

Three Phase AC Source System

APM Three phase AC source system is a single 3-phase output programmable AC power supply which provides with high power density. With high speed DSP+CPLD control, high frequency PWM technology, active PFC design, It is able to provide not only stable DC/AC output power, but also 3-phase / 1-phase output. It 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 power input for electrical device to meet test requirements, which is applicable to electric, lighting, aviation sectors, etc. It could be applied to enterprise's production test as well.

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.



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.
- With reverse current protection to avoid current flowing backward.
- Built-in power meter, which is capable of measuring 5 electrical parameters per phase, including voltage, current, power, etc.
- Support mA current measurement function.



APM Technologies

APM Technologies (Dongguan) Co., Ltd

Add: #7, Link Information Industry Park, Shuilianshan Road, Nancheng, Dongguan, Guangdong, China

Tel: +86 769-2202 8588 ext:2892 Fax: +86 769-2202 6771

E-mail: overseas@apmtech.cn

Web: en.apmtech.cn



MODEL		SPS300VAC5400W	SPS300VAC8100W	SPS300VAC10800W	SPS300VAC13500W
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					
AC Power(Per Phase)		1800VA	2700VA	3600VA	4500VA
AC Power(Total)		5400VA	8100VA	10800VA	13500VA
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
Parallel Output Mode					
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
Phase		1 Phase			
OUTNPOT					
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 Range			
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	0.2% of setting +0.4%F.S at Voltage>3V			
	DC Power (Per Phase)	1800W	2700W	3600W	4500W
	Max.Current (Per Phase)	L 11.3A	L 19.6A	L 22.6A	L 32.6A
		H 5.65A	H 9.8A	H 11.3A	H 16.3A
	DC Power (Total)	5400W	8100W	10800W	13500W
	Max.Current (Total)	L 33.9A	L 58.8A	L 67.8A	L 97.8A
		H 16.95A	H 29.4A	H 33.9A	H 48.9A
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				



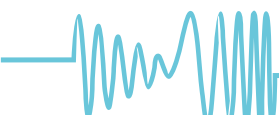
MODEL		SPS300VAC5400W	SPS300VAC8100W	SPS300VAC10800W	SPS300VAC13500W
Current OC Fold Mode	Resolution	0.1A			
	Accuracy	2.0% of setting +1.0%F.S.			
	Response Time	<1400ms			
Frequency	Range	15~1000Hz			
	Resolution	0.1Hz(15.0~99.9Hz) ,1Hz(100~1000Hz)			
	Accuracy	0.03% of setting			
Programmable Output Impedance		Not Support			
Harmonic & Inter-harmonics Simulation		Not Support			

MEASUREMENT

Voltage (Per Phase)	Range	AC 0~300VAC			
		DC 0~424VDC			
	Resolution	0.1V			
Frequency (Per Phase)	Accuracy	0.2% of setting +0.4%F.S.			
	Range	15~1000Hz			
	Resolution	0.1Hz(15.0~99.9Hz) ,1Hz(100~1000Hz)			
Current * (r.m.s) (Per Phase)	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 * (Peak) (Per Phase)	Range	0A~81.5A	0A~168.6A	0A~163A	0A~188A
	Resolution	0.01A			
	Accuracy	0.4%+1.5%F.S.			
Power (Per Phase)	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) (Per Phase)	Range	0~2040VA	0~3060VA	0~4080VA	0~5100VA
	Resolution	0.1VA			
	Accuracy	Voltage*I _{rms} , Calculated value			
Power Resistive (VAR) (Per Phase)	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			

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			



MODEL		SPS300VAC5400W	SPS300VAC8100W	SPS300VAC10800W	SPS300VAC13500W
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 to 40°C			
Storage Temperature		-40°C to 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		121.0kg	144.0kg	144.0kg	144.0kg
Accessories Weight		0.4kg			
Net Weight		185.0kg	207.0kg	207.0kg	207.0kg
Regulatory Compliance					
CE Mark		Installation Overvltage Category II ; Class II equipment;indoor use only.			

