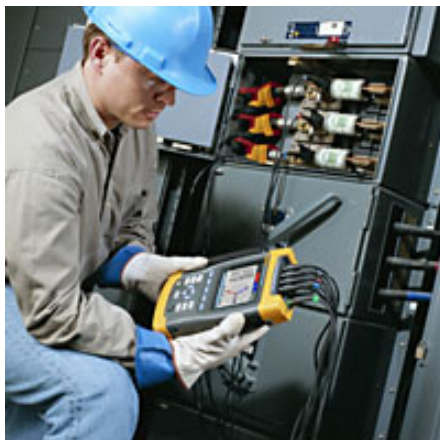



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Fluke 430 Series Three-Phase Power Quality Analyzers



- [Model Selection Guide](#)

Features

- Complete three-phase troubleshooting tool: measures virtually every power system parameter : voltage, current, frequency, power, power consumption (energy), unbalance and flicker, harmonics and inter-harmonics. Captures events like dips and swells, transients, interruptions and rapid voltage changes.
- AutoTrend: no time wasted setting up additional trend graphs while every measurement is automatically recorded. Analyzes trends using cursors and zoom function while recording continues in the background.
- System-Monitor: gives immediate insight into power system's quality. Checks conformity to limits specified in EN50160 or to own custom limits.
- Four channels: simultaneously measures voltage and current on all three phases and neutral.
- Automatic transient display: captures up to 40 dips, swells, interruptions or transients automatically.
- Meets the stringent 600 V CAT IV, 1000 V CAT III safety standard required for measurements at the service entrance.
- Rugged, handheld instrument operates for more than 7 hours on included rechargeable NiMH battery pack. Menu-driven interface simplifies operation.
- Extensive data analysis possibilities. Cursors and zoom can be used 'live' while taking the measurements, or 'offline' on stored measurement data. The stored measurements can also be transferred to a PC with FlukeView software (included with Fluke 434).
- Complete package includes everything to get started: 4 current clamps, 5 voltages test leads and clips, line adapter/battery charger and hard case.
- Complies with IEC 61000-4-30 measurement standards.

