



IT7322

## IT7300 Programmable AC Power Supply

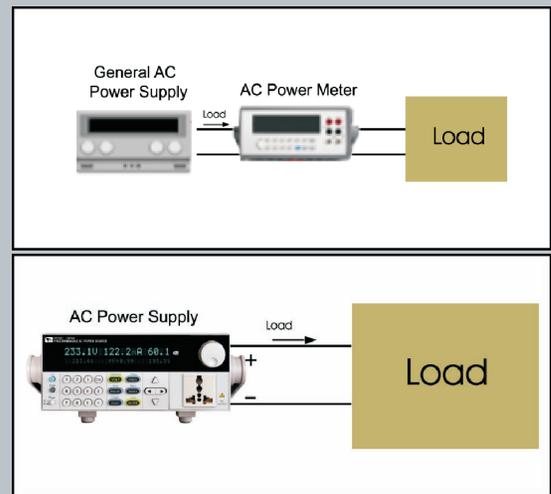
IT7300 series sets up the new standard for high performance AC power source. It equips with all powerful features such as power line disturbance (PLD) simulation, Dimmer and comprehensive measurement functions. IT7300 series has built-in LAN/RS232/USB communication interfaces. IT7300 series can apply to commercial, power electronics and military test applications from bench-top testing to mass production.

### Features

- High accuracy and resolution
- Compact and standard size (300 VA ½2 U)
- Programmable frequency: 45Hz - 500Hz
- Display Vrms, Irms, Ipeak, frequency, PF, apparent power and active power simultaneously
- IEC61000-4-11, IEC 61000-4-14, IEC 61000-4-28 voltage dips and frequency variation simulation
- Power line disturbance simulation capability
- Programmable voltage and current limit settings
- Dimmer function
- Turn on, turn off phase angle control (0-360°)
- TTL signal which indicates output transient
- Support front and rear panel output
- List mode to generate surge, sag and other line disturbance simulations
- Over-voltage, over-power, over-current, over-temperature protection features
- Built-in LAN, RS-232 / GPIB / USB interface programming with SCPI command language

| Model           | Specification   |
|-----------------|-----------------|
| IT7322 /IT7322H | 300V/6A/750VA   |
| IT7324 /IT7324H | 300V/12A/1500VA |
| IT7326 /IT7326H | 300V/24A/3000VA |

IT7300 = "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 IT7300, user don't need to connect an extra power meter. It is not only easy for test, but also save cost.

## Linear Amplifier Technology

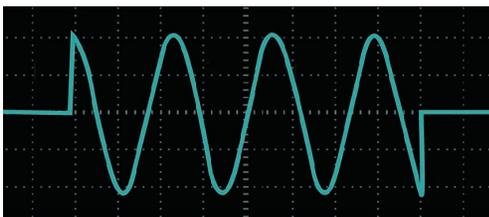
IT7300 series AC source adopts latest linear technology which greatly reduce the output noise and ensure high working stability. Because of the lower ripple index, this series AC source can assist user to get a more precision measuring result.

## Multi-function And High Precision Measurement

IT7300 series 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. IT7300 series is not only a AC source, but also a powerful meter.

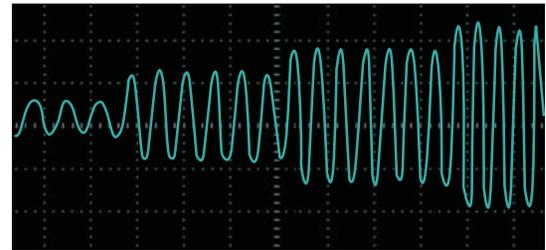
## Adjustable Phase Angle

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 test.

