



SP300VAC2000W is a switching mode single-channel output high-precision programmable AC power source, which adopts high speed DSP+CPLD control, high frequency PWM power technology and active PFC design to realize AC/DC stable output. SP300VAC2000W is featured with high power density, high reliability and high precision, meanwhile it possesses operation interface of touch screen and keys manually. It is able to analog output normal or abnormal input for electrical device to meet test requirements.

Application Area

This series is applicable to multiple sectors such as electric, lighting and aviation sectors and it could be applied to enterprise's production test as well. IEC61000-4-14/ IEC61000-4-28/ IEC61000-4-13 standard test required waveform.

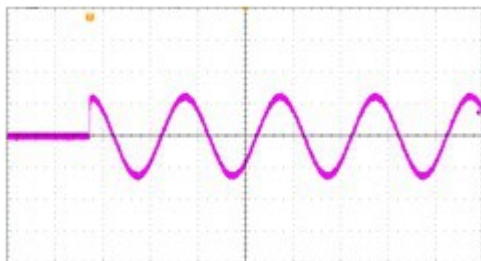
Product Features

- 5.6" large touch color screen, possess complete functions and easy to operate.
- Support for USB data import/export and screen snap from front panel.
- AC+DC mixed or independent output mode for voltage DC offset simulation.
- Capable of setting voltage and current output restriction, support for constant current output mode.
- Capable of setting output slope of voltage and frequency.
- Capable of setting ON/OFF phase angle.
- Support for LIST/PLUSE/STEP mode, simple time setting and circulation setting, which is suitable for power line disturbance simulation test.
- Built-in power sweeping function.
- Built-in Transient mode.
- Built-in Dimmer function.
- With reverse current protection to avoid current flowing backward.
- Built-in power meter, which is capable of measuring 15 electrical parameters, including voltage, current, frequency, etc.
- Support mA current measurement function.
- Built-in IEC61000-3-3/ IEC61000-3-2/ IEC61000-4-11/ IEC61000-4-14/ IEC61000-4-28/ IEC61000-4-13 standard test required waveform.
- Support up to 2 units in series, 4 units in parallel and 3 units combined to 3-phase power output (optional).

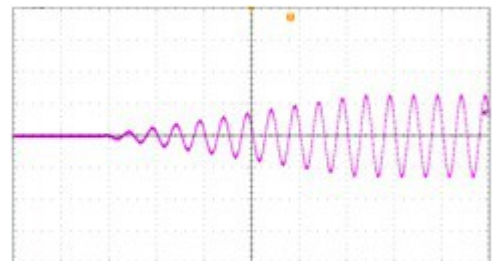
Basic Functions

1. Adjustable Phase Angle/Slope

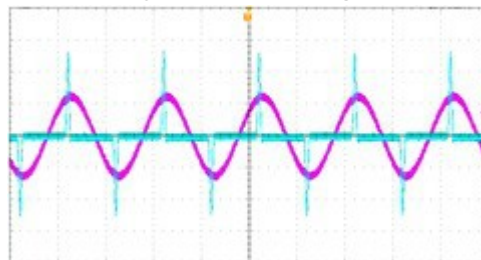
Adjustable Phase Angle/Slope is applicable to verification test of ON/OFF inrush current testing. This function is applicable to start inductive or capacitive load with large capacity to avoid high current when instantaneously start the device.



Adjustable Phase Angle



Adjustable Slope

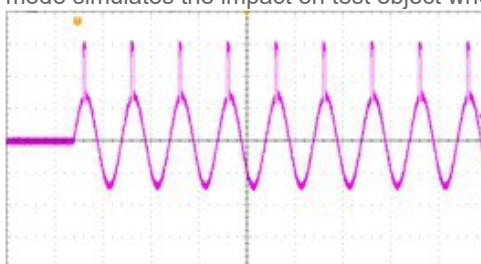


2. High Output Current Crest Factor

The surge current could reach 5-6 times of the rated current, especially suitable for inrush current testing.

