

PROVA[®]

AFLEX 3005

Flexible Power Quality Tester

CE CAT III 600V

Features:

- **AC current** measurement up to **3000A** (True RMS): basic accuracy **1%** of range
- **AC voltage** measurement up to **600V** (True RMS): basic accuracy **0.5%** of range
- **AC watt** measurement up to **9999KW**: basic accuracy **1%** of range
- **Power quality analysis** for single and balanced 3 phase system
- Measurement of balanced 3 Φ **power quality** and **phase sequence**
- **Active** (W, KW, HP), **Reactive** (VAR, KVAR) and **Apparent** (VA, KVA) **power**
- **Power factor** (PF), **Phase angle** (Φ), and **Energy** (WH, KWH)
- 1 to 50th order of **harmonics** at 2.0% basic accuracy
- **Total harmonic distortion** (%THD-F) and **Crest factor** (CF)
- **Frequency** of ACV or ACA: 45 ~ 65 Hz
- **Fast peak** function (39 μ s for 50 Hz, 33 μ s for 60Hz)
- Work with PC via **USB interface**
- **Programmable CT ratio** from 1 to 250
- **Max / Min / Data Hold** functions
- **Auto power off** function in 30 minutes
- **Data logging** memory size: 8000 records

Electrical Specifications: (23 $^{\circ}$ C \pm 5 $^{\circ}$ C)

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

Range (5 to 3000A)	Resolution	Accuracy of Readings	
		> 20 V and > 30A	< 20V or < 30A
10.0 – 999.9 W	0.1W	\pm 1% of range	\pm 2% of range
1.000 – 9.999 KW	0.001 KW	\pm 1% of range	\pm 2% of range
10.00 – 99.99 KW	0.01 KW	\pm 1% of range	\pm 2% of range
100.0 – 999.9 KW	0.1 KW	\pm 1% of range	\pm 2% of range
1000 – 9999 KW	1 KW	\pm 1% of range	\pm 2% of range

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

Range (5 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
1000 – 9999 KVA	1 KVA	±1% of range	±2% of range

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

Range (5 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 and > 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
5.0 – 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 ± 20dpts

Harmonics of AC Voltage in Magnitude

Range	Resolution	Accuracy
1 – 20 th	0.1V	±2% ± 0.5V
21 – 50 th	0.1V	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 ± 20dgt

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

Range (5 – 300A)	Resolution	Accuracy
1 – 20 th	0.1A	±2% of reading ±0.4A
21 – 50 th	0.1A	±4% of reading ±0.4A

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

Range	Resolution	Accuracy
1 – 20 th	0.1A	±2% of reading ±40A
21 – 50 th	0.1A	±4% of reading ±40A

Phase Angle (Φ , V > 20V, A > 30A)

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

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% ± 30 digits
60 Hz	33 μ s	± 5% ± 30 digits


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

Frequency of ACV (RMS value > 10V) or ACA (RMS value > 30A)

Range	Resolution	Accuracy
45 – 65	0.1	± 0.2Hz

General Specifications:

Probe Length: 3005-24	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
Dimension (Box):	130mm(L) x 80mm(W)x 43mm(H) 5.1"(L) x 3.1"(W) x 1.7"(H)
Battery Type:	two 1.5V SUM-3
Battery life:	200hrs @ 2000mAH.
Display:	4+4 digits LCD
Range Selection:	Auto
Overload Indication:	OL
Power Consumption:	10mA(approx.)
Low battery Indication:	
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)
Data logging memory size:	8000 records
Data logging sampling time:	0~600 sec
Data logging period:	8000 x sampling time (0~600 sec.)
Operating Temperature:	5°C to 50°C
Operating Humidity:	15% to 85% RH
Altitude:	up to 2000M
Storage Temperature:	-20°C to 60°C
Storage Humidity:	15% to 85% RH
Weight:	430g (battery included)
Accessories:	Test leads Carrying case x 1 Users manual x 1 Batteries 1.5V x 2 Software CD x 1 Software manual x 1

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