

Programmable AC Power Supply AN61(F) Series



Product Introduction

The AN61(F) series AC Power Supply adopts advanced SPWM technology, DSP digital processing technology and high-power switching power supply technology, can output AC, DC, AC+DC power and provide AC load, DC load and rectification load with precise power input. It has the ability of offering 6 times peak current and is optimal test instrument of measuring the surge current, and can be used to set the angle of waveform switch for testing the surge current and output holdup time. It can also be used to set the fluctuation ratio of voltage and frequency for scanning the range of power input to be tested.

AN61(F) series product can simulate abnormal instantaneous rise, instantaneous drop, short circuit, jitter and others of electric supply, with the superposition function of harmonic waves or indirect harmonic waves, simulate the waveform distortion of electric supply, can also provide accurate and quick measurement of power parameters and harmonic waves, widely applied for the labs and production lines in power electronics, military, avionics, IEC standard test and other industries.

AN61(F) series AC Power Supply possesses strong programmable function, can complete the immunity test of IEC61000-4-11(test before certification) /-4-13/-4-14/-4-28 standard. Also, its programmable output impedance, together with the power analyzer, can complete the test of IEC61000-3-2/-3-3 harmonic wave current limit and flicker and is optimal choice of IEC standard test.

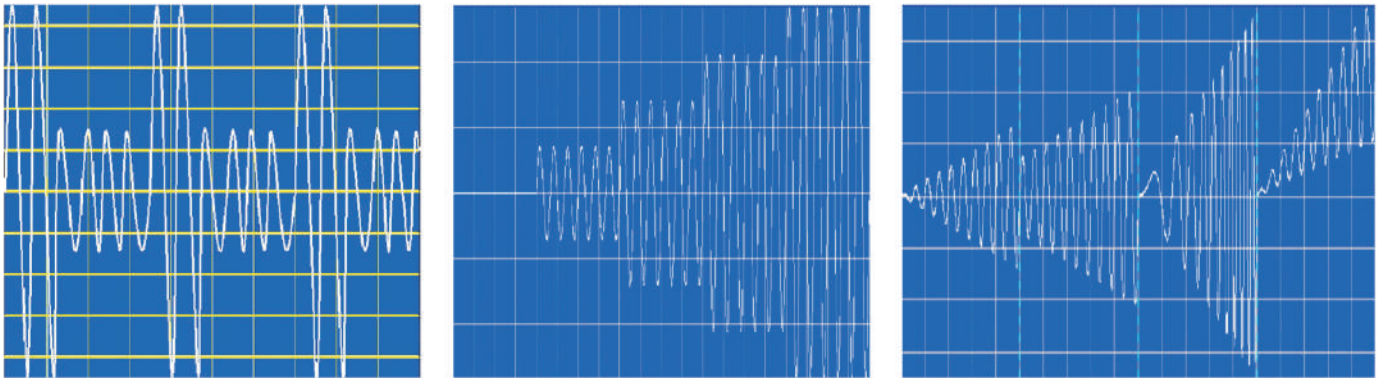
Features

- Advanced SPWM, DSP and high-power switching power supply, high power density
- AC/DC/AC + DC output mode (only for AN615(F) series)
- Programmable output impedance for IEC61000-3-3 test
- IEC61000-4-11, IEC61000-4-14, IEC61000-4-28 voltage/frequency change test
- IEC61000-4-13 harmonic/sub-harmonic waveform synthesis test
- High output peak current for surge current test
- Pulse output for voltage dips test and simulation actual grid interference
- Step output. The Step test mode provides automatic switch to change the output voltage step by step instead of gradually.
- List output, In sequence test mode, the output waveform is the combination of all serial number configuration. The user can edit the desired output voltage sequence on demand.
- Analog signal input interface for amplification of external signal
- LCD display, compact, light, meeting requirements of standard cabinet installation
- Standard RS232 port, optional RS485, GPIB, Ethernet port.