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

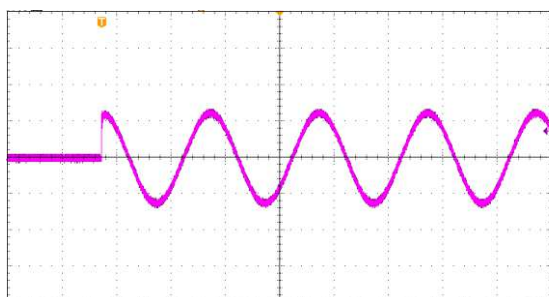
* Warranty 1 (one) year, or refer to relevant terms.



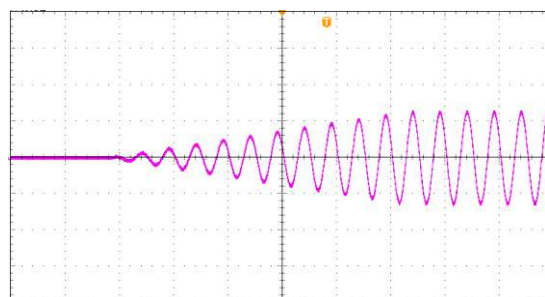
Basic Functions

■ Adjustable Phase Angle/Slope

Adjustable phase angle, applicable to verification test of ON/OFF inrush current testing. adjustable slope, applicable to start inductive or capacitive load with large capacity to avoid circuit break caused by protection that triggered by high current when instantaneously start the device.



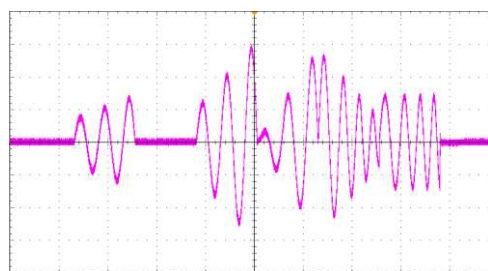
Adjustable Phase Angle



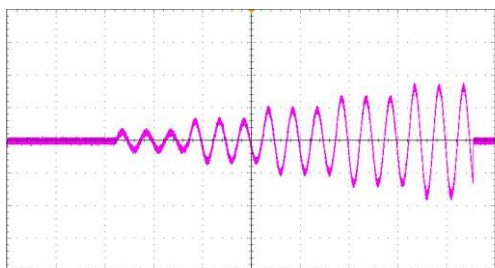
Adjustable Slope

■ Output Simulation Sequence and Disturbance Simulation

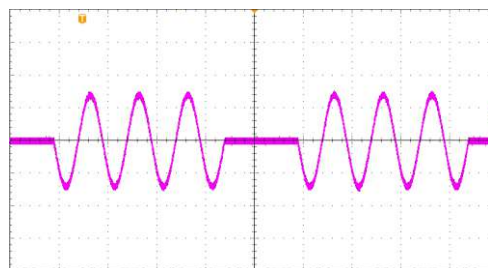
Provide powerful function to simulate power line disturbance.
Apply LIST mode to change output by recalling inner sequence file;
Apply STEP mode to change output value;
Apply PULSE mode to program special impulse voltage waveform.
Functions above are convenient for user to apply in test condition such as cycle dropout, transient spike and brown out, etc.