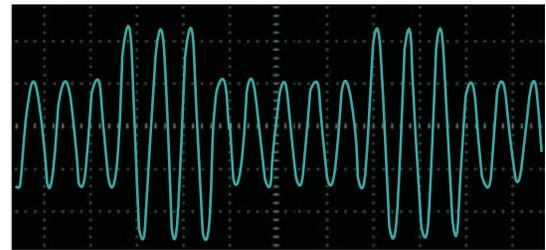


## Power Line Disturbance Simulation Function

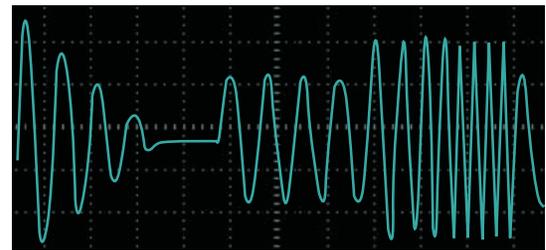
IT7300 series provides powerful functions to simulate all kinds of power line disturbance conditions. The STEP and PULSE modes offer a method to execute a single step or continuous output changes. The LIST Mode, up to 100 sequences, extends this function for more complex waveform generator needs. In this way, IT7300 series is capable of simulating all sorts of voltage dips, surge or trapped wave. The IT7300 series 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.



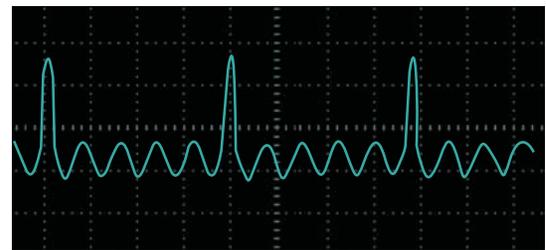
Step Mode



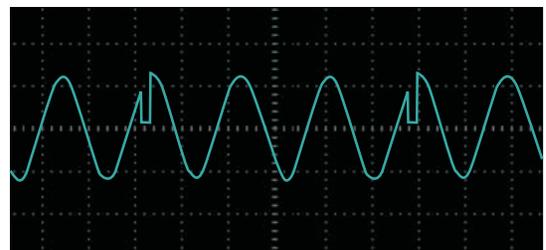
Pulse Mode



List Mode



Surge Waveform



Trap Waveform

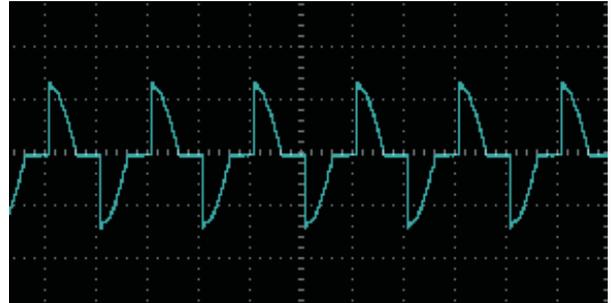
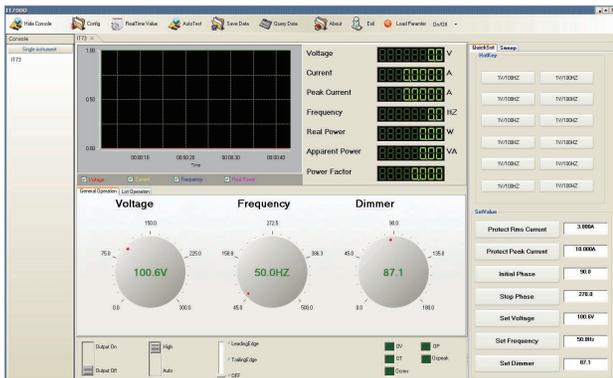


### Built-in Communication Interface

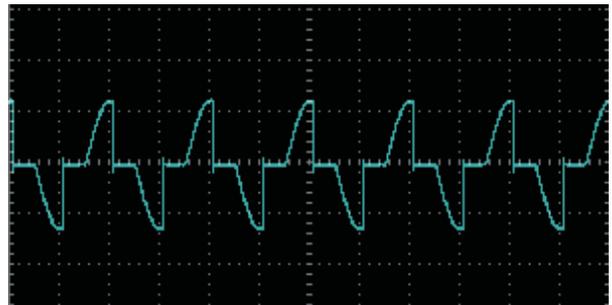
An easy-to-use rotary knob and self-guiding keypads allow you to set the output at your desired value without any effort. In addition, IT7300 series AC source has built-in RS232/USB/GPIB/LAN interface, providing customer high speed and stable communication quality. Note: IT7321 do not have GPIB interface.

