IT7300 Programmable AC Power Supply

In order to meet the wider range of AC power supply and more complex change characteristics, engineers need more powerful and stable AC power supply to simulate the actual working environment. IT7300 series is the best solution in this area. IT7300 series can be widely applied in the electronics and electrical industry,lighting,R&D specification's verification, laboratory testing and factory production online test etc.

Applications

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

Feature

- Precise Linear amplification technology, low noise, high stability
- High power density design, 1500VA for 3U size, save installation space
- Adjustable frequency:45Hz-500Hz
- Adjustable phase angle: 0-360°
- High current crest factor for surge 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 0.01W / 0.1mA, meet Energy Star standard requirement
- Built-in RS-232, USB and LAN* (support SCPI protocol)
- Support three devices connection through System Bus to achieve three-phase AC power function
- OCP,OVP,OTP,OPP

* For any GPIB interface option request , check with ITECH for availability

Model	Voltage	Current	Power	Phase	Size
IT7322	150/300	6/3	750	1φ	3U
IT7324	150/300	12/6	1500	1φ	3U
IT7326	150/300	24/12	3000	1φ	6U
IT7322H	250/500	3/1.5	750	1φ	3U
IT7324H	250/500	6/3	1500	1φ	3U
IT7326H	250/500	12/6	3000	1φ	6U
IT7322T	150/300	6/3	2250	3φ	15U
IT7324T	150/300	12/6	4500	3φ	15U
IT7326T	150/300	24/12	9000	3φ	27U
IT7322HT	250/500	3/1.5	2250	3φ	15U
IT7324HT	250/500	6/3	4500	3φ	15U
IT7326HT	250/500	12/6	9000	3φ	27U

Linear amplification technology

IT7300 Series AC Power Supply adopts advanced and high-precision linear amplification design to provide low noise and high stability output. This technology has high-speed response characteristics, stable low noise, it can simulate the abnormal power line, instantaneous voltage rise, drop and power off, and can be applied to ATE and so on.

Built-in AC power meter

IT7300 series directly shows voltage RMS, current RMS, frequency, active power, power factor from panel without external power meter, saving the test cost and complex connection operation time.

IT7300 Programmable AC Power Supply

No power frequency transformer power supply, low power consumption

IT7300 series AC source provide no power frequency transformer power supply with lower power consumption, it solves output problems of large volume, huge heat dissipation and low power output caused by using frequency transformer, IT7300 series also provide linear adaptation method between the current and AC voltage in AC source, which solves the problem of high energy consumption and low accuracy.

Adjustable phase angle

Users can set the start and stop phase angle within range of 0-360°. This function is widely used for startup and shutdown current inrush impact test or various rectifier performance tests.
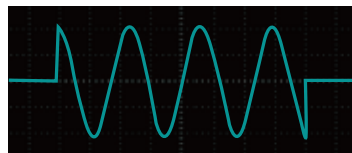
TRIAC Dimmer simulation function

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.

Leading Edge

Trailing Edge

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 frequency, stepping frequency and time of each step. It saves 10 files max. Voltage, frequency and current of max power will be displayed when the test is over.

Support Three-phase Parallel function

IT7300 series AC source can achieve three-phase without requiring external accessories, users can directly connect into three-phase through the back of the SYSTEM BUS, set one of them as master, the rest are slaves. The slave sends synchronous clock control signal according to each cycle of the DDS inside the device, so that the phase difference is always maintained at 120 ° and does not deviate greatly in long time running. It is flexible to meet the increase or decrease requirements of production line aging test machine numbers.
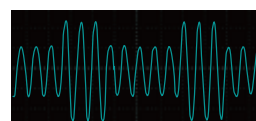
List function

IT7300 series has built-in DDS waveform generator, very flexible waveform simulation function. Users can directly set the required power waveform through the panel keys, to simulate transient power off, surge, trap, specific phase angle on or off, AC sine wave amplitude and frequency range and other characteristics.
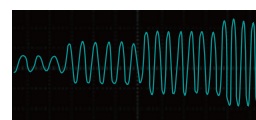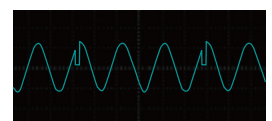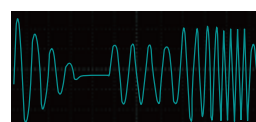
STEP mode
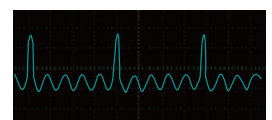
Surge waveform

