# Clamp Power Analyzer PCE-GPA 50

**Power analyzer PCE-GPA 50**
**Current clamp up to 2000 A / TRMS measurement / Power measurement / Harmonic analysis / Graphic display with lighting / Data storage / Mains and battery operation**

The PCE-GPA 50 current clamp is used to measure the current of 1- or 3-phase loads. This clamp is especially characterized by its measuring range up to 2000 A. Another highlight is the graphic display of the current clamp. Here, in addition to the numerical measured values, the waveform of the phase can also be displayed by the current clamp. Likewise, the current clamp can be used to measure voltages. As a result, the current clamp is able to calculate effective, apparent and reactive power with the help of the phase angle. In addition, the current clamp can measure other network parameters such as the energy, power factor and harmonic.

In addition to the extensive measuring functions, this current clamp distinguishes your data logger function. All measured values can be stored by the current probe directly on a micro SD card. The clamp is powered by 2 1.5V AA batteries. However, it is also possible to operate the current clamp with a power supply for long-term measurements.

**- Graphic display**
**- Data logger on Micro-SD card**
**- Measurement for 1 and 3 phases**
**- Temperature measurement with thermocouple**
**- Voltage measurement 10V ... 600V AC RMS**
**- Current measurement 5 ... 2000 A AC RMS**
**- Current clamp opening 50 mm**
**- Harmonic distortion up to the 50th order**

# Specifications:

| Type of measurement<br>AC voltage AC V | Measuring range | Resolution | Accuracy |
|---|---|---|---|
| | 10 ... 600V | 0.1V | ± (0.5% ... 3 digits) |
| | Peak to peak | 0.1V | ± (5% ... 30 digits) |
| **AC AC A** | 5 ... 2000 A | < 100 A: 0.01 A | < 200 A: ± (1% + 0.5 A) |
| | | < 1000 A: 0.1 A | > 200 A: ± (1% + 5 A) |
| | Peak to peak | > 1000 A: 1 A | ± (5% + 30 digits) |
| **Power factor (PF)** | 0 ... 1 | 0.001 | ± 0.04 |
| **Phase angle** | -180° ... 180° | 0.1° | ± 1° x PF |
| **Frequency** | 45 ... 65 Hz | 0.1 Hz | ± 0.2 Hz |
| **Active, blind & apparent power** | 0 ... 9,999 m (W / VA / VAR) | 0.1 ... 0.001 M (W / VA / VAR) | ± (1.5% + 20 digits) |
| **Harmonic AC V** | 1 ... 20th order | 0.1V | ± (2% + 5 digits) |
| | 21 ... 50 okay | 0.1V | ± (4% + 5 digits) |

| | | | |
|---|---|---|---|
| **Harmonic AC A Alternating current** | 1 ... 20th order | < 100 A: 0.01 A<br>< 1000 A: 0.1 A | ± (2% + 5 digits) |
| | 21 ... 50 okay | > 1000 A: 1 A | ± (4% + 5 digits) |
| **Harmonic AC V%** | 1 ... 20th order | 0.1% | ± (2% + 10 digits) |
| | 21 ... 50 okay | 0.1% | ± (4% + 20 digits) |
| **Absolute harmonic distortion** | 0 ... 20% | 0.1% | ± (2% + 5 digits) |
| | 20.1 ... 100% | 0.1% | ± (6% + 10 digits) |
| **Temperature type K thermocouple** | -100 ... 199.9°C / -148 ... 391.8°F | 0.1°C / 0.18°F | ± (1% + 1°C / 1.8°F) |
| | 200 ... 1300°C / 392 ... 2372°F | 1°C / 1.8°F | ± (1% + 2°C / 3.6°F) |

| | |
|---|---|
| Display | Graphic LCD |
| AC V input impedance | 10 MOhm |
| Frequency range Current Probe | 40 Hz ... 1 kHz |
| Calibrated frequency Current Probe | 45 ... 65 Hz |
| Overload protection | AC V: 720V RMS<br>AC A: 2100 A |
| Data storage | Micro SD card |
| Refresh rate Display | 1 second |
| Storage rate Data storage | 2 ... 7200s |
| Storage format | XLS |
| Interface | Serial interface for live presentation to PC (SOFT-LUT-USB is required) |
| Power supply | 2 x 1.5V AA battery<br>9V / 800-mA power supply |
| Current consumption | 60-mA DC |
| Jaw Capacity | 50 mm |
| Operating conditions | 0 ... 50°C / 32 ... 122°F, max. 80% rh |
| Weight | About 595 g / 1.3 lbs |
| Dimensions | 280 x 106 x 47 mm / 11 x 4.2 x 1.9 in |

# Delivery Scope

1 x Power analyzer PCE-GPA 50
1 x Test lead set
2 x Crocodile clips
1 x Micro SD memory card
1 x Power supply 9V / 800-mA
2 x 1.5V AA battery
1 x Carrying bag
1 x User manual