

Data Sheet

IPM 3005

Flexible Power Quality Tester

FEATURES :

- Non-interrupted AC current harmonic analysis
- 1 to 50th order of harmonics at 2.0% basic accuracy
- True RMS measurement of V with 0.5% basic accuracy
- True RMS measurement of A with 1% of range basic accuracy
- Total harmonic distortion (%THD-F) and crest factor (CF)
- Fast peak function (39 μ s for 50 Hz, 33 μ s for 60Hz)
- Active (W, KW, HP), reactive (VAR, KVAR) and apparent (VA, KVA) power
- Power factor (PF), phase angle (Φ), and energy (WH, KWH)
- Measurement of balanced 3 Φ power and 3 Φ sequence
- Programmable CT ratio from 1 to 250
- Max, Min and Data Hold functions
- Active power in H.P.
- Auto power off function in 30 minutes

SPECIFICATIONS :

AC Watt (50 or 60 Hz, PF 0.5 to 1, CT=1, V>AC 5V, Current>AC 5A for A range)

Range (0 to 3000A)	Resolution	Accuracy of Readings	
		> 20 V and > 30A	< 20V or < 30A
10.0 – 999.9 W	0.1W	±1% of range	±2% of Range
1.000 – 9.999 KW	0.001 KW	±1% of range	±2% of Range
10.00 – 99.99 KW	0.01 KW	±1% of range	±2% of Range
100.0 – 999.9 KW	0.1 KW	±1% of range	±2% of Range
1000 – 9999 KW	1 KW	±1% of range	±2% of Range

AC Apparent Power (VA, from 0.000VA to 9999 KVA)

Range (0 to 3000A)	Resolution	Accuracy of Readings	
		> 20 V and > 30A	< 20V or < 30A
10.0 – 999.9 VA	0.1VA	±1% of range	±2% of Range
1.000 – 9.999 KVA	0.001 KVA	±1% of range	±2% of Range
10.00 – 99.99 KVA	0.01 KVA	±1% of range	±2% of Range
100.0 – 999.9 KVA	0.1 KVA	±1% of range	±2% of Range



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SPECIFICATIONS :

AC Reactive Power (VAR, from 0.000 VAR to 9999 KVAR)

Range (0 to 3000A)	Resolution	Accuracy of Readings	
		> 20 V and > 30A	<20V or < 30A
10.0 – 999.9 VAR	0.1VAR	±1% of range	±2% of Range
1.000 – 9.999 KVAR	0.001 KVAR	±1% of range	±2% of Range
10.00 – 99.99 KVAR	0.01 KVAR	±1% of range	±2% of Range
100.0 – 999.9 KVAR	0.1 KVAR	±1% of range	±2% of Range
1000 – 9999 KVAR	1 KVAR	±1% of range	±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 (50 or 60 Hz, Auto Range, True RMS, Crest Factor<4, CT=1)

Range	Resolution	Accuracy of Readings
0 – 300.0A	0.1A	±1% of range
300.0 – 999.9A	0.1A	±1% of range
1000 – 3000 A	1 A	±1% of range

AC Voltage (50/60 Hz, Auto Range, TRMS, C.F.<4, 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 th	0.1%	±2%
21 – 50 th	0.1%	4% of reading ±2.0%

Harmonics of AC Voltage in Magnitude

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

Harmonics of AC Current in Percentage

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

Harmonics of AC Current in Magnitude

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

Harmonics of AC Current in Magnitude

Range	Resolution	Accuracy
1 – 20 th	0.1%	±2% of range ±40A

Phase Angle (Φ , V > 20V, A > 30A)

Range	Resolution	Accuracy
-180° to 180°	0.1°	± 1°
0° to 360°	0.1°	± 1°



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SPECIFICATIONS :

Total Harmonic Distortion

Range	Resolution	Accuracy
0.0 – 20%	0.1%	± 2%
20 – 100%	0.1%	± 6% of reading ± 1%
100 – 999.9 %	0.1%	± 10% of reading ± 1%

Peak Value of AC Voltage (RMS value > 10V) or AC Current (RMS value > 30A)


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

Frequency of AC Voltage (RMS value > 10V) or AC Current (RMS value > 30A)

Range	Resolution	Accuracy
46 – 65	0.1	± 0.2Hz

Crest Factor (C.F.) of ACV (RMS value > 10V) or ACA (RMS value > 30A)

Range	Resolution	Accuracy of Readings
1.00 – 99.99	0.01	± 5% ± 30 digits

Probe Length:	24 in / 610 mm
Minimum Bending Diameter:	35mm
Connector Diameter:	23mm
Cable Diameter:	14mm
Cable Length from Probe to Box:	1700mm
Cable Length from Box to Output:	1700mm
Data Logging Memory Size:	8000 records
Data Logging Sampling Time:	0~600 sec
Data Logging Period:	8000 x sampling time (0~600 sec.)
Battery Type & Life:	two 1.5V SUM-3; 200hrs @ 2000mAH
Display:	4+4 digits LCD
Range Selection:	Auto
Overload Indication:	OL
Low battery Indication:	
Power Consumption:	10mA (approx)
Auto-Power-Off:	30 minutes after power-on
LCD Update Time:	2 times/sec.
No. Of Samples per Period	512 (voltage or current); 256 (power)
Operating Environment:	-10°C to 50°C, Less than 85% RH
Altitude:	up to 2000M
Storage Environment:	-20°C to 60°C, Less than 75% RH
Dimension (Box):	130 x 80 x 43 mm
Weight:	430g (battery included)
Accessories:	Users manual, Batteries 1.5V x 2, Software CD Software users manual, Carrying Bag, Test leads, Alligator clips, Optical USB cable


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