### 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



Back 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. IT7300 AC power supply assists engineer to ensure quality for products.

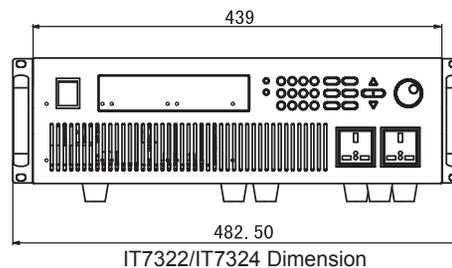
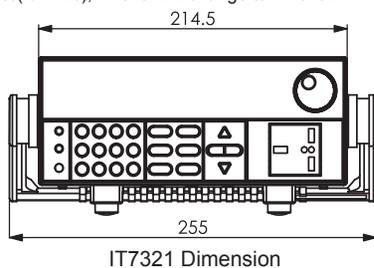
### SWEEP Function

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 saves 10 files at most voltage, frequency and current of max power will be displayed when the test is over.

## Specification

|                                  |   | Basic Products   |                         | High Performance Products  |                                |   |                    |  |                  |  |
|----------------------------------|---|--|-------------------------|--|--------------------------------|---|--------------------|--|------------------|--|
|                                  |   | IT7321   |                         | IT7322   |                                | IT7324  |                    | IT7326   |                  |  |
| <b>INPUT</b>                     |   |  |                         |  |                                |   |                    |  |                  |  |
| Phase                            | 1                                       |  | 1                       |  | 1                              |   | 1                  |  | 1                |  |
| Voltage                          | 220 Vac / 110 Vac ± 10 %                |  | 220Vac/110Vac±10%       |  | 220 Vac / 110 Vac ± 10 %       |   | 220 Vac ± 10 %     |  | 220 Vac ± 10 %   |  |
| Frequency                        | 47 - 63Hz                               |  | 47-63Hz                 |  | 47 - 63Hz                      |   | 47 - 63Hz          |  | 47 - 63Hz        |  |
| Max.Current                      | 6.3 A (220Vac) / 10 A (110 Vac)         |  | 15A(220Vac)/30A(110Vac) |  | 30 A (220Vac) / 60 A (110 Vac) |   | 60 A               |  | 60 A             |  |
| Power Factor                     | 0.5 (typical)                           |  | 0.7(typical)            |  | 0.7 (typical)                  |   | 0.7 (typical)      |  | 0.7 (typical)    |  |
| <b>AC OUTPUT</b>                 |   |  |                         |  |                                |   |                    |  |                  |  |
| Max.Power                        | 300 VA                                  |  | 750VA                   |  | 1500 VA                        |   | 3000 VA            |  | 3000 VA          |  |
| Max Current(rms)                 | 0-150V                                  | 3.0 A  | 6A(0-150V)              |  | 12 A (0 - 150 V)               |   | 24 A (0 - 150 V)   |  | 24 A (0 - 150 V) |  |
|                                  | 0-300V                                  | 1.5 A  | 3A(0-300V)              |  | 6 A (0 - 300 V)                |   | 12 A (0 - 300 V)   |  | 12 A (0 - 300 V) |  |
| Max Current(peak)                | 0-150V                                  | 12 A   | 24A (0-150V)            |  | 48 A (0 - 150 V)               |   | 96 A (0 - 150 V)   |  | 96 A (0 - 150 V) |  |
|                                  | 0-300V                                  | 6 A  | 12A(0-300V)             |  | 24 A (0 - 300 V)               |   | 48 A (0 - 300 V)   |  | 48 A (0 - 300 V) |  |
| Phase                            | 1 Φ / 3 W                               |  | 1Φ/3W                   |  | 1 Φ / 3 W                      |   | 1 Φ / 3 W          |  | 1 Φ / 3 W        |  |
| Total Harmonic Distortion(T.H.D) | ≤ 0.5 % at 45 - 500 Hz (Resistive Load) |  |                         |  |                                |   |                    |  |                  |  |
| Crest Factor                     | ≤ 4                                     |  |                         |  |                                |   |                    |  |                  |  |
| Line Regulation                  | 0.1 % max for a ± 10 % line change      |  |                         |  |                                |   |                    |  |                  |  |
| Load Regulation                  | ≤ 0.5 % FS (Resistive Load)             |  |                         |  |                                |   |                    |  |                  |  |
| Response Time                    | < 100 μS                                |  |                         |  |                                |   |                    |  |                  |  |
| <b>SETTING</b>                   |   |  |                         |  |                                |   |                    |  |                  |  |
|                                  | Range                                   | 0 - 300 V, 150 / 300 V Auto  |                         |  |                                |   |                    |  |                  |  |
| Voltage                          | Resolution                              | 0.1 V  |                         |  |                                |   |                    |  |                  |  |
|                                  | Accuracy                                | ± (0.2 % + 0.6 V)  |                         |  |                                |   |                    |  |                  |  |
|                                  | Range                                   | 45 - 500 Hz  |                         |  |                                |   |                    |  |                  |  |
