ITECH ELECTRONICS

IT7300 Programmable AC Power Supply



IT7321 sets up the new standard for high performance AC power source. It equips with all powerful features such as power line disturbance (PLD) simulation, Dimmer and comprehensive measurement functions. IT7321 has built-in RS232 / USB / LAN communication interface. They can be applied to commercial, power electronics and military test applications from bench-top testing to mass production.

Applications

Motor industry, Illumination, Aviation, Military, Lab testing, Production line test, etc.

Feature

- Precision Linear amplification technology, low noise, high stability
- High power density design, 300VA for ½ 2U, save installation space
- Adjustable frequency:45HZ-500HZ
- Adjustable phase angle: 0-360°
- Set the output slew rate of voltage and frequency
- High current crest factor for inrush current testing
- TRIAC Dimmer dimming / governor simulation function
- Output the changed synchronous TTL signal
- LIST mode for testing power perturbation (PLD) simulation
- Simulate the surge, trap waveform
- Voltage dip, short interruption and voltage change simulation
- Measure various electrical parameters, including RMS voltage / current, actual power, power factor, VA (apparent power), peak current and other parameters
- Measurement resolution can reach 0.01W / 0.1mA, meet Energy Star standard requirement
- Built-in RS-232, USB and LAN (support SCPI protocol)
- OCP,OVP,OTP,OPP



Normally, when test AC products, a power meter is needed to connect between AC power supply and DUT in series. Since power meter is built-in in IT7321, users don't need to connect an extra power meter. It is not only easy for test, but also save cost.

Model	Specification
IT7321	300V/3A/300VA



"AC power supply" + "Power meter"



Linear Amplifier Technology

IT7321 AC source adopts latest linear technology which greatly reduces the output noise and ensures high working stability. Because of the lower ripple index, this AC source can assist user to get a more precision measuring result.

Multi-function & High Precision Measurement

IT7321 AC source uses advanced DSP circuit to get higher precision and high-speed measurement for true RMS voltage, true RMS current, true power, frequency, power factor and peak value. In addition, its high resolution 0.01W/0.1mA extends the application for Energy Star testing standard. IT7321 is not only an AC source, but also a powerful meter.

Adjustable Phase Angle

User can set the start and stop phase angle within range of $0\sim360^{\circ}$. This function is widely used for startup and shutdown current impact test or various rectifier performance tests.



Built-in Communication Interface

An easy-to use rotary knob and self-guiding keypads allow you to set the output at your desired value without any effort. In addition, IT7321 AC source has built-in RS232/USB/LAN interface, providing customer high speed and stable communication quality.

Power Line Disturbance Simulation Function

IT7321 provides powerful functions to simulate all kinds of power line disturbance conditions. The STEP and PULSE modes offer a method to execute a single step or continuous output changes. The LIST Mode, up to 100 sequences, extends this function for more complex waveform generator needs. In this way, IT7321 is capable of simulating all sorts of voltage dips, surge or trapped wave. The IT7321 enables users to perform the pre - compliance tests against IEC 61000-4-11 and compliance test against IEC 61000-4-14/-4-28 immunity test regulations.



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IT9000 software

IT9000 software offers sweep test, list test, quick setting, phase dimmer test, report and save the data.

Power Supply



TRIAC Dimmer Simulation Function

ITECH is the pioneer of TRIAC Dimmer function. This function is used to do dimming and speed regulating test for lamp or electric motor to ensure the products work well when controller of dimming and speed regulating is needed.



Front Phase Dimmer

High Stability

Based on professional high anti-environment disturbance technology, self-diagnosis design and OCP/OPP/OTP protections, this series power supply could work well even in bad environment. IT7321 AC power supply assists engineer to ensure quality for products.



Back Phase Dimmer

SWEEP Function

This function tests efficiency of switch power supply and gets voltage and frequency value at max power. It could change voltage and frequency by setting start voltage value, end voltage value, stepping voltage value, start frequency, end frequency, stepping frequency and time of each step. Time unit of each step could be S, M, H. And it can save 10 files. The voltage, frequency and current value etc. of max. power point will be displayed after finishing test.

