

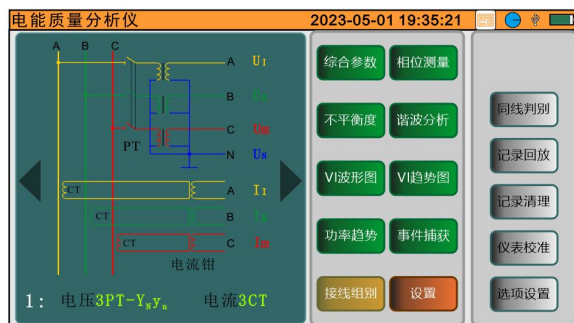


Product Features

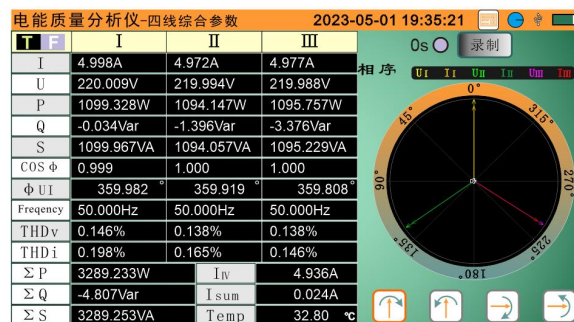
1. Make comprehensive analysis and diagnosis of three-phase power quality.
2. 4 types of current sensors provide options to application on various sites.
3. 4-channels current and 3-channels voltage are measured simultaneously.
4. The test accuracy is 0.5 class, the test is stable and the anti-interference ability is strong.
5. Touch colorful screen, simple human-machine operation, and switch with different operation language(Chinese & English).
6. USB communication uploads the recorded test results to the computer for analysis.
7. Equip with large capacity lithium battery.

Product Functions

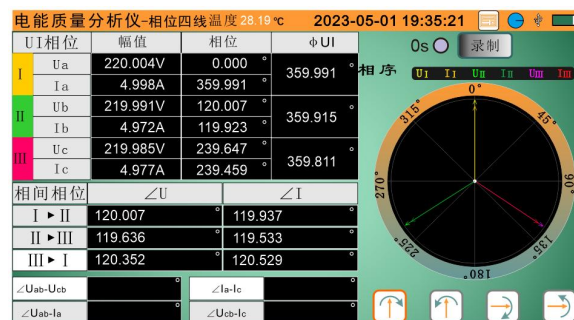
1. Waveforms real-time display (3 channels voltages/4 channels currents).
2. True effective values(TRMS) of voltage and current.
3. Phase diagram display.
4. Each phase harmonics measurement, harmonic up to 50 orders.
5. The bar graph shows the harmonic content rate of each phase current and voltage.
6. Total harmonic distortion (THD).
7. Active/reactive/apparent power value and total value of each phase.
8. Voltage & current power trend chart.
9. Three-phase unbalance measurement (voltage and current).
10. Record wave forms and parameters.
11. Screenshot and save.
12. Touch screen operation.
13. Voltage flicker, voltage surge and voltage drop capture.
14. Starting current and surge current monitoring.
15. USB interface communicate with the computer host computer.
16. Setting the wiring connection method and power network type of the instrument.
17. Selecting different clamp current sensor and different voltage test ratio.



