**GDPQ-300H Portable Three Phase Power Quality Analyzer**


**General Information**

GDPQ-300H Power Quality Analyzer is a portable device of testing and analyzing power system operation quality. It monitors and collects data in long running time, also provides harmonic analysis and power quality analysis. Meanwhile, it equips with data analysis software, by which the measure data can be uploaded to PC.

**Features**

- The instrument is a high-precision test instrument specially used to detect power quality problems such as waveform distortion, harmonic content and

three-phase unbalance in the power grid. It also has the functions of electrical parameter test and vector analysis.

- Can accurately measure voltage, current, active power, reactive power, phase angle, power factor, frequency and other electrical parameters.
- It can display the vector diagram of the measured voltage and current. The user can analyze the vector diagram to get the correctness of the wiring of the metering equipment.
- The current is measured by a clamp-type transformer. Operator does not need to disconnect the current loop when measuring with a clamp-type current transformer, the measurement can be conveniently and safely performed. Different ranges of clamps can be selected according to the user's measurement range.
- It can measure and analyze the AC power quality supplied by the utility grid to the customer. It can measure and analyze: frequency deviation, voltage deviation, three-phase voltage allowable imbalance and grid harmonics.
- It can display single-phase voltage and current waveforms and simultaneously display three-phase voltage and current waveforms.
- All test interfaces have a screen lock function to facilitate user reading and analysis of data.
- l Load fluctuation monitoring: Measurement and analysis of the fluctuations of various electrical equipment caused by the power quality of the utility grid under different operating conditions. Timing records and stores trends in voltage, current, active power, reactive power, apparent power, frequency, phase, and other power parameters.
- Dynamic monitoring of power equipment adjustment and operation process to help users solve problems in the process of power equipment adjustment and commissioning.

- Ability to test and analyze the dynamic parameters of reactive power compensation and filtering devices in power systems and quantitatively evaluate their functions and technical indicators.
- Can set different storage interval time, continuously store data according to the set time interval;
- Built-in large-capacity data storage, the storage interval can be adjusted from 5 seconds to 5 minutes; it can be stored continuously for more than 18 months at 1 minute interval, which can meet the needs of long-term monitoring test points.
- The instrument has a USB interface, which can easily copy data directly to the background management computer.
- In conjunction with powerful data management software, real-time sampled data can be directly uploaded to the background management computer for more comprehensive and faster processing in the background.
- With a perpetual calendar, clock function, real-time display date and time. Test data and results can be saved at the same time, and uploaded to the computer through the serial port, through the background management software (optional) to achieve data micro-computer management, with powerful reporting capabilities.
- It adopts LCD large-screen as the display, English operation interface and LCD display interface with English character prompt information and multi-parameter display. The human-machine dialogue interface is friendly.
- 3 minutes no operation LCD display automatically enters the power saving mode, in order to maximize battery life.
- Conductive silicone button, feel good, long life, reasonable design, easy to operate.
- Built-in high-capacity, high-performance lithium-ion rechargeable battery, can work over 10 hours after fully charged.

- Small size, light weight, easy to carry, can be used for on-site measurement, can also be used as a laboratory standard measurement equipment.

**Specification**

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| Input | |
| Voltage measurement range | 0-800V , auto shift |
| Current measurement range | CT:<br>5A/25A (standard)<br>100A/500A (optional)<br>400A/2000A (optional) |
| Phase angle measurement range | 0~359.99° |
| Frequency measurement range | 45~55Hz |
| Voltage channel | 3 channel (UA, UB, UC) |
| Current channel | 3 channel (IA, IB, IC) |
| Maximum harmonic analysis times | 63 times. |
| Maximum continuous storage period of 1 minute interval | 18 months. |
| Accuracy | |
| Electrical parameter measurement section | |

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| Voltage | ±0.1% |
| Frequency | ±0.01Hz |
| Current, power | ±0.5% |
| Phase | ±0.2° |
| Power quality part | |
| The fundamental voltage tolerance error | ≤0.5%F.S |
| Fundamental current tolerance error | ≤1%F.S. |
| Measurement error of phase difference between fundamental voltage and current: | ≤0.2° |
| Harmonic voltage content measurement error | ≤0.1% |
| Harmonic current content measurement error | ≤0.2% |
| Three-phase voltage imbalance error: | ≤0.2% |
| Voltage deviation error | ≤0.2% |
| Voltage variation error | ≤0.2% |

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| Working temperature | -10℃~ +40 ℃ |
| Charging power | AC 220V , 45Hz-55Hz |
| host power consumption | ≤ 3VA |
| the maximum working time of the battery | ≤ 10 hours |
| Insulation | (1) The insulation resistance of the voltage and current input terminals to the casing is ≤100MΩ.<br>(2)The working power input end is subjected to a power frequency of 1.5KV (effective value) between the outer casings, and it takes 1 minute to test. |
| Dimension | 258mm *158mm *58mm |
| Weight | 1.5kg |