Top Accessories



i400s



WC100



i2000FLEXPQ4

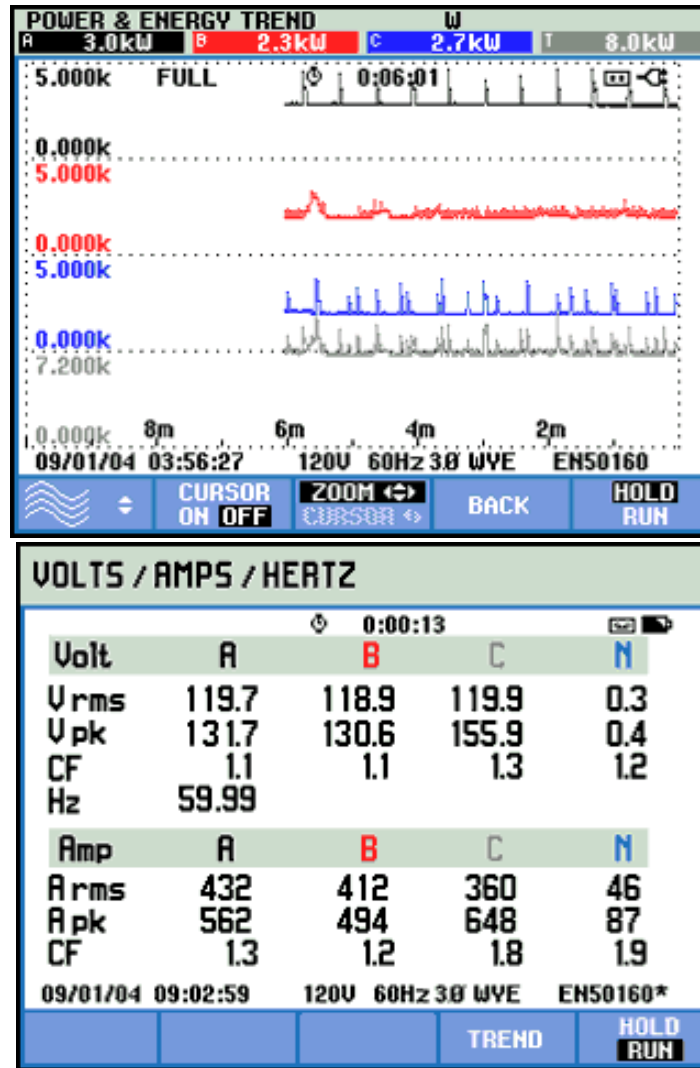


i2000flex



TLS430

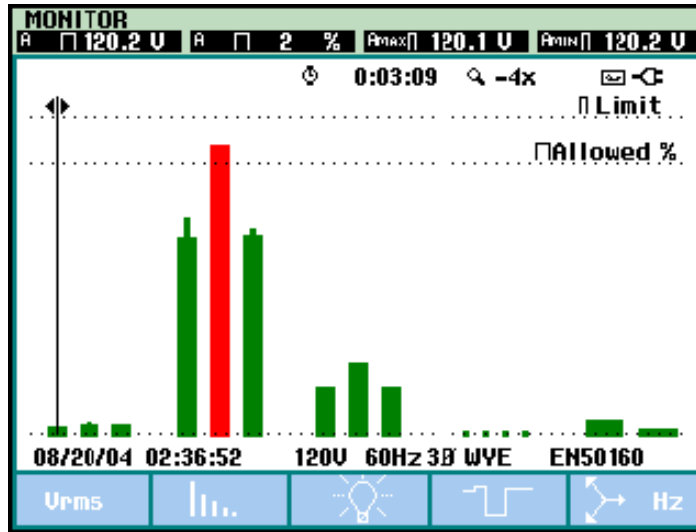
AutoTrend - Quickly see the trend



AutoTrend automatically records all displayed parameters in the background Toggle between data and trend view and use cursors and zoom to analyze measurements without interrupting the recording

Unique AutoTrend gives you fast insight into changes over time. Every displayed reading is automatically and continuously recorded without having to set up threshold levels or interval times, or having to manually start the process. You can quickly view trends in voltage, current, frequency, power, harmonics or flicker on all three phases plus neutral. And you can analyze the trends using the cursors and zoom function – even while background recording continues.

SystemMonitor - Check performance against EN50160 or your own custom specifications with ease



The System-Monitor overview screen gives instant insight into whether the voltage, harmonics, flicker, frequency and the number of dips and swells fall outside the set limits

With a single push of a button, the unique System-Monitor gives you an overview of power system performance, and checks the compliance of incoming power to EN50160 limits or to your own custom specifications. The overview is shown on a single screen, with color-coded bars clearly indicating which parameters fall outside the limits. A list of each event falling outside these limits is generated.

MONITOR EVENTS VRMS				
START 09/01/04 07:51:38				EVENT 8 / 8
1:20:25				
DATE	TIME	TYPE	LEVEL	DURATION
09/01/04	08:34:38:098	H21	0.5 %	0:00:10:000
09/01/04	08:36:38:098	H21	0.5 %	0:00:10:000
09/01/04	08:51:38:098	H21	0.5 %	0:00:10:000
09/01/04	08:53:38:098	H21	0.5 %	0:00:10:000
09/01/04	08:55:28:098	H21	0.5 %	0:00:10:000
09/01/04	09:02:58:098	H21	0.5 %	0:00:10:000
09/01/04	09:04:58:098	H21	0.5 %	0:00:10:000
09/01/04	09:08:38:098	H21	0.5 %	0:00:10:000
09/01/04 09:12:03 120V 60Hz 3Ø WYE EN50160				
SELECTED		NORMAL	TREND	BACK
ALL		DETAIL		

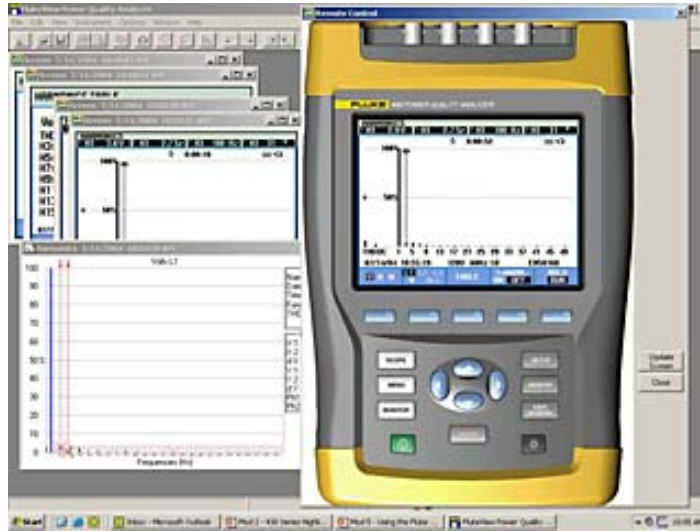
A detailed list is given of all events falling outside the set limits

