

GF6019

STANDARD DC CALIBRATOR WITH VOLTAGE & CURRENT SOURCE

GF6019 DC calibrator is suitable for electric power corporation measuring and testing center, power company and power plants measuring department, national metrology and testing institutions, also suitable for railway, petroleum, chemical industry and large industrial and mining enterprises, etc.

This GF6019 calibration test equipment can as high accuracy 0.02% DC voltage source and current source, range from 0 to 1050V and 0 to 30A. Its voltage and current channels are independent, high power linear power amplifier, programmable control to output. GF6019 DC power source is a high precision and ideal test equipment in electrical laboratory. This device have been used in global standard ISO17025 laboratory.

Features

1. Support program by user;
2. Adopting DSP+ FPGA technology;
3. Multi-range, high precision 0.02%;
4. Using software calibration, stable and reliable;
5. Automatic range, used for testing the digital meter;
6. Manual range, used for testing the DC indicate meter;
7. Data management, inquiry and print the test certificate;
8. As DC current source, voltage source, DC power source;
9. A wide range, covering for instrument often dosage limit;
10. It can output the standard DC voltage, DC current, DC power;
11. 5.6 inch TFT color LCD screen, English display, easy to operate;
12. Testing DC voltmeter, ammeter, power meter and DC transducer;
13. It is built-in indicating meter and DC standard source verification procedures;
14. With RS232, PC software control component semi-automatic verification system;



Application

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|---------------------------------|-----------------------------------------------------------------|
| 1. Universities; | 7. ISO17025 Electrical laboratory; |
| 2. DC energy meter R & D; | 8. Railway electrical department; |
| 3. Electrical testing center; | 9. DC panel meter manufacturers; |
| 4. Transducer manufacturers; | 10. Electricity power bureau & power company; |
| 5. Digital meter manufacturers; | 11. National metrology and testing department; |
| 6. Pointer meter manufacturers; | 12. Electrical Department of industrial and mining enterprises; |

Parameters

Electrical parameters	
Accuracy class	0.05%, 0.02%
Power supply	Single phase AC 220V±10% or 110 V±10%, 50/60 Hz
DC Voltage output	
Range	100mV, 300mV, 1V, 3V, 10V, 100V, 300V, 600V, 1000V, (max 1000V)
Adjustment range	(0-120)% RG
Adjustment resolution	0.01% RG, 0.1% RG, 1% RG, 10% RG
Accuracy	0.012% RD + 0.008% RG(≥1V); 0.03% RD + 0.02% RG(< 1V)
Stability	0.005% RG / 1 min(≥1V); 0.01% RG / 1 min(< 1V)
Distortion degree	Better than 0.1% (not capacitive load)
Load Capacity	Max 25VA
Ripple contents	≤1%
Full load regulation rate	Less than 0.01% RG
Full load regulation time	Less than 10mS
Temperature drift	8 PPM/°C
Long-term stability	60 PPM/year
DC Current output	
Range	10uA, 30uA, 100uA, 300uA, 1mA, 3mA, 10 mA, 30mA, 100mA, 300mA, 1A, 3A, 10A, 30A(max 30A)
Adjustment range	(0-120)% RG
Adjustment resolution	0.01% RG, 0.1% RG, 1% RG, 10% RG
Accuracy	0.03% RD + 0.02% RG
Stability	0.01% RG/1 min
Distortion degree	Better than 0.1% (not capacitive load)
Load Capacity	48VA
Ripple contents	≤1%
Full load regulation rate	Less than 0.01% RG
Full load regulation time	Less than 10mS
Temperature drift	8 PPM/°C
Long-term stability	60 PPM/year
DC Power output	
Accuracy	0.05%, 0.02%
Stability	0.01% RG / 1 min

Electrical parameters - continued
Functions

Communication Port	RS232
Programmable controlled	Yes
Key	19pcs
LCD	5.6 inch color display

Standard

Standard	IEC 62053-21,22, 23; IEC 60736; ANSI C12.20-2002; JJG 597-2005; JJG596-2012; JJG 1085-2013; JJF 68-2019; GB/T 33708-2017; JJG 842-2017; DL/T 1112-2017
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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 & CNAS certified

Mechanical parameters

Dimensions (W×D×H) (mm)	440x360x160
Weight (kg)	12

Environmental conditions

Operating temperature	0°C to 50°C
Storage conditions	-30°C to 60°C
Relative humidity	≤85%