

**Accessories**

Voltage Test Leads		(2m) × 5 pcs	Soft Carry Bag		1 pcs
Alligator Clips		5 pcs	CD (Software, Manuals)		1 pcs
Power Cord Power Adapter		1 pcs	Sticker of input port (SA2200)		1 pcs

**CT Clamps**

Clamp Mode	KLC8C-5A	CTC0080	CTC0130	CTC1535	ETCR035AD
Apperance					
Measurement Range	0~5A	0~50A	1~100A	1~1000A	0.0~1000A (AC/DC)
Output Voltage Ratio	10mV/A	10mV/A	1mV/A	1mV/A	1mV/A
Accuracy	0.2%	0.2%	0.2%	1%	±3%
Frequency Characteristic	45Hz~55Hz	50Hz~400Hz	50Hz~400Hz	40Hz~100kHz	AC: 45Hz~400Hz
Clamp Radius (mm)	8	8	13	52	30×35
Dimension (mm)	158×43×24	171×46×27	174×52×27	111×216×45	122×70×33
Cable Length (cm)	200	200	200	200	150
Power	○	○	○	○	9V Dry cell 6LR61

Flexible Probes Mode	SY-1500A	PY-3000A	PY-5000A(SA2100)	SY-6000A(SA2200)
Apperance				
Measurement Range	1~1500A	15~3000A	20~5000A	20~6000A
Output Voltage Ratio	100mV/1000A @ 50Hz	65mV/1000A @ 50Hz	50mV/1000A @ 50Hz	65mV/1000A @ 50Hz
Accuracy	±0.5% + Position Error	±1% + Position Error	±1% + Position Error	±1% + Position Error
Maximum Allowable Input	100KA	100KA	100KA	100KA
Phase Error	<±1°	<±1°	<±1°	<±1°
Noise	<2mVrms (10Hz~10KHz)	<2mVrms (10Hz~10KHz)	<2mVrms (10Hz~10KHz)	<2mVrms (10Hz~10KHz)
Frequency Characteristic	10Hz~10KHz (-3dB)	10Hz~10KHz (-3dB)	10Hz~10KHz (-3dB)	10Hz~10KHz (-3dB)
Weight	110g	130g	150g	150g
Length	200cm	200cm	200cm	200cm
CT Perimeter	35cm	50cm	80cm	80cm
Measurement Position Error	±1%	±2%	±2%	±2%


**Selection Guide**

Model	SA2100	SA2200
Standard compliance	IEC61000-4-30 Class S	IEC61000-4-30 Class A
Voltage/Current	●	●
Frequency	● (50Hz, 60Hz, 400Hz)	● 50Hz, 60Hz, 400Hz
Dips /swell	●	●
Harmonics	● 1-50th (50/60Hz)	● 1-100th (50/60Hz)
Power / Energy	●	●
Unbalance	●	●
Monitor	●	●
Inrush	●	●
Flicker	●	●
Transients	● 20kS/s	● 163.84kS/s
Logger	●	●
Wave Recording	○	●
Channel (Voltage/Current)	4/4	1-1000Vrms, 6000V transient voltage
Voltage Range	depends on supplied current clamp	depends on supplied current clamp
Current Range	○	●
Input Characteristics	1-1000Vrms, 6000V transient voltage	depends on supplied current clamp
PC Software Analysis	Micro SD card (build-in)	●
Storage	8GB	32GB
Battery	Ni-MH, 3800mAh/>7h	Lithium ion, 5200mAh/>8h
Time Synchronization	○	● (option)
Communication	USB Host, LAN	USB Host, LAN, WIFI
WIFI App	○	● (option)
Screen	5.6' TFT LCD /320*240	5.6' TFT LCD /640*480
Dimension/Weight	262x 173x66 mm/1.6kg	270 x 190x66mm/2.0kg
Wire Combinations	1Ø+NEUTRAL, 1Ø SPLIT PHASE, 1Ø IT NO NEUTRAL, 3Ø WYE, 3Ø DELTA, 3Ø IT	3Ø HIGH LEG, 3Ø OPEN LEG, 2-ELEMENT, 2 1/2-ELEMENT
General Characteristic	IEC61010-1 ,Safety Degree: 600V CAT IV 1000V CAT III	





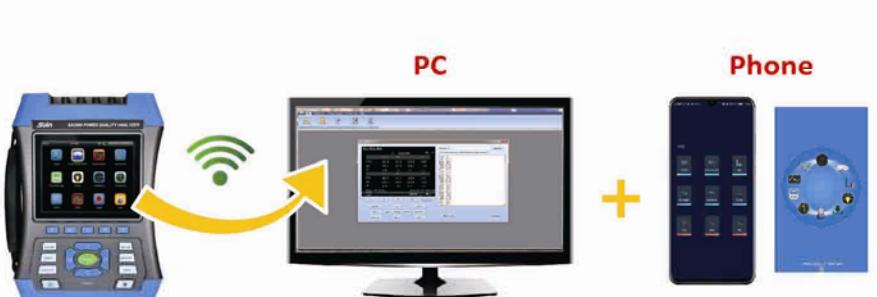
Standard compliance:IEC61000-4-30 Class S