Standard Accessories

User Manual

Power Cord

Calibration Report



IT7300 Specifications

Model		IT7321	IT7322	IT7322H	IT7324H
INPUT					
Phase		1	1	1	1
Voltage		220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%
Frequency		47~63Hz	47~63Hz	47~63Hz	47~63Hz
Max current		6.3A(220Vac) or 10A(110Vac)	15A(220Vac) or 30A(110Vac)	15A(220Vac) or 30A(110Vac)	30A(220Vac) or 60A(110Vac)
Power factor		0.5(typical)	0.7(typical)	0.7(typical)	0.7(typical)
AC OLITPLIT				on (typical)	
Max nower		300\/A	750\/A	750\/A	1500\/A
Max power Max current	0.150\/	34	60	0.250\/ 34	64
(rme)	0~100V	1 = 1	24	0~2300 3A	24
Max aumont	0~300V	1.5A	3A 404	0~500V 1.5A	3A 49A
(pook)	0~150V	9A	184	0~230V 9A	10A
(peak)	0~300V	4.5A	9A	0~500V 4.5A	9A 4.#/0W/
Phase					
Iotal harmonic distortion(I.H.D)		≤0.5% at 45-500Hz (Resistive Load)	≤0.5% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)
Crest factor		3	3	3	3
Power regulation		0.1% max for a ±10% line change			
Load regulation		≤0.5%FS(Resistive Load)	≤0.5%FS(Resistive Load)	≤0.5%FS(Resistive Load)	≤0.5%FS(Resistive Load)
Response time		<100us	<100us	<100us	<100us
SETTING					
	Range	0~300V High, 150/300V Auto	0~300V High, 150/300V Auto	0-500V High, 250/500V Auto	0~500V High, 250/500V Auto
Valtage	Resolution	0.1V	0.1V	0.1V	0.1V
voltage	Accuracy	±(0.2%+0.6V)	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+1.2V)
	TC*1	±(0.04% per degree from 25°C)			
	Range	45~500Hz	45~500Hz	45~500Hz	45~500Hz
Frequency	Resolution	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz			
	Accuracy	0.1Hz	0.1Hz	0.1Hz	0.1Hz
	Range	0~360°	0~360°	0~360°	0~360°
Phase angle	Resolution	0.1°	0.1°	0.1°	0.1°
	Accuracy	+1°(45-65Hz)	+1°(45-65Hz)	+1°(45-65Hz)	+1°(45-65Hz)
MEAGO (LINE)	Range	0300\/	0~300\/	0~500\/	0~500\/
Voltage(rms)	Resolution	0.11/	0.11/	0.11/	0.11/
(Accuracy	+(0.2%+0.6\/)	+(0.2%+0.6\/)	+(0.2%+1.2\/)	+(0.2%+1.2\/)
	TC*1	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$
	Denge			1(0.04 % per degree itom 25 C)	
	Range	L.120.011A IVI.1.200A H.3.00A	L.120.000A W.1.200A H.0.00A		
Current(rms)	Resolution		L:U.IMA W.IMA H.IUMA	L:0.1mA M: 1mA H: 10mA	
	Accuracy	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)
	TOM	H:±(0.2%+40mA)	H:±(0.2%+60MA)	H:±(0.2%+60MA)	H:±(0.2%+60MA)
		\pm (0.04% per degree from 25°C)	$\pm(0.04\%$ per degree from 25°C)	$\pm (0.04\%$ per degree from 25°C)	$\pm(0.04\%$ per degree from 25°C)
0	Range	0~12A	0~18A	0~9A	0~24A
Current(peak)	Resolution	0.01A	0.01A	0.01A	0.01A
	Accuracy	±(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)
	TC*1	±(0.05% per degree from 25°C)			
Power	Resolution	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W
Fower		L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)
	Accuracy	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)
		H:±(0.2%+4W) (47HZ-65HZ)	H:±(0.2%+6W) (47HZ-65HZ)	H:±(0.2%+10W) (47HZ-65HZ)	H:±(0.2%+10W) (47HZ-65HZ)
	TC*1	±(0.05% per degree from 25°C)			
GENERAL					
Memory storage		10 memories	10 memories	10 memories	10 memories
Synchronous output signal		Output Signal 5V,BNC type			
Interface (option	al)	LAN,USB,RS232	LAN,USB,RS232,GPIB	LAN,USB,RS232,GPIB	LAN,USB,RS232,GPIB
Operating environment		0~40°C/20-80%RH	0~40°C/20-80%RH	0-40°C/20-80%RH	0~40°C/20-80%RH
Size		1/2 19" 21 J	19"3U	19" 3U	19" 3U
Weight		10Kg	37Kg	37Kg	37Kg

*1 Temperature Coefficient * This information is subject to change without notice