3. Transient mode

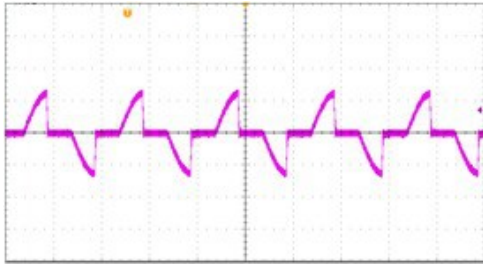
Transient mode simulates the impact on test object when turn on or turn off transient high power capacity load in power grid.



Voltage Spikes



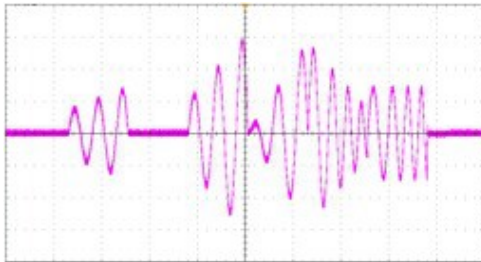
Voltage Sags



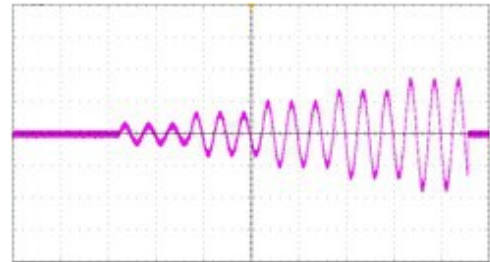
4. Dimmer Function

Support Dimmer function, which is applicable to conduct speed regulating or dimming verification test for electric motor, lamp and other products.

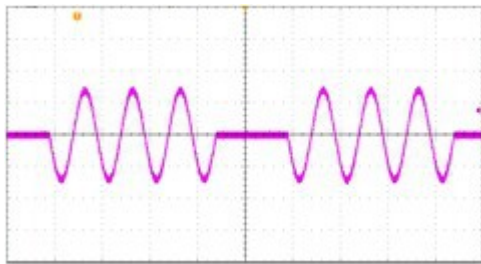
5. Output Simulation Sequence and Disturbance Simulation



LIST Mode



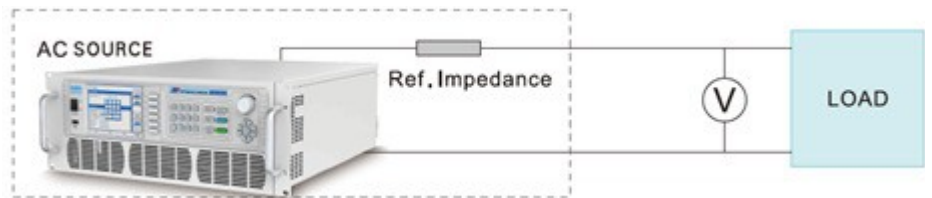
STEP Mode



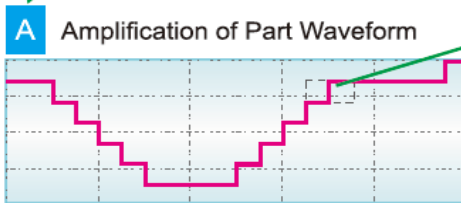
PULSE Mode

Advanced Functions

1. **Output Impedance** (Applicable to Professional Version). Support Simulating Output Impedance



2. **Built-in IEC Standard Test** (Applicable to Professional Version). Built-in IEC standard test could be recalled directly.

