

GF1021

Portable Single Phase Energy Meter Test System

GF1021 portable single phase energy meter test system used to test single phase energy meter. Adopt mature signal synthetic and power amplifier technology, high precision voltage source and current source output. Widely used in lab and field, and then as single phase standard source.

Features

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



Functions

1. Testing meter installations in 1P2W
2. Measuring mechanical meter and electric meter
3. Power and energy measurements for active, reactive and apparent power
4. Measuring frequency, phase shift and power factor
5. Harmonic spectrum analysis for voltage and current up to 7. the 51th order
6. Measuring the distortion factor
7. Vector representation of the measuring values
8. Energy dosing with built-in current source and voltage source

Parameters

Electrical parameters	
Accuracy class	0.05%, 0.1%
Power Supply	One Phase AC 85-265V, frequency 50/60Hz.
AC Voltage Output	
Range	57.7V, 100V, 220V, 380V; max 500V
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	0.1% (Non-capacitive load)
Output load	max 30VA
Measuring accuracy	0.05%RG
AC Current Output	
Range	200mA, 1A, 5A, 20A, 100A; max 120A
Adjustment range	(0-120)%RG
Adjustment fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG as optional.
Stability	<0.01%/120s
Distortion	≤0.1% (Non-capacitive load)
Output load	max 50VA
Accuracy	0.05%RG
Power Output	
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	0.03°
Power Factor	
Adjustment range	-1 ~ 0 ~ 1
Resolution	0.0001
Measurement accuracy	0.0005
Frequency Output	
Adjustment range	40Hz-70Hz
Output adjustment fineness	5Hz, 1Hz, 0.1Hz, 0.01Hz as optional.
Resolution	0.001Hz
Accuracy	0.005Hz

Electrical parameters-continued
Voltage /Current/Harmonic Setting

Harmonic number	2-51times
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 180K.
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Mechanical parameters

Dimensions (W×D×H) (mm)	325×275×135
Weight (kg)	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.

Selection guide

NO.	Accuracy	Voltage range	Current Range	Weight
102112001	0.10%	0-500V	0-120A	12KG
1021120005	0.05%	0-500V	0-120A	12KG
10216001	0.10%	0-500V	0-60A	10KG
102160005	0.05%	0-500V	0-60A	10KG
10212401	0.10%	0-300V	0-24A	8KG
102124005	0.05%	0-300V	0-24A	8KG
10211201	0.10%	0-300V	0-12A	6.5KG
102112005	0.05%	0-300V	0-12A	6.5KG