Applications

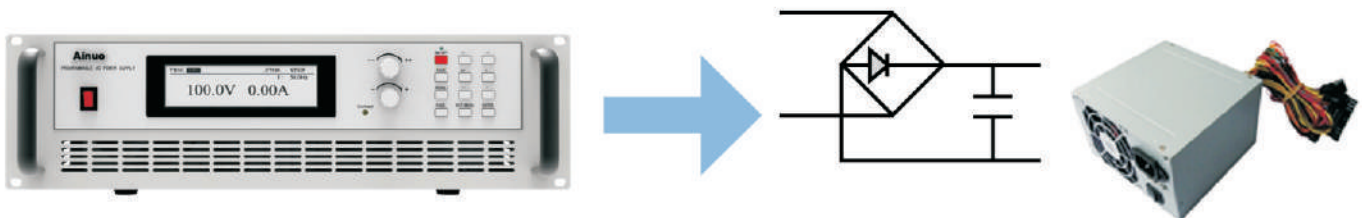
Simulate power supply input interference

Pulse, ladder, sequence and other output modes, simulating of any output wave in one step or continuously to simulate grid fluctuation.



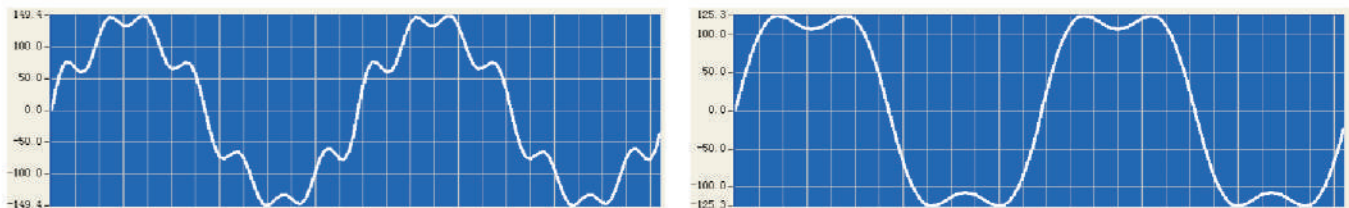
Testing of switching power supply inrush current

Free setting of start/stop angles through the output wave, peak current output up to 6 times, the AN61(F) series power supply is an ideal device for testing the inrush current of the switching power supply.



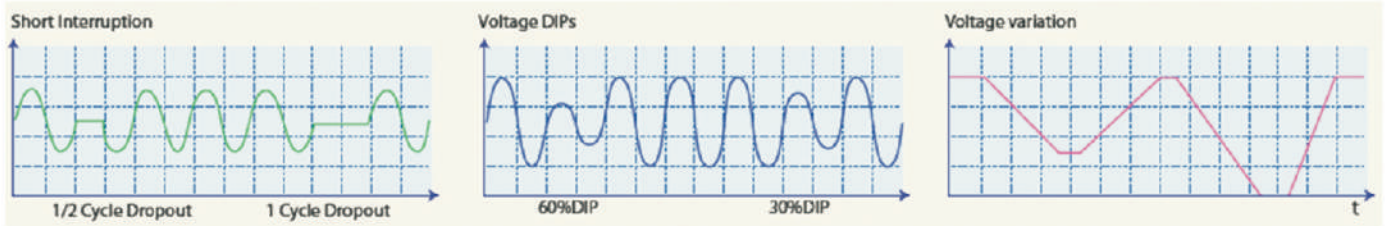
Harmonic and inter-harmonic synthesis (only for AN615(F) series)

Superimposing of 2-40th harmonics and inter-harmonics, so as to conduct comprehensive harmonic simulation tests.