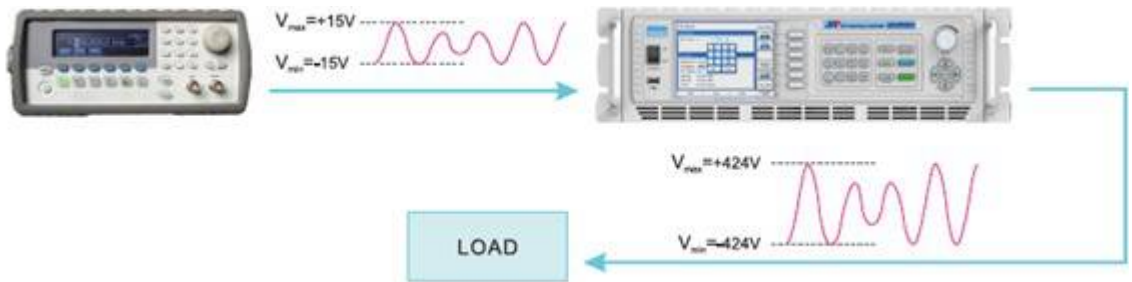


IEC Standard Test



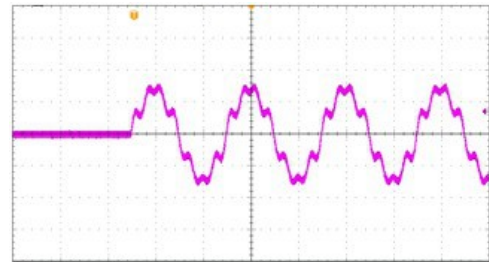
1. Amplifier Function

The programmable AC power source could realize real time output by tail after signal waveform.



4. Harmonics/ Inter-harmonics

Generate Simulation and Harmonics Measurement (Applicable to Professional Version). Up to 40 orders of harmonics components, applicable to interference simulation test.

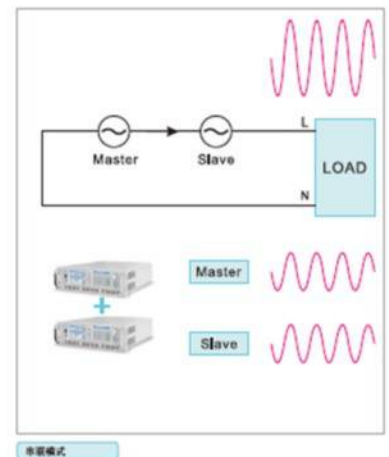
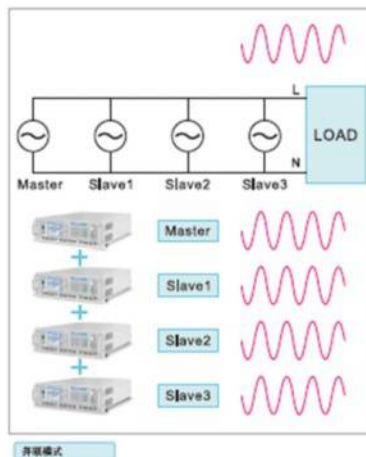
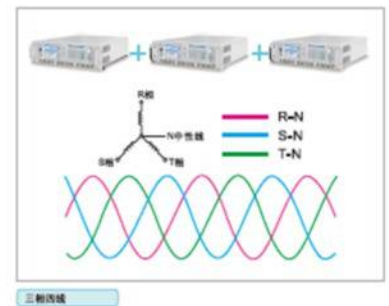
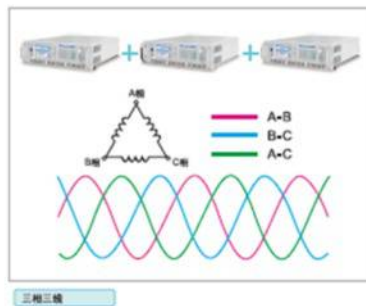


5. External Control Function

Programmable AC power sources could provide analog input under test simulation of PASS, FALL and RUN status and user can control ON/OFF externally, force to shutdown, reset and upload 7 sets of stored parameters.

6. 3-Phase Operation and Parallel Mode

Support up to 2 units in series, 4 units in parallel and 3 units combined to 3-phase power output.



