PCE-360

3-Phase Power & Energy Meter with Data Memory

- category CAT III / 1000 V; clamp: CAT III / 600V
- harmonic wave analysis up to the 31st wave (when used with PC software)
- real-time monitoring, recording and analysis of 1- and 3-phase systems
- data logging, memory capacity for 20,000 sets of data (504 KB) 12,000 sets of data per measurement
- voltage / current measurement (TRMS)
- measures power factor and phase angle
- measures active, apparent & reactive power
- with current clamp to measure neutral conductors

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Measurement range</th>
<th>Resolution</th>
<th>Accuracy / resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage measurement</td>
<td>50 ... 600.0 V TRMS</td>
<td>0.1 V</td>
<td>±1.5 % of reading +10 dgt</td>
</tr>
<tr>
<td>Current measurement</td>
<td>3 ... 999.9 A TRMS</td>
<td>0.1 A</td>
<td>±1.5 % of reading +15 dgt</td>
</tr>
<tr>
<td>Active power P</td>
<td>150 W ... 999.9 kW</td>
<td>0.1 kW</td>
<td>±1.5 % of reading +20 dgt</td>
</tr>
<tr>
<td>Apparent power S</td>
<td>150 VA ... 999.9 kVA / 0.1 KVA</td>
<td>±1.5 % of reading +20 dgt</td>
<td></td>
</tr>
<tr>
<td>Reactive power meas. Q</td>
<td>150 Var ... 999.9 kVar / 0.1 KVar</td>
<td>±1.5 % of reading +20 dgt</td>
<td></td>
</tr>
<tr>
<td>Power factor PF</td>
<td>0.0 ... 119.3 MWh / MVArh / Mvarh</td>
<td>±1.5 % of reading +20 dgt</td>
<td></td>
</tr>
<tr>
<td>Phase angle</td>
<td>-90 ... +90°</td>
<td></td>
<td>±1 % of reading +2 dgt</td>
</tr>
<tr>
<td>Frequency meas.</td>
<td>40 ... 100 Hz / voltage U1</td>
<td></td>
<td>±1 % of reading +2 dgt</td>
</tr>
<tr>
<td>Data memory</td>
<td>max. 20,000 sets of data (504 KB)</td>
<td>12,000 sets of data per meas.</td>
<td></td>
</tr>
<tr>
<td>Sampling rate</td>
<td>5 / 30 s / 1 / 2 min (adjustable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface</td>
<td>USB (optical insulation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>multifunctional display</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>8 x 1.5 V batteries or mains adaptor 12 V / 300 mA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions / weight</td>
<td>235 x 117 x 54 mm / 730 g</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INCLUDES

3-phase power meter, current clamps, batteries, crocodile clips, safety test leads, bag, mains adaptor, USB cable, software (English), instruction manual

ITEM NO. | ITEM
----------|-------
K-PCE-360 | 3 phase power meter

OPTIONAL ACCESSORIES

K-CAL-PCE-360 | ISO calibration certificate
TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement range</th>
<th>Resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC voltage V</td>
<td>10 ... 600 V</td>
<td>0.1 V</td>
<td>± (0.5 % +0.5 V)</td>
</tr>
<tr>
<td>AC current A</td>
<td>20 A</td>
<td>0.001 A (&lt;10 A)</td>
<td>± (0.5 % +0.1 A)</td>
</tr>
<tr>
<td></td>
<td>200 A</td>
<td>0.01 A (&lt;100 A)</td>
<td>± (0.5 % +0.5 A)</td>
</tr>
<tr>
<td></td>
<td>1,200 A</td>
<td>0.1 A (&lt;1,000 A)</td>
<td>± (0.5 A +5 A)</td>
</tr>
<tr>
<td>Active power</td>
<td>0 ... 9.999 kW</td>
<td>0.001 kW</td>
<td>± (1 % +0.008 kW)</td>
</tr>
<tr>
<td></td>
<td>10 ... 99.99 kw</td>
<td>0.01 kW</td>
<td>± (1 % +0.08 kW)</td>
</tr>
<tr>
<td></td>
<td>100 ... 999.9 kW</td>
<td>0.1 kW</td>
<td>± (1 % +0.8 kW)</td>
</tr>
<tr>
<td></td>
<td>1 ... 9.999 MW</td>
<td>0.001 MW</td>
<td>± (1 % +0.008 MW)</td>
</tr>
</tbody>
</table>

The apparent and reactive power data are analogous to the active power.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement range</th>
<th>Resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active energy</td>
<td>0 ... 9.999 kWh</td>
<td>0.001 kWh</td>
<td>± (2 % + 0.008 kWh)</td>
</tr>
<tr>
<td></td>
<td>10 ... 99.99 kWh</td>
<td>0.01 kWh</td>
<td>± (2 % + 0.08 kWh)</td>
</tr>
<tr>
<td></td>
<td>100 ... 999.9 kWh</td>
<td>0.1 kWh</td>
<td>± (2 % + 0.8 kWh)</td>
</tr>
<tr>
<td></td>
<td>1 ... 9.999 MWh</td>
<td>0.001 MWh</td>
<td>± (2 % + 0.008 MWh)</td>
</tr>
</tbody>
</table>

The apparent and reactive power data are analogous to the active energy.

