

# GF101

## Program-controlled Single-phase Standard Power Source

*It is suitable for power department, measuring department, quality control department, research units, institution of higher learning, electric energy meter, power distribution terminals, power supply management, load control, power quality, reactive power compensation device and production of the enterprise and so on. It can be as single phase voltage source, current source and power source.*



## Features

1. Setting up and taking the load regulation of voltage, current, phase and frequency of the power factor
2. Amplitude 2nd-128th phase harmonics, and it can be added to the fundamental wave in every harmonic output
3. A wide range output of voltage and current, big power, high stability, small waveform distortion degree
4. Strong load ability, taking capacitive load, sensibility load, resistive load or composite load, load regulation is higher than 0.01%
5. Applying the 32-bit MPU + DSP + FPGA, powerful flexible
6. Using hardware PID, fast response, the change of load will not cause volatility output
7. Power frequency waves reach up to 50000 points a week of the wave kneading, signal output without filter, precise waveform output, precise harmonic output, small harmonic distortion degree
8. Switching range automatically
9. Using software calibration, easy to operate, stable and reliable
10. Big screen, 320 x 240mm LCD display, Chinese or English interface, easy to operate
11. Perfect over-current, over-voltage, heat, shorts-and-opens, overload protection, automatic failure detection;
12. With RS232 interface and PC connection
13. Taking place the machine software, it can be output through PC software of the program

## Parameters

Electrical parameters	
Accuracy class	0.05%, 0.1%
Power supply	Single phase AC 85-265V, 50/60 Hz
AC Voltage output	
Range	57.7V / 100 V / 220V / 380V, Switch automatically (max 500V)
Adjustment resolution	0.01%, 0.1%, 1%, 10%,

**Electrical parameters - continued**
**AC Voltage output**

Range	57.7V / 100 V / 220V / 380V, Switch automatically (max
Adjustment resolution	0.01%, 0.1%, 1%, 10%,
Accuracy	0.05% RG
Stability	Better than 0.01% RG/1min
Distortion degree	Better than 0.1% (not capacitive load)
Load capacity	40VA
Full load regulation rate	Less than 0.01% RG
Full load regulation time	Less than 1ms
Temperature drift	8 PPM/°C
Long-term stability	60 PPM/year

**AC Current output**

Range	0.1A / 0.25A / 0.5A / 1A / 5A / 10A / 20A / 50A / 100A, Switch automatically
Adjustment resolution	0.01%, 0.1%, 1%, 10%,
Accuracy	0.05% RG
Stability	Better than 0.01% RG/1min
Distortion degree	Better than 0.1% (not capacitive load)
Load capacity	40VA
Full load regulation rate	Less than 0.01% RG
Full load regulation time	Less than 1mS
Temperature drift	8 PPM/°C
Long-term stability	60 PPM/year

**Power output**

Active power accuracy	0.05% or 0.1%
Reactive power accuracy	0.1% or 0.2%
Stability	Better than 0.01% RG/1min

**Phase**

Range	0°-359.99°
Adjustment resolution	0.01°, 0.1°, 1°, 10°
Accuracy	0.03°

**Frequency**

Range	40-65 Hz
Adjustment resolution	0.001 Hz, 0.01 Hz, 0.1 Hz, 1Hz
Accuracy	0.002 Hz
Temperature drift	0.5 PPM/°C
Long-term stability	4 PPM/year

**Electrical parameters - continued**
**Harmonic**

Harmonic times	2 <sup>nd</sup> -63 <sup>th</sup>
Adjustment resolution	0.1% (Compared with fundamental wave)

**Harmonic content (Compared with fundamental wave)**

Voltage	≤40%
Current	≤40%
Phase	0°-360°

**Mechanical parameters**

Dimensions (W×D×H) (mm)	420x320x155
Weight (kg)	12

**Environmental conditions**

Operating temperature	0°C to 40°C
Storage conditions	-30°C to 60°C
Relative humidity	≤85%