SPECIFICATION

	Model	SP300VAC2000W Advanced	SP300VAC2000W Professional
INPUT			
1	Voltage	190~265VAC	
2	Frequency	47~63Hz	
3	Phase	1 Phase, 2Wire+Ground	
4	Max. Current	14A	
5	Power Factor at 220VAC Input , Full Load	≥0.99 Active PFC	
6	Efficiency	>87% (Peak) >86% at 220VAC,50Hz input/220VAC,50Hz output, Full Load	
OUTPUT			
7	AC Power	2000VA	
8	Max. Current (r.m.s)	0~150V(L)	16A
		0~300V(H)	8A
9	Max. Current (Peak)	0~150V(L)	80A
		0~300V(H)	40A
10	Phase	1 Phase	
11	Crest Factor(CF)	≤5	
12	Load Regulation	±0.1%F.S.(Resistive Load) at 15-70Hz ±0.5%F.S.(Resistive Load) at 70.1-1200Hz Note:1001~1200Hz only available to Professional Version Models	
13	Line Regulation	±0.1V	
14	Voltage(AC)	Range	0~300VAC, 150V/300V/Auto Mode
		Resolution	0:01:00
		Accuracy	0.2% of setting +0.2%F.S.
15	Voltage(DC)	Range	0~424VDC
		Resolution	0:01:00
		Accuracy	0.2% of setting +0.2%F.S.
		Max. Power	2000W
		Max. Current (L/H Range)	L 11.3A H 5.65A
		Rise time/ drop time	<180us
16	Current OC Fold Mode	Resolution	0.01A
		Accuracy	0.5% of setting +1.0%F.S.
		Response Time	<1400ms
17	Frequency	Range	15~1000Hz Full Range ADJ
		Resolution	0.1Hz at 15.0~99.9Hz, 1Hz at 100~1000Hz
		Accuracy	0.03% of setting
18	Programmable Output Impedance	Range	N/A
19	Harmonic & Inter harmonics Simulation	Range	N/A
19	Harmonic & Interharmonics Simulation	Range	N/A

Model		SP300VAC2000W Advanced	SP300VAC2000W Professional
MEASUREMENT			
20	Voltage	Range	AC 0~300VAC DC 0~424VDC
		Resolution	0.1V
		Accuracy	0.2% of setting +0.2%F.S.
21	Frequency	Range	15~1000Hz
		Resolution	0.1Hz at 15.0~99.9Hz, 1Hz at 100~1000Hz
		Accuracy	0.1% of setting
22	Current (r.m.s)	Range	H 0.15A~20A M - L 0.1A~5A mA 0.02A~1.5A
		Resolution	0.01A
		Accuracy	H/M 0.4%+1.0%F.S. L/mA 0.4%+1.0%F.S.
		Range	0A~81.5A
23	Current (Peak)	Resolution	0.01A
		Accuracy	H/M 0.4%+1.5%F.S. L/mA 0.4%+1.2%F.S.
		Range	0~2040W
24	Power	Resolution	0.1W
		Accuracy	0.4% of setting +1.0%F.S. at PF>0.2, Voltage >5V
		Range	N/A
25	Harmonic		2~40 orders
GENERAL			
26	Parallel Output for 1 Phase	Yes, 4 Units Max. (Option: Remote I/O & Parallel, Multiphase Link Card)	
27	Series Output for 1 Phase	Yes, 2 Units Max. (Option: Remote I/O & Parallel, Multiphase Link Card)	
28	Link Output for 3 Phase	Yes (Option: Remote I/O & Parallel, Multiphase Link Card)	
29	FAN	Temperature Control	
30	Protection Circuits	OCP, OVP, OPP, OTP, RCP, PRI_UVP, PRI_OVP, PRI_OTP, PRI_OCP, USB_OCP	
31	Interface	USB, RS485, RS232, LAN(Standard); GPIB (Optional)	
ENVIRONMENTAL			
32	Operating Temperature	0°C to 40°C	
33	Storage Temperature	-40°C to 85°C	
34	Noise	73dBA(Max fan speed)	
35	Altitude	2000m	
36	Relative Humidity	5%~95%, non-condensing	
37	Temperature Coefficient	100ppm/°C at Voltage, 300ppm/°C at Current, 100ppm/°C at Frequency	
MECHANICAL			
38	Dimensions(W*H*D)	483.0*133.0*520.0mm	
39	Unit Net Weight	21.4kg	

*Note: The tolerance will change slightly in high frequency condition.