Overload protection: 720 V RMS
Operating frequency: 1,300 A with current clamp
Display: 3.7” dot matrix LC display (320 x 240 pixels), with backlight
Memory / sampling rate: SD card / 2 ... 7,200 s
Interface: USB or RS-232, depending on connection cable
Power supply: 8 x 1.5 AA batteries or 9 V mains adaptor
Oper. conditions: 0 ... +50 °C / <80 % RH
Conductor Ø: max. 50 mm
Dimensions / weight: device: 225 x 125 x 64 mm / 948 g (incl. batteries)
current clamp: 210 x 64 x 33 mm / 467 g (incl. cable)
clamping jaw: 86 mm (external)

INCLUDES
Power analyser, current clamps, test leads, crocodile clips, 2 GB SD card, 9 V DC mains adaptor, batteries, bag, instruction manual

ITEM NO. ITEM
K-PCE-PA 8000  power meter

Optional accessories
K-CAL-PCE-PA 8000  ISO calibration certificate
K-NET-LUT  9 V mains adaptor / 1 A
K-SOFT-LUT-USB  USB data cable SOFT-LUT-USB incl. software
### TECHNICAL SPECIFICATIONS

**Voltage measurement (AC V)**
- **Meas. range:** 10 V ... 600 V (phase to neutral), 10 V ... 600 V (phase to phase)
- **Resolution:** 0.1 V
- **Accuracy:** ±0.5 % +0.5 V

**Current measurement (AC A) Set 1**
- **Meas. range:** 20 A / 200 A / 1,200 A
- **Resolution:** 0.001 A (<10 A), 0.01 A (≥10 A) / 0.01 A (<100 A), 0.1 A (≥100 A) / 0.1 A (<1,000 A), 1 A (≥1,000 A)
- **Accuracy:** ±0.5 % +0.1 A / ±0.5 % +0.5 A / ±0.5 A +5 A

**Current measurement (AC A) Set 2**
- **Meas. range:** 30 A / 300 A / 3,000 A
- **Resolution:** 0.001 A (<10 A), 0.01 A (≥10 A) / 0.01 A (<100 A), 0.1 A (≥100 A) / 0.1 A (<1,000 A), 1 A (≥1,000 A)
- **Accuracy:** ±0.5 % +0.1 A / ±0.5 % +0.5 A / ±0.5 A +5 A

**Active energy data are analogue to active power**
- **Meas. range:** 0 ... 9.999 KW / 10 ... 99.99 KW / 100 ... 999.9 KW / 1 ... 9.999 MW
- **Resolution:** 0.001 KW / 0.01 KW / 0.1 KW / 0.001 MW

**Accuracy**
- ±1 % +0.008 KW / ±1 % +0.008 KW / ±1 % +0.8 KW / ±1 % +0.008 MW
- Range / resolution / accuracy

**Power factor**
- 0 ... 1 / 0.01 / ±0.04

**Phase angle**
- -180° ... +180° / 0.1° / ±1°

**Frequency**
- 45 ... 65 Hz / 0.1 Hz / ±0.1 Hz

**Harmonics**
- The harmonics of the alt. voltage are the same as the harmonics of the alt. current at 50 / 60 Hz
- **Meas. range:** 1st ... 20th / 21st ... 30th / 31st ... 50th
- **Resolution:** 0.1 V; 0.1 %
- **Accuracy:** ±2 % +0.5 V, ±2 % +10 dgt / ±2 % +0.5 V, ±2 % +20 dgt
- not specified

**General**
- **Resistance** input: 10 MOhm (AC V)
- **Operating freq.** current clamps: 40 Hz ... 1 kHz (45 Hz ... 65 Hz tested)
- **Overload protec.** AC V: 720 V RMS
- **Memory** SD card
- **Interval** sampling: 1 s / memory: 2 ... 7,200 s
- **Interface** USB / RS-232
- **Display** LCD 3.7", with backlight

**Oper. conditions**
- 0 ... +50 °C / <80 % RH

**Conductor Ø max.** 50 mm

**Dimensions**
- device: 225 x 125 x 64 mm
- Weight: 948 g (incl. bat.)

**Power supply**
- 8 x 1.5 AA batteries / 9 V mains adapt

**Overload protection**
- AC V: 720 V RMS

**Memory**
- SD card

**Interval**
- sampling: 1 s / memory: 2 ... 7,200 s

**Interface**
- USB / RS-232

**Display**
- LCD 3.7", with backlight

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**PCE-PA 8300**

3-Phase Power Analyser with Graphical Display & Harmonics Indication, with Clamps for Big Conductor Ø

- measures harmonics up to the 50th harmonic wave
- current clamps from numerous suppliers can be connected
- measures phase angle / frequency / power factor
- SD memory card with adjustable intervals

**PCE-PA C1**
- **Dimensions:** 210 x 64 x 33 mm, 4 m cable
- **Weight:** current clamp 490 g

**PCE-PA C2**
- **Dimensions:** flex. curr. clamp 600 x 14.5 mm contr. panel: 105 x 56.5 x 33 mm
- **Weight:** 467 g (including cable)

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**ITEM NO.**

<table>
<thead>
<tr>
<th>K-PCE-PA 8300-1</th>
<th>power analyser set 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-PCE-PA 8300-2</td>
<td>power analyser set 2</td>
</tr>
<tr>
<td>K-CAL-PCE-PA 8000</td>
<td>ISO calibration certificate</td>
</tr>
<tr>
<td>K-PCE-PA C1</td>
<td>3 x current clamps</td>
</tr>
<tr>
<td>K-PCE-PA C2</td>
<td>3 x flex. current clamps</td>
</tr>
</tbody>
</table>

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**www.pce-instruments.com/us**

218