## SA2100

### Specification

#### Measurement

	Measurement Range	Resolution	Accuracy
<b>Voltage/Current/Frequency</b>			
Vrms(AC+DC)	1 ~ 1000Vrms	0.1Vrms	±0.5% of nominal voltage
Vpk	1 ~ 1400Vpk	0.1Vpk	±0.5% of nominal voltage
V(Crest Factor)	1.0 ~ >2.8	0.01	±5%
Arms (AC)	10mV/A 1mV/A 50mV(65mV)/1000A	0.1A	±0.5%±0.2A
A(Crest Factor)	1~1000A 15~5000A 1 ~ 10 42.5~57.5 (50Hz nominal)	0.1A 1A 0.01 0.01Hz	±0.5%±0.2A ±1%±2A ±5% ±0.01Hz
Frequency	51~69 (60Hz nominal) 385~414 (400Hz nominal)	0.01Hz	±0.01Hz ±0.1Hz
<b>Dips &amp; Swells</b>			
Vrms1/2	0 ~ 200% of nominal voltage	0.1Vrms	±1%
Arms1/2	1 ~ 3000A	1A	±1% ±2A
Duration	hour-minute-second-microsecond	0.5 cycle	1 cycle
<b>Harmonic (IEC61000-4-7)</b>			
Harmonic Number	1 ~ 50		
Harmonic Voltage %f	0.0 ~ 100.0%	0.1%	±0.1% ± nx0.1%
Harmonic Current %f	0.0 ~ 100.0%	0.1%	±0.1% ± nx0.1%
THD	0.0 ~ 100.0%	0.1%	±2.5%
Phase	-360° ~ 0°	1°	± nx1.5°
<b>Power and Energy</b>			
Active Power/Apparent Power	1.0 ~ 20.00MW	0.1kW	±1.5±10 digits
KWh	0.00kWh ~ 200GWh	10Wh	±1.5±10 digits
Power Factor	0 ~ 1	0.01	±0.03
<b>Flicker (IEC61000-4-15)</b>			
Pst(1min),Pst,Plt,PF5	0.00 ~ 20.00	0.01	±5%
<b>Unbalance</b>			
Voltage	0.0 ~ 5.0%	0.1%	±0.5%
Current	0.0 ~ 20.0%	0.1%	±1%
Voltage Phase	-360° ~ 0°	1°	±2 digits
Current Phase	-360° ~ 0°	1°	±5 digits
<b>Voltage Transient</b>			
Vpk	±6000Vpk	1V	±15%
Vrms	10 ~ 1000Vrms	1V	±2.5%
Min. Test Time	50us		
<b>Inrush Current</b>			
Arms	0~3000Arms	0.1	±1% ± 5 digits
Inrush Duration	6s ~ 32min selectable	10ms	±20ms
<b>Logger</b>			
Recording	user-defined parameters for 4 phases at the same time		
Memory	Data stored in Micro SD card, 8GB		
Duration Time	2 hrs to 1 year, depends on the recording items and time interval		
Interval	1s to 60 minutes		
Monitor	Support EN50160 in default or user-defined standard		



Standard compliance:IEC61000-4-30 Class A



## SA2200

### Specification

#### Measurement

	Measurement Range	Resolution	Accuracy
<b>Voltage/Current/Frequency</b>			
Vrms(AC+DC)	1 ~ 120Vrms	0.001Vrms	±0.1% of nominal voltage
Vpk	120Vrms~400Vrms	0.01Vrms	±0.5% of nominal voltage
V(Crest Factor)	400~1000Vrms	0.1Vrms	±5%
Arms (AC)	1~1400Vpk 1.0 ~ >2.8 10mV/A 1mV/A 65mV/1000A	0.01 0.01 0.01A 0.01A 0.01A	±0.5%±0.1A ±5% ±0.1%±0.1A ±0.1%±0.2A
A(Crest Factor)	1~2000A	0.01A	±5%
Frequency	10~6000A 42.5~57.5 (50Hz nominal) 51~69 (60Hz nominal) 320~480 (400Hz nominal)	0.01A 0.01Hz 0.01Hz 0.01Hz	±0.01A ±0.01Hz ±0.01Hz ±0.01Hz
<b>Dips &amp; Swells</b>			
Vrms1/2	0 ~ 200% of nominal voltage	0.01Vrms	±0.2%
Arms1/2	depends on current clamps	0.01A	±1%
<b>Harmonic (IEC61000-4-7)</b>			
Harmonic Number	1 ~ 100(50/60Hz) (IEC61000-4-7)	1~12(400Hz)	
Harmonic Voltage %f	0.0 ~ 100.0%	0.01%	±0.1% ± nx0.1%
Harmonic Current %f	0.0 ~ 100.0%	0.01%	±0.1% ± nx0.1%
THD	0.0 ~ 100.0%	0.01%	±2.5%
Phase	-180° ~ 180°	0.1°	± nx0.1°
<b>Power and Energy</b>			
P, S, Q1	Max. 6000MW	0.1kW	±1%±10 digits
PF & cosΦ	0 ~ 1	0.01	±0.01
kWh, kWh, kVAh, kvarh	depends on nominal voltage and current clamps		±1%±10 digits
<b>Flicker (IEC61000-4-15)</b>			
Pst(10min)/Plt (2 hrs)	0.00 ~ 20.00	0.01	±5%
<b>Unbalance</b>			
Voltage	0.0 ~ 20.0%	0.1%	±0.1%
Current	0.0 ~ 20.0%	0.1%	±1%
Voltage Phase	-360° ~ 0°	0.1°	±0.1°
Current Phase	-360° ~ 0°	0.1°	±0.5°
<b>Voltage Transient</b>			
Vpk	±6000Vpk	0.01V	±15%
Vrms	10 ~ 1000Vrms	0.01V	±2.5%
Min. Test Time	6.5us		
<b>Inrush Current</b>			
Arms	depends on current clamps	0.01	±1% ± 5digits
Inrush Duration	1 ~ 32min selectable	10ms	±20ms
<b>Logger</b>			
Recording	user-defined parameters for 4 phases at the same time		
Memory	Data stored 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	Support EN50160 in default or user-defined standard		

\* Our company reserves the right to change the specification of the catalogue without notice