PULSE mode

Trap waveform

LIST mode

IT7300 Specifications

Power Supply

Model		IT7322	IT7322H		IT7324H
INPUT					
Phase		1	1		1
Voltage		220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%		220Vac±10% or 110Vac±10%
Frequency		47~63Hz	47~63Hz		47~63Hz
Max current		15A(220Vac) or 30A(110Vac)	20A(220Vac) or 40A(110Vac)		30A(220Vac) or 60A(110Vac)
Power factor		0.7(typical)	0.7(typical)		0.7(typical)
AC OUTPUT					
Max power		750VA	750VA		1500VA
Max current (rms)		6A	0~250V	3A	6A
		3A	0~500V	1.5A	3A
Max current (peak)		18A	0~250V	9A	18A
		9A	0~500V	4.5A	9A
Phase		1Φ/2W	1Φ/3W		1Φ/2W
Total harmonic distortion(T.H.D)		≤0.5% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)		≤1% at 45-500Hz (Resistive Load)
Crest factor		3	3		3
Power regulation		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%FS(Resistive Load)		≤0.5%FS(Resistive Load)
Response time		<100uS	<100uS		<100uS
SETTING					
Voltage	Range	0~300V High, 150/300V Auto	0-500V High, 250/500V Auto		0~500V High, 250/500V Auto
	Resolution	0.1V	0.1V		0.1V
	Accuracy	±(0.2%+0.6V)	±(0.2%+1.2V)		±(0.2%+1.2V)
	Temperature Coefficient	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)		±(0.04% per degree from 25℃)
Frequency	Range	45~500Hz	45~500Hz		45~500Hz
	Resolution	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz		0.1Hz at 45-99.9Hz 1Hz at 100-500Hz
	Accuracy	0.1Hz	0.1Hz		0.1Hz
Phase angle	Range	0~360°	0~360°		0~360°
	Resolution	0.1°	0.1°		0.1°
	Accuracy	±1°(45-65Hz)	±1°(45-65Hz)		±1°(45-65Hz)
MEASUREMENT					
Voltage(rms)	Range	0~300V	0~500V		0~500V
	Resolution	0.1V	0.1V		0.1V
	Accuracy	±(0.2%+0.6V)	±(0.2%+1.2V)		±(0.2%+1.2V)
	Temperature Coefficient	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)		±(0.04% per degree from 25℃)
Current(rms)	Range	L:120.0mA * M:1.200A * H:6.00A *	L:120.0mA * M:1.200A * H:3.00A *		L:120.0mA * M:1.200A * H:6.00A *
	Resolution	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA		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)
		H:±(0.2%+60mA)	H:±(0.2%+40mA)		H:±(0.2%+60mA)
	Temperature Coefficient	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)		±(0.04% per degree from 25℃)
Current (peak)	Range	0~18A	0~9A		0~24A
	Resolution	0.01A	0.01A		0.01A
	Accuracy	±(1%+0.36A)	±(1%+0.36A)		±(1%+0.36A)
	Temperature Coefficient	±(0.05% per degree from 25℃)	±(0.05% per degree from 25℃)		±(0.05% per degree from 25℃)
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:±(0.2%+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)
		H:±(0.2%+6W) (47HZ-65HZ)	H:±(0.2%+6W) (47HZ-65HZ)		H:±(0.2%+10W) (47HZ-65HZ)
	Temperature Coefficient	±(0.05% per degree from 25℃)	±(0.05% per degree from 25℃)		±(0.05% per degree from 25℃)
GENERAL					
Memory storage		10 memories	10 memories		10 memories
Synchronous output signal		Output Signal 5V,BNC type	Output Signal 5V,BNC type		Output Signal 5V,BNC type
Interface		LAN,USB,RS232*	LAN,USB,RS232*		LAN,USB,RS232*
Operating environment		0~40℃/20-80%RH	0-40℃/20-80%RH		0~40℃/20-80%RH
Size		19" 3U	19" 3U		19" 3U
Weight		37Kg	37Kg		37Kg

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ITECH ELECTRONICS
Your Power Testing Solution

Power Supply

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 distortion(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		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%FS(Resistive Load)	≤0.5%FS(Resistive Load)
Response time		<100us	<100us	<100us
SETTING				
Voltage	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
	Accuracy	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+0.6V)
	Temperature Coefficient	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)
Frequency	Range	45-500Hz	45-500Hz	45-500Hz
	Resolution	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz
	Accuracy	0.1Hz	0.1Hz	0.1Hz
Phase angle	Range	0~360°	0~360°	0~360°
	Resolution	0.1°	0.1°	0.1°
	Accuracy	±1°(45-65Hz)	±1°(45-65Hz)	±1°(45-65Hz)
MEASUREMENT				
Voltage(rms)	Range	0~300V	0~500V	0~300V
	Resolution	0.1V	0.1V	0.1V
	Accuracy	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+0.6V)
	Temperature Coefficient	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)
Current(rms)	Range	L:120.0mA * M:1.200A * H:12.00A *	L:120.0mA * M:1.200A * H:12.00A *	L:120.0mA * M: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
	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)
		H:±(0.2%+80mA)	H:±(0.2%+60mA)	H:±(0.2%+0.1A)
	Temperature Coefficient	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)	±(0.04% per degree from 25℃)
Current(peak)	Range	0~48A	0~48A	0~96A
	Resolution	0.01A	0.01A	0.01A
	Accuracy	±(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)
	Temperature Coefficient	±(0.05% per degree from 25℃)	±(0.05% per degree from 25℃)	±(0.05% per degree from 25℃)
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
	Accuracy	L:±(0.2%+0.2W) (47Hz-65Hz)	L:±(0.2%+0.2W) (47Hz-65Hz)	L:±(0.2%+0.2W) (47Hz-65Hz)
		M:±(0.2%+2W) (47Hz-65Hz)	M:±(0.2%+2W) (47Hz-65Hz)	M:±(0.2%+2W) (47Hz-65Hz)
		H:±(0.2%+10W) (47Hz-65Hz)	H:±(0.2%+10W) (47Hz-65Hz)	H:±(0.2%+15W) (47Hz-65Hz)
	Temperature Coefficient	±(0.05% per degree from 25℃)	±(0.05% per degree from 25℃)	±(0.05% per degree from 25℃)
GENERAL				
Memory storage		10 memories	10 memories	10 memories
Synchronous output signal		Output Signal 5V,BNC type	Output Signal 5V,BNC type	Output Signal 5V,BNC type
Interface (optional)		LAN,USB,RS232*	LAN,USB,RS232*	LAN,USB,RS232*
Operating environment		0~40℃/20-80%RH	0~40℃/20-80%RH	0~40℃/20-80%RH
Size		1/2 19" 3U	19" 6U	19" 6U
Weight		48kg	103kg	103kg

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IT7326 Dimension figure

Unit: mm

267
349.24
483.20

608.30
691.50
701.92