

# GF302D

## Portable Three Phase kWh Meter Test Equipment

The test equipment is used for grid corporation of measurement and energy test center, management department of power supply bureau, national energy measurement of testing authorities, and also used to test each kind of single/three phase kWh meter of industries and mining enterprises as well as electric meter manufacturers. Meanwhile, the calibrator also can be used as one high precision standard power source.



### Features

1. Able to test basic error, shunt running, start, standard error automatically and manually in single-step of single/three phase, according to relative regulation of kWh meter.
2. Able to do change test caused by voltage influence, frequency influence and harmonic influence.
3. Output of power source is speedy and stable, AC maximum output of each phase can reach 120A in maximum.
4. Voltage, current and phase position of each phase can be adjusted in split-phase, improving the flexibility of power source.
5. Frequency of each impulse input port can reach 40Hz.
6. 7-inch TFT color display touch screen, English menu, simple and convenient operation, commonly used functions and current basic load point can be controlled in one button.
7. Each meter position can provide one standard, dependent RS485 port, and able to do multi-function test such as communication test.
8. Impulse port of each meter position, external polarity can be set randomly, able to adapt kWh meter of impulse cascade and common-anode.

### Parameters

Electrical parameters	
Accuracy	0.05%, 0.1%
Power Supply	One Phase AC 180-265V, 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 <sup>(1)</sup>
Adjustment fineness	0.01%RG, 0.1%RG, 1%RG, 10%RG as optional.

(1) RG means range, the same as below

Архангельск (8182)63-90-72  
 Астана (7172)727-132  
 Астрахань (8512)99-46-04  
 Барнаул (3852)73-04-60  
 Белгород (4722)40-23-64  
 Брянск (4832)59-03-52  
 Владивосток (423)249-28-31  
 Волгоград (844)278-03-48  
 Вологда (8172)26-41-59  
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<b>Electrical parameters - continued</b>	
<b>AC Voltage Output - continued</b>	
Stability	0.01%/120s
Distortion	0.3% (Non-capacitive load)
Output load	each phase 25VA
Measuring accuracy	0.05%RG
<b>AC Current Output</b>	
Range(I1,I2,I3)	200mA, 1A, 5A, 20A, 100A
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	45VA
Accuracy	0.05%RG
<b>Power Output</b>	
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
<b>Phase Output</b>	
Output adjustment range	0°-359.999°
Output adjustment fineness	10, 1, 0.1, 0.01 as optional.
Resolution	0.01°
Accuracy	0.05°
<b>Power Factor</b>	
Adjustment range	-1 ~ 0 ~ 1
Resolution	0.0001
Measurement accuracy	0.0005
<b>Frequency Output</b>	
Adjustment range	45Hz-65Hz
Output adjustment fineness	5Hz, 1Hz, 0.1Hz, 0.01Hz as optional.
Resolution	0.001Hz
Accuracy	0.005Hz
<b>Voltage /Current/Harmonic Setting</b>	
Harmonic number	2-51times
Harmonic content	0-40%
Harmonic phase	0-359.99
Harmonic setting accuracy	(10%±0.1%)RD <sup>(2)</sup>

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

**Electrical parameters - continued**
**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 (WxDxH) (mm)	500x600x175
Weight (kg)	About 27

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