| Frequency                        | Resolution                              | 0.1 Hz at 45 - 99.9 Hz 1 Hz at 100 - 500 Hz  |                         |  |                                |   |                    |  |                  |  |
|                                  | Accuracy                                | 0.1 Hz   |                         |  |                                |   |                    |  |                  |  |
|                                  | Range                                   | 0-360°   |                         |  |                                |   |                    |  |                  |  |
| Phase Angle                      | Resolution                              | 0.1°   |                         |  |                                |   |                    |  |                  |  |
|                                  | Accuracy                                | ± 1° (45 - 65 Hz)  |                         |  |                                |   |                    |  |                  |  |
| <b>MEASUREMENT</b>               |   |  |                         |  |                                |   |                    |  |                  |  |
|                                  | Range                                   | 0 - 300 V  |                         |  |                                |   |                    |  |                  |  |
| Voltage(rms)                     | Resolution                              | 0.1 V  |                         |  |                                |   |                    |  |                  |  |
|                                  | Accuracy                                | ± ( 0.2 % + 0.6 V)   |                         |  |                                |   |                    |  |                  |  |
|                                  | Range                                   | L: 120.0 mA / M: 1,200 A / H: 3 A  |                         | L: 120.0mA / M:1,200 A / H: 6 A  |                                | L: 120.0mA / M:1,200 A / H: 12 A  |                    | L: 120.0 mA / M: 1200 A / H: 24 A  |                  |  |
| Current(rms)                     | Resolution                              | L: 0.1 mA / M: 1 mA / H: 10 mA   |                         |  |                                |   |                    |  |                  |  |
|                                  | Accuracy                                | L: ± (0.2 % + 0.6 mA)<br>M: ± (0.2 % + 6 mA)<br>H: ± (0.2 % + 40 mA)                           |                         | L:±(0.2%+0.6mA)<br>M:±(0.2%+6mA)<br>H:±(0.2%+60mA)                                 |                                | L: ± (0.2 % + 0.6 mA)<br>M: ± (0.2 % + 6 mA)<br>H: ± (0.2 % + 80 mA)                |                    | L: ± (0.2 % + 0.6 mA)<br>M: ± (0.2 % + 6 mA)<br>H: ± (0.2 % + 0.1 A)                               |                  |  |
|                                  | Range                                   | 0-12A  |                         | 0-24A  |                                | 0 - 48 A  |                    | 0 - 96 A   |                  |  |
| Current(peak)                    | Resolution                              | 0.01A  |                         | 0.01A  |                                | 0.01 A  |                    | 0.01 A   |                  |  |
|                                  | Accuracy                                | ± (1 % + 360 mA)   |                         | ±(1%+360mA)  |                                | ± (1 % + 360 mA)  |                    | ± (1 % + 360 mA)   |                  |  |
| Power                            | Resolution                              | L: 0.01 W M: 0.1 W H: 1 W  |                         | L:0.01W M:0.1W H:1W  |                                | L: 0.01 W M: 0.1 W H: 1 W   |                    | L: 0.01 W M: 0.1 W H: 1 W  |                  |  |
|                                  | Accuracy                                | L: ±(0.2 % + 0.2W) (47Hz-65Hz)<br>M: ±(0.2 % + 2W) (47Hz-65Hz)<br>H: ±(0.2 % + 4W) (47Hz-65Hz) |                         | L:±(0.2%+0.2W) (47HZ-65HZ)<br>M:±(0.2%+2W) (47HZ-65HZ)<br>H:±(0.2%+6W) (47HZ-65HZ) |                                | L:±(0.2%+0.2W) (47Hz-65Hz)<br>M:±(0.2%+2W) (47Hz-65Hz)<br>H:±(0.2%+10W) (47Hz-65Hz) |                    | L: ± (0.2 % + 0.2W) (47Hz-65Hz)<br>M: ± (0.2 % + 2W) (47Hz-65Hz)<br>H: ± (0.2 % + 15W) (47Hz-65Hz) |                  |  |
| <b>GENERAL</b>                   |   |  |                         |  |                                |   |                    |  |                  |  |
| Memory                           | 10 memories                             |  |                         |  |                                |   |                    |  |                  |  |
| Sync Output Signal               | Output Signal 5 V, BNC type             |  |                         |  |                                |   |                    |  |                  |  |
| Operation Environment            | 0 - 40°C / 20 - 80 % RH                 |  |                         |  |                                |   |                    |  |                  |  |
| Dimension                        | ½ 19" 2U                                |  | 19" 3U                  |  | 19" 3U                         |   | 19" 6U             |  |                  |  |
| Interface                        | LAN/USB/RS232                           |  | LAN/USB/RS232/GPIB      |  | LAN/USB/RS232/GPIB             |   | LAN/USB/RS232/GPIB |  |                  |  |

