UNIWATT Power Harmonics Analyzer

Key Functions

- 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)

General Information

- 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

Technical Data

Voltage

3 fully differential channels

Display range	10 - 550 Vrms
Resolution	0.1 V
Accuracy	± 0,5% of readings, ±2 digits
Frequency range	43 - 68 Hz
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 standard-clamps)
Crest factor	2,5
Permissible overload	50 % (sinusoidal current)

Computed and DISPLAYED quantities

Scope
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, Inul
Frequency

P, Q, S	(phase & total)
Power factor cos φ	(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 %)
Frequency	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
Overvoltage 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

Scope of Supply: (without clamps)

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

Accessories:

UNIWATT Current-Clamps-Set 1000 A
(3 pc Current Clamps incl. Carrying Case)
Cat. No. 90022

UNITEST Clamp-flex Flexible Current Converter (AC)
(For connection a adapter cable 90031
is required) Cat. No. 93487

Adapter cable for UNITEST Clamp-flex Cat. No. 90031

UNITEST Clamp Adapter CHB 10
(Measurement Range 0-200 A)
(For connection a adapter cable 90030

is required) Cat. No. 93471

Adapter Cable for UNITEST CHB 10 Cat. No. 90030

UNITEST Mains Adapter Cat. No. 8960

Current Voltage Transformer 5 A/1 V Cat. No. 90050

Order Information:

Description	Cat. No.
UNIWATT Power Harmonics Analyzer	**90021**
UNIWATT Current-Clamps-Set	**90022**
UNITEST Clamp-flex	**93487**
Adapter cable for Clamp-flex	**90031**
UNITEST Clamp Adapter CHB 10	**93471**
Adapter Cable	**90030**
UNITEST Mains Adapter	**8960**
Current Voltage Transformer	**90050**