



## PQ55A Compact Power Analyzer

A handheld power analyzer for three-phase power system measurements.

The PQ55 offers real time monitoring, recording and analysis of three phase power systems. The complete set includes the handheld mainframe, four current clamp adaptors, test leads with alligator clips, RS232 cable and software CD, large soft carrying case with compartments and users manual.

- Comprehensive real time monitoring, recording and analysis of three phase power systems
- True-rms voltage and current measurement
- Power Factor and phase angle results
- Power Analysis (apparent, active and reactive power)
- Additional current clamp for neutral line monitoring
- Internal memory for 99 single measurement storage
- Opto-isolated RS232 interface for further analysis and charting
- 50 Hertz operation facilities

### No hassle warranty

*No waiting.*

*No shipping charges.*



Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that an Amprobe Test Tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.

(note: \$500 MSLP limit)



## PQ55A Compact Power Analyzer

## Data Sheet

### Specifications (valid for 23 °C ± 5 °C, for less than 70 % relative humidity).

<b>Voltage measurement</b>	3 input channels with common reference point "N"	
<b>Measurement range</b>	0 to 600 Vrms	
<b>Display range</b>	0 to 999.9 Vrms	
<b>Resolution</b>	0.1V	
<b>Accuracy</b>	± (1% rdg + 10D) for voltage > 80 V	
<b>Mains frequency</b>	50 Hz	
<b>Input impedance</b>	2 MOhm	
<b>Overload protection</b>	1000 Vrms	
<b>Current measurement</b>		
<b>Measurement range</b>	Input I1, I2, I3	3 A to 999.9 A
	Input I4	3 A to 250 A
<b>Display range</b>	0 A to 999.9 A	
<b>Resolution</b>	0.1 A	
<b>Accuracy</b>	± (2.5 % rdg + 15 D)	
<b>Reduction ratio of current clamp</b>	0.35 mV/A	
<b>Clamp opening</b>	40 mm	
<b>Admissible overload</b>	10% (for sinusoidal wave form); max. 30 seconds	
<b>Active power P</b>	Display of active power of individual input or total value, as desired	
<b>Display range</b>	0 to 999.9 kW A negative active power can be recognised by the sign "-".	
<b>Resolution</b>	0.1 kW	
<b>Accuracy (for PF ≥ 0,5)</b>	± (3.5 % rdg + 20 D)	
<b>Accuracy (for PF &lt; 0,5)</b>	± (4.5 % rdg + 40 D)	
<b>Apparent power S (calculation from the rms values of voltage and current)</b>		
	Display of apparent power of an individual input or the total value, as desired	
<b>Display range</b>	0 – 999.9 kVA	
<b>Resolution</b>	0.1 kVA	
<b>Type of connection 1P2W</b>	Accuracy (for PF ≥ 0,5)	± (3.5 % rdg + 20 D)
	Accuracy (for PF < 0,5)	± (4.5 % rdg + 40 D)
<b>Type of connection 1P3W, 3P3W, 3P4W</b>		
	Accuracy (for PF ≥ 0,5)	± (3.5 % rdg + 20 D)
	Accuracy (for PF < 0,5)	± (7.5 % rdg + 40 D)
<b>Idle power Q (calculation out of active and apparent power)</b>		
	Display of idle power of an individual input or the total value, as desired	
<b>Display range</b>	0 to 999.9 kVAr A negative sign "-" shows a leading current.	
<b>Resolution</b>	0.1 kVAr	
<b>Formula</b>	$Q = \sqrt{S^2 - P^2}$	
<b>Power factor PF (cos (f) (calculation out of active and apparent power)</b>		
	Display of power factor of an individual input or the total value, as desired	
<b>Measurement range</b>	0 ... +1 A negative sign "-" shows a leading current.	
<b>Resolution</b>	0.001	
<b>Accuracy</b>	± (1 % rdg + 25 D)	
<b>Phase angle (f) (calculation out of power factor)</b>		
	Display of phase angle of an individual input or the total value, as desired	
<b>Measurement range</b>	0° to 90° A negative sign "-" shows a leading current.	
<b>Resolution</b>	0.1°	
<b>Accuracy</b>	± 4°	
<b>Frequency measurement (for voltage range &gt; 80 V)</b>		
<b>Measurement range</b>	45 to 80 Hz	
<b>Resolution</b>	0.1 Hz	
<b>Accuracy</b>	± (1 % rdg + 10D) for voltage > 80 V	

