

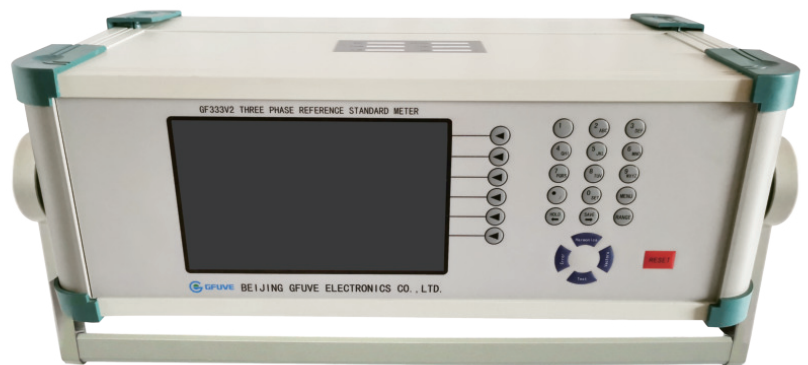
GF333V2

Program-Controlled Single Phase Phantom Load Power Source

GF333V2 three phase reference energy meter is a reference energy and power standard with the characteristics of wide-range 240A/600V, multifunction and high-precision. It has accuracy class of 0.02. By adopting techniques of 32bit DSP, embedded system and automatic temperature balancing and other compensation, it has not only advantages of light weight, small size, high precision, high performance, powerful function, original interface, ease-to-use, but also work stability. It has been designed for universal laboratory and test applications and is intended for checking and the calibration of reference standards for electrical power and energy. In addition, it can be integrated into meter or reference standard test systems of higher accuracy for test bench. This model GF333V2 three phase reference standard can be widely used in fields of electric energy measuring, electric energy laboratories and other relevant industry, not only in ISO17025 electrical laboratories but also at the industrial field.

Application

1. Power plant;
2. AMI design center;
3. Energy meter R & D;
4. Electrical laboratory;
5. Watt-hour meter factory;
6. Power meter manufacturer;
7. Metrological service center;
8. Laboratories of power utilities;
9. ISO17025 electrical laboratory;
10. Electricity meter manufacturers
11. Meter test bench integrated factory;
12. National Metrology and testing department;
13. Electricity power bureau & power company;
14. Electrical Department of industrial and mining enterprises;



Features

1. Vector diagram function;
2. Suit for testing in the lab;
3. With PC software optional;
4. Waveform display function;
5. Wide range 0-600V/0-240A;
6. High stability, high reliability;
7. Energy accumulating function;
8. High accuracy class up to 0.02%;
9. Measuring 2nd~63rd harmonics;
10. Three channel energy pulse input;
11. Metal structure, strong and reliable;
12. As a three phase reference standard;
13. High resolution 7 inch touch TFT LCD;
14. With stability measurement function;

15. As three single phase reference meter;
16. With distortion measurement function;
17. Pulse constant output can be programmable;
18. Fully automatic switching of all measuring ranges;
19. All measuring parameters are displayed on one screen;

Parameters

Electrical parameters	
Accuracy class	0.02%, 0.04%, 0.05%
Power supply	220V±10% or 110V±10%, 50/60Hz
Power consumption	30VA
Voltage measurement(U1 U2 U3 UN)	
Range	0-600.000V
Error	±0.02% (40V-600V) ±0.05% (5V-40V)
Harmonic	2 nd -63 rd
Current measurement(I1 I2 I3)	
Range (direct connection)	1mA-120.000A; 1mA-240.000A
Error (direct connection)	±0.02% (10mA-120A) or (10mA-240A) ±0.05% (1mA-10mA)
Harmonic	2 nd -63 rd
Power measurement error	
Active power	±0.02% (0.01A-120A) or (0.01A-240A) ±0.05% (0.001A-0.01A)
Reactive power	±0.05% (0.001A-120A) or (1mA-240A)
Energy measurement error	
Active energy	±0.02% (0.01A-120A) or (10mA-240A) ±0.05% (0.001A-0.01A)
Reactive energy	±0.05% (0.001A-120A) or (1mA-240A)
Phase angle	
Range	0°-360.000°
Resolution	0.005°
Error	±0.01°
Power factor	
Range	-1.00000-0-1.00000
Resolution	0.00005
Error	0.00001

Electrical parameters - continued	
Frequency	
Range	40.0000-70.0000Hz
Resolution	0.0005
Error	±0.001
Pulse output	
Output channel	3
Energy pulse constant	1-9999999; programmable
Pulse ratio	1:1
Output level	5V
Output rated frequency	60KHz, max 86.4KHz
Pulse input	
Input channel	3
Input level	5-24V or 3-12V
Input frequency	Max. 2MHz
Function	
LCD Display	7" inch 800x480 pixel touch TFT
Vector diagram	Yes
Waveform	Yes
Energy accumulation	Yes
Distortion measurement	Yes
Stability measurement	Yes
Self-calibration	Yes
Data storage	Yes
PC software	Optional
Communication port	RS232, USB
Standard	
Standard	IEC 62053-21,22, 23; IEC 60736; IR46; ANSI C12.20-2022; 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)	355×185×145 or 445×220×152
Weight (kg)	7.5 or 10

Environmental conditions

Ambient temperature	0°C to 40°C
Storage temperature	-20°C to 65°C
Relative humidity	10%-85%
Temperature coefficient	$\leq 0.0005\% / ^\circ\text{C}$
Influence of external fields	$\leq 0.05\% / \text{mT}$