FLUKE

435

The Fluke 435 is a professional Three-Phase Power Quality Analyzer designed for troubleshooting and documenting power quality in power distribution systems. Fully compliant with IEC 61000-4-30 Class A standards, it features simultaneous recording on all phases and neutral, advanced diagnostic capabilities, and a rugged handheld form factor.

SPECIFICATIONS

General

Interfaces	Optical USB
Display	1/4 VGA color LCD (320 x 240 pixels) with backlight

Physical

Power Supply	NiMH battery pack (BP190) or external battery charger/mains adapter (BC190)
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	256 mm x 169 mm x 64 mm mm
Weight	2.0 kg

Input Channels & Configuration

Number of Voltage Inputs	4 (3 phases + neutral)
Number of Current Inputs	4 (3 phases + neutral)
Phase Configurations Supported	Single-phase, split-phase, 3-phase Wye, 3-phase Delta
Voltage Input Impedance	1 MΩ, 20 pF

Measurement Ranges & Input Characteristics

Maximum Input Voltage	1000 Vrms
Transient Voltage Measurement Range	Up to 6 kV

Measurement Performance & Accuracy

Nominal Frequency	50 Hz / 60 Hz
Transient Sampling Rate	200 kHz on all phases simultaneously
Compliance Standard	IEC 61000-4-30 Class A
Flicker Standard	IEC 61000-4-15 (Pst, Plt)

Power & Harmonic Analysis Functions

Supported Parameters	Active Power (P), Apparent Power (S), Reactive Power (Q), Power Factor (PF), Cos φ (DPF), Voltage, Current, Frequency, THD, Harmonics, Interharmonics, Flicker, Unbalance, Inrush, Transients, Mains Signaling, Energy
Harmonic Order Limit	Up to 50th harmonic
System Monitor Screen	Up to 7 power quality parameters on one screen according to EN50160

Data Logging, Memory & Visualization

Logger Function Capacity	Over 400 parameters at user-defined intervals
AutoTrend Feature	Automatically records all background parameters without manual setup
Trend Analysis Tools	Cursors and zoom tools active during background recording

Power Supply & Safety Compliance

Battery Operating Time	7 hours per charge
Safety Category Rating	600 V CAT IV / 1000 V CAT III

Physical & Environmental Specifications

Warranty	3 years

Measurement Accuracy

Voltage Measurement Accuracy	±0.1% of nominal voltage
Frequency Accuracy	±0.01 Hz
Active Power Accuracy	±1.0% of reading

Memory & Storage

Internal Flash Memory Capacity	16 MB

Environmental

Storage Temperature Range	-20 °C to +60 °C
Maximum Operating Altitude	3000 m
Ingress Protection Rating	IP51

Connectivity & Synchronization

GPS Synchronization Support	Supported via optional GPS120 module

Voltage Measurement

Voltage Crest Factor Range	1.0 to 10.0

Transient Measurement

Transient Minimum Duration	5 µs

Mains Signaling

Mains Signaling Frequency Range	60 Hz to 3000 Hz

Inrush Current

Inrush Duration Settings	1 s, 5 s, 10 s, 30 s, 1 min, 5 min

Harmonics Measurement

Interharmonics Range	1st to 50th harmonic

TECHNOLOGY

Three-Phase Power Quality Analysis

APPLICATIONS

Power monitoring, troubleshooting, quality-of-service compliance testing, and energy audits

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.