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### Specifications (continued)

#### Rotary field detection (for conductor voltages > 80 V)

Display for clockwise rotary field: , Display for counterclockwise rotary field: 

#### Energy measurement – active power (kWh) Display of the total value of all active power values

Accuracy	± (3.5% rdg. + 20D)
Sampling Rate	1 second
Range	Resolution
3.999 kWh	0.001 kWh
39.99 kWh	0.01 kWh
399.9 kWh	0.1 kWh
3.999 MWh	0.001 MWh
39.99 MWh	0.01 MWh
119.3 MWh	0.1 MWh

#### Energy measurement – apparent power (kVAh) Display of the total value of all apparent power values.

Accuracy	± (3.5% rdg. + 20D)
Sampling Rate	1 second
Range	Resolution
3.999 kVAh	0.001 kVAh
39.99 kVAh	0.01 kVAh
399.9 kVAh	0.1 kVAh
3.999 MVAh	0.001 MVAh
39.99 MVAh	0.01 MVAh
119.3 MVAh	0.1 MVAh

#### Energy measurement – idle power (kvarh) Display of total values of all idle power values.

Accuracy	± (3.5% rdg. + 20D)
Sampling Rate	1 second
Range	Resolution
3.999 kvarh	0.001 kvarh
39.99 kvarh	0.01 kvarh
399.9 kvarh	0.1 kvarh
3.999 Mvarh	0.001 Mvarh
39.99 Mvarh	0.01 Mvarh
119.3 Mvarh	0.1 Mvarh

#### Harmonics measurement This measurement is only possible via a PC.

Measurement up to the 31st harmonics

Measurement inputs	U1, U2, U3, I1, I2, I3
Voltage range	> 80 V
Current range	> 50 A
Sampling range	approx. 3 s.
Sampling resolution per measurement	64 points

### Technical Data – General Information

Display	multiple function LCD
Refresh rate	approx. 2 seconds
Backlight	automatic-power-off after approx. 30 s
Data logger	512 Kb, non-volatile memory max. 21 000 measurement values, max. 10 measurement series 0max. 10 000 measurement values for on measurement series
Sampling rate (adjustable)	5 seconds, 30 seconds, 1 min, 2 min
Data transfer	via optically isolated RS-232 interface
Manual data memory	Max: 99 measurement

### PQ55A Compact Power Analyzer

#### Technical Data – General Information (continued)

Power supply	8 x 1.5V batteries LR6 (Alkaline)	
Battery life cycle	typ. 50 h	
Auto-power-off (can be switched off)	after approx. 30 min	
Internal memory Speicher	1 x 3 V-Lithium battery CR2032	
Battery life cycle	Typ. 2400 h	
Mains adapter	12 - 15 V/300 mA	
Electrical supply voltage	230 VAC (+10 %/-20 %)	
Frequency range	42 to 63 Hz	
Power consumption	approx. 10 VA	
Overvoltage class	CAT III 600 V	
Degree of contamination	2	
Protection	II	
Type of protection	IP 30	
Dimensions (L x W x H)	Measurement instrument	235 x 117 x 54 mm
	Current clamp	193 x 88 x 40 mm
Weight	Measurement instrument (incl. Batteries)	approx. 730 g
	Current clamp	approx. 335 g
Height above sea level	up to 2000 m	
Service temperature range	0°C to +50°C/ max. 80% rel. humidity, 0°C to +40°C/ max. 80% rel. humidity (mains power supply unit)	
Storage temperature range	-10°C to +60°C/ max. 70% rel. humidity	
Temperature coefficient for the ranges 0°C to +18°C and +28°C to +50°C	0.1/K times the specified accuracy	

#### Included Accessories

Power Analyzer  
 4 pieces current clamps 1000 A  
 4 pieces alligator clips, isolated  
 4 pieces safety test leads  
 8 pieces 1.5 V batteries LR6  
 mains adapter  
 RS-232 cable  
 large carrying bag  
 operation instructions  
 PC software (for Windows ME/2000/XP)



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