

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.

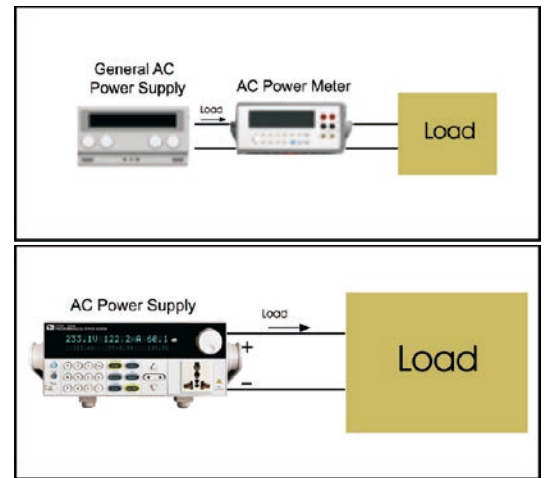
Applications

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 1/2 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

“AC power supply” + “Power meter”



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 |



Linear Amplifier Technology

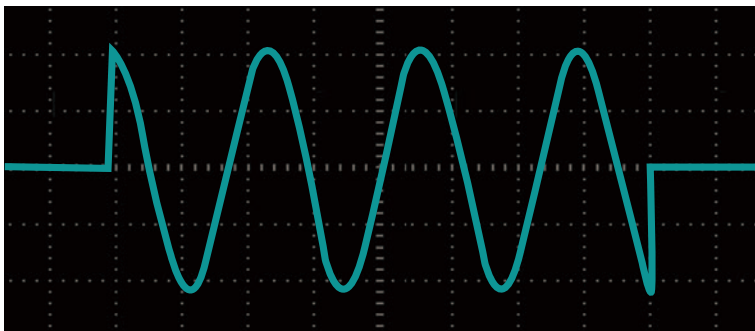
IT7321 AC source adopts latest linear technology which greatly reduces the output noise and ensures high working stability. Because of the lower ripple index, this AC source can assist user to get a more precision measuring result.

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 0~360°. This function is widely used for startup and shutdown current impact test or various rectifier performance tests.

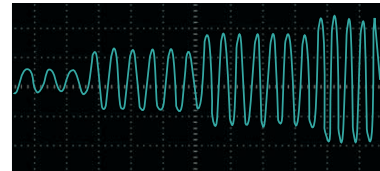


Built-in Communication Interface

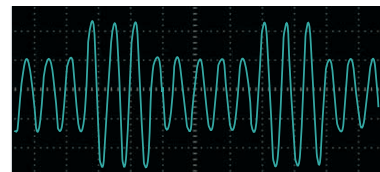
An easy-to use rotary knob and self-guiding keypads allow you to set the output at your desired value without any effort. In addition, IT7321 AC source has built-in RS232/USB/LAN interface, providing customer high speed and stable communication quality.

Power Line Disturbance Simulation Function

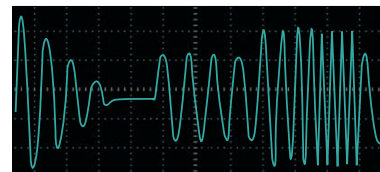
IT7321 provides powerful functions to simulate all kinds of power line disturbance conditions. The STEP and PULSE modes offer a method to execute a single step or continuous output changes. The LIST Mode, up to 100 sequences, extends this function for more complex waveform generator needs. In this way, 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.