Automatic transient display

Every time an event or distortion on the voltage waveform is detected, the instrument triggers and automatically stores

voltage and current waveforms on all three phases and neutral. The instrument can also trigger when a certain current value level is exceeded. Up to 100 dips, swells, interruptions and transients can be captured in this way. You can see voltage transients as high as 6 kV and as fast as 5 microseconds.

Extensive data analysis possibilities

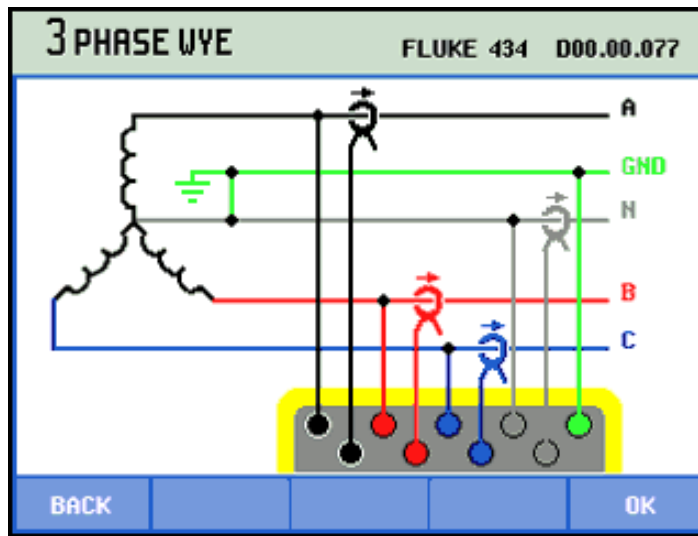


The Fluke 430 series provides three ways to analyze the measurements. Cursors and zoom can be used 'live' while taking the measurements, or 'offline' on stored measurement data. The stored measurements can also be transferred to a PC with FlukeView. This software's "view" mode allows cursors and zoom to be used on stored measurements as if actually working with the instrument. To perform custom analysis and to create reports, measurement data can be exported to common spreadsheet programs. The instrument can store up to 10 measurements, where each measurement can contain up to 32 parameters recorded for more than a year, and up to 50 screens

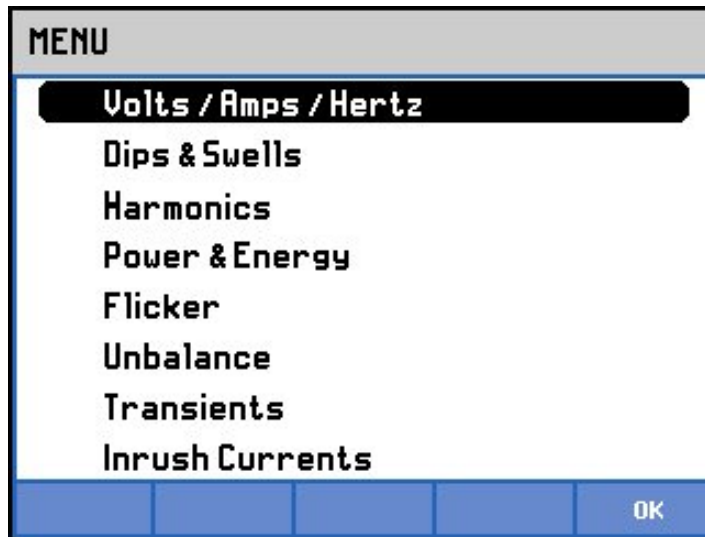
600 V CAT IV safety rating

Designed to help protect you and your equipment against electrical shock and fire, the Fluke 430 Series analyzers, accessories and charger are all certified to meet the stringent safety standards for use in 600 V CAT IV and 1000 V CAT III environments. They are the first tools of their kind to carry the CAT IV rating and can therefore be used at virtually all power connections and outlets in low-voltage power distribution systems

