelliellt			
	Range					
/oltage	Resolution	DC 0~424VDC 0.1V				
		0.1V 0.2% of setting + 0.2%F.S.				
	Accuracy					
_	Range ^[1]	15~1200Hz	00 1000H=\ 5H=/1001 1000	U-\		
requency	Resolution	0.1Hz(15.0~99.9Hz), 1Hz(100~1000Hz), 5Hz(1001~1200Hz)				
	Accuracy	0.1% of setting				
		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	
	Range		L 0.1A~5A	L 0.1A~5A	L 0.1A~5A	
Current	Range	L 0.1A~5A				
		mA 0.02A~1.5A	mA 0.02A~1.5A	mA 0.02A~1.5A	mA 0.02A~1.5A	
	Range Resolution	mA 0.02A~1.5A 0.01A	mA 0.02A~1.5A	mA 0.02A~1.5A	mA 0.02A~1.5A	
	Resolution	mA 0.02A~1.5A 0.01A H/M 0.4%+1.0%F.S.	mA 0.02A~1.5A H/M 0.4%+0.6%F.S.	mA 0.02A~1.5A	mA 0.02A~1.5A	
		mA 0.02A~1.5A 0.01A	mA 0.02A~1.5A	mA 0.02A~1.5A	mA U.U2A~1.5A	
Current (r.m.s)	Resolution	mA 0.02A~1.5A 0.01A H/M 0.4%+1.0%F.S.	mA 0.02A~1.5A H/M 0.4%+0.6%F.S.	MA 0.02A~1.5A 0.05~163A	0.05~188A	

				-				
Model		SP300VAC2000W	SP300VAC3000W	SP300VAC4000W	SP300VAC5000W			
	Range	0~2040W	0~3060W	0~4080W	0~5100W			
Power	Resolution	0.1W						
	Accuracy	0.4% of setting + 1.0% F.S. at F	PF>0.2. Voltage>5V					
Power	Range	0~2040VA	0~3060VA	0~4080VA	0~5100VA			
Apparent	Resolution	0.1VA						
(VA)	Accuracy	Voltage*Irms, Calculated value						
Power	Range	0~2040VAR						
Resistive	Resolution	0.1VAR	0 00007/110	0 40007/11	0 010017111			
(VAR)	Accuracy	$\sqrt{(VA)^2-(W)^2}$, Calculated value						
-	Range	0.00~1.00						
Power	Resolution	0.00~1.00						
Factor	Accuracy							
(PF)	-	W/VA, Calculated value						
Harmonic	Range ^[4]	2~40 orders	Evtro Eupotion					
Damasta Oanas	Danne	F\//mas\ May Tatal navyanlas	Extra Function					
Remote Sense	Range	5V(rms), Max. Total power less						
		AC Voltage 0.001~1200.000V						
Slew Rate	Range	DC Voltage 0.001~1000.000V						
		Frequency 0.001~1600.000Hz	:/ms and Disable					
Transient		Trans-Start: 0.0~66.5ms @ 15	Hz, Resolution: 0.1ms					
Generator	Panga	Trans-Volt: -212V~+212V(L), -4	424V~+424V(H), Resolution: 0.1\	V				
(only for	Range	Trans-Time: 0.0~66.5ms @ 15	Hz, Resolution: 0.1ms					
15~70Hz)		Trans-Count: 0~9999, Constar	nt					
Calibration			rough the digital interface or fron	it panel				
Test Function		Yes						
Parallel Output fo	r 1 Phase		note I/O & Parallel, Multiphase Li	nk Card)				
Series Output for			note I/O & Parallel, Multiphase Lir	·				
Link Output for 3		Yes, (Option: Remote I/O & Pa	•	ik daid)				
Ellik Output for 5	i iluse	res, (option: Nemote 1/0 & 1 a	General					
Graphic Display		5.6" Color touch LCD	Ocherui					
Operation Key Fea	ature		Knob, USB port for transfer and u	ngrading firmware				
Rack mount Hand		Yes	thob, oob port for transfer and a	pgrading minware				
FAN		Temperature Control						
Protection Circuit	<u> </u>	· ·	I IIVDDDI OVDDDI OTDDD	L OCRUSE OCR				
Interface	<u> </u>	Standard USB, RS-485, RS-232	I_UVP,PRI_OVP,PRI_OTP,PRI	1_0CF,03B_0CF				
interrace			ntrol Input/Output Signal Charac	eteristics (Ontion)				
			r for execution of programmed v					
Remote Input Sign	nal							
		Signal output indicating that a	EP OFF, Recall program memory 1 through 7					
Remote Output Si	gnal	Signal: PASS, FAIL, TEST-IN-P	·					
			waveform programming by exte	rnal analog				
External Signal W	aveform Input			it wave will be 0.5ms time difference				
		. croronoc via bivo type. betwe	Environment	this be olonio time difference				
Operating Temper	rature	0°C ~ 40°C						
Storage Temperat		-40°C ~ 85°C						
Fan Noise	ui C							
Altitude		73dBA Max.						
		2000m 5%~95%, non-condensing						
Relative Humidity								
Temperature Coe	molent	Tooppin/ G at voitage, 300ppr	Mechanical	equency				
Dimensions (W*H	I*D)	423.0x133.0x520.0 mm	423.0x177.0x520.0 mm					
Package Dimensions (W*H*D)			643.0x323.0x802.0 mm					
Unit Weight								
Shipping Weight								
Shipping Weight		y	Regulatory Compliance					
EMC			2014/30/EU/EN61326-1: 2013 C		15 of the FCC Rules.			
Safety								
CE Mark		CE marked for LVD Directive 2014/35/EU/EN61010-1-third edition as required for EU CE Mark.						
Isolation Voltage		Installation Overvoltage Category II; Pollution Degree 2; Class II equipment; indoor use only.						
RoHS		3000VAC,input to output; 1500VAC,input to chassis.						
NOTIO	Meet to EU Directive 2011/65/EU for restriction of hazardous substances in Electrical and Electronic Equipment.							

- [1] Only Professional Version units support 15.00~1200.00Hz.
- [2] Only Professional Version units support Programmable Output Impedance function.
 [3] Only Professional Version units support Harmonics & Inter-harmonics Simulation function.
- [4] Only Professional Version units support Harmonics function.

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