LISUN GROUP

Electronic Ballast Tester
(WT5000)

Brochure

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Leader in Lighting & Electrical Test Instruments

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Introduction

WT5000 Integrated Tester for electronic ballast display parameters and curve via super-large LCD screen without computer. It takes all the technical characteristics and parameters, expanding analysis for envelope wave and testing for single wave of hi-frequency are newly added function. Fully meet the input, output performance measurement requirement for electronic ballast according to IEC60929, IEC60969, IEC61000-3-2, GB/T15144-93, GB/T17263-1998, and other standards.

WT5000 uses the advanced 12 digital A/D converter with ultra-high speed, sampling speed reaches as high as 10MHz. It offers a better tool for technician to research the ballast's mechanism and to undertake the reliability analysis by testing single wave with high frequency.

WT5000 uses the super-large LCD screen to display the parameters and curve; it is convenient and suitable for technology development, spot testing and business communication. WT5000 can print data and communicate with PC, displaying all the dates and curves in PC

● Technical Parameters

1. Characteristics

(1) Super-large color LCD screen for displaying parameters and curve, convenient for comparison, analysis and business communication;
(2) Frequency response for testing input current up to 1MHz, suitable for precise testing of various kind of electronic ballast;
(3) Symmetry analysis for envelope wave's crest factor of lamp current;
(4) Sampling at ultra-high speed, dynamic analysis single frequency curve, highest sampling frequency is up to 10MHz.
(5) Portable with built-in chip micro-processor, particular suitable for development and spot production;
(6) Parameters, waves and curves can be printed;
(7) Communicating with PC via RS-232, special software provided and both Chinese version and English version are available. Run in Windows 98, Windows 2000 and Window XP with nice interface and easy to operate
(8) Expanding analysis for envelope wave.

1. Function:

2.1 Testing input parameters

a. Measuring voltage, current, power, power factor, power net frequency, total harmonic and 0-39 harmonic;
b. Range of basic wave frequency of voltage and current: 45Hz – 65Hz;
Range of narrow band: 45Hz – 5 kHz
Range of broad band: 45Hz – 1MHz
c. Voltage range: 10 – 300V (virtual value)
Range of current: NR: 0.010~1.500A (virtual value);WR: 0.010-4.500A (virtual value)
Range of power: NR: 0~450.0W;WR: 0- 999.9W
Power factor range: 0.000 – 1.000

2.2 Testing stable output parameters

a. Measuring lamp voltage, lamp current, lamp power, filament current, input cathodic current, crest factor, frequency;
b. Range of lamp voltage: 10 – 300V; Range of lamp power: NR:0.5~200.0W WR:0.5~400.0W
c. Range of lamp current, filament current, cathodic current: NR: 0.010-0.750A, WR: 0.010-1.500A

2.3 Testing output parameters during start-up

a. Test preheats time and lamp voltage, current, filament current, changing curve and data of imported cathodic current within 0 to 5s.

b. Range of lamp voltage: 10.0~800.0V
c. Range of lamp current, filament current and imported cathodic current:
NR: 0.010-0.750A, WR: 0.010-1.500A

2.4 Testing preheating energy

a. testing the filament voltage and filament current TRMS, preheat energy curves after the electronic ballast start-up 0~5second,and also calculate the start-up time and according to the filament parameters(the value of the Q,P,F)depicted the preheat energy, and compare to the actual preheat energy, qualified to judge whether or not
b. range of filament voltage: 2-30V
c. range of filament current: 10mA-1.5A
d. range of filament power: 0.1-40W
e. Range of the preheat energy: according to the filament power and the testing time.

2. Specifications

Items	Test error	Testing condition
voltage	±(0.1%reading+0.1%range +1digit)	Input wave: sine wave; Input frequency: 45~65Hz; No DC component;
current		
power		
Power factor	±(0.002+0.001/reading+1digit)	
frequency	±0.1%reading	
harmonic(rms)	±(0.1%range＋5%reading)	
lamp voltage	±(1 %reading+1%range+2digit)	Input wave: sine wave; Input frequency: 45~65KHz; No DC component;
lamp current		
Import cathodic current		
Filament current		
Lamp power	±2.5%range	
frequency	±0.5%read	

- **The Next Pages are the Test Report from WT5000**