GF303G

CABINET HIGH-POWER THREE PHASE AC POWER SOURCE

The GF303G cabinet three phase ac power source is a new high-power standard power source produced by GFUVE company. This product uses linear amplifier, stable output, small distortion and high power stability. It can also be used to type test 0.2% to 2% energy meters. Choose the GF303G AC power source when you need the highest accuracy available for calibrating secondary standard meters, energy revenue meters and type test applications. The model GF303G three phase power source is electric AC voltage, current and power calibrator for calibration of power meters, power transducers, current meter, voltage meter and generally all kinds of power measuring devices. AC voltage, current, power functions have calibrated phase shift in frequency range from 40 Hz to 70Hz with resolution as good as 0.001 Hz. It have three channel voltage and three phase current independent output, any programmable setting, low phase shift, high stability 0.01%/1min, as standard three phase voltage source, three phase current source, harmonic source and three phase power source , is a high precision calibration tool in electrical laboratory.

Application

1. Universities;
2. Energy meter R & D;
3. Electrical testing center;
4. AMI Research institutes;
5. Transducer manufacturers;
6. Panel meter manufacturers;
7. Power meter manufacturers;
8. Digital meter manufacturers;
9. Railway electrical department;
10. ISO17025 Electrical laboratory;
11. Measurement and control device factory;
12. Electricity power bureau & power company;
13. Power engineering commissioning company;
14. Manufacturer of reactive power compensation device;
15. Electrical Department of industrial and mining enterprises;

Features

1. Three channel voltage and three channel current output;
2. Voltage & current output range widely from 0-120A/0-600V/40-70HZ/0-360.000°
3. Setting up and take the load regulation of voltage, current, phase angle, frequency and power factor etc;
4. As a high-power current source, voltage source and power source;
5. Setting 2-63 times harmonics of amplitude and phase, and it can be added to the base wave in every harmonic output;
6. High-power power source, high stability, waveform distortion degree is small;
7. Apply the 32 bit MPU + DSP + CPLD, powerful flexible;
8. Hardware PID, fast response, the change of load will not cause output volatility;
9. Strong with load ability, capacitive load & resistance of composite type load or load and load regulation is higher than 0.01%;
10. Industrial frequency waves as high as 5000points/cycle, signal output without filter, precise output waveform, the harmonic output precision, harmonic distortion degree is small;
11. Supports a minimum output of 0.3mA current;
12. The maximum output power of voltage is 1200VA/phase, and the maximum output power of current is 2400VA/phase;
13. Support voltage surge and dip and short time interruption test;
14. Range switching automatically;
15. Software calibration, simple operation, stable and reliable;
16. Display of vector diagram, Symbols according to IEC387;
17. Big touch screen, 7-inch TFT color LCD display, English menu, operating simply
18. Over-current, over-voltage, over-heat, shorts-and-opens, overload protection, failure detection automatically;
19. With RS232 interface, PC Software optional;
20. Programmable by professional users;

Parameters

Electrical parameters	
Accuracy class	0.05%, 0.1%
Power supply	Single phase AC 85-265 V or 380V, frequency 50/60 Hz
AC Voltage output	
Range (U1, U2, U3 phase)	57.7V/100V/220V/380V; range switch automatically(Max
Adjust fineness	±0.01%RG, ±0.1%RG, ±1%RG, ±10%RG
Accuracy	0.02% RG, 0.05% RG, 0.1% RG
Stability	<0.01% RG/120s
Distortion degree	<0.3% (not capacitive load)
Output power	max 1200VA
Full load regulation rate	0.01% RG
Full load regulation time	Less than 1mS
Long-term stability	± 60 PPM/year
AC Current output	
Range (I1, I2, I3 phase)	0.2A, 1A, 5A, 20A, 100A; range switch automatically
Adjustment range	(0-120)%RG
Adjust fineness	±0.01%RG, ±0.1%RG, ±1%RG, ±10%RG
Accuracy	0.02% RG, 0.05% RG, 0.1% RG
Stability	<0.01% RG/120s
Distortion degree	<0.3% (not capacitive load)
Output power	max 2400VA
Full load regulation rate	0.01% RG
Full load regulation time	Less than 1mS
Long-term stability	± 60 PPM/year
Power output	
Accuracy	0.05% RG, 0.1% RG
Stability	0.01% RG/120s
Phase angle	
Adjusting range	0.000°-359.999°
Output adjustment fineness	10, 1, 0.1, 0.01 as optional.
Resolution	0.001°
Accuracy	0.02° or 0.05°
Power factor	
Adjusting range	-1.0000 ~ 0 ~ +1.0000
Resolution	0.0001
Accuracy	0.0005

Electrical parameters	
Frequency	
Adjusting range	40.000-70.000 Hz
Output adjustment fineness	5Hz, 1Hz, 0.1Hz, 0.01Hz as optional.
Resolution	0.001 Hz
Accuracy	0.002Hz
Temperature drift	±0.5 PPM/°C
Long-term stability	±4 PPM/year
Harmonic accuracy	
Harmonic number	2-63times
Harmonic content	0-40%
Harmonic phase	0°-359.99°
Harmonic phase accuracy	<0.01°
Harmonic set accuracy	0.1% (relative to the base wave ratings)
Functions	
Communication Port	RS232
Programmable controlled	Yes
LCD	7 inch TFT color touch display
DIP	Yes
Interruption	Yes
PC control software	Optional
Standard	
Standard	IEC 62053-21,22, 23; IEC 60736; ANSI C12.20-2002; JJG 597-2005; JJG596-2012; JJG 1085-2013; JJF 68-2019; DL/T 826-2002; DL/T 1478-2015; DL/T 448-2016
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 & CNAS certified
Mechanical parameters	
Dimensions (W×D×H) (mm)	893x766x1924; 800 x600x1200
Weight (kg)	less than 450; 120
Environmental conditions	
Working temperature	0°C to 50°C
Storage condition	-30°C to -60°C
Relative humidity	≤85%