

GF111B

Single Phase Reference Energy Meter With 120a Clamp On Cts

GF111B single phase reference energy meter with 120a clamp on cts is the latest product launched by our company after extensive visits to users and drawing on the advantages of similar products at domestic and abroad. The measurement part of the product adopts high-speed A/D converter and DSP for digital processing technology, which greatly improves the accuracy and stability of measurement. The central processing part adopts 32-bit ARM embedded technology, which makes the instrument have novel interface, rich functions, clear and simple operation and stable performance. it has not only advantages of light weight, portable structure, high precision, high performance, powerful function, original interface, ease-to-use, but also work stability. It can measure U, I, P, Q, S, E, frequency, power factor, phase shift, harmonics etc. Accuracy class: 0.04.

The GF111B portable single phase reference meter can be widely used in fields of electric energy measuring, electric metrological laboratories and other relevant industry, not only in laboratories but also at the industrial field.

Features

1. Vector diagram function;
2. Waveform display function;
3. 7 inch TFT color LCD display;
4. Energy register testing function;
5. Measuring 2nd~51st harmonics;
6. High accuracy class up to 0.04%;
7. 0-576V, 1mA-120A, 40-70.000Hz;
8. Phase shift precision less than 0.02°;
9. Metal structure, strong and reliable ;
10. Suit for testing in the lab and on site;
11. Auto testing single phase meter error;
12. Multi range, automatic range switching;
13. High stability 0.005%/min, high reliability;
14. Programmable pulse constant output up to 250000;
15. Current measurement with direct and clamp on ct;
16. 5A, 10A, 20A, 100A, 200A, 300A, 500A, 1000A, 3000A, 5000A optional;



Application

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

Parameters

Electrical parameters	
Accuracy class	0.04%, 0.05%, 0.1%
Power supply	45-450V AC, 50/60Hz
Power consumption	10VA
Voltage measurement	
Range	0-576.000V
Error	±0.02% (40V-560V) ±0.05% (5V-40V)
Harmonic	2 nd - 51 st
Current measurement(direct)	
Range (direct connection)	1mA-30.000A or 1mA-120.000A
Error (direct connection)	±0.02% (25mA-30A) ±0.04% (1mA-25mA)
Harmonic	2 nd - 51 st
Clamp on ct (indirect)	
Range (Standard)	1mA-120.000A
Error (Standard)	±0.04% (100mA-120A) ±0.1% (1mA-100mA)
Harmonic	2 nd - 51 st
Clamp on ct optional	5A, 10A, 20A, 100A, 200A, 300A, 500A, 1000A, 3000A, 5000
Power measurement error	
Active power	±0.04% (0.01A-30A) ±0.1% (0.001A-0.01A)
Reactive power	±0.1% (0.001A-30A)
Energy measurement error	
Active energy	±0.04% (0.01A-30A) ±0.1% (0.001A-0.01A)
Reactive energy	±0.1% (0.001A-30A)
Phase angle	
Range	0°-360.000°
Resolution	0.005°
Error	±0.02°
Power factor	
Range	-1.00000-0-1.00000
Resolution	0.0005
Error	0.0001

Electrical parameters - continued
Frequency

Range	40.0000-70.0000Hz
Resolution	0.0005
Error	±0.001

Pulse output

Output channel	1
Energy constant	1-9999999
Pulse ratio	1:1
Output level	5V
Output rated frequency	60KHz, max 86.4KHz

Pulse input

Input channel	1
Input level	5-24V or 3-12V
Input frequency	Max. 2MHz

Function

LCD Display	7 inch 800x480 pixel touch TFT
Scanning head(smart optical sampler)	Yes
Vector diagram	Yes
Waveform	Yes
Harmonic	Yes
Key	18PCS
Register test	Yes
Self-calibration	Yes
Data storage	Yes
PC software	Optional
Communication port	RS232 & USB

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; GB/T
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Safety

Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP65
Declaration of conformity	CE & CNAS certified

Mechanical parameters

Dimensions (W×H×D) (mm)	365 x 269 x 151
Weight (kg)	3

Environmental conditions

Ambient temperature	0°C to 40°C
Storage temperature	-20°C to +65°C
Relative humidity	10%-85%
Temperature coefficient	≤0.0005% /°C
Influence of external fields	≤0.05 %/mT

Selection Guide

NO.	Accuracy	Voltage range	Current Range	Weight
111B1201	0.1%	0-576V	0-120A	4KG
111B12005	0.05%	0-576V	0-120A	4KG
111B12004	0.04%	0-576V	0-120A	4KG
111B301	0.1%	0-576V	0-30A	3KG
111B3005	0.05%	0-576V	0-30A	3KG
111B3004	0.04%	0-576V	0-30A	3KG