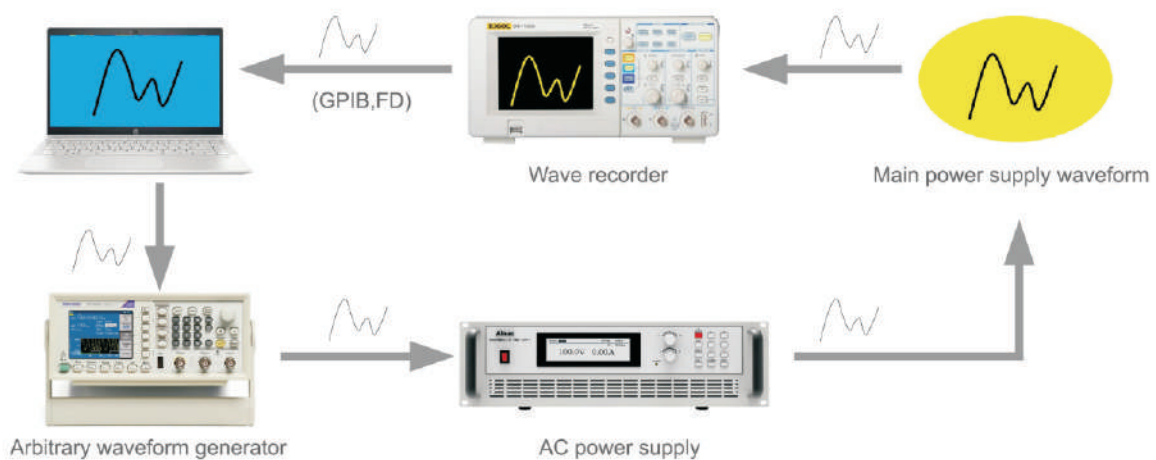
IEC Regulation test

Output of test voltage that meets IEC test conditions. Additionally, the software of host has a built-in test flow of IEC related test regulations to facilitate quick set up and use.

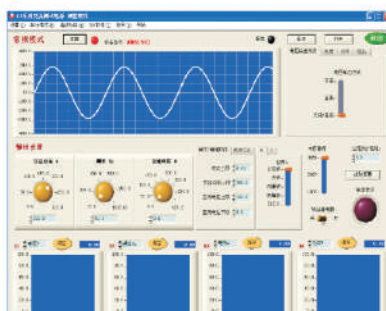


Free wave amplification

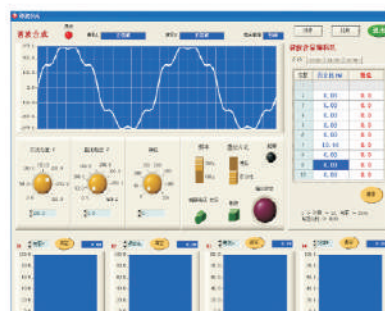
The AN61(F) series AC test power supply can amplify power of any wave through the specific external port. The customer can record the actual wave on site using the wave recorder, and then send it to the specific external port of AN61 power supply via the wave generator for power amplification, so that the customer can simulate the actual wave on site to test the product under test.



