



ENGLISH

Datasheet

Stock No. 123-2201

IPM 6300

Graphic Power Quality Analyzer



## FEATURES :

- Power Quality Analysis for Single and Balanced 3 Phase System
- Harmonic Analysis of Voltage and Current (1 to 50<sup>th</sup> order)
- True RMS measurement of V with 0.5% basic accuracy
- True RMS measurement of A with 1% of range basic accuracy
- Graphic Waveform of Voltage and Current
- Graphic Phasor Diagram
- Transient Detection and Logging of Swell, Dip, and Outage
- Fast peak function (39 $\mu$ s for 50 Hz, 33 $\mu$ s for 60Hz)
- Active (W, KW, HP), reactive (VAR, KVAR) and apparent (VA, KVA) power
- Power factor (PF), phase angle ( $\Phi$ ), and energy (WH, KWH)
- Programmable VT ratio from 1 to 3000
- Hold functions
- Auto power off function in 15 minutes

## SPECIFICATIONS :

### AC Watt

Range	Resolution	Accuracy of Readings	
		> 20 V and > 30A	< 20V or < 30A
10.0 – 999.9 W	0.1W	$\pm 1\%$ of Range $\pm 0.3W$	$\pm 2\%$ of Range
1.000 – 9.999 KW	0.001 KW	$\pm 1\%$ of Range $\pm 0.003KW$	$\pm 2\%$ of Range
10.00 – 99.99 KW	0.01 KW	$\pm 1\%$ of Range $\pm 0.03KW$	$\pm 2\%$ of Range
100.0 – 999.9 KW	0.1 KW	$\pm 1\%$ of Range $\pm 0.3KW$	$\pm 2\%$ of Range
1000 – 9999 KW	1 KW	$\pm 1\%$ of Range $\pm 3KW$	$\pm 2\%$ of Range

### AC Apparent Power (VA)

Range	Resolution	Accuracy of Readings	
		> 20 V and > 30A	<20V or < 30A
10.0 – 999.9 VA	0.1VA	$\pm 1\%$ of Range $\pm 0.3VA$	$\pm 2\%$ of Range
1.000 – 9.999 KVA	0.001 KVA	$\pm 1\%$ of Range 0.003KVA	$\pm 2\%$ of Range
10.00 – 99.99 KVA	0.01 KVA	$\pm 1\%$ of Range $\pm 0.03KVA$	$\pm 2\%$ of Range
100.0 – 999.9 KVA	0.1 KVA	$\pm 1\%$ of Range $\pm 0.3KVA$	$\pm 2\%$ of Range
1000 – 9999 KVA	1 KVA	$\pm 1\%$ of Range $\pm 3KVA$	$\pm 2\%$ of Range

**AC Reactive Power (VAR)**

Range	Resolution	Accuracy of Readings	
		> 20 V and > 30A	<20V or < 30A
10.0–999.9 VAR	0.1VAR	±1% of Range ±0.3VAR	±2% of Range
1.000–9.999 KVAR	0.001 KVAR	±1% of Range ±0.003KVAR	±2% of Range
10.00–99.99 KVAR	0.01 KVAR	±1% of Range ±0.03KVAR	±2% of Range
100.0–999.9 KVAR	0.1 KVAR	±1% of Range ±0.3KVAR	±2% of Range
1000 – 9999 KVAR	1 KVAR	±1% of Range ±3KVAR	±2% of Range

**Power Factor (PF)**

Range	Resolution	Accuracy	
		> 20V & > 30A	< 20V or < 30A
0.000 – 1.000	0.001	± 0.04	±0.1

**AC Current**

Range	Resolution	Accuracy of Readings
3A – 300.0A	0.1A	±1% of Range ±0.3A
300.0 – 3000A	0.1A / 1A	±1% of Range ±3A

**AC Voltage (Overload Protection AC 800V)**

Range	Resolution	Accuracy of Readings
4.0 V – 600.0 V	0.1 V	±0.5% ± 5dpts

**Harmonics of AC Voltage in Percentage**

Range	Resolution	Accuracy
1 – 20 <sup>th</sup>	0.1%	±2%
21 – 50 <sup>th</sup>	0.1%	4% of reading ±2.0%

**Harmonics of AC Voltage in Magnitude**

Range	Resolution	Accuracy
1 – 20 <sup>th</sup>	0.1%	±2% ± 0.5V
21 – 50 <sup>th</sup>	0.1%	4% of reading ±0.5V

**Harmonics of AC Current in Percentage**

Range	Resolution	Accuracy
1 – 20 <sup>th</sup>	0.1%	±2%
21 – 50 <sup>th</sup>	0.1%	±6%

**Harmonics of AC Current in Magnitude (True RMS < 300A)**

Range (0 – 300A)	Resolution	Accuracy
1 – 20 <sup>th</sup>	0.1%	±2% of range ±0.4A
21 – 50 <sup>th</sup>	0.1%	±4% of range ±0.4A

**Harmonics of AC Current in Magnitude (3000A >True RMS> 300A)**

Range	Resolution	Accuracy
1 – 20 <sup>th</sup>	0.1%	±2% of range ±40A
21 – 50 <sup>th</sup>	0.1%	±4% of range ±40A

**Phase Angle ( $\Phi$ , V > 20V, A > 30A)**

Range	Resolution	Accuracy
-180° to 180°	0.1°	± 2°
0° to 360°	0.1°	± 2°

**Total Harmonic Distortion**

Range	Resolution	Accuracy
0.0 – 20%	0.1%	± 2%
20 – 100%	0.1%	± 7%
100 – 999.9 %	0.1%	± 11%

**Peak Value of AC Voltage (RMS value > 20V) or AC Current (RMS value > 30A)**

Range	Sampling Time	Accuracy of Reading
50 Hz	39 $\mu$ s	± 5% ± 50 digits
60 Hz	33 $\mu$ s	± 5% ± 50 digits

**Frequency of AC Voltage (RMS value > 20V) or AC Current (RMS value > 30A)**

Range	Resolution	Accuracy
46 – 65	0.1	± 0.3Hz

<b>Probe Length:</b>	24 in / 610 mm
<b>Minimum Bending Diameter:</b>	35mm
<b>Connector Diameter:</b>	23mm
<b>Cable Diameter:</b>	14mm
<b>Cable Length from Probe to Box:</b>	1700mm
<b>Cable Length from Box to Output:</b>	1700mm
<b>Data Logging Memory Size:</b>	512K bytes
<b>Maximum Transient Events:</b>	32000
<b>Battery Type:</b>	two 1.5V SUM-3
<b>Display:</b>	128 X 64 Dot Matrix LCD with Backlight
<b>Range Selection:</b>	Auto
<b>Overload Indication:</b>	OL
<b>Power Consumption:</b>	10mA (approx)
<b>Auto-Power-Off:</b>	15 minutes after power-on
<b>LCD Update Time:</b>	2 times/sec.
<b>No. Of Samples per Period</b>	512 (voltage or current); 256 (power)
<b>Operating Temperature:</b>	-10°C to 50°C
<b>Operating Humidity:</b>	Less than 85% RH
<b>Altitude:</b>	up to 2000M
<b>Storage Temperature:</b>	-20°C to 60°C
<b>Storage Humidity:</b>	Less than 75% RH
<b>Dimension (Box):</b>	130 x 80 x 43 mm
<b>Weight:</b>	430g (battery included)
<b>Accessories:</b>	Users manual, Batteries 1.5V x 2, Software CD Software users manual, Carrying Bag, Test leads, Alligator clips, Optical USB cable