Power on main interface



Comprehensive parameters - 3-phase 4-wire test interface



Phase measurement - 3-phase 4-wire test interface



Unbalance - 3-phase 4-wire test interface

Technology Specifications





Power Supply	Rechargeable lithium battery 7.4V, 5200mAH, external charger
Display Mode	5 inch touch colorful screen
Working Current	About 490mA
Clamp Current Sensor (Optional)	Clamp current sensor 015B: 17mmX18mm; Clamp current sensor 042B: Φ40mm Clamp current sensor 050B; Φ50mm Flexible coil current sensor 300FA: Φ300mm
Meter Dimension	210mmX129mmX68mm
Channel	3 channels voltage, 4 channels current
Voltage Range	2V~600V
Current Range	Clamp current sensor 015B: 10mA~10.0A Clamp current sensor 042B: 0.1A~100A Clamp current sensor 050B; 1A~1000A Flexible coil current sensor 300FA: 10A~6000A
Frequency	40Hz~70Hz
Harmonic	Yes, 2~51 orders
Total Harmonic Distortion	Yes, 2~51 orders, each phase
Three-Phase Unbalance	Yes
Communication Interface	USB
Battery Power Indication	Battery symbol will display battery power, when the battery power too low, the instrument will automatic shutdown
Automatic Shut Down	During record function acting, the meter will not automatic shutdown During record function off, can setting the automatic shutdown time of 15minutes, 30minutes, 60minutes.
Instrument Weight	Total weight: about 8kg (include all accessories)
Input Impedance	Test voltage input impedance: 1MΩ
Withstand Voltage	The instrument circuit and the housing can withstand 3700V/50Hz sine wave AC voltage for 1 minute.
Insulation	Between the instrument circuit and housing≥10MΩ
Structure	Double insulation, with insulation anti-vibration sheath
Suitable Safety Standard	IEC-61010 CAT III 1000V / CAT IV 600V, IEC-61010-031, IEC-61326, Pollution Degree 2
Working Temperature	-10°C~40°C; Below 80%RH
Storage Temperature	-10°C~60°C; Below 80%RH
Accessories	Host: 1PCS; Instrument bag: 1pcs; Pen probe test lines: 4PCS (each 1PCS of yellow, green, red, black); Alligator clip: 4PCS; Charger 1PCS; Software CD: 1COPY; 4G Memory card: 1PCS. Clamp current sensor: (optional)

Instrument Accuracy

Measurement specification	Range	Display resolution	Max Error
Frequency	40Hz~70Hz	0.001Hz	±(0.03)Hz
Voltage True RMS	2V~600V	Min resolution 0.001V	±(0.5%Fs)
Current True RMS	10mA~6000A	Min resolution 0.001A	±(0.5%Fs)
Active Power	0.0000W~3600kW	Min resolution 0.001W	±(1%+3dgt); Cosφ≥0.8 ±(1.5%+10dgt); 0.2≤Cosφ<0.8
Reactive Power	0.000VAR~3600kVAR	Min resolution 0.001VAR	±(1%+3dgt); Sinφ≥0.5 ±(1.5%+10dgt); 0.2≤Sinφ<0.5
Apparent Power	0.0000VA~3600kVA	Min resolution 0.001VA	±(1%+3dgt %)
Power Factor	-1.000~1.000	0.001	±(1.5%+3dgt); Cosφ≥0.5 ±(1.5%+10dgt); 0.2≤Cosφ<0.5
Phase Angle	0°~360°	0.001°	±(2°)
Voltage Harmonic Ratio 1~50 Orders (Vrms>50V)	0.0%~99.9%	0.001%	(1~20 orders)±(1%rdg+5dgt) (21~30 orders)±(1%rdg+10dgt) (31~50 orders)±(1%rdg+15dgt)
Voltage Harmonic Angle (Vrms >50V)	0°~360°	0.001°	±(3°) harmonic 1~25 orders ±(10°) harmonic 26~50 orders
Current Harmonic Ratio 1~50 Orders (Arms>I range/100)	0.0%~99.9%	0.001%	(1~20 orders)±(1%rdg+5dgt) (21~30 orders)±(1%rdg+10dgt) (31~50 orders)±(1%rdg+15dgt)

Current Harmonic Angle (Arms >Arms>I range/100)	0°~360°	0.001°	±(3°) harmonic 1~25 orders ±(10°) harmonic 26~50 orders
Total Harmonic Rate (DF or THD-F)≤50	0.0%~99.9%	0.001%	±(1%rdg+10dgt)
Distortion Factor (DF or THD-R)≤50	0.0%~99.9%	0.001%	±(1%rdg+10dgt)
Three-phase Unbalance	0.0%~100 %	0.1%	±(1 %)

Current Sensor Characteristics (Optional)

Current Sensor Model	Clamp Current Sensor	Current True RMS	Range	Current True RMS Max Error	Phase Angle φ Max Error
ETCR015B CT Size: 17mmX18mm		10mA~99mA	10.0A	±(1% + 3dgt)	±(1.5°), Arms≥20m A
		100mA~10.0A		±(1% + 3dgt)	±(1.5°)
ETCR042B CT Size: Φ40mm		0.10A~0.99A	100A	±(1% + 3dgt)	±(1.5°)
		1.00A~100A		±(1% + 3dgt)	±(1.5°)
ETCR050B CT Size: Φ50mm		1.0A~9.9A	1000A	±(2% + 3dgt)	±(3°)
		10.0A~1000A		±(2% + 3dgt)	±(2°)
ETCR200F CT: Φ200mm		10A~99A	6000A	±(1% + 3dgt)	±(3°)
		100A~6000A		±(1% + 3dgt)	±(3°)

