

GF302D1

Three Phase Portable Energy Meter Test Equipment

The GF302D1 three phase portable energy meter test equipment consists of an integrated three phase current source (up to 500V/120A or 500V/20A) and built-in three-phase electronic reference standard of accuracy class 0.05%. Characteristic features of the GF302D1 are its wide measuring range, high accuracy and high tolerance to unwanted external influences. The equipment offers high functionality combined with an excellent menu guided operation via built-in keyboards and colored 7" touch LCD-display. Voltage & current harmonics output from 2 to 63 times. This model portable meter test equipment can be programmable by PC, automatic generation of energy meter error test report.

Features

1. Accuracy class 0.05;
2. Weight light 12.8Kg;
3. 7 inch TFT touch screen;
4. 0-120A/0-500V/40-70Hz;
5. Test by automatic or manual;
6. Start testing and creep testing;
7. Recorder 500 sets energy meter data;
8. Overload, short circuit, open circuit protection;
9. Reference standard and current source integrated;



Functions

1. Measuring the distortion factor;
2. User friendly menu guided operation;
3. Energy dosing with built-in current source;
4. Measuring mechanical meter and electric meter;
5. Easy verification and analysis of meter installations;
6. Measuring frequency, phase shift and power factor;
7. Automatic operation without need of an external PC;
8. Especially configured USB stick for storage of customer data
9. Testing all kinds of energy meter in 1P2W, 1P3W, 3P3W, 3P4W;
10. Harmonic spectrum analysis for voltage and current up to the 63rd order;
11. Power and energy measurements for active, reactive and apparent power;
12. Vector diagram display and phase sequence indication on integrated colored screen;

Parameters

Electrical parameters	
Accuracy	0.05%, 0.1%
Power Supply	One Phase AC 85-265V, frequency 50/60Hz.
AC Voltage Measurement	
Range(U1,U2,U3)	0-500V; 0-380V; 0-300V;
Adjustment range	(0-120)%RG ⁽¹⁾
Adjustment fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG as optional.
Stability	0.01%/120s
Distortion	0.3% (Non-capacitive load)
Output load	each phase 25VA
Accuracy	0.05%RG or 0.02%RG
AC Current Output	
Range(I1,I2,I3)	0-6A; 0-12A; 0-20A; 0-50A; 0-120A;
Adjustment range	(0-100)%RG
Adjustment fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG as optional.
Stability	<0.01%/120s
Distortion	≤0.3% (Non-capacitive load)
Max Output load	20VA or 50VA;
Accuracy	0.05%RG
Power Measurement	
Active power output stability	<0.01%RG/120s
Reactive power output stability	<0.02%RG/120s
Active power measuring accuracy	0.05%RG
Reactive power measuring accuracy	0.1%RG
Phase Output	
Output adjustment range	0°-359.999°
Output adjustment fineness	10, 1, 0.1, 0.01 as optional.
Resolution	0.01°
Accuracy	0.02°
Power Factor	
Adjustment range	-1 ~ 0 ~ 1
Resolution	0.0001
Measurement accuracy	0.0005
Frequency Measurement	
Range	40Hz-70Hz
Resolution	0.001Hz
Accuracy	0.002Hz

Electrical parameters - continued

Voltage /Current/Harmonic Measurement

Harmonic number	2-63times
Harmonic content	0-40%
Harmonic phase	0-359.99
Harmonic setting accuracy	(10%±0.1%)RD ⁽²⁾

Power Energy Measurement Error

Active power energy	0.05%RG
Reactive power energy	0.1%RG

Power Pulse Output

Power pulse type	active pulse, reactive pulse
Active power pulse output	5V, 10mA

Power Pulse Input

Energy pulse type	support active and reactive pulse, the highest frequency power pulse input is 200K.
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Communication Port

Communication Port	RS232, USB2.0
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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
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Safety

Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP42
Declaration of conformity	CE & CNAS certified

Mechanical parameters

Dimensions (W×D×H) (mm)	495x390x195
Weight (kg)	12.8

Environmental conditions

Ambient temperature	-10°C to +50°C
Relative humidity	35%-85%

(1) RG means range, the same as below;

(2) RD means the setted harmonic content, harmonic can be a single output, also multiple output.

Accessories