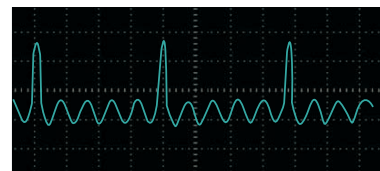
Step Mode



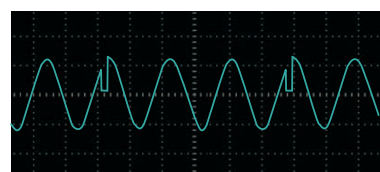
Pulse Mode



List Mode



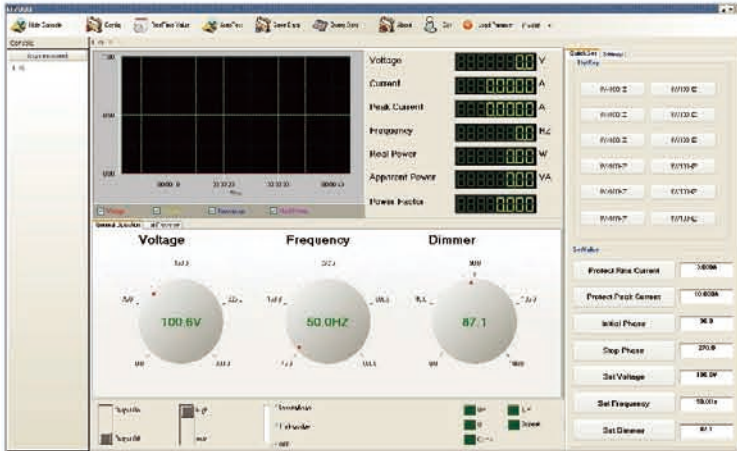
Surge Waveform



Trap Wave

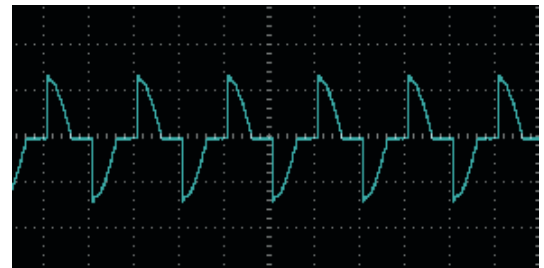
IT9000 software

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



TRIAC Dimmer Simulation Function

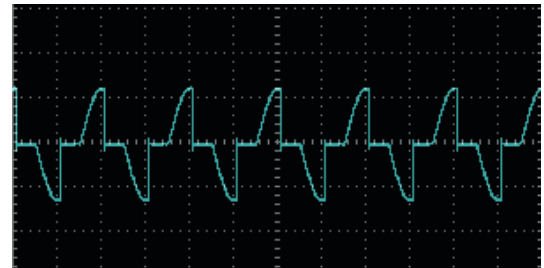
ITECH is the pioneer of TRIAC Dimmer function. This function is used to do dimming and speed regulating test for lamp or electric motor to ensure the products work well when controller of dimming and speed regulating is needed.



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



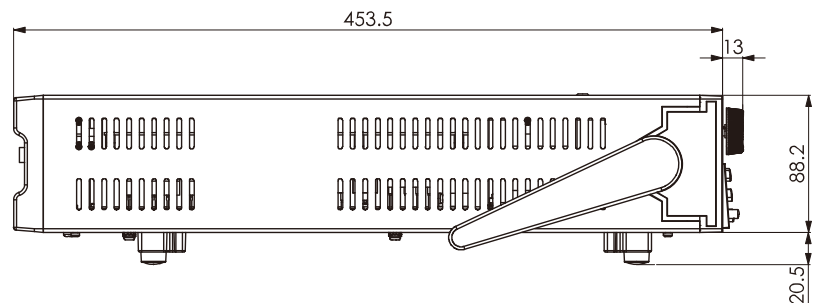
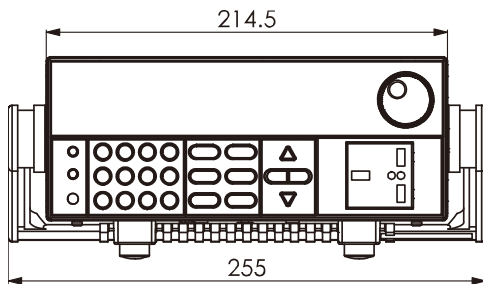
IT7300 Specifications

