

GF4385

Portable Three Phase Power Quality Analyzer

GF4385 portable power quality analyzer is a low cost PQA carefully developed by GFUVE GROUP and specially designed for field test of three phase system, multi-functional and intelligent, concise man-machine operation. It is easy to use, large LCD screen display, high resolution, English display, shock-proof shell structure and so on. simultaneously measure 4-channel current (I1 I2 I3 I4 three phase and neutral wire current) and 4-channel voltage (U1 U2 U3 U4 three-phase voltage and neutral line voltage to ground), the peak value of current voltage, maximum/minimum value over a period, three-phase unbalance factor, short-flicker, transformer K factor, active power, reactive power, apparent power, power factor and displacement power factor, active power, reactive power, apparent power, total harmonic distortion and harmonic, etc; Display real-time waveform, harmonic ratio bar charts of current voltage; Dynamically capture instantaneous change of voltage current, monitoring starting current, monitoring the power parameters and generate the alarm list, generate the trend chart for a long time record test data.

Application

1. Factory;
2. Oil, Gas company;
3. Power generation;
4. Wind power plant;
5. Power distribution;
6. Power quality audit;
7. Hydroelectric power;
8. Power quality reports;
9. Renewable power plants;
10. Electricity power company;
11. Photovoltaic power station;
12. Uninterruptible power supply;
13. Uninterruptible power supply in healthcare;
14. Recording transients of switching manoeuvres;
15. Effects of power quality issues on living and working environment;



Features

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| <ol style="list-style-type: none"> 1. Alarm function; 2. Snapshot function; 3. Transformer K factor; 4. Vector diagram display; | <ol style="list-style-type: none"> 5. Bar charts show harmonic ratios of current and voltage of each phase; 6. Waveform real-time display (4 channels voltage/4 channels current); 7. Minimum and maximum half-cycle RMS current and voltage values; 8. Power factors (PF) and displacement factors (DPF or $\text{COS}\Phi$); |
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- 9. Transient capture function;
- 10. Inrush current monitoring;
- 11. Short-term voltage flicker (PST);
- 12. Total harmonic distortion (THD);
- 13. The DC components of voltages;
- 14. Peak current and voltage values;
- 15. True RMS values of voltages and currents;
- 16. Trend chart recording and storing function;
- 17. Three phase unbalance(current and voltage);
- 18. Measurement of each harmonic up to order 50;
- 19. 10A/100A/1000A/6000A current probe optional;
- 20. Each phase and total active, reactive, apparent power;
- 21. Each phase and total active, reactive, apparent energy;

Parameters

Electrical parameters	
Function	Analysis and diagnosis on all the voltage, current, power, energy, harmonic, each phase electric parameters etc.
Accuracy	0.5%
Power Supply	Rechargeable lithium-ion battery 10000mAh.
Input channels	4 channel voltage, 4 channel current
Rated voltage range(U1 U2 U3 U4 Un)	0-1000V AC/DC (phase voltage)
Rated voltage range(U1 U2 U3 U4)	0-2000V AC/DC (line voltage)
Rated current range(I1 I2 I3 I4)	10A/100A/1000A/6000A, optional
Frequency	40-70Hz
Phase shift	0 - 1
Harmonic	2 - 50 times
Total harmonic distortion	2 - 50 times, each phase
Voltage unbalance	0.0%~ 100%
Three phases unbalance	Yes
Parameters of electricity	W, VA, Var, PF, DPF, $\cos\phi$, $\tan\phi$.
Energy parameters	Wh, Varh, Vah.
Number of Transient records	150 sets
Voltage flicker	Yes
Record	300 days(simultaneous recording 20 parameters, record one point every 5 seconds)
Min/Max value	Yes
LCD display	5.6 inch color TFT LCD, 640×480, 4-bit LCD display, gray screen backlight
Alarm Function	40 different types of parameter selections, 12,800 sets alarm logs.
Peak value	Yes
Vector diagram display	Yes
Snapshots	Yes, 60pcs
Keys	Yes, 21pcs
Storage card	2G
Communication	USB Port
Alarm Function	Yes
Power Consumption	Current consumption of normal test 490 mA, continuous working for 10 hours.

Electrical parameters - continued

Insulation Resistance	≥10MΩ (Between instrument wiring and shell)
Withstand voltage	AC3kV/50Hz 1min (between instrument wiring and shell)
Test cable	voltge cable 3m(5pcs), Crocodile clips(5pcs)
PC software	Yes
Standard	IEC61010-1, IEC61010-2-31, IEC60529(IP54), pollution grade 2, 1000V Cat III / 600V CAT IV, EN/IEC 61326; IEC 61000-4-30; IEC 61000-4-7, IEEE 519; IEC 61000-4-15; IEEE 1459; EN 50160

Mechanical parameters

Dimensions (WxDxH) (mm)	277.2x227.5x153
Weight (kg)	2.4

Environmental conditions

Operating temperature	-10°C to +50°C
Storage temperature	-40°C to 70°C
Relative humidity	≤90%RH