UNIWATT Power Harmonics Analyzer

Model: 9002

Features:

- Comprehensive real time monitoring, recording and analysis of three-phase power systems
- True RMS Voltage measurement
- True RMS Current measurement
- Power Factor measurement
- Harmonic Analysis
- Harmonic analysis for voltage and current up to 63rd harmonic
- Power Analysis (apparent, active and reactive power)
- Internal memory of 2MB for long-term measurement
- Serial RS 232 interface for further processing on PC
- Display and graphical indication of current and voltage values
- Minimum, maximum & average value calculations for recorded quantities
- Internal rechargeable batteries
- Windows software for data analysis and instrument control

Scope of Supply:

1 pc Power Harmonics Analyzer
3 pc Test Probes
6 pc Crocodile Clamps
6 pc Safety Test leads
1 pc Power Link PC-Software
1 pc Mains Cable
1 pc RS-232-Cable
1 pc Soft carrying case for analyzer
1 pc Instruction Manual

Option Order:

3 pc Current-Clamps-Set (Range 20...1000 A)

Technical Data:

Voltage
3 fully differential channels

Display range	10 - 550 Vrms (43 - 68 Hz)
Resolution	0.1 V
Accuracy	± 0,5% of readings, ±2 digits
Crest factor	1.4

Current

Display range	0.02 V - 1 V / 20 A - 1000 A (current probe)
Resolution	0.3 mV / 0.3 A
Accuracy	± 0,5 % of readings ± 2 digits ± 1 % (accuray of standardclamps)
Crest factor	2,5

Computed and DISPLAYED quantities

Waveforms	3 x U, 3 x I 3 x (Urms, Uavg, Umax.) 3 x (Irms, Iavg, Imax.)

Power factor / Total harmonics distorsion: U, I / Frequency / Crest factor: U, I
Phase sequence / Meter / 3 x Urms, 3 x Irms, InuI / Frequency

P, Q, S	(phase & total)
Power factor cosφ	(phase & total)

Spectrum

Harmonics	DC...63 (on display DC...25) percentual and amplitudes for selected quantities
THD, Urms, Irms	for selected quantities

RECORDER

Integration period	1 s - 30 min

Statistics analysis of each period (20 ms)
Voltage anomalies - based on half period (10 ms)
and selected window (± Un), configurable recording
registers. Recording of periods (selectable data, parameters).

GENERAL

Display

Type	LCD graphic 160 x 116 display with LED backlight
Multimeter	quantities in numerical mode
Oscilloscope	currents & voltage waveforms

Harmonics histograms / Configuration and programming menus

Internal memory	2 Mbytes of non-volatile data memory
Communication	Optoisolated RS 232 serial interface for connection to PC
Baud rate	2400 - 57600

Power requirements

Voltage operating range	230 V AC (+10% - 20 %) 42 - 63 Hz
Power consumption	< 10 VA

Ni-Cd rechargeable batteries provides full operation for up to 5 hours
Internal battery charger

Environmental

Operating temperature	-10 to +45°C / 14°F - 113°F
Storage temperature	-25 to +70°C / -13°F - 158°F
Protection class	II - double insulation
Measurement category	CAT III 600 V
Pollution degree	2
Max. voltage	between terminals 600 V
Max. Voltage	against ground 300 V

Dimensions

Size (H x W x D)	265 x 110 x 185 mm
Weight	2.1 kg