

# *MIES VALUE ADDED SERVICES*

## *—POWER ANALYSES & SIMULATION—*

In 2009 MIES have invested some capital into acquiring state of the art test equipment. This included state of the art **Fluke 435** power analyzers, **Fluke 743B** document calibrators and **Megacon IMA95** power test simulators.

We can now offer our clients the following value added service:

- Analyze & trouble shoot power quality,
- Energy surveys of your electrical installations, buildings, refrigeration installations to name a few.
- Risk assessment of your electrical installations
- MIES delivers a complete survey with a comprehensive report, recommendations for preventative measures, cost savings on power consumption and repairs.
- MIES can simulate any three phase active, reactive power, current and voltages, and do injection testing with these parameters on your switchgear to test all preferential trips, reverse power, over current, powerfactor, under voltage conditions by simulating all of the above parameters.

For any further information regarding this value added service please contact our office on +27 21 5118499.

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# 435 Power analyzer:

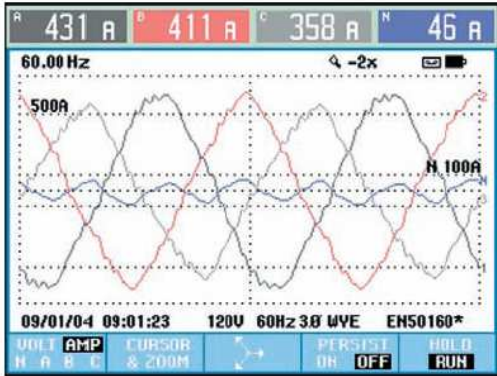
## Pinpoint power problems faster, safer and in greater detail

The Fluke 434 and 435 three-phase power quality analyzers help you locate, predict, prevent and troubleshoot problems in three- and single-phase power distribution systems. Troubleshooting is faster with on-screen display of trends and captured events, even while background recording continues. The new IEC standards for flicker, harmonics and power quality are built right in to take the guess work out of power quality.

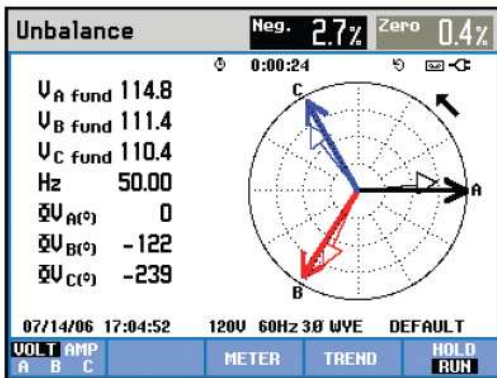


- **Troubleshoot real-time:** Analyze the trends using the cursors and zoom tools—even while background recording continues
- **Highest safety rating in the industry:** 600 V CAT IV/1000 V CAT III rated for use at the service entrance
- **Automatic Transient Mode:** Capture 200 kHz waveform data on all phases simultaneously up to 6 kV
- **Fully Class-A compliant:** Conduct tests according to the stringent international IEC 61000-4-30 Class-A standard
- **Measure all three phases and neutral:** With included four current probes
- **AutoTrend:** Every measurement you see is always automatically recorded, without any setup
- **System-Monitor:** Up to ten power quality parameters on one screen according to EN50160 power quality standard
- **Inrush mode:** For troubleshooting nuisance circuit breaker tripping
- **View graphs and generate reports:** With included analysis software
- **Logger function:** Configure for any test condition with memory for over 400 parameters at user defined intervals
- **Mains signaling:** Measure interference from ripple control signals at specific frequencies
- **Battery Life:** Seven hours operating time per charge on NiMH battery pack
- **Warranty:** Rugged, handheld troubleshooter with Fluke three-year warranty

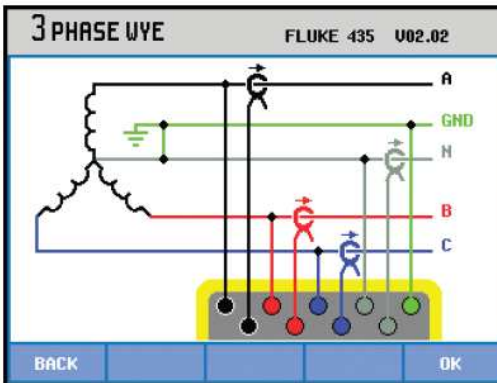
# 435 Power analyzer:



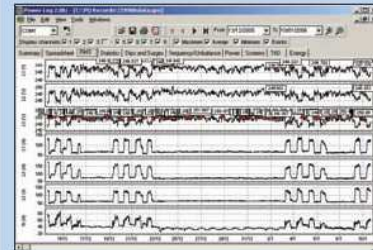
Scope view shows voltage and current waveforms for three phase installations. You can toggle to a phasor diagram at any time.



