

Powertek

PA2100 Single Phase Power Analyser



- Measures W, V, A, VA, Power Factor, Frequency, Crest Factor, THD and Harmonics to the 50th harmonic
- 0.2% basic accuracy
- Unaffected by waveform distortion
- Accurate at low power factor
- Fully autoranging, isolated measurement inputs
- Large LED display
- Captures inrush current
- Inputs to 1000Vrms (1440Vpk), 20Arms (125Apk) direct and up to 1200A using Option 04
- Wide input bandwidth – DC and 5Hz to 250kHz
- Printer interface, optional GPIB, LabView™ drivers
- Supplied with comprehensive PC software connected by USB

Powertek

For UK & European sales, support, service and deliveries:
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SPECIFICATION

Measurement Bandwidth	DC, 5Hz to 250kHz
VOLTS	
Display Resolution	4 ½ digit
Measurement range	700mVrms to 1000V rms (1440Vpk) (200mVrms with blanking disabled)
Max input volts	1000Vrms (1440Vpk) Overload: 3000Vrms for 1 second
Max input CF	20
Accuracy	±0.2% Rdg ±0.2% Range ± 0.02% per kHz ±10mV
Common mode V rejection	90dB (1 kHz @ 100V with 1 k% Imbalance)
Input Impedance	1 M% 12pF
CURRENT	
Display Resolution	4 ½ digit
Measurement range	0.0144Apk to 125.00Apk 600Arms with Option 03, 1200Arms with Option 04
Max input Amps	20Arms (125Apk) Overload: 500Arms for 1 second
Max input CF	20
Accuracy	±0.2% Rdg ±0.2% Range ±0.02% per kHz ±2mA
Common mode V Rejection	< 10mA (1 kHz @ 100V applied to Hi and Lo terminals)
Input Impedance	0.020%
POWER	
W	±0.4% Rdg ±0.2% range ± 2mW ±(0.02/PF)% per kHz
W	45-65Hz ±0.2% Rdg ±0.1% range
VA	±0.4% Rdg ±0.2% range

SPECIFICATION (Continued)

POWER FACTOR

Range	0.000 to ± 1.000
Capacitive load	+ = Leading PF
Inductive load	- = Lagging PF

Accuracy	$\pm 0.002 \pm 0.0005/\text{PF}$ per kHz
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CREST FACTOR

Range	1 to 20
Accuracy	± 0.002

INRUSH CURRENT

Range	0.1Apk to 125Apk Up to 1200Apk with Option 04
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Accuracy	$\pm 1.5\%$
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FREQUENCY

Range	5Hz to 125kHz
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Accuracy	$\pm 0.1\%$ of reading
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HARMONIC ANALYSIS

Range	DC, Fund to 50 th
Fund Accuracy	$\pm 0.2\%$ Rdg $\pm 0.2\%$ Range
Harm Accuracy	$\pm (0.1 + 0.02 \text{ per kHz})\%$

THD

Range	0.1% to 999.9%, Via display 2% to 999.9%
Accuracy	$\pm 0.3\% \pm 0.01\%$ per kHz

GENERAL SPECIFICATION

Interfaces	Types	Centronics Printer IEEE-488 (Option 05) RS232 (Option 05A)
Environment	Operating Temperature	0 C to +50 C
	Storage Temperature	-40 C to +60 C
	Humidity	10% to 90% RH non-condensing
Dielectric Strength	Inputs to case	4kV AC 50/60Hz for 1 minute
	AC line input to case	2kV AC 50/60Hz for 1 minute
Power	AC line input voltage	90V to 264V
	AC line input frequency	45Hz to 450Hz
	AC line input fuse	20mm 1AT
	Power consumption	16W/30VA
	Line input and EMC conformance	IEC348 Class 1, IEC-1000-3-2 IEC801 Parts 1 to 4, EN55011, IEC1010 Cat 1
Mechanical	Weight	5.5kg
	Dimensions	215mm x 144mm x 390mm

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