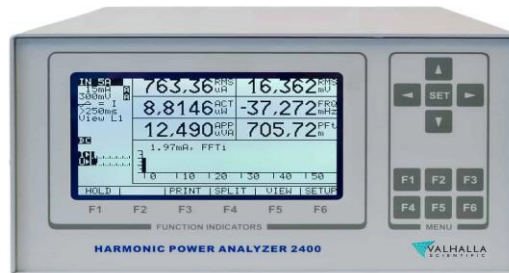


Power Analyzer 2430-3HS



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

Voltage	8 ranges: 0.3 V, 1 V, 3 V, 10 V, 30 V, 100 V, 300 V, 1000 V				
	Frequency range			DC, 0.1 Hz – 1 MHz	
	Crest Factor			3:1 at 50 % full scale (fs)	
	Input Impedance			1 MOhm	
	Common Mode	50 Hz/100 kHz		160 dB/100 dB	
	Standard accuracy 23°C; rms, mean, rectified mean; 0.3V typical			Improved accuracy	
	1 Hz-1 kHz	$\pm(0.1 \% \text{ rdg} + 0.1 \% \text{ range})$		$\pm(0.05 \% \text{ rdg} + 0.07 \% \text{ range})$	
	DC, 1 kHz-10 kHz	$\pm(0.2 \% \text{ rdg} + 0.2 \% \text{ range})$			
	10 kHz-100 kHz	$\pm(0.3 \% / \text{ range} + 0.04 \% / \text{kHz rdg})$			
	100 kHz-300 kHz	$\pm(0.3 \% / \text{ range} + 0.04 \% / \text{kHz rdg})$, typical			
Current	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			Max. 1 A, 5 A, 30 A, resp.	
	Frequency range			DC, 0.1 Hz-300 kHz / 1 MHz	
	Crest Factor			3:1 at 50 % full scale (fs)	
	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	$\pm(0.1 \% \text{ rdg} + 0.1 \% \text{ rng})$	$\pm(0.1 \% \text{ rdg} + 0.1 \% \text{ rng})$	DC, 1 kHz-10 kHz	$\pm(0.2 \% \text{ rdg} + 0.2 \% \text{ rng})$
	10 kHz-100 kHz	$\pm(0.3 \% \text{ range} + 0.04 \% / \text{kHz rdg})$	$\pm(0.3 \% \text{ rng} + 0.5 \% / \text{kHz rdg})$, typ	100 kHz-300 kHz	$\pm(0.3 \% \text{ range} + 0.04 \% / \text{kHz rdg})$, typical
	0.04 %/kHz rdg), typical			Improved accuracy 1Hz-400 Hz	$\pm(0.05 \% \text{ rdg} + 0.07 \% \text{ range})$
Power	104 ranges corresponding to the products V x A.				
	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 $\pm 0.1 \%$.				
Computed Values	Accuracy: Reactive Power, Var= $\pm(VA^2-W^2)^{1/2}$, 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	2.5 Hz-100 kHz			
	Range of harmonic			1-99	
	Accuracy, Harmonic current and voltage				
	2 Hz-1 kHz	$\pm(0.1 \% \text{ rdg} + 0.1 \% \text{ range})$	1 kHz-10 kHz	$\pm(0.5 \% \text{ rdg} + 0.5 \% \text{ range})$	
	10 kHz-100 kHz	$\pm(0.7 \% \text{ range} + 0.1 \% / \text{kHz rdg})$, typical			
Display	Blue liquid crystal graphic display with FL backlight		64x120 mm; 128 x 240 pixels		
Power	AC, 50-400 Hz; Fuse: Power			85 V-240 V; 2 A, 15 VA	
Dielectric Strength	Inputs to case or power supply Line input to case Input to Input			2.5 kV/50 Hz/1 minute	
Dimension	H x W x D; Weight			1.5 kV/50 Hz/ 1 minute 4 kV/50 Hz/1 minute	
Options	IEEE-488-2, RS232, Centronics printer output			150 x 235 x 320 mm; 4 kg	
	4 programmable analog outputs; single-, sum-, or average values 4 analog inputs 0 $\pm$ 5V, input impedance 200 k Ω			0 $\pm$ 5 V, accuracy 0.2 % 0 $\pm$ 5 V, accuracy 0.2 % 0 $\pm$ 10 V accuracy 0.2 %	
	4 analog inputs, 0 $\pm$ 10 V, input impedance 200 k Ω Rack Mounting Kit				
	Windows Operating Software 95, 98, 2000, NT, XP; transformer-motor testing				
1.5mA-1A Inp/ Shunt Input	1 A input Hi against ILo Shunt	1 A input, mA: 1.5, 5, 15, 50, 150, 500, 1500		1 A input: set scaling to 0.1 Shunt input: 60 mV corresponds to 1.0000 A	
	Hi Shunt Lo	Shunt input, mV: 60, 600 Ω 10, 600, 600V Ω 10, 6000, 6000 Ω 10			
		Input impedance: 60k			