

PROVA-21/PROVA-23 Power Harmonics and Leakage Tester PROVA-19 Harmonics and Leakage Tester

FEATURES:

MODEL PROVA 19, 21, 23

- True RMS value (V and A)
- Leakage Current Measurement at 10 μ A Resolution
- Harmonic Analysis (V and A) to the 99 th Order
- Better Understanding of High Frequency Harmonic Analysis (up to 5/6 KHz)
- Non-interrupted Harmonic Analysis
- Analysis of Total Harmonic Distortion (THD-F)
- Analysis of Crest Factor (C.F.)
- Fast Peak Function (33 μ s and 39 μ s)
- Programmable CT Ratio (1 to 250)

Model 21(50A) and 23(100A)

- W, KW, H.P.
- VA, KVA, VAR, KVAR
- PF, Phase Angle (Φ)
- Energy (mWH, WH, KWH)
- Analysis of Standby Power Consumption
- Balanced 3 Φ Power Quality
- Balanced 3 Φ Sequence



SPECIFICATION:

Please refer to users manual for more detailed and up-to-date description of specification.

AC Watt (50 or 60 Hz, PF 0.5 to 1. CT = 1, Accuracy of Readings)

Model 21 (0 to 50A), Model 23 (0 to 100A)

Range	Resolution	Accuracy 21 (0 - 30A)	Accuracy 21 (30 - 50A)
		Accuracy 23 (0 - 60A)	Accuracy 23 (60 - 100A)
0.000 – 9.999 W	0.001 W	$\pm 1\% \pm 0.02$ W	$\pm 2\%$ of VA ± 5 dgts
10.00 – 99.99 W	0.01 W	$\pm 1\% \pm 0.2$ W	$\pm 2\%$ of VA ± 5 dgts
100.0 – 999.9 W	0.1 W	$\pm 1\% \pm 0.2$ W	$\pm 2\%$ of VA ± 5 dgts
1.000 – 9.999 KW	0.001 KW	$\pm 1\% \pm 0.02$ KW	$\pm 2\%$ of VA ± 5 dgts
10.00 – 99.99 KW	0.01 KW	$\pm 1\% \pm 0.2$ KW	$\pm 2\%$ of VA ± 5 dgts

100.0 – 999.9 KW	0.1 KW	$\pm 1\% \pm 0.2 \text{ KW}$	$\pm 2\% \text{ of VA} \pm 5 \text{ dgts}$
1000 – 9999 KW	1 KW	$\pm 1\% \pm 2 \text{ KW}$	$\pm 2\% \text{ of VA} \pm 5 \text{ dgts}$

AC Current (50 or 60 Hz, True RMS)

Range (Model 19,21)	Range (Model 23)	Resolution	Accuracy of Readings
0.30 – 60.00mA	0.30 – 60.00mA	0.01mA	$\pm 0.5\% \pm 5 \text{ dgts}$
60.0 – 600.0mA	60.0 – 600.0mA	0.1mA	$\pm 0.5\% \pm 5 \text{ dgts}$
0.030 – 3.000 A	0.030 – 9.999 A	0.001 A	$\pm 0.5\% \pm 5 \text{ dgts}$
3.00 – 30.00 A	10.00 – 60.00 A	0.01 A	$\pm 0.5\% \pm 5 \text{ dgts}$
30.00 – 50.00 A	6 0.00 – 99.99 A	0.01 A	$\pm 1.0\% \pm 5 \text{ dgts}$

AC Voltage (50 or 60 Hz, True RMS)

Range	Resolution	Accuracy of R.	Range	Resolution	Accuracy of R.
3V – 250V	0.1 V	$\pm 0.5\% \pm 5 \text{ dgts}$	250V – 600V	0.1 V	$\pm 0.5\% \pm 5 \text{ dgts}$

Harmonics of AC Voltage in % and Magnitude (1 to 99th order)

Range	Resolution	Accuracy in %	Resolution	Accuracy in Magnitude
50V – 600V	0.1 %	$\pm 0.5\%$	0.1 V	$\pm 0.5\% \pm 0.5 \text{ V}$

Harmonics of ACA in % Percentage and Magnitude (1 to 99th order)

Range (Model 19, 21)	Range (Model 23)	Res.	Accuracy (%)	Res.	Accuracy of R.
10.00 – 60.00mA	10.00 – 60.00mA	0.1 %	$\pm 0.5\%$	0.01mA	$\pm 0.5\% \pm 0.1 \text{ mA}$
60.0 – 600.0mA	60.0 – 600.0mA	0.1 %	$\pm 0.5\%$	0.1mA	$\pm 0.5\% \pm 1 \text{ mA}$
0.5 – 3.000 A	0.5 – 9.999 A	0.1 %	$\pm 0.5\%$	0.001 A	$\pm 0.5\% \pm 0.01 \text{ A}$
3.00 – 30.00 A	10.00 – 60.00 A	0.1 %	$\pm 0.5\%$	0.01 A	$\pm 0.5\% \pm 0.1 \text{ A}$

30.00 – 60.00 A	6 0.00 – 99.99 A	0.1 %	±1.0%	0.01 A	±1.0% ± 0.1 A
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Power Factor and Phase Angle (PF, Φ ,Model 21 and 23)

Range (PF)	Resolution	Accuracy	Range (Φ)	Resolution	Accuracy
0.000 – 1.000	0.001	± 1°	-180° to 180° (0 ° to 360 °)	0.1°	± 1°

Total Harmonic Distortion (THD-F, 1 to 99th order) Crest Factor (C.F., Accuracy of Readings)

Range	Resolution	Accuracy of R.	Range	Resolution	Accuracy of R.
0.0 – 999.9 %	0.1%	± 0.5% ± 5 digits	1.00 – 99.99	0.01	± 5% ± 30 digits

General Specification

Conductor Size	30mm (approx.)
Battery Type	1.5V SUM-3 x 2
Display	4+2+2 digits LCD
Power Consumption	5mA (approx.)
Auto-Power-Off	30 minutes
No. Of Samples/Period	512 (V & A), 256 (W)
LCD update rate	2 times / sec.
Weight	200g (battery included)
Operating Temperature	-10 ° C to 50° C
Operating Humidity	< 85% relative
Storage Temperature	-20° C to 60° C
Storage Humidity	: < 75% relative
Dimension	210 (L) x 62 (W) x 35.6mm (H), 8.3" (L) x 2.5" (W) x 1.4" (H)

Accessories	test leads, Carrying bag x 1, Users manual x 1, Batteries 1.5V x 2
Option	alligator clips