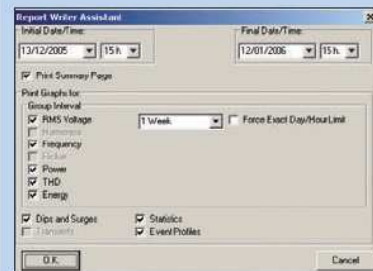
Phasor diagram shows voltage and current unbalance, and helps verify connections.



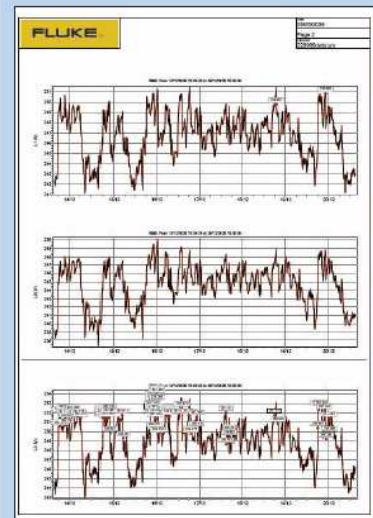
The full color display uses region specific industry-standard color-coding (user selectable) to correlate measurements with actual wiring.



View recorded data in simple graphs and tables.



Easily customize the report by selecting time period and measurements to include.



Create professional reports quickly and easily.

# 743 Calibrator:

**For the calibration and troubleshooting of process control instrumentation.**



- Calibrate temperature, pressure, voltage, current, resistance, and frequency instruments
- Built-in procedures for transmitters, square root transmitters and limit switches
- Simultaneously measure and source
- Automatically capture calibration results
- Document procedures and results to meet ISO 9000, EPA, FDA, OSHA, and other government requirements
- Measure/simulate 11 types of thermocouples and eight RTDs
- Store up to 8,000 readings in data logging mode (743B and 744 only)
- Protected against dirt, dust, and moisture; unaffected by vibration
- Includes a PC interface (743B and 744 only)
- Operate in English, French, German, Italian, and Spanish
- Offer one and two-year calibration cycles and a three-year warranty (one-year for pressure modules)

## 744: Get HART-ability

The Fluke 744 offers all of the capabilities of the 743B, plus the ability to calibrate, maintain, and troubleshoot HART instrumentation. Integrated HART communication functions permit you to monitor, control, and calibrate HART instrumentation. It handles fast pulsed instruments such as RTD transmitters and PLCs, with pulses as short as 1 ms.

See [www.fluke.com/744upgrade](http://www.fluke.com/744upgrade) for the latest list of HART instruments.

## 743B: More memory, plus a PC interface and data logging

The 743B has all the capabilities of the 741B plus a PC interface that lets you load procedures, lists, and instructions created with software – or unload data for printing, archiving, and analysis. With its expanded memory, the 743B can hold a full week of calibrations and procedures.

## 741B: A complete documenting calibrator

The 741B is the economical choice for plants that don't use PCs or that require traditional paper forms. It has storage capacity for a day's calibration and measurement data. When you're back at the shop, recall the data on-screen to fill out calibration forms.





**IMA95** is one in a range of Megacon's transportable test simulators. This unit is specifically designed for testing of Megacon's & other brands range of protective guards, controllers and regulators for marine generator and power plant automation systems (current, current differential, overcurrent and short circuit, active (kW) and reactive (VAr) power, power overload, reverse power, load sharing, voltage, earth fault etc).

**IMA95** is used for general testing and calibration of AC ammeters and voltmeters, watt-, VAr- and cos phi-meters, measuring converters (transducers) for AC current, AC voltage, single phase or three phase 3-wire balanced and unbalanced active (W) and reactive power (VAr), energy (Wh), power factor, etc.

**MIES** offers onsite testing and **signal injection** of all power parameters as described above. All our tests comes with comprehensive reports and documentation for future reference and planned/preventative maintenance. You can now test your control circuit and safeties without putting any physical overloads loads onto your electrical installation.

