GF302D1

Three Phase Portable Energy Meter Test System

The GF302D1 three phase portable energy meter test system consists of an integrated three phase current and voltage 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.

Features

1. Accuracy class 0.05
2. 0-20A/0-500V, 0-120A/0-500V
3. Start testing and creep testing
4. Reference standard and power source integrated
5. Test by automatic or manual
6. 7 inch TFT touch screen
7. Weight light 15Kg
8. Recorder 500 sets energy meter data
9. Overload, short circuit, open circuit protection

Functions

1. Testing all kinds of energy meter in 1P2W, 1P3W, 3P3W, 3P4W
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 the 51th order
6. Measuring the distortion factor
7. Vector diagram display and phase sequence indication on integrated colored screen
8. Energy dosing with built-in current source and voltage source
9. User friendly menu guided operation
10. Especially configured USB stick for storage of customer data
11. Easy verification and analysis of meter installations
12. Automatic operation without need of an external PC

Parameters

Electrical parameters	
Accuracy	0.05%, 0.1%
Power Supply	One Phase AC 100-265V, frequency 50/60Hz.
AC Voltage Output	
Range(U1,U2,U3)	57.7V, 100V, 220V, 380V or 69.3V, 120V, 240V, 480V(optional)
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 30VA
Measuring accuracy	0.05%RG
AC Current Output	
Range(I1,I2,I3)	200mA, 1A, 5A, 20A, 100A(optional)
Adjustment range	(0-120)%RG
Adjustment fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG as optional.
Stability	<0.01%/120s
Distortion	≤0.3% (Non-capacitive load)
Output load	30VA
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

Electrical parameters-continued	
Frequency Output	
Adjustment range	40Hz-70Hz
Output adjustment fineness	5Hz, 1Hz, 0.1Hz, 0.01Hz as optional.
Resolution	0.001Hz
Accuracy	0.005Hz
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.
Mechanical parameters	
Dimensions (W×D×H) (mm)	495x390x195
Weight (kg)	15
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
302D112001	0.10%	0-500V	0-120A	22KG
302D1120005	0.05%	0-500V	0-120A	22KG
302D11201	0.10%	0-500V	0-12A	15KG
302D112005	0.05%	0-500V	0-12A	15KG
302D12401	0.10%	0-500V	0-24A	16KG
302D124005	0.05%	0-500V	0-24A	16KG