luke 43 Power Quality Analyser - Specifications

- Voltage, current, and power harmonics
- Up to 51st harmonic
- Total harmonic distortion (THD)
- Phase angle of individual harmonics
- Watts, power factor, displacement power factor, VA and VAR
- Voltage and current waveforms
- Continuously measure volts and amps on a cycle-by-cycle basis for up to 16 days

Power	Line voltage adapter/battery charger included
Installed battery	Rechargeable Ni-Cd pack
Operating time	4 hours
Charging time	4 hours
Environmental	
Temperature	0°C to 50°C (32°F to 122°F)
Environmental	MIL 28800E, Type 3, Class III, Style B
Enclosure	IP51 (dust, drip water proof)
Mechanical Data	
Size: (H x W x D)	232 x 115 x 50 mm (9.1 x 4.5 x 2 inches)
Weight	1.1 kg (2.5 lbs.)
Safety	
Surge protection	6 kV on input A and
Floating measurements	600V rms from any terminal to ground
Warranty	3 years parts and labor on Fluke 43, 1 year on accessories
Technical Data	
Input Characteristics	
Input impedance	1 MOhm, 20 pF
Voltage Rating	600V rms, CAT III
Volt/Amps/Hertz Display	
True-rms voltage (ac+dc)	Ranges: 5.000V, 50.00V, 500.0V, 1250V* Accuracy: ±(1% +10 counts)
True-rms current (ac + dc)	Ranges: 50.00A, 500.0A, 5.000 kA, 50.00 kA Accuracy: ±(1% +10 counts)
Mains frequency	Ranges: 40.0 to 70.0 Hz Accuracy: ±(0.5% +2 counts)
Power Display	
Watts, VA, VAR	Ranges: 250 W, 2.50 kW, 25.0 kW, 250 kW, 2.50 MW, 250 MW Accuracy: ±(4% +4 counts)
Power Factor, PF Displacement Power Factor, DPF	Range: 0.00 to 0.25 Accuracy: Not specified Range: 0.25 to 1.0 Accuracy: ±0.04

Harmonics Display	
Voltage	Ranges: 1st to 51st harmonic Accuracy: ±(3% +2 counts) to ±(15% +5 counts)
Current	Ranges: 1st to 51st harmonic Accuracy: ±(3% +8 counts) to ±(5% +8 counts)
Power	Ranges: 1st to 51st harmonic Accuracy: ±(5% +2 counts) to ±(30% +5 counts)
Line frequency	Ranges: 40 Hz to 70 Hz fundamental Accuracy: ±0.25 Hz
Phase	Ranges: 2nd to 51st harmonic Accuracy: ±3 ° to ±15 °
K-factor	Ranges: 1.0 to 30.0 Accuracy: ±10%
Sags and Swells Recording	
Recording times	4 min to 16 days (selectable)
True-rms voltage	Ranges: 5.000V, 50.00V, 500.0V, 1250V* Accuracy: ±(2% +10 counts)
True-rms current	Ranges: 50.00A, 500.0A, 5.000 kA, 50.00 kA Accuracy: ±(2% +10 counts)
Other Recording	
Recording times	4 min to 16 days (selectable)
Parameters	
V/A/Hz	Line voltage, current, frequency
Power	Watts, VA, VAR, PF, DPF, frequency
Harmonics	THD, harmonic voltage, (or current, or power), frequency, % of total, phase
Ohms	Ohms, diode, continuity, capacitance
Temperature	Temperature
Scope	DC voltage, dc current, ac voltage, ac current, frequency, pulse width, phase, duty cycle, peak max, peak min, peak min-max, crest factor
Transient Capture	
Minimum pulse width	40 ns
Voltage threshold settings	20%, 50%, 100%, 200% above or below normal voltage
Min voltage and max voltage at cursor	Ranges: 10V, 25V, 50V, 125V, 250V, 500V, 1250V Accuracy: ±5% of full scale
Inrush Capture	
Current ranges	Ranges: 1A, 5A, 10A, 50A, 100A, 500A, 1000A
Inrush times	Ranges: 1s, 5s, 10s, 50s, 100s, 5 min
Cursor readings, Current at cursor	Ranges: 12.5A, 25A, 50A, 125A, 250A, 500A, 1250A, 2500A, 5 kA Accuracy: ±5% of full scale
Time between cursors	Ranges: 4 to 235 pixels (1 pixel = inrush time/250) Accuracy: ±(0.2% + 2 pixels)
Scope Display	
Time ranges	Ranges: 20 ns/div to 60 s/div
Max sampling rate	Ranges: 25 MS/s
Bandwidth	Voltage channel [1]: 20 MHz at inputs, 1 MHz with TL24 Leads Current channel [2]: 15 kHz at inputs, 10 kHz with 80i-500s Probe
Coupling	AC, DC
Vertical sensitivity	Ranges: 5 mV/div to 500V/div
Vertical resolution	8 bit (256 levels)
Record length	512 samples per channel
Timebase modes	Normal, roll, single
Pre-trigger	Up to 10 divisions
Measurements	dc, ac, ac+dc, peak, peak-peak, frequency, duty cycle, phase, pulse width, crest factor
Ohms, Diode,Continuity	

Ohms	Ranges: 500.0W, 5.000 kW, 50.00 kW, 500.0 kW, 5.000 MW, 30.00 MW Accuracy: ±(0.6% +5 counts)
Diode voltage	Accuracy: ±(2% +5 counts)
Continuity	Beeper on at < (30W ±5W)
Max current	0.5 mA
Capacitance	Ranges: 50.00 nF, 500.0 nF, 5.000 µF, 50.00 µF, 500.0 µF Accuracy: ±(2% +10 counts)
Temperature**	Ranges: -100.0 °C to 400.0 °C, -200.0 °F to 800.0 °F Accuracy: ±(0.5% +5 counts)
Screen Memories	10
Optically Isolated RS-232 Interface	**To printer:** Supports HP LaserJet, DeskJet, Epson FX/LQ and Postscript printers with optional PAC91 Printer Adapter Cable **To PC:** FlukeView Power Quality Analyzer Software included
FlukeView Power Quality Software	**Hardware requirements:** PC or 100% compatible with Windows 3.1, Windows 95, or Windows NT. Enough RAM for Windows operating system. 4 MB hard drive space. Pointing device (mouse) recommended.