LIST Mode



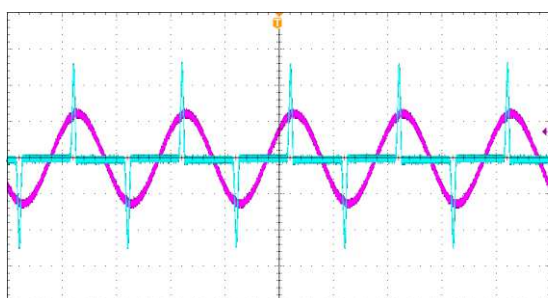
STEP Mode



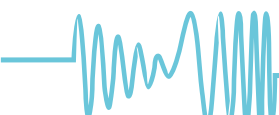
PULSE Mode

■ High Output Current Crest Factor

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



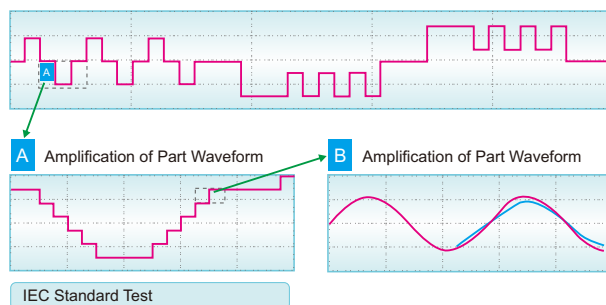
High Output Current Crest Factor



Advanced Functions

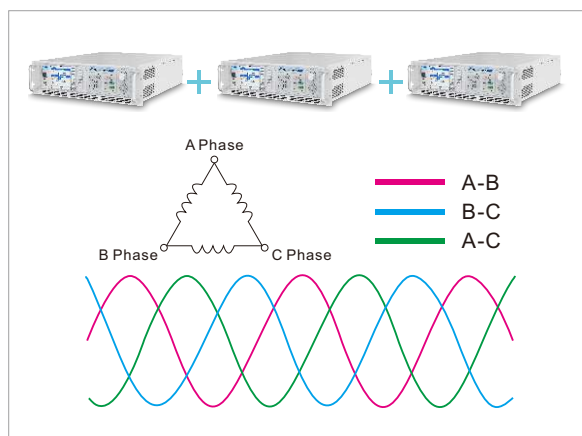
IEC Standard Test

Built-in IEC Standard Test and could be recalled directly.

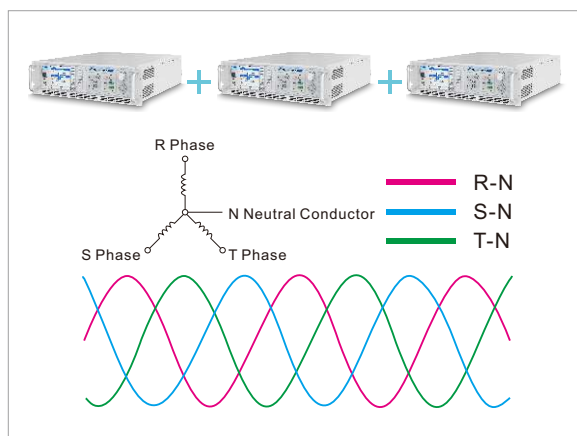


3-Phase Operation and Parallel Mode

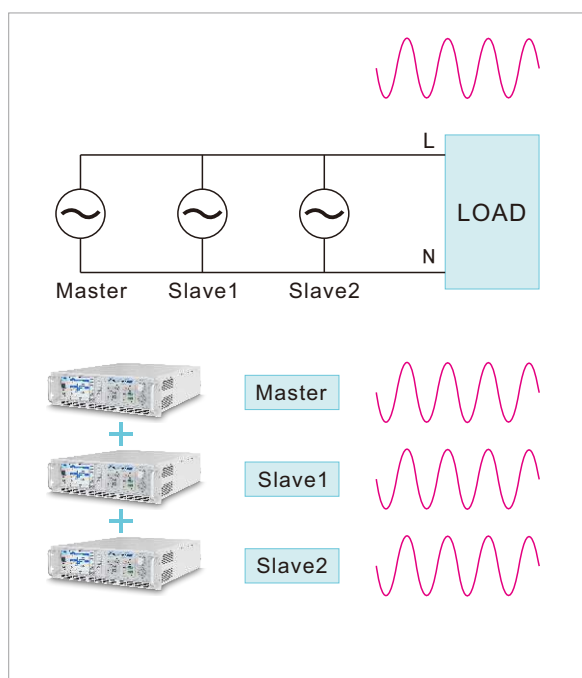
Support 3-phase operation, 3 units in parallel.



3-phase 3-wire



3-phase 4-wire



Parallel Mode