



SA2110 Power Quality Analyzer

Features

- Fully compliant with stringent international IEC6100-4-30 Class S standard
- 5.6 inch color LCD touch screen with refreshing User Interface
- Add new function: Dataflaging Data Aggregation, Inverter Efficiency, Mains Signaling, Harmonic Power, Waveform Recording
- IP53 protection grade
- High safety rating in the industry: CAT III 1000V/CAT IV 600V



Specification

	Measurement Range	Resolution	Accuracy
Voltage/Current/Frequency			
Vrms(AC+DC)	1 V~ 120 V	0.001V	Udin<100 V: ± 0.2 V Udin>100 V: $\pm U_{din} \times 0.2\%$
	120 V ~ 400 V	0.01V	
	400 V~1000 V	0.1V	
Vpk	1~ 1400 V	0.01V	$\pm 5\%$ of nominal voltage
V(Crest Factor)	1.0 ~ >2.8	0.01	$\pm 5\%$
Arms (AC, CT's error is not inclusive)			
10mV/A	0~150A	clamp's range×current proportion, 5 effective digits display	$\pm (0.1\% \text{ reading} + 0.05\% \text{ range})$
1mV/A	1A~2000A		$\pm (0.1\% \text{ reading} + 0.05\% \text{ range})$
Flexible coils	10A~6000A		$\pm (0.1\% \text{ reading} + 0.1\% \text{ range})$
A(Crest Factor)	1 ~ 10	0.01	$\pm 5\%$
Frequency	42.5Hz~57.5Hz (50Hz nominal)	0.01Hz	$\pm 0.01\text{Hz}$
	51Hz~69Hz (60Hz nominal)	0.01Hz	$\pm 0.01\text{Hz}$
	320Hz~480Hz (400Hz nominal)	0.01Hz	$\pm 0.01\text{Hz}$
Dips & Swells			
Vrms1/2	0 ~ 200% of nominal voltage	refer to Vrms	$\pm 0.5\%$ nominal voltage
Arms1/2	depends on current clamps	refer to Arms	$\pm (0.2\% \text{ reading} + 0.2\% \text{ range} + \text{CT})$
Harmonic (IEC61000-4-7)			
Harmonic Number	1 ~ 100 (50/60Hz)		
	1~12 (400Hz)		
Absolute Voltage	0-1000V	refer to Vrms	$\pm 5\%$ reading (harmonica $\geq 1\%$ nominal value) $\pm 0.05\%$ nominal voltage (harmonica<1% nomial value)

	Measurement Range	Resolution	Accuracy
Absolute Current	depends on current clamps	refer to Vrms	±5% reading (harmonica≥3% nominal value) ±0.05% nominal current (harmonica<3% nomial value)
THD	0.0 ~ 100.0%	0.01%	±2.5%
Phase	-180° ~180 0°	0.1°	± nx0.5° (n=harmonic number)
Harmonic Power (50/60Hz)	1-50	Min 0.01kW	± (5%+ n×2% +CT)
Harmonic Power (400Hz)	1-12		
K factor	1-50	0.01	±10% (Irms≥1% current range)
Power and Energy (IEEE1459)			
P, S, Q1	depends on nominal voltage and current clamps	mini 0.01kW	±(1%+10 digits+CT)
PF & cosΦ	0 ~ 1	0.01	±0.01
kWh, kVAh, kvarh	depends on nominal voltage and current clamps		±(1%+10 digits+CT)
Flicker (IEC61000-4-15)			
Pst(10min) Plt (2 hrs)	0.00 ~ 20.00	0.01	±5%
Unbalance			
Voltage	0.0 ~ 30.0%	0.01%	±0.1%
Current	0.0 ~ 30.0%	0.01%	±1%
Voltage Phase	-360° ~ 0°	0.1°	±0.1°
Current Phase	-360° ~ 0°	0.1°	±0.5°
Voltage Transient			
Vpk	±6000Vpk	0.01V	±15%
Vrms	10 ~ 1000Vrms	0.01V	±2.5%
Min. Test Time	5us		
Sample rate	200kS/s		
Inrush Current			
Arms	depends on current clamps	refer to Arms	±(1%+CT)
Inrush Duration	1 ~ 32min selectable	10ms	±20ms
Mains Signaling			
Signaling Frequency	60 ~ 3000Hz	0.1Hz	
Relative V%	0% ~100%	0.1%	±0.4%
Absolute V3s (average 3s)	0.0 ~ 1000V	0.1V	±5% of nominal voltage
Logger			
Memory	built-in Micro SD card, 32GB		
Duration Time	2 hrs to 1 year, depends on the recording items and time interval		
Interval	1s to 60 minutes		
Monitor			
Suport EN50160 in default or user-defined standard			
General Characteristics			
Communication	USB Host, LAN, WIFI		
Language	Multi language including Chinese, English, etc.		
Power	Li-ion, 38.48Wh (7.4 V,5200 mAh) / 12 V/2 A DC adaptor		
Screen	640×480 pixels, 5.6 inch color LCD touch screen		
Dimension/Weight	270(H)×200(W)×68(D) mm / approx. 2KGs		
Accessories			
Standard	Voltage Test Leads: 5pcs Alligator Clips: 5pcs Power Cord: 1pcs Power Adaptor: 1pcs		Soft carry bag: 1pcs Sticker of input port: 1pcs USB Flash Disk (Manual+PC software): 1pcs
Optional	AC CT	AC/DC CT	Rogowski Coil
	C01-5A	C05-1000AD	C06-15000A
	C02-100A		C07-3000A
	C03-200A		C08-6000A
	C04-1000A		
(*including the colorful identification clip)			
	Voltage Magnetic Connector Hard Protection Case Beidou/GPIB receiver		