IT7321 Dimension figure



Unit: mm

ITECH ELECTRONICS Your Power Testing Solution

IT7300 Specifications

Model		IT7324	IT7326H	IT7326
INPUT				
Phase		1	1	1
Voltage		220Vac±10% or 110Vac±10%	220Vac±10%	220Vac±10%
Frequency		47~63Hz	47~63Hz	47~63Hz
Max current		30A(220Vac) or 60A(110Vac)	60A	60A
Power factor		0.7(typical)	0.7(typical)	0.7(typical)
AC OUTPUT				
Max power		1500VA	3000VA	3000VA
Max current	0~150V	12A	12A	24A
(rms)	0~300V	6A	6A	12A
Max current	0~150V	36A	36A	72A
(peak)	0~300V	18A	18A	36A
Phase		1Φ/2W	1Φ/2W	1Φ/2W
Total harmonic dis	stortion(T.H.D)	≤0.5% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)	≤0.5% at 45-500Hz (Resistive Load)
Crest factor		3	3	3
Power regulation	n	0.1% max for a ±10% line change	0.1% max for a ±10% line change	0.1% max for a ±10% line change
Load regulation		≤0.5%FS(Resistive Load)	≤0.5%ES(Resistive Load)	≤0.5%FS(Resistive Load)
Response time		<100us	<100us	<100us
SETTING				
0211110	Range	0~300V High. 150/300V Auto	0~500V High, 250/500V Auto	0~300V High. 150/300V Auto
	Resolution	0.1V	0.1V	0.1V
Voltage	Accuracy	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+0.6V)
	Temperature	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$	+(0.04%) per degree from 25°C)	+(0.04%) per degree from 25°C)
	Range	45-500Hz	45-500Hz	45-500Hz
Frequency	Resolution	0.1Hzat45-99.9Hz 1Hzat100-500Hz	0.1Hzat45-99.9Hz 1Hzat100-500Hz	0.1Hzat45-99.9Hz 1Hzat100-500Hz
requeriey	Accuracy	0.1Hz	0.1Hz	0.1Hz
	Range	0~360°	0~360°	0~360°
Phase andle	Resolution	0.1°	0.1°	0.1°
i nase angle	Accuracy	+1°(45-65Hz)	±1°(45-65Hz)	±1°(45-65Hz)
MEASI IREMEN	T	()	()	(
	Range	0~300V	0~500V	0~300V
Voltage(rms)	Resolution	0.1V	0.1V	0.1V
5-(Accuracy	+(0.2%+0.6V)	$\pm (0.2\% \pm 1.2V)$	$\pm (0.2\% \pm 0.6V)$
	Temperature	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$
	Range	L:120.0mA * M:1.200A * H:12.00A *	L:120.0mA * M:1.200A * H:12.00A *	L:120.0mA * L:120.0mA * H:24.00A *
	Resolution	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA
Current(rms)	Accuracy	L:+(0.2%+0.6mA) M:+(0.2%+6mA)	L:+(0.2%+0.6mA) M:+(0.2%+6mA)	L:+(0.2%+0.6mA) M:+(0.2%+6mA)
	, local acy	H'+(0.2%+80mA)	H:+(0.2%+60mA)	H:+(0.2%+0.1A)
	Temperature	$\pm (0.04\% \text{ per degree from } 25^{\circ}\text{C})$	+(0.04% per degree from 25°C)	+(0.04% per degree from 25°C)
	Range	0~48A	0~48A	0~96A
Current(peak)	Resolution	0.01A	0.01A	0.01A
	Accuracy	+(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)
	Temperature	$\pm (0.05\% \text{ per degree from } 25^{\circ}\text{C})$	$\pm (0.05\% \text{ per degree from } 25^{\circ}\text{C})$	$\pm (0.05\% \text{ per degree from } 25^{\circ}\text{C})$
	Coefficient	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W
Power	1 (CSOIDEON	1 :+(0 2%+0 2W) (47HZ-65HZ)	L:+(0.2%+0.2W) (47HZ-65HZ)	L:+(0.2%+0.2W) (47HZ-65HZ)
	Accuracy	M:+(0.2%+2W) (47H7-65H7)	M:+(0.2%+2W) (47HZ-65HZ)	M:+(0.2%+2)(0) (47HZ-65HZ)
	Accuracy	$H_{\pm}(0.2\%\pm0.0\%)$ (47HZ-66HZ)	H:+(0.2%+10W) (47HZ-65HZ)	H:+(0.2%+15W) (47HZ-65HZ)
	Temperature	$\pm (0.05\% \text{ per degree from } 25^{\circ}\text{C})$	$+(0.05\% \text{ per degree from } 25^{\circ}\text{C})$	$\pm (0.05\% \text{ per degree from } 25^{\circ}\text{C})$
GENERAL	Coefficient			
Memory storage	۵	10 memories	10 memories	10 memories
Synchronous of	utput signal	Output Signal 5V.BNC type	Output Signal 5V.BNC type	Output Signal 5V.BNC type
Interface (option	nal)	Output Signal 5V,BNC type	LAN,USB,RS232,GPIB	LAN, USB, RS232, GPIB
Operating envir	onment	0~40°C/20_80%PH	0~40°C/20_80%PH	0~40°C/20.80%PH
		1/2 19" 311	19"61	19"61
Weight		37Kg	103Kg	103Kg

* This information is subject to change without notice

IT7324 Dimension figure



Unit: mm

33/For more information, please visit ITECH official website www.itechate.com



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