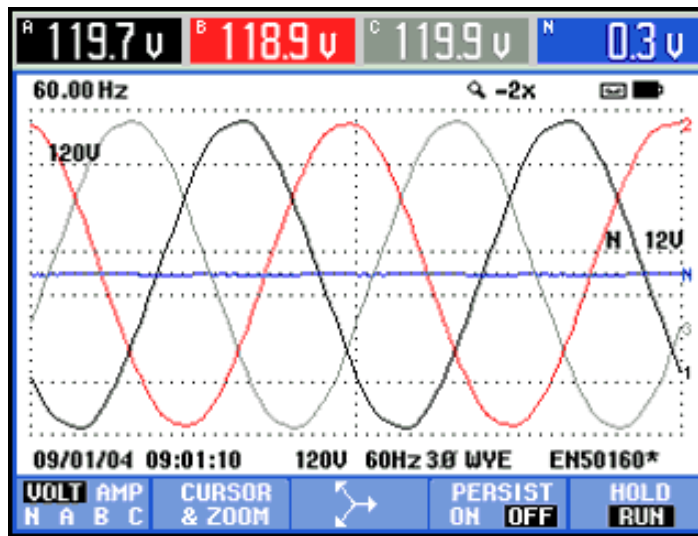
One tool to do the job



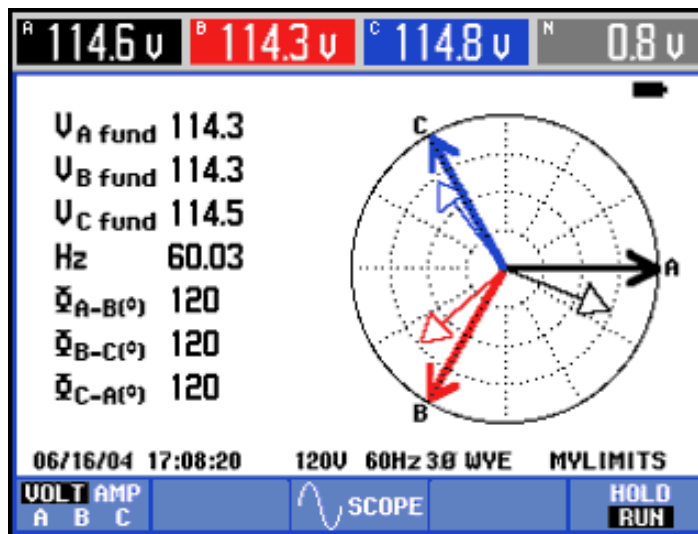
The full color display uses industry-standard color-coding (user selectable) to correlate measurements with actual wiring



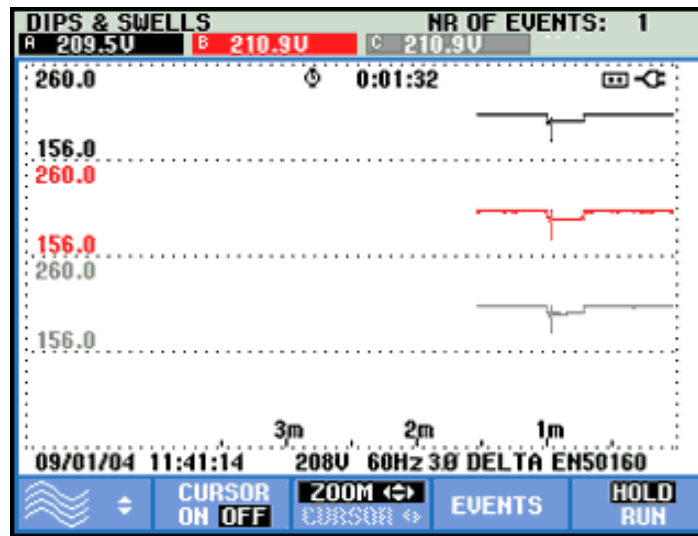
Simple menu structure with logical function grouping gives fast access to key measurements



