

GF302D3

Portable three phase electric meter test bench

The GF302D3 portable three phase electric meter test bench consists of an integrated three phase 20A current source and 500V voltage source and a class 0.05 three phase electronic reference standard meter.

The electric meter test bench is particularly designed for analysis of complete metering installations and local mains conditions. The meter test bench offers high functionality combined with an excellent menu guided operation via built-in thirty keys and colored 7" touch LCD-display.



Features

1. Min current output 1mA
2. Predefined multiple load points
3. Reference meter and power source integration
4. User friendly menu guided operation
5. Easy verification and analysis of meter installations
6. Automatic operation without need of an external PC
7. Generation of harmonics in current and voltage up to the 51th
8. Verification of the load conditions on metering installation
9. Verification of the energy registration
10. Automatic testing mechanical meter and electronic meter error
11. Voltage, current, frequency, phase angle, power factor, harmonics can be regulated
12. 1P2W, 1P3W, 3P3W, 3P4W can be set
13. 4 quadrant measurement
14. Vector diagram display and phase sequence indication on integrated colored screen
15. Especially configured USB stick for storage of customer data and measurement results

Parameters

Electrical parameters	
Accuracy	0.02%, 0.05%, 0.1%
Power Supply	Single phase AC 85-265V, frequency 50/60Hz.
AC Voltage Output	
Range(U1,U2,U3)	57.7V, 100V, 220V, 380V or 69.3V, 120V, 240V, 480V(optional); 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	0.2% (Non-capacitive load)
Output load	each phase 25VA
Accuracy	0.05%RG or 0.02%RG
AC Current Output	
Range(I1,I2,I3)	200mA, 1A, 5A, 20A; max 25A
Adjustment range	(0-120)%RG
Adjustment fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG as optional.
Stability	<0.01%/120s
Distortion	≤0.2% (Non-capacitive load)
Output load	25VA
Accuracy	0.05%RG or 0.02%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 or 0.02%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

Electrical parameters-continued
Frequency Output

Adjustment range	40Hz-70Hz
Output adjustment fineness	5Hz, 1Hz, 0.1Hz, 0.01Hz as optional.
Resolution	0.001Hz
Accuracy	0.002Hz

Voltage /Current/Harmonic Setting Output

Harmonic number	2-51times
Harmonic content	0-40%
Harmonic phase	0-359.99
Harmonic setting accuracy	$(10\% \pm 0.1\%)RD^{(2)}$

Power Energy Measurement Error

Active power energy	0.05%RG or 0.02%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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Communication Port

Communication Port	RS232, USB2.0
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Safety

Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP20
Declaration of conformity	CE certified

Mechanical parameters

Dimensions (WxDxH) (mm)	445x460x158
Weight (kg)	18

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

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