

Three-phase Power Quality Analyzer

The three phase power quality analyzer should be of portable in nature and supplied with 4 Nos of flexible current probes with the following features.

Measurement:

- The analyzer should measure
- Three phase and phase wise voltage, current, power, true power factor, displacement power factor,
- Energy
- Dips, Swells, interruptions, crest factor and unbalance
- Inrush current
- Phaser diagram and waveforms
- Frequency
- Harmonics for voltage, current and power upto 50th order, Interharmonics and K Factor
- Upto seven power quality parameter in one screen according to EN 50160
- Min, Max and Avg value for all RMS measurements.
- Energy loss due to Unbalance, Harmonics and Neutral Current
- Inverter Efficiency with optional DC current clamp

Other feature

- Graphical screen with display of measurement, waveform, trends and harmonic spectrum
- Analysis of trend in the meter display itself with curser and zoom function
- Rechargeable battery with at least 8 hours backup
- SD Card memory to store upto 8GB (Expandable upto 32GB) to store the data, event and waveform
- 99 screen shots to be stored in the memory (Limited only by SD card capacity).
- 4 flexible current probes to measure all the three phases and also neutral current from 0.5A to 6000A
- The wiring configuration should be displayed in the meter for various configuration (1 phase, star, delta, etc)
- Optically isolated USB port to connect to the PC to download and analyse measurement, waveform, trends and events.
- Software for data downloading and analysis.
- The instrument should have CT/PT ratio programming facility upto 10000:1.

Detailed specification

Parameter	Range	accuracy
Voltage	0-1000 V	+/- 0.5% of nominal voltage
Current	0.5A - 6000 A	+/- 1% +/- 5 counts
Frequency	43 – 57	+/- 0.01 Hz
Power factor	0-1	+/- 0.033
Cos Phi	0-1	+/- 0.033

Safety rating – 600V Cat IV / 1000V CAT III for both meter and clamp

IP Protection – IP 51 or better

Display resolution – 320 X 240 pixels or better with user adjustable contrast and brightness

Built in Real time clock to facilitate time stamped trending and events.

Operating temp - 0 °C to +50 °C battery only, 0 °C to +40 °C with adapter.

Training: Minimum 2 day training by manufacturer's Engineer.

Make & Model: Fluke 434 II or equivalent.