

# 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 $\Omega$ , 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: $\Sigma P$	
	Total reactive harmonic power: $\Sigma Q$	
	Total positive active harmonic power: + $\Sigma P$	$\pm 0.5\%$
	Total negative active harmonic power: - $\Sigma P$	
Inter-harmonics	Total positive reactive harmonic power: + $\Sigma Q$	
	Total negative reactive harmonic power: - $\Sigma Q$	
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: $\pm 0.005$
	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: $\pm 0.005$
	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: $\pm 0.3$ 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 $\mu\text{s}$
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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