\*There are three levels of current, L-level, M-level and H-level. If Ipeak>300%(Full rms), low level will change to high level; if Ipeak<20%(full rms), M-level will change to L-level; if Ipeak<80%(full rms), H-level will change to M-level.



Unit: mm



**Specification**

|                                  | IT7322H                               | IT7324H  | IT7326H   |   |
|----------------------------------|---------------------------------------|--|---|---|
| <b>INPUT</b>                     |                                       |  |   |   |
| Phase                            | 1                                     | 1  | 1   |   |
| Voltage                          | 220 / 110 Vac ± 10 %                  | 220 / 110 Vac ± 10 %   | 220 Vac ± 10 %  |   |
| Frequency                        | 47 - 63 Hz                            | 47 - 63 Hz   | 47 - 63 Hz  |   |
| Max.Current                      | 15 A (220 Vac) / 30 A (110 Vac)       | 30 A (220 Vac) / 60 A (110 Vac)  | 60 A  |   |
| Power Factor                     | 0.7 (typical)                         | 0.7 (typical)  | 0.7 (typical)   |   |
| <b>AC OUTPUT</b>                 |                                       |  |   |   |
| Max.Power                        | 750 VA                                | 1500 VA  | 3000 VA   |   |
| Max Current(rms)                 | 0-250V 3.0 A<br>0-500V 1.5 A          | 6 A<br>3 A   | 12 A<br>6 A   |   |
| Max Current(peak)                | 0-250V 12 A<br>0-500V 6 A             | 24 A<br>12 A   | 48 A<br>24 A  |   |
| Phase                            | 1 Φ / 3 W                             | 1 Φ / 3 W  | 1 Φ / 2 W   |   |
| Total Harmonic Distortion(T.H.D) | ≤ 1 % at 45 - 500 Hz (Resistive Load) |  |   |   |
| Crest Factor                     | ≤ 4                                   |  |   |   |
| Line Regulation                  | 0.1 % max for a ± 10 % line change    |  |   |   |
| Load Regulation                  | ≤ 0.5 % FS (Resistive Load)           |  |   |   |
| Response Time                    | < 100 μS                              |  |   |   |
| <b>SETTING</b>                   |                                       |  |   |   |
|                                  | Range                                 | 0 - 500 V, 250 / 500 V Auto  |   |   |
| Voltage                          | Resolution                            | 0.1 V  |   |   |
|                                  | Accuracy                              | ±(0.2%+1.2V)   | ± (0.2 % + 0.6 V) ± (0.2 % + 0.6 V)   |   |
| Frequency                        | Range                                 | 45-500Hz   |   |   |
|                                  | Resolution                            | 0.1 Hz at 45 - 99.9 Hz 1 Hz at 100 - 500Hz   |   |   |
|                                  | Accuracy                              | 0.1 Hz   |   |   |
| Phase Angle                      | Range                                 | 0 - 360°   |   |   |
