

GF303

Program-controlled Three-phase Standard Power Source

GF303 Program-controlled Three-phase Standard Power Source is suitable for power department, measuring department, quality control department, research units, institutions of higher learning, electric energy meter, power distribution terminals, power supply management, load control, power quality, reactive power compensation device and the production of enterprise etc.



Features

1. To set up and take the load regulation of voltage, current, phase angle, frequency and power factor, also can be used as AC current source, AC voltage source or power source
2. To set 2-128 times of the amplitude and phase harmonics, and it can be added to the base wave in every harmonic output
3. Frequency value is adjustable (AB and phase C)
4. Voltage, current output a wide range, big power, high stability, waveform distortion degree is small
5. Strong with load ability, but it can take capacitive, sensibility, resistance of composite type load or load and load regulation is higher than 0.01%
6. To apply the 32 bit MPU + DSP + FPGA, powerful flexible
7. To use hardware PID, fast response, the change of load will not cause output volatility
8. Industrial frequency waves as high as 50000 points a week of the wave kneading, signal output without filter, precise output waveform, the harmonic output precision, harmonic distortion degree is small
9. Range switching automatically
10. To use software calibration, simple operation, stable and reliable
11. To have big screen, 320 x 240 LCD display, Chinese or English interface, operating simply
12. To have perfect over-current, over-voltage, heat, a shorts-and-opens, overload protection, failure detection automatically.
13. With RS232 interface, and PC connection
14. To take place machine software, it can be output through the PC software program

Parameters

| Electrical parameters | |
|--------------------------|---|
| Accuracy class | 0.05%, 0.1% |
| Power supply | Single phase AC 85V-265V, 50/60 Hz |
| AC Voltage output | |
| Range (U1, U2, U3 phase) | 57.7V / 100V / 220V / 380V, switch automatically (max 420V) |
| Adjustment resolution | 0.1%, 1%, 10%, |

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 Череповец (8202)49-02-64
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Electrical parameters - continued
AC Voltage output - continued

| | |
|---------------------------|--|
| Accuracy | 0.05% RG |
| Stability | 0.005% RG/1min |
| Distortion degree | better than 0.1% (not capacitive load) |
| Load Capacity | 25VA |
| 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 (I1, I2, I3 phase) | 0.1/0.25A/0.5A/1A/5A/10A/20A, switch automatically |
| Adjustment resolution | 0.01%, 0.1%, 1%, 10%, |
| Accuracy | 0.05% RG |
| Stability | 0.005% RG/1min |
| Distortion degree | better than 0.1% (not capacitive load) |
| Load capacity | 25VA |
| 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% |
| Reactive power accuracy | 0.1% |
| Stability | 0.005% RG/1min |

Phase

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

Power factor

| | |
|-----------------|---------------|
| Adjusting range | -1 to 0 to +1 |
| Resolution | 0.0001 |
| Accuracy | 0.0005 |

Frequency

| | |
|-----------------------|------------------------------|
| Range | 40-65Hz or 40-400Hz (option) |
| Adjustment resolution | 0.001Hz, 0.01Hz, 0.1Hz, 1Hz |
| Accuracy | 0.002Hz |
| Temperature drift | 0.5PPM/°C |
| Long-term stability | 4 PPM/year |

Electrical parameters - continued
Harmonic

| | |
|-----------------------|---------------------------------------|
| Harmonic times | 2-128 |
| Adjustment resolution | 0.1% (compared with fundamental wave) |

Harmonic content (compared with fundamental wave)

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

Capacitive load capacity

| | |
|-------------|-------|
| 0 - 280 V | 1uF |
| 280 - 420 V | 0.6uF |

Mechanical parameters

| | |
|-------------------------|-------------|
| Dimensions (W×D×H) (mm) | 450×380×160 |
| Weight (kg) | 18 |

Environmental conditions

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

Selection guide

| No. | Accuracy | Voltage range | Current range | Weight | Remark |
|----------|----------|---------------|---------------|--------|-----------|
| 3030601 | 0.10% | 0-264V | 0-6A | 12KG | |
| 3030605 | 0.05% | 0-264V | 0-6A | 12KG | |
| 3031201 | 0.10% | 0-420V | 0-12A | 13.5KG | |
| 3031205 | 0.05% | 0-420V | 0-12A | 13.5KG | |
| 3032001 | 0.10% | 0-420V | 0-20A | 18KG | |
| 3032005 | 0.05% | 0-420V | 0-20A | 18KG | |
| 303H0601 | 0.10% | 0-300V | 0-6A | 15KG | XP system |
| 303H0605 | 0.05% | 0-300V | 0-6A | 15KG | XP system |
| 303H1201 | 0.10% | 0-420V | 0-12A | 18KG | XP system |
| 303H1205 | 0.05% | 0-420V | 0-12A | 18KG | XP system |
| 303H2001 | 0.10% | 0-420V | 0-20A | 20KG | XP system |
| 303H2005 | 0.05% | 0-420V | 0-20A | 20KG | XP system |

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