

Power Analyzer 2430-3HE



High-performance precision in both single and three-phases: a wattmeter, oscilloscope, and power spectrum analyzer in one. The 2400 power analyzer measures, computes and displays critical power variables so you can concentrate on more efficient & reliable testing. The 2400 Series provides simultaneous, precise voltage and current measurements while monitoring and displaying the power parameters you need in the format that best fits your application.

Extraordinary Features

- The analyzer inputs are all galvanically isolated.
- Broad band DC-300kHz.
- Wide input range (0.3V 1000V, 15mA 40A).
- Exceptional common mode rejection for use in frequency inverter driven systems.
- The accuracy is 0.1% (0.05% versions are available).
- The bright LCD monitor displays up to 10 measured values in well legible 9mm high numbers.
- The Three-Phase Power Analyzer puts up to 32 measured values on the screen.

Technical Specifications

8 ranges: 0.3 V, 1 V, 3 V, 10 V, 30 V, 100 V, 300 V, 1000 V Voltage

DC, 0.1 Hz – 1 MHz Frequency range Crest Factor 3:1 at 50 % full scale (fs)

160 dB/100 dB

Improved accuracy

±(0.05 % rdg + 0.07 % range)

Max. 1 A, 5 A, 30 A, resp.

3:1 at 50 % full scale (fs)

1.5 kV/50 Hz/ 1 minute 4 kV/50 Hz/1 minute

V accuracy 0.2 %

0-±5 V, accuracy 0.2 % 0-±5 V, accuracy 0.2 % 0-±10

DC, 0.1 Hz-300 kHz / 1 MHz

Input Impedance Common Mode 50 Hz/100 kHz Standard accuracy 23°C; rms, mean, rectified mean; 0.3V typical

±(0.1 % rdg +0.1 % range) 1 Hz-1 kHz ±(0.2 % rdg +0.2 % range) ±(0.3 %/ range + 0.04 % /kHz rdg) DC. 1 kHz-10 kHz 10 kHz-100 kHz

100 kHz-300 kHz ±(0.3 %/ range + 0.04 % /kHz rdg), typical

13 ranges: 1.5 mA, 5 mA, 15 mA, 50 mA, 150 mA, 500 mA, 1.5 A, 5 A; 1, 3, 10, 30, 100 A Current

> Frequency range Crest Factor

Common Mode 50 Hz/100 kHz 160 dB/120 dB Standard accuracy 23°C; 1 A-, 5 A-, shunt input 30 A input Lowest ranges 1.5 mA, 15 mA,

1 Hz-1 kHz ±(0.1 % rdg + 0.1 % rng) ±(0.1 % rdg + 0.1 % rng)DC, 1 kHz-10 kHz ±(0.2 % rdg + 0.2 % rng) ±(0.7 % 1 A: typical.

rdg + 0.2 % rng)10 kHz-100 kHz ±(0.3 % range + 0.04 %/kHz rdg) ±(0.3 % rng + 0.5 %/kHz rdg), typ100 kHz-300 kHz ±(0.3 % range + 10.04 %/kHz rdg) typ100 kHz-300 kHz ±(0.3 % range + 10.04 %/kHz rdg) typ100 kHz-300 kHz 0.04 %/kHz rdg), typical ±(0.05 % rdg + 0.07 % range)

104 ranges corresponding to the products V x Power

Frequency range DC, 0.1 Hz-300 kHz

45 Hz-65 Hz PF= 0 to ±0.1 PF= 0 to ±1 PF= 0 to ±1 PF=1

1 Hz-1 kHz

DC, 1 kHz-10 kHz 10 kHz-100 kHz(0.1 % rdg + 0.01 % range) Add accuracy percentage figures of current and voltage,

+0.04 %/kHz PF

Frequency 0.1 Hz-400 kHz, V triggered; Accuracy ±0.1 %.

Computed Values Accuracy; Reactive Power, Var=±(VA2-W2)1/2, Apparent Power: VA=Arms Vrms; Power Factor: PF=W/VA; Crest Factor: CF=Ap/Arms, Vp/Vrms: Add accuracy percentage figures of values involved

Form Factor: FF=At/Arms, Vt/Vrms; Impedance: Z=Vrms/Arms; Total Harm Dist: THD=(Irms2- Ifund2)1/2/Irms in computation.

Integrator Energy, Charge; Accuracy Wh, Vah, Varh, Ah; Basic accuracy

of integrated quantity.

Harmonic Analysis Frequency range of fundamental

1-99 Range of harmonic

Accuracy, Harmonic current and voltage

2 Hz-1 kHz ±(0.1 % rdg + 0.1 % range) 1 kHz-10 kHz ±(0.5 % rdg + 0.5 % range)

10 kHz.-100 kHz \pm (0.7 % range + 0.1 %/kHz rdg), typical

Blue liquid crystal graphic display with FL backlight 64×120 mm; 128 x 240 pixels Display

AC, 50-400 Hz; Fuse: Power 85 V-240 V; 2 A, 15 VA Power

Inputs to case or power supply Line input to case 2.5 kV/50 Hz/1 minute Dieletric Strength

Input to Input Dimension H x W x D: Weight

150 x 235 x 320 mm; 4 kg

IEEE-488-2, RS232, Centronics printer output Options 4 programmable analog outputs; single-, sum-, or average values 4 analog inputs 0- \pm 5V, input impedance 200 k Ω

4 analog inputs, 0-±10 V, input impedance 200 $k\Omega$ Rack Mounting Kit

Windows Operating Software 95, 98, 2000, NT, XP; transformer-motor testing

1 A input: set scaling to 0.1 Shunt input: 60 mV Shunt Lo corresponds to 1.0000 A

Shunt input, mV: 60, 60Ö10, 600, 600VÖ10, 6000, 6000Ö10

Input impedance: 60k