|                                  | Resolution                            | 0.1°   |   |   |
|                                  | Accuracy                              | ± 1° (45 - 65 Hz)  |   |   |
| <b>MEASUREMENT</b>               |                                       |  |   |   |
| Voltage(rms)                     | Range                                 | 0 - 500 V  | 0 - 500 V   | 0 - 500 V   |
|                                  | Resolution                            | 0.1 V  | 0.1 V   | 0.1 V   |
|                                  | Accuracy                              | ± (0.2 % + 1.2 V)  | ± (0.2 % + 0.6 V)   | ± (0.2 % + 0.6 V)   |
| Current(rms)                     | Range                                 | L: 120.0 mA / M: 1.200 A / H: 3.00 A   | L: 120.0 mA / M: 1.200 A / H: 6.00 A  | L: 240.0 mA / M: 2.400 A / H: 24.00 A   |
|                                  | Resolution                            | L: 0.1 mA M: 1 mA H: 10 mA   | L: 0.1 mA / M: 1 mA / H: 10 mA  | L: 0.1 mA / M: 1 mA / H: 10 mA  |
|                                  | Accuracy                              | L: ± (0.2 % + 0.6 mA)<br>M: ± (0.2 % + 6 mA)<br>H: ± (0.2 % + 40 mA)   | L: ± (0.2 % + 0.4 mA)<br>M: ± (0.2 % + 6 mA)<br>H: ± (0.2 % + 60 mA)  | L: ± (0.2 % + 0.6 mA)<br>M: ± (0.2 % + 6 mA)<br>H: ± (0.2 % + 40 mA)  |
| Current(peak)                    | Range                                 | 0 - 12 A   | 0 - 24 A  | 0 - 48 A  |
|                                  | Resolution                            | 0.01 A   | 0.01 A  | 0.01 A  |
|                                  | Accuracy                              | ± (1 % + 360 mA)   | ± (1 % + 360 mA)  | ± (1 % + 120 mA)  |
| 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 % + 0.2 W) (47 Hz - 65 Hz)<br>M: ± (0.2 % + 2 W) (47 Hz - 65 Hz)<br>H: ± (0.2 % + 6 W) (47 Hz - 65 Hz) | L: ± (0.2 % + 0.2 W) (47 Hz - 65 Hz)<br>M: ± (0.2 % + 2 W) (47 Hz - 65 Hz)<br>H: ± (0.2 % + 10 W) (47 Hz - 65 Hz) | L: ± (0.2 % + 0.05 W) (47 Hz - 65 Hz)<br>M: ± (0.2 % + 0.5 W) (47 Hz - 65 Hz)<br>H: ± (0.2 % + 2 W) (47 Hz - 65 Hz) |
| <b>GENERAL</b>                   |                                       |  |   |   |
| Memory                           | 10 memories                           |  |   |   |
| Sync Output Signal               | Output Signal 5 V, BNC type           |  |   |   |
| Operation Environment            | 0 - 40°C / 20 - 80 % RH               |  |   |   |
| Dimension                        | 19" 3U                                | 19" 3U   | 19" 6U  |   |
| Interface                        | LAN/USB/RS232/GPIB                    | LAN/USB/RS232/GPIB   | LAN/USB/RS232/GPIB  |   |

\*There are three levels of current, L-level, M-level and H-level. If Ipeak > 300% (Full rms), low level will change to high level if Ipeak < 20% (full rms), M-level will change to L-level; if Ipeak < 80% (full rms), H-level will change to M-level.



**Standard Accessories**

Power Cord

Calibration Report

User Manual