

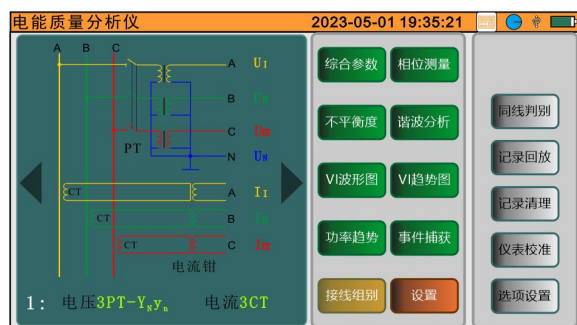


Product Features

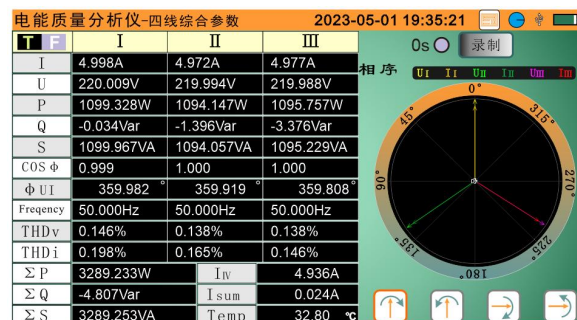
1. Make comprehensive analysis and diagnosis of three-phase power quality.
2. 4 types of current sensors provide options to application on various sites.
3. 4-channels current and 3-channels voltage are measured simultaneously.
4. The test accuracy is 0.5 class, the test is stable and the anti-interference 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

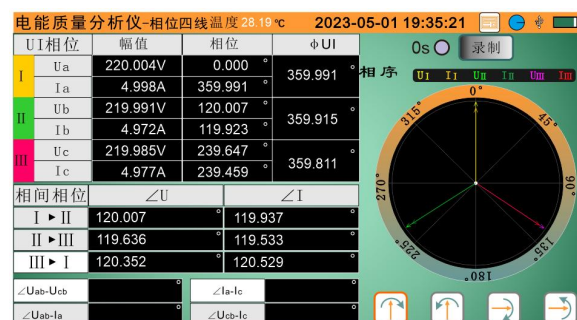
1. Waveforms real-time display (3 channels voltages/4 channels currents).
2. True effective values(TRMS) of voltage and current.
3. Phase diagram display.
4. Each phase harmonics measurement, harmonic up to 50 orders.
5. The bar graph shows the harmonic content rate of each phase current and voltage.
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.



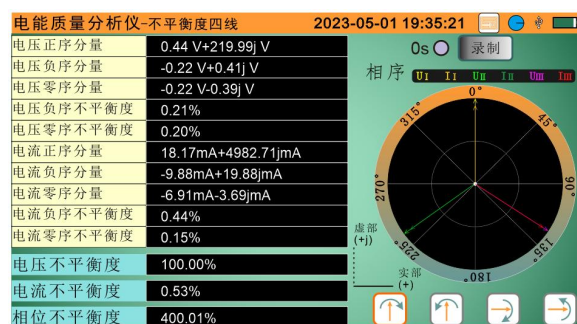
Power on main interface



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 | 240mmX170mmX68mm |
| 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; 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°) |

