GF3600

Three-Phase AC/DC Instrument Test Equipment

The device is composed of Program-Controlled Three-Phase standard power resource, DC standard power source, Three Phase Multifunction Reference standard meter, computer and management software. The technical index of the device is compliance with national industry related standards and verification regulation. It can be used at power Grid Company, power Supply Company and power plants for measuring and testing power institutions, also it can be applied at railway, petroleum, chemical industry and mining enterprises, etc.

Features

GF3600 can verify following instruments:

1. Transducer
2. Electric energy meter
3. Error of the ac sample
4. Normal indicating instrument
5. Power frequency and dc digital instrument
6. The meters it can the verify: AC/DC voltmeter, ammeter, single/three-phase active, reactive power meter, phase meter, for access to power, frequency meter, synchronous meter, etc
7. The transducers types it can verify, AC/DC voltage transducer, current transducer, single/three-phase active reactive power transducer, phase transducer, a power factor transducer, frequency transducers
8. The watt-hour meters types it can verify: electronic type and inductive single-phase and three-phase meritorious electric energy meter and reactive watt-hour meter
9. Can be set and measuring 2-31 times harmonic
10. Wide measuring range, high stability, high resolution, low distortion degree
11. Automatic data rounding, various forms of certificate format, inquires and print convenient
12. Under the computer control, it can realize the automatic verification for watt-hour meters and transducers semi-automatic verification for all kinds of instruction machine
13. Its block structure, convenient for inspection and it can be used independently
14. Automatic failure detection can avoid the damage of equipment which caused by wrong operation

Parameters

Electrical parameters	
Accuracy class	0.05%, 0.1%
Power supply	AC 220V ± 10% or AC 110V ± 10%, 50/60Hz
AC Voltage output and measurement	
U1, U2, U3 Range	10V, 20V, 50V, 100V, 200V, 400V, 800V
Output range	(0-120%)% RG
Adjustment resolution	0.01% RG
Output stability	0.01%/min
Measurement accuracy	0.05% RG
Output load capability	50VA
Measurement resolution	$\leq 5\times10^{-5}$ RG
AC Current output and measurement	
I1, I2, I3 Range	0.1A, 0.25A, 0.5A, 1A, 2.5A, 5A, 10A, 25A, 50A, 100A
Output range	(0-120)% RG
Adjustment resolution	0.01% RG
Output stability	0.01%/min
Measurement accuracy	0.05% RG
Output load capability	100VA
Measurement resolution	$\leq 5\times10^{-5}$ RG
Power output and measurement	
Output stability	0.01%/1min
Active accuracy	0.05% RD (0.01A-100A, 30V-600V, PF ≥ 0.5L or PF ≥0.8C)
Reactive accuracy	0.1% RD (0.01A-100A, 30V-600V, PF ≥0.5)
Measurement resolution	$\leq 5\times10^{-5}$ RG
Energy measurement	
Active accuracy	0.05% RD (0.01A-100A, 30V-600V, PF ≥0.5L or PF ≥0.8C), 0.1% RD (0.05A-100A, 30V-600V PF ≥0.5C)
Reactive accuracy	0.1% RD 0.05A-100A, 30V-600V PF ≥0.5
Setting range of test pulse No.	1-9999999
Max. frequency of receiving pulse	2MHz
Phase output and measurement	
Output range	0°-359.99°
Adjustment resolution	0.01°
Measurement accuracy	0.05°
Measurement resolution	0.001°
Power factor output and measurement	
Output range	-1 to 0 to +1
Measurement accuracy	0.0005

Electrical parameters - continued	
Power factor output and measurement - continued	
Measurement resolution	0.0001
Frequency output and measurement	
Output range	45-65Hz
Adjustment resolution	0.001Hz
Measurement accuracy	0.005Hz
Measurement resolution	0.001Hz
Harmonic	
Times	2 to 31
Resolution	0.1% (compared with fundamental wave)
Contents	0-30%
Phase	0°-359.99°
DC Voltage output	
Range	100mV, 300mV, 1V, 3V, 10V, 30V, 100V, 300V, 600V, 1000V
Setting range	0-1000V
Regulated step value	0.002% RG
Accuracy	0.03% RD + 0.02% RG
Stability	0.01%RG/1min
Output load capability	25VA
Ripple wave and noise	0.1-100KHz
Output ≤100 V	Ripple wave ≤2mVrms
Output > 100 V	Ripple wave ≤10mVrms
DC Current output	
Range	10μA, 30μA, 100μA, 300μA, 1mA, 3mA, 10mA, 30mA, 100mA, 300mA, 1 A, 3 A, 10 A, 30 A
Setting range	0-30A
Regulation resolution	≤0.02% RG
Accuracy	0.03% RD + 0.02% RG
Stability	0.01%RG/1min
Output load capability	30VA
Mechanical parameters	
Dimension (L×W×H) (mm)	1800x800x750
Weight (kg)	135
Environmental conditions	
Operating temperature	0°C to 40°C
Relative humidity	≤85%