| 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 OUTPUT | | | | | |
| Max power | 300VA | 750VA | 750VA | 1500VA | |
| Max current (rms) | 0-150V 3A 0-300V 1.5A | 6A 3A | 0-250V 3A 0-500V 1.5A | 6A 3A | |
| Max current (peak) | 0-150V 9A 0-300V 4.5A | 18A 9A | 0-250V 9A 0-500V 4.5A | 18A 9A | |
| Phase | 1Φ/2W | 1Φ/2W | 1Φ/3W | 1Φ/2W | |
| Total harmonic distortion(T.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 | 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) | ≤0.5%FS(Resistive Load) | |
| Response time | <100us | <100us | <100us | <100us | |
| SETTING | | | | | |
| Voltage | Range | 0-300V High, 150/300V Auto | 0-300V High, 150/300V Auto | 0-500V High, 250/500V Auto | |
| | Resolution | 0.1V | 0.1V | 0.1V | |
| | Accuracy | ±(0.2%+0.6V) | ±(0.2%+0.6V) | ±(0.2%+1.2V) | ±(0.2%+1.2V) |
| Frequency | TC*1 | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) | |
| | 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 | 0.1Hz at 45-99.9Hz 1Hz at 100-500Hz |
| Phase angle | Accuracy | 0.1Hz | 0.1Hz | 0.1Hz | |
| | Range | 0-360° | 0-360° | 0-360° | |
| | Resolution | 0.1° | 0.1° | 0.1° | |
| Accuracy | ±1°(45-65Hz) | ±1°(45-65Hz) | ±1°(45-65Hz) | ±1°(45-65Hz) | |
| MEASUREMENT | | | | | |
| Voltage(rms) | Range | 0-300V | 0-300V | 0-500V | |
| | Resolution | 0.1V | 0.1V | 0.1V | |
| | Accuracy | ±(0.2%+0.6V) | ±(0.2%+0.6V) | ±(0.2%+1.2V) | ±(0.2%+1.2V) |
| Current(rms) | TC*1 | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) | |
| | Range | L:120.0mA * M:1.200A * H:3.00A * | 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 | L:0.1mA M:1mA H:10mA |
| Current(peak) | Accuracy | L:±(0.2%+0.6mA) M:±(0.2%+6mA) H:±(0.2%+40mA) | L:±(0.2%+0.6mA) M:±(0.2%+6mA) H:±(0.2%+60mA) | L:±(0.2%+0.6mA) M:±(0.2%+6mA) H:±(0.2%+60mA) | L:±(0.2%+0.6mA) M:±(0.2%+6mA) H:±(0.2%+60mA) |
| | TC*1 | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) |
| | Range | 0-12A | 0-18A | 0-9A | 0-24A |
| Power | 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) | ±(0.05% per degree from 25°C) | ±(0.05% per degree from 25°C) | ±(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 |
| | Accuracy | 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) |
| | TC*1 | ±(0.05% per degree from 25°C) | ±(0.05% per degree from 25°C) | ±(0.05% per degree from 25°C) | ±(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 | Output Signal 5V,BNC type | Output Signal 5V,BNC type | Output Signal 5V,BNC type | |
| Interface (optional) | 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" 2U | 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

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 (rms) | 0~150V: 12A 0~300V: 6A | 12A 6A | 24A 12A |
| Max current (peak) | 0~150V: 36A 0~300V: 18A | 36A 18A | 72A 36A |
| Phase | 1Φ/2W | 1Φ/2W | 1Φ/2W |
| Total harmonic distortion (THD) | ≤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 | 0~300V High, 150/300V Auto |
| | Resolution | 0.1V | 0.1V |
| | Accuracy | ±(0.2%+0.6V) | ±(0.2%+1.2V) |
| Frequency | Temperature Coefficient | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) |
| | Range | 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 |
| Phase angle | Accuracy | 0.1Hz | 0.1Hz |
| | Range | 0~360° | 0~360° |
| | Resolution | 0.1° | 0.1° |
| MEASUREMENT | Accuracy | ±1°(45-65Hz) | ±1°(45-65Hz) |
| | Range | 0~300V | 0~500V |
| | Resolution | 0.1V | 0.1V |
| Voltage(rms) | Accuracy | ±(0.2%+0.6V) | ±(0.2%+1.2V) |
| | Temperature Coefficient | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) |
| | Range | L:120.0mA * M:1.200A * H:12.00A * | L:120.0mA * M:1.200A * H:12.00A * |
| Current(rms) | Resolution | L:0.1mA M:1mA H:10mA | L:0.1mA M:1mA H:10mA |
| | Accuracy | L:±(0.2%+0.6mA) M:±(0.2%+6mA) H:±(0.2%+80mA) | L:±(0.2%+0.6mA) M:±(0.2%+6mA) H:±(0.2%+60mA) |
| | Temperature Coefficient | ±(0.04% per degree from 25°C) | ±(0.04% per degree from 25°C) |
| Current(peak) | Range | 0~48A | 0~48A |
| | Resolution | 0.01A | 0.01A |
| | Accuracy | ±(1%+0.36A) | ±(1%+0.36A) |
| Power | Temperature Coefficient | ±(0.05% per degree from 25°C) | ±(0.05% per degree from 25°C) |
| | Resolution | L:0.01W M:0.1W H:1W | L:0.01W M:0.1W H:1W |
| | Accuracy | L:±(0.2%+0.2W) (47HZ-65HZ) M:±(0.2%+2W) (47HZ-65HZ) H:±(0.2%+10W) (47HZ-65HZ) | L:±(0.2%+0.2W) (47HZ-65HZ) M:±(0.2%+2W) (47HZ-65HZ) H:±(0.2%+10W) (47HZ-65HZ) |
| Temperature Coefficient | ±(0.05% per degree from 25°C) | ±(0.05% per degree from 25°C) | |
| 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) | Output Signal 5V,BNC type | 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 |
| Size | 1/2 19" 3U | 19" 6U | 19" 6U |
| Weight | 37Kg | 103Kg | 103Kg |

* This information is subject to change without notice

IT7324 Dimension figure

