



# Power Analyzer PCE-PA 8000

## PCE-PA 8000

PCE-PA 8000 is a portable handheld power analyzer used for the testing and inspection of 3-phase / 4-wire, 3-phase / 3-wire, 1-phase / 2-wire and 1-phase / 3-wire electrical circuits. This handy power quality analyzer not only measures multiple electrical properties in real time, but also saves the measurement data in .xls format to the included SD card memory for quick and easy data transfer and analysis using Microsoft Excel.

The PCE-PA 8000 power analyzer provides true RMS measurements of current and voltage. The power analyzer also determines power factor (PF), phase angle ( $\Phi$ ), active power, apparent power and reactive power. The three current clamps included with the power analyzer can be used on wires and cables with a diameter of 2.0" / 50 mm, allowing for use with the power grid. Also included in the delivery contents are four alligator clips, four test leads and an SD card. For real-time current, voltage and power consumption measurements at a glance, the PCE-PA 8000 features an easy-to-read 3.7" / 94 mm (320 x 240 pixel) LCD screen with backlight.

- ▶ True RMS measurement for ACA, ACV
- ▶ True power: W, KW, MW
- ▶ VA, KVA, MVA, VAR, KVAR, MVAR
- ▶ PF (power factor), phase angle ( $\Phi$ )
- ▶ KWH, KVAH, KVARH, PFH
- ▶ Voltage measurement range: 10 ... 600 ACV
- ▶ Current measurement range: 0.2 ... 1200 ACA

### General Features PCE- HT 114

#### Voltage (ACV)

Measurement range	Resolution	Accuracy
10 V ... 600 V (phase to neutral)	0.1 V	$\pm(0.5 \% + 0.5 \text{ V})$
10 V ... 600 V (phase to neutral)		

#### Current (ACA)

Measurement range	Resolution	Accuracy
20 A	0.001 A (< 10 A)	$\pm(0.5 \% + 0.1 \text{ V})$
	0.01 A ( $\geq 10 \text{ A}$ )	
200 A	0.01 A (< 100 A)	$\pm(0.5 \% + 0.5 \text{ A})$
	0.1 A ( $\geq 100 \text{ A}$ )	
1200 A	0.1 A (< 1000 A)	$\pm(0.5 \text{ A} + 5 \text{ A})$
	1 A ( $\geq 1000 \text{ A}$ )	

#### Active power

Measurement range	Resolution	Accuracy
0 KW ... 9.999 KW	0.001 KW	$\pm(1 \% + 0.008 \text{ KW})$
10 KW ... 99.99 KW	0.01 KW	$\pm(1 \% + 0.008 \text{ KW})$
100 KW ... 999.9 KW	0.1 KW	$\pm(1 \% + 0.8 \text{ KW})$
1 MW ... 9.999 MW	0.001 MW	$\pm(1 \% + 0.008 \text{ MW})$

<b>Apparent power</b>		
Measurement range	Resolution	Accuracy
0 KVA ... 9.999 KVA	0.001 KVA	±(1 % + 0.008 KVA)
10 KVA ... 99.99 KVA	0.01 KVA	±(1 % + 0.08 KVA)
100 KVA ... 999.9 KVA	0.1 KVA	±(1 % + 0.8 KVA)
1 MVA ... 9.999 MVA	0.001 MVA	±(1 % + 0.008 MVA)
<b>Reactive power</b>		
Measurement range	Resolution	Accuracy
0 KVAR ... 9.999 KVAR	0.001 KVAR	±(1 % + 0.008 KVAR)
10 KVAR ... 99.99 KVAR	0.01 KVAR	±(1 % + 0.08 KVAR)
100 KVAR ... 999.9 KVAR	0.1 KVAR	±(1 % + 0.8 KVAR)
1 MVAR ... 9.999 MVAR	0.001 MVAR	±(1 % + 0.008 MVAR)
<b>Active energy</b>		
Measurement range	Resolution	Accuracy
0 KWh ... 9.999 KWh	0.001 KWh	±(1 % + 0.008 KWh)
10 KWh ... 99.99 KWh	0.01 KWh	±(1 % + 0.08 KWh)
100 KWh ... 999.9 KWh	0.1 KWh	±(1 % + 0.8 KWh)
1 MWh... 9.999 MWh	0.001 MWh	±(1 % + 0.008 MWh)
<b>Apparent energy</b>		
Measurement range	Resolution	Accuracy
0 KVAh ... 9.999 KVAh	0.001 KVAh	±(2 % + 0.008 KVAh)
10 KVAh ... 99.99 KVAh	0.01 KVAh	±(2 % + 0.08 KVAh)
100 KVAh ... 999.9 KVAh	0.1 KVAh	±(2 % + 0.8 KVAh)
1 MVAh... 9.999 MVAh	0.001 MVAh	±(2 % + 0.008 MVAh)
<b>Reactive energy</b>		
Measurement range	Resolution	Accuracy
0 KVARh ... 9.999 KVARh	0.001 KVARh	±(2 % + 0.008 KVARh)
10 KVARh ... 99.99 KVARh	0.01 KVARh	±(2 % + 0.08 KVARh)
100 KVARh ... 999.9 KVARh	0.1 KVARh	±(2 % + 0.8 KVARh)
1 MVARh... 9.999 MVARh	0.001 MVARh	±(2 % + 0.008 MVARh)
<b>Power factor</b>		
Measurement range	Resolution	Accuracy
0 ... 1	0.01	±0.04
<b>Phase angle</b>		
Measurement range	Resolution	Accuracy
-180° ... 180°	0.1°	±1°
<b>Frequency</b>		
Measurement range	Resolution	Accuracy
45 Hz ... 65 Hz	0.1 Hz	0.1 Hz
<b>General specifications</b>		
Display	3.7" / 94.0 mm LCD (320 x 240 pixel) with backlight	
Electrical properties	ACV, ACA, active power, apparent power, power factor, phase angle, mains frequency	
Voltage range	10 ... 600 ACV, automatic range selection	
Safety standards	Complies with IEC 1010, CAT III 600 V	
ACV input resistance	10 MΩ	
Operation frequency of current clamps	40 Hz ... 1 kHz	
Tested operation frequency of current clamps	45 Hz ... 65 Hz	
Overload protection	ACV / 720 V RMS	
ACA	1300 A with current clamps	
Memory	SD card, up to 16 GB	
Real-time display refresh rate	1 second	
Data logger	Yes, fully integrated	
Data logger sample rate	Adjustable, 2 ... 7,200 seconds	

Subject to change