

APS- Power Quality Analyser

Testing Frequency Up To 1000hz
For 3-phase/4-wire System



ABOUT PRODUCT

The APS – Power Quality Analyser is an easy-to-use power quality tool for the maintaining and troubleshooting three phase power. The three phase power quality meters helps to locate, predict, prevent and troubleshoot problems in power distribution systems. The meter offers a full range of troubleshooting features for preventing and analysing power quality problems.

PRODUCT PERFORMANCE

APS – Power Quality Analyser provides smart measurement and analysis for 3-phase/4-wire systems. The APS analyser is compatible with EN50160 with testing frequency up to 1000Hz.

LCD: 5.7" 640 x 480 TFT touch screen Input Impedance: >2M Ω , 20pF Measurement Range: Vrms 10~1000V Current: 5A, 10A, 100A, 1000A, 1500A and 3000A (with customized current clamps) Frequency: 30Hz~1000Hz Harmonic Measurement: 1~50th \square Inrush Current: 2000A Peak Voltage: 1000V Internal Memory: 16MB External Memory:4GB Communication Port: USB N.W.(main unit): 1.2 kg Battery: 14.4V 2000mAh Durable for 5 hours after full charge

MAIN FEATURES

- Portable design
- Colour touch screen
- Up to 50 times harmonic testing with frequency spectrum graph.
- Power testing: 3-phase apparent power, active power, reactive power, power factor, and 3-phase electric power.
- 3-phase unbalance testing with vivid chart
- Records at least 40 times of surge current
- Testing for wave motion, short-time flicker and long-time flicker
- Records up to 40 times of sag and swell
- Extended recording ability for basic (stable) power quality parameters.
- Recording time intervals: adjustable between 1 second and 30 minutes.
- Digital oscilloscope- checks waveform for voltage and current signal
- With Data View software for convenient analysing of testing results
- Compliant with EN 50160 Standard



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TECHNICAL SPECIFICATIONS

Specifications	Range	Accuracy
Voltage, Current & Frequency	Voltage: 10~700V (true rms)	Voltage: $\pm 0.2\%$
	Current: 0.5~3000A (true rms, with relevant CT)	Current: $\pm 0.5\%$
	Neutral current: 0.5~25A (true rms)	Frequency: $\pm 0.01\text{Hz}$
	Current peak: 0-3000A	
	Voltage peak: 0-1000V	
	Crest factor: 0-10	NOTE: Take L1 frequency as total measurement frequency.
Harmonics	Frequency: 30~1000Hz	
	Voltage: Total harmonic +1~50th	Voltage: $\pm 0.2(\%f)$
	Current: Total harmonic +1~50th	Current: $\pm 0.2(\%f)$
Harmonic Power	K-factor: 0-10	$\pm 0.5\%$
	Total harmonic: +1~30th	
	Total active harmonic power: ΣP	
	Total reactive harmonic power: ΣQ	
	Total positive active harmonic power: + ΣP	$\pm 0.5\%$
	Total negative active harmonic power: - ΣP	
Inter-harmonics	Total positive reactive harmonic power: + ΣQ	
	Total negative reactive harmonic power: - ΣQ	
Power & Energy	Voltage: total inter-harmonic +1~20th	Voltage: $\pm 0.2(\%r)$
	Current: total inter-harmonic +1~20th	Current: $\pm 0.2(\%r)$
	Active power: 0.05~700KW	Active power: $\pm 0.5\%$
	Apparent power: 0.05~700KVA	Apparent power: $\pm 0.5\%$
	Reactive power: 0.05~700KVAR	Reactive power: $\pm 1\%$
	Power factor: 0.00~1.00	Power factor: ± 0.005
	Active energy: 0.01~10000kWh	Active energy: $\pm 0.5\%$
Unbalance	Apparent energy: 0.01~10000kVAh	Apparent energy: $\pm 0.5\%$
	Reactive energy: 0.01~10000kVARh	Reactive energy: $\pm 1\%$
	Average power factor: 0.00~1.00	Average power factor: ± 0.005
	Fundamental voltage: 10~700V (true rms)	Voltage: $\pm 0.5\%$
	Fundamental current: 0.5~1000A (True rms)	Current: $\pm 0.5\%$
	Fundamental frequency: 40~70Hz	Frequency: $\pm 0.01\text{Hz}$
	Phase angle: 0~360o	Phase angle: ± 0.3 o
Data Recording	Unbalance: 0.0%~100%	Voltage unbalance: $\pm 0.2\%$
		NOTE: Take L1 frequency as total measurement frequency.
	Data logging for: 3 phase voltage, current, null current, voltage harmonic (THD and 1~25 harmonics), current harmonics (THD and 1~25 harmonics), unbalance, KW, KVA, KVAR, PF, flicker and fluctuation	Time interval: 1s~30min adjustable Time duration: <960 hours
Sags(Dips)/Swells	Voltage sag, voltage swells and instant interruption Event characteristics listed: Start time, ending time, duration time($\geq 20\text{ms}$) and voltage magnitude(rms1/2)	Maximal event recorded: 40 times Time: $\pm 10\text{ms}$
Fluctuation	Voltage fluctuation: 0.1%~10.0%	$\leq \pm 5\%$
Flicker	1min flicker, short-time(10min) and long-time(2h) flicker	1 minute short-time: $\leq \pm 5.5\%$ 10 minutes short time: $\leq \pm 5\%$ 2 hours long-time: $\leq \pm 5\%$
Inrush	Inrush Current, Inrush duration, Arms $\frac{1}{2}$, Expected Time, Max. Amp, Min. Amp, Threshold Amp	$\pm 10\text{ms}$
Transient	Voltage transient based on 120% above of nominal voltage	Capture rate: 98.7% Minimal detect duration: 20 μs
Power wave	Measure active power, reactive power, and apparent power semi-wave and power tendency of 1 min, 3 min and 5 min.	Semi-wave power reading $\pm 0.5\%$
Scope	3-phase voltage, 4-wire current, null voltage and null current waveform	Max sampling frequency: 200KHz Min sampling frequency: 100Hz

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ORDER INFORMATION

Configuration	Code
APS- Power Quality Analyser Kits	
APS- Power Quality Analyser with set of 4 color-coded C-5A current clamp and testing leads	Con. #3561.5A
APS- Power Quality Analyser with set of 4 color-coded CC-10A current clamp and testing leads	Con. #3561.10A
APS- Power Quality Analyser with set of 4 color-coded CC-20A current clamp and testing leads	Con. #3561.20A
APS- Power Quality Analyser with set of 4 color-coded CC-100A current clamp and testing leads	Con. #3561.100A
APS- Power Quality Analyser with set of 4 color-coded CC-500A current clamp and testing leads	Con. #3561.500A
APS- Power Quality Analyser with set of 4 color-coded CC-800A current clamp and testing leads	Con. #3561.800A
APS- Power Quality Analyser with set of 4 color-coded CC-1000A current clamp and testing leads	Con. #3561.1000A
APS- Power Quality Analyser with set of 4 color-coded AmFlex-1500A current clamp and testing leads	Con. #3561.1500A
APS- Power Quality Analyser with set of 4 color-coded AmFlex-3000A current clamp and testing leads	Con. #3561.3000A

Optional Current Clamps



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