

GF312V2

Portable Three Phase Multifunction Watt-hour Meter Calibrator

GF312V2 portable three phase multifunction watt-hour meter calibrator on-site is the newest product produced by our company by widely visiting users and referring to the advantages of the same kind of products home and abroad. The measured part of the product adopts high speed A/D transmission to send DSP to conduct digital processing, which largely improves measured degree of accuracy and stability. Central processing part adopts 32-bit ARM embedded technology to make instrument interface novel, function abundant, operation distinct and easy, and performance steady. Class of accuracy: Class 0.02, 0.05 or 0.1, range from 12A/600V or 120A/600V, with comfort design, small size and light weight. The model GF312V2 watt-hour meter calibrator is suit for electric power departments, measuring and quality examining departments and electric lab to field use.

Application

- 1. Power plant;
- 2. Electrical laboratory;
- 3. Energy meter factory;
- 4. Metrological service center;
- 5. Distribution power corporation;
- 6. Power engineering company;
- 7. Electricity power bureau & power company;
- 8. National Metrology and testing department;
- 9. Electrical Department of industrial and mining enterprises;



Features

- 1. Screen capture function;
- 3. 7 inch color TFT touch LCD;
- 5. Self adjusted clamp-on CTs;
- 7. Accuracy class: 0.05%, 0.1%;
- 9. Measurement for energy register;
- 11. RS232 port for PC software control;
- 13. USB and RS232 communication ports;

- 2. Measurement of energy meter errors;
- 4. Measurement of clock error of energy meter);
- 6. Measurement of turn ratio & phase error for CT;
- 8. Large capacity storage device for mass memory;
- 10. Measurement voltage & current of harmonics of 2nd to 51st;
- 12. Power supply (lithium battery)/85-265V AC /U1Un (40-450V);
- 14. Check wiring failures and calculation of electricity compensation;
- 15. Measurement of U, I, P, Q, S, phase angle, power factor, frequency etc;
- 16. Input two pulse signal for master and slave meter synchronously calibration;



Parameters

Electrical parameters	
Accuracy class	0.02%, 0.05%, 0.1%
Power Supply	External power, 85-265V, 45-65Hz
	Phase voltage supply 40-450V, 45-65Hz
	Li-Battery supply
Voltage measurement	
Range	0-600V
Error	±0.05%(30-600V); ±0.02%(30-600V)
Harmonic	2 nd -63 rd
Input impedance range	245kΩ@ 250V; 10MΩ @5V
Stability	0.01%/minute
Long term stability	<100×10E-6 /Year
Current measurement	
Range (direct connection)	1mA-12A or 1mA-120A
Range (clamp CT)	1mA-120A
Clamp on CTs Optional	5A, 20A, 100A, 200A, 500A, 1000A, 2000A, 3000A
Error (direct connection)	±0.05% or ±0.02%
Error (clamp CT)	±0.2% (1mA-120A)
	±0.5% (other)
Harmonic	2 nd -63 rd
Clamp diameter	12mm or 18mm
Input impedance range	0.04Ω@ 0.05A-12A
Stability	0.01%/minute
Long term stability	<100×10E-6 /Year
Power measure error	
Active power (direct connection)	±0.05% or ±0.02%
Active power (clamp CT)	±0.2% (1mA-120A)
Reactive power (direct connection)	±0.1% or ±0.05%
Reactive power (clamp CT)	±0.2% (1mA-120A)
Stability	0.01%/minute
Long term stability	<100×10E-6 /Year
Energy measure error	
Active energy (direct connection)	±0.05% or ±0.02%
Active energy (clamp CT)	±0.2% (1mA-120A)
Reactive energy (direct connection)	±0.1% or ±0.05%
Reactive energy (clamp CT)	±0.2% (5mA-120A)
Stability	0.01%/minute
Long term stability	<100×10E-6 /Year



Phase angle Range 0°-360° Resolution 0.001° Error ±0.015° Frequency **** Range 15H2-70Hz Resolution 0.0005Hz Error 0.001Hz Reference Meter ***** Measuring modes 2WA/2WR/2WAP 3WA/3WR/3WAP/3WRCA/3WRCB 4WA/4WAb/4WR/4WRb/4WAP/4WAPb/4WRC Brandwidth 3000Hz Sampling 16 bit 504 samplers/period Pulse output ************************************	Electrical parameters - continue	d
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Resolution 0.001°	Range	0°-360°
Tendemox	Resolution	0.001°
Range 15Hz-70Hz Resolution 0.0005Hz Error 0.001Hz Reference Meter Measuring modes 2WA / 2WA / 2WAP 3WA / 3WR / 3WAP / 3WRCA / 3WRCB 4WA / 4WAb / 4WR / 4WAP / 4WAPb / 4WAP / 4WAPb / 4WAPC 3000Hz Sampling 16 bit 504 samplers/ period Pulse output Energy constant 25000 Pulse ratio 1:1 Output level 5V Pulse input Input channel 2 Input frequency Max. 100Hz Display Resolution 800×480 LCD 7" TFT color touch Function Vector diagram Yes Waveform Yes Energy accumulation Yes CT PT programmable Yes Uring emulation Yes Self-calibration Yes S	Error	±0.015°
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3WA / 3WR / 3WR / 3WRCB		2WA/2WR/2WAP
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Waveform Yes Energy accumulation Yes CT ratio test Yes CT PT programmable Yes Local parameter input Yes Wiring emulation Yes Self-calibration Yes Recorder check Yes Data storage Yes GPS Yes	Function	
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Self-calibration Yes Recorder check Yes Data storage Yes GPS Yes	Local parameter input	Yes
Recorder check Yes Data storage Yes GPS Yes	Wiring emulation	Yes
Data storage Yes GPS Yes	Self-calibration	Yes
GPS Yes	Recorder check	Yes
	Data storage	Yes
Data storage qty 10000	GPS	Yes
	Data storage qty	10000



External extend memory	Yes
Screen printing	Yes
Communication port	USB/RS232
Communication with PC	Yes
Upload data	Yes
External mini printer	Yes
External keyboard	Yes
Safety	
IP class according to DIN EN 60529	IP42
Declaration of conformity	CE & CNAS conform
Protection class according to DIN EN 61140	II
Overvoltage category voltage measurement	CAT III 600V
Overvoltage category current	CAT III 600V
Mechanical parameters	
Dimensions (W×H×D) (mm)	245×168×70
Weight (kg)	1.8
Environmental conditions	
Ambient temperature	-25°C to +50°C
Storage temperature	-30°C to +65°C
Relative humidity	30%-95%
Power Consumstion	≤13VA

Accessories



