

GF333B

PORTABLE THREE PHASE STANDARD REFERENCE ENERGY METER

GF333B three phase reference standard is a portable reference standard meter used to test three phase meters and single phase meters error, it designed to work both in the field and in the laboratory. The GF333B reference meter is used to measure three phase AC energy and voltage, current, power, phase angle and other parameters in lab, and it also can be used to integrated in the energy meter test system and supply the standard energy pulse and every measurement parameters.

Application

1. Power plant;
2. AMI design center;
3. Energy meter R & D;
4. Electrical laboratory;
5. Watt-hour meter factory;
6. Colleges and Universities;
7. Metrological service center;
8. Laboratories of power utilities;
9. Electricity meter manufacturers;
10. Meter test bench integrated factory;
11. National Metrology and testing department;
12. Electricity power bureau & power company;
13. Electrical Department of industrial and mining enterprises;



Features

1. Vector diagram function;
2. High accuracy up to 0.04% or 0.05%;
3. Harmonic analysis function;
4. Testing type: 3P4W, 3P3W, 1P2W, 1P3W;
5. Waveform display function;
6. Internal pulse input port, testing meter's error directly;
7. Energy accumulating function;
8. Wide testing range: voltage 0V-600V, current 1mA-120A;
9. With big screen TFT color LCD;
10. Testing mode: active power, reactive power, apparent power;

Parameters

Electrical parameters	
Accuracy	0.04%, 0.05%
Voltage supply	220V±10% or 110V±10%, 50/60Hz
Power consumption	15VA
Warming-up time	<30min
Voltage measurement	
Range	0V-600V
Error	±0.02% (50V-600V), ±0.05% (5V-40V)
Display range	5.000000V-600.0000V
Harmonic	2 nd -63 st
Current measurement	
Range	1mA-120A
Error	±0.02% (0.1A-120A), ±0.05% (1mA-0.1A)
Display range	1.000000mA-120.0000A
Harmonic	2 nd -63 st
Power measurement	
Active power	±0.02% (0.1A-120A) ±0.05% (0.01A-0.1A) ±0.1% (0.001A-0.01A)
Reactive power	±0.05% (0.1A-120A), ±0.1% (0.001A-0.1A)
Apparent power	±0.05% (0.1A-120A), ±0.1% (0.001A-0.1A)
Energy error	
Active energy	±0.02% (0.1A-120A) ±0.05% (0.01A-0.1A) ±0.1% (0.001A-0.01A)
Reactive energy	±0.05% (0.1A-120A), ±0.1% (0.001A-0.1A)
Apparent energy	±0.05% (0.1A-120A), ±0.1% (0.001A-0.1A)
Phase measurement	
Range	0°-360°
Resolution	0.005°
Error	±0.01°
Display range	0.0000°-359.999°
Frequency measurement	
Range	45-65Hz
Display range	45.0000-65.0000
Resolution	0.0005
Accuracy	0.001Hz

Electrical parameters - continued
Power Factor measurement

Range	-1.00000 ~ 0 ~ +1.00000
Resolution	0.0001
Accuracy	0.0005

Energy pulse

High frequency output(CH)	12000Hz
Low frequency output(CL)	5000Hz
Pulse ratio	1:1
Output level	5V
Input level	5V
Input frequency	Max. 1MHz

Function

LCD Display	6 inch color display
Vector diagram	Yes
Waveform	Yes
Energy accumulation	Yes
Self-calibration	Yes
Data storage	Yes
PC software	Optional
Communication port	RS232

Standard

Standard	IEC 62053-21,22, 23; IEC 60736; ANSI C12.20-2002; JJG 597-2005; JJG596-2012; JJG 1085-2013; JJF 68-2019; DL/T 826-2002; DL/T 1478-2015; DL/T 448-2016
----------	---

Safety

Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP40
Declaration of conformity	CE & CNAS certified

Mechanical parameters

Dimensions (W×H×D) (mm)	480×138×486
Weight (kg)	10

Environmental conditions

Ambient temperature	-10°C to 45°C
Storage temperature	-20°C to 65°C
Relative humidity	10%-85%
Influence of external fields	≤0.05 %/mT
Temperature coefficient	≤0.0005% /°C