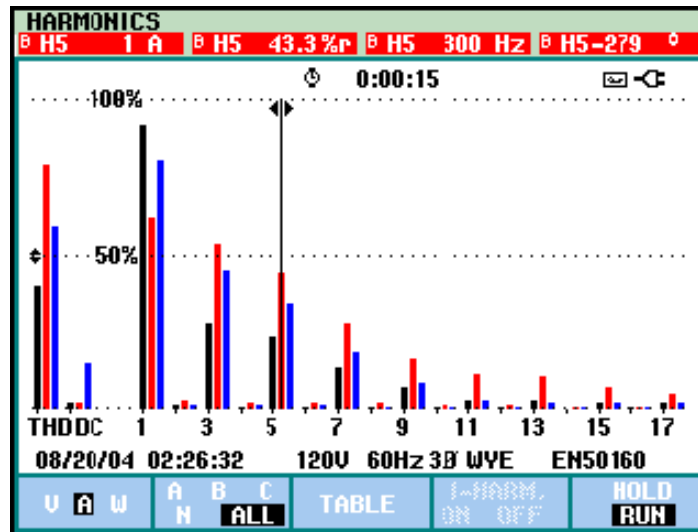
Scope view shows voltage and current waveforms for all three phases. You can toggle to a phasor diagram at any time



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



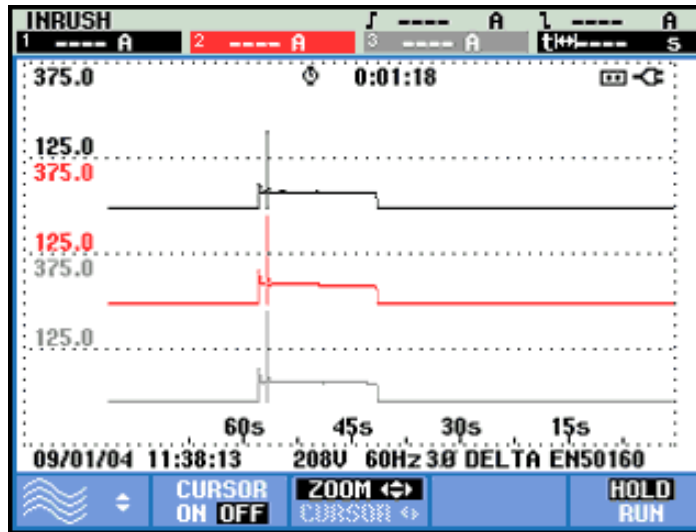
Record dips and swells as short as one half-cycle with min/max/avg readings



Track harmonics up to the 50th, and measure and record THD in accordance with IEC61000-4-7 requirements

POWER & ENERGY				
	FULL			0:08:15
	L1	L2	L3	Total
kW	8.65	21.29	22.53	52.47
kVA	8.79	22.11	22.60	53.28
kVAR	± 1.60	± 5.96	± 1.75	± 9.30
PF	0.98	0.96	1.00	0.98
Cosφ	0.99	0.97	1.00	
kWh	0.288	0.709	0.751	1.749
kVAh	0.293	0.737	0.753	1.776
kVARh	0.053	0.198	0.058	0.310
START 08/19/04 15:44:24		0:01:59		
PULSE CNT ON OFF		CLOSE ENERGY		RESET ENERGY

Measure and record power (W), VA, and VARs. The 434 adds the ability to record energy consumption



Inrush function captures starting current on motors and other devices to help determine trip levels

Choose the right tool

Feature	434	433
Application	Three-phase	
Inputs	4 voltage and 4 current (for 3 phases and ground)	

Measurements		
Vrms, Arms, Hz, W, VAR, VA, PF, Cos ϕ (DPF), Crest Factors	•	•
Harmonics and THD (V, A, W), k-factor	•	•
Inter-harmonics	•	Optional*
kWh and kVARh (forward and reverse), kVAH, demand interval	•	Optional*
Flicker (Plt, Pst, PF5)	•	•
Unbalance	•	•
Recorder/AutoTrend	•	•
System-Monitor	•	•
Real time scope/Phasor diagrams	•	•
Dips and swells/Half cycle based	•	•
Transient display	•	Optional*
Inrush current	•	Optional*
EN50160 compliance	•	•
IEC61000-4-30 compliance	•	•
Memory (screens/data)	50/10	25/5 standard 50/10 Optional*
FlukeView software and interface cable	•	Optional*
Safety rating (Meets EN61010 European standards)	CAT IV 600 V/CAT III 1000 V	
Battery life	Up to 7 hours/charge	

* Optional functionality can be added with upgrade kit. For details see ordering information.

Add the 434 functionality to the 433 with the Fluke 433 UGK Upgrade Kit

- Advanced functions upgrade (Inter-harmonics, energy, transient display and inrush current, data memory extension)
- FlukeView software SW43W
- USB Optical Cable

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