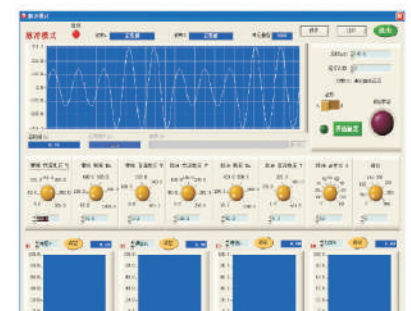
Control software of host



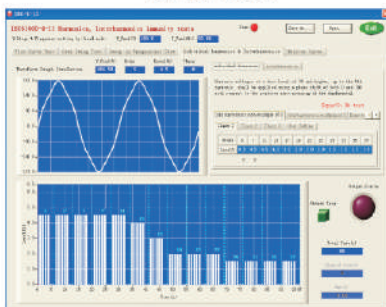
Normal mode



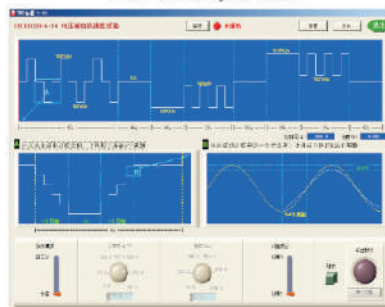
Harmonic synthesis



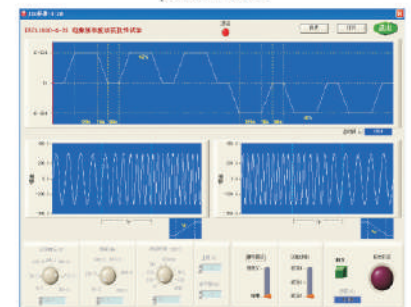
pulse mode



IEC61000-4-13: Voltage harmonic and inter-harmonic testing



IEC61000-4-14: Voltage fluctuation immunity test



IEC61000-4-28: Frequency fluctuation immunity test

Specifications

Model			AN61500(F)	AN61501(F)	AN61502(F)	AN61504(F)	AN61506(F)
Capacity			500VA	1000VA	2000VA	4000VA	6000VA
Input	Voltage		90 ~ 250V Single-Phase 2 wirse +PE			Phase Voltage: 190 ~ 250V 3-Phase 4 wirse+PE	Phase voltage : 198 ~ 242V 3-phase 4-wires+PE
	Current		8A Max @90V	16A Max @90V	28A Max @90V	14A Max @190V	14A Max @198V
	Frequency		47 ~ 63Hz				
	Power factor		0.97 Min			0.98 Min	0.98 Min
AC Output	Phase		Single phase				
	Power		500VA	1000VA	2000VA	4000VA	6000VA
	Voltage	Range	Low gear: 0.0 ~ 150.0V, High gear: 0.0 ~ 300.0V; Low/High/Auto				
		Resolution	0.1V				
		Accuracy	0.2%+0.2%F.S.				
		Distortion	0.3%@50/60Hz; 1%@15 ~ 1000Hz				
		Source voltage effect	≤0.1%				
		Load effect	≤0.2%				
	Effective value of current	0-150V	4A	8A	16A	32A	60A
		0-300V	2A	4A	8A	16A	30A
	Current peak	0-150V	24A	48A	96A	192A	240A
		0-300V	12A	24A	48A	96A	120A
	Frequency	Range/Resolution /Accuracy	15 ~ 1000Hz, 0.1Hz, 0.15%				
DC Output	Power		250W	500W	1000W	2000W	3000W
	Voltage	Range	Low gear: -212.1V ~ 212.1V, High gear: -424.2V ~ 424.2V; Low/High/Auto				
	Current	-212.1~212.1V	2A	4A	8A	16A	30A
		-414.2~414.2V	1A	2A	4A	8A	15A
Testing Acc- uracy	Voltage	Range/Resolution /Accuracy	AC: 300V, DC: 424V; 0.1V; 0.2%+0.2%F.S.				
	Current	Range	24A	48A	96A	192A	240A
		Resolution	0.01A				
		Accuracy of effective value	0.4%+0.3%F.S.				
		Accuracy of current peak	0.4%+0.6%F.S.				
	Power	Resolution/Accuracy	0.1W, 0.4%+0.4%F.S.				
Fun- ction	Harmonic		2-40 times				
	Simulation bandwidth of harmonic and interharmonic		2400Hz				
	Programmable output impedance		0Ω +200μH ~ 1Ω +1mH				None
	Programming Communication		Pulse mode, step mode, sequence mode RS232(Standard)- RS485(Optional)- GPIB(Optional)- Etherent(Optional)				
Environ- ment	Temperature		0 ~ 40 C				
	Humidity		30 ~ 90%RH				
DimensionW×H×D(mm)			483×134×610			483×268×610	442×222×620
			The height does not include the machine foot(15mm, removable); The depth does not include the handle(50mm).				
Weight(Kg)			21			40	50

Specifications

Model		AN61800(F)	AN61801(F)	AN61802(F)	AN61804(F)	AN61806(F)
Capacity		500VA	1000VA	2000VA	4000VA	6000VA
Input	Voltage	90~250V Single-phase 2-wires+PE			Phase voltage: 190~250V 3-phase 4-wires+PE	Phase voltage: 198~242V 3-phase 4-wires+PE
	Current	8A Max @90V	16A Max @90V	28A Max @90V	14A Max @190V	14A Max @198V
	Frequency	47~63Hz				
	Power factor	0.97 Min			0.98 Min	0.98 Min
AC Output	Phase	Single phase				
	Power	500VA	1000VA	2000VA	4000VA	6000VA
	Voltage	Range	Low gear: 0.0~150.0V, High gear: 0.0~300.0V; Low/High/Auto			
		Resolution	0.1V			
		Accuracy	0.2%+0.2%F.S.			
		Distortion	0.3%@50/60Hz; 1%@15~1000Hz			
		Source voltage effect	≤0.1%			
		Load effect	≤0.2%			
	Effective value of current	0-150V	4A	8A	16A	32A
		0-300V	2A	4A	8A	16A
	Current peak	0-150V	24A	48A	96A	192A
		0-300V	12A	24A	48A	96A
	Frequency	Range/Resolution /Accuracy	15~1000Hz, 0.1Hz, 0.15%			
DC Output	Power	250W	500W	1000W	2000W	3000W
	Voltage	Range	Low gear: -212.1V~212.1V, High gear: -424.2V~424.2V; Low/High/Auto			
	Current	-212.1~212.1V	2A	4A	8A	16A
		-414.2~414.2V	1A	2A	4A	8A
Testing Acc- uracy	Voltage	Range/Resolution /Accuracy	AC: 300V, DC: 424V; 0.1V; 0.2%+0.2%F.S.			
	Current	Range	24A	48A	96A	192A
		Resolution	0.01A			
		Accuracy of effective value	0.4%+0.3%F.S.			
		Accuracy of current peak	0.4%+0.6%F.S.			
	Power	Resolution/Accuracy	0.1W; 0.4%+0.4%F.S.			
Fun- ction	Programmable output impedance	0Ω+200μH~1Ω+1mH				None
	Programming Communication	Pulse mode, step mode, sequence mode RS232(Standard)、RS485(Optional)、GPIB(Optional)、Ethernet(Optional)				
Environ- ment	Temperature	0~40℃				
	Humidity	30~90%RH				
DimensionW×H×D(mm)		483×134×610			483×268×610	442×222×620
		The height does not include the machine foot(15mm, removable); The depth does not include the handle(50mm).				
Weight(Kg)		21			40	50

Specifications

Model			AN61700(F)	AN61701(F)	AN61702(F)	AN61704(F)	
Capacity			1500VA	3000VA	6000VA	12000VA	
Input	Voltage		Phase voltage:190～250V 3-phase 4-wires+PE				
	Current		4A Max@190V	8A Max@190V	14A Max@190V	28A Max@190V	
	Frequency		47～63Hz				
	Power factor		0.97 Min			0.98 Min	
	Phase		Three-phase&single-phase in parallel				
AC Output	Power	Total power	1500VA	3000VA	6000VA	12000VA	
		Per phase power	500VA	1000VA	2000VA	4000VA	
	Voltage	Range	Low gear: 0.0～150.0V, High gear: 0.0～300.0V				
		Gear	Low gear/High gear/Auto gear				
		Resolution	0.1V				
		Accuracy	0.2%+0.2%F.S.				
		Distortion	0.3%@50/60Hz; 1%@15～1000Hz				
		Source voltage effect	≤0.1%				
		Load effect	≤0.2%				
		Effective value of current	0-150V	4A	8A	16A	32A
	0-300V		2A	4A	8A	16A	
	Current peak	0-150V	24A	48A	96A	192A	
		0-300V	12A	24A	48A	96A	
	Frequency	Range	15～1000Hz				
		Resolution	0.1Hz				
		Accuracy	0.15%				
	Testing Accuracy	Voltage	Range	300V			
			Resolution	0.1V			
			Accuracy	0.2%+0.2%F.S.			
Current		Range	24A	48A	96A	192A	
		Resolution	0.01A				
		Accuracy of effective value	0.4%+0.3%F.S.				
		Accuracy of current peak	0.4%+0.6%F.S.				
Power		Resolution	0.1W				
		Accuracy	0.4%+0.4%F.S.				
Function	Programming		Pulse mode, step mode, sequence mode				
	Communication		RS232(Standard)、RS485(Optional)、GPIB(Optional)、Etherent(Optional)				
Environment	Temperature		0～40℃				
	Humidity		30～90%RH				
Dimension W×H×D(mm)			515×650×700			515×1020×700	
Weight(Kg)			120			≤180	