Portable Three Phase Energy Meter Test Bench

Product Features:

1. Show on high-brightness, high-definition, high resolution ratio 5.7□ (320*240) TFT color liquid crystal display;

2. The system utilizes high-speed, high-accuracy digital multiplier to measure all parameters such as active (reactive) power, voltage, current, frequency, phase etc and calibrates them through software;

3. This device has no potentiometer, which protects it from error change caused by transportation or other factors, and increases stability and reliability of the system greatly;

4. The self-calibrate function of transformer is able to assure its worst case accuracy stability. When used 5A or 1A split core current transformer, the current reaches 1mA,it is able to check the line connection under the situation that there are PT, CT but they are unloaded;

5. Self-test between phases guarantees the accuracy stability of this device all the time;

6. The system adopts the digital absolutely reactive testing technology that is first invented in our country. This technology makes testing under reactive come true, not influenced by voltage and current unbalance, phase angle dissymmetry and frequency change.
This technology also increases the reactive accuracy rate up to 0.1% the first time in our country.

7. Assure the electric energy accuracy (0.1% or 0.05%) between the temperature of -20□ to +40□ ;

8. Equipped with ±0.2 %5A transformer (including split non-repeat errors, touching errors, Outside magnetic field interference errors, angle errors and so on);

9. Equipped with 20A, 100A, 500A, 1000A transformer to directly test low voltage gauging integrative errors and CT changes cooperated with 5A transformer;

10. The automatic switching range of voltage is from 30V to 480V. Current input value is 5A;

11. Wide range electric source input is AC 57.7~480V, supplied by inner batteries (no need to connect to outside charger when charged) or AC power input. It is a double choice;

12. Identify three-phase three lines 48 kinds errors and three-phase four lines 96 kinds errors in four quadrants, showing hexagonal monogram with any line connection;

13. The hexagonal monogram of any kind of line connection can be used for line check training, after showing incorrect identification;

14. Able to test 2nd ~51st harmonic wave of three-phase voltage and current, and save all harmonic wave data;

15. Able to show three waveforms of voltage and current at the same time;

16. Provide error calibrating function, so that it is convenient to calibrate errors, but it needs password;

17. Save all testing data of 10000 watt-hour meters, including working parameters, conveniently for analysis;

18. Able to communicate with PC, very convenient to connect to the original database and management system, able to be attached with <RT watt-hour meter management system> software to realize a situation like that working without paper;

19. Able to update software and download checking data via flash disk;

20. Check single-phase, three-phase three lines, three-phase four lines active and reactive induction type watt-hours meter and electronic watt-hours meters(able to receive impulse of electronic watt-hours meter) automatically or by hand;

21. Able to calibrate voltage, current, power, power factor, phase and frequency of electro technical instrument and transmitter by comparison;

22. Able to check PT and CT secondary load, calibrate parameter of watt-hour meter and measure four-quadrant electric energy;

23. Calibrate the errors of three-phase Watt-Hours meter active and reactive power at one time, check the errors of main mater and sub-meter at one time and calculate estimated value of standard deviation automatically;

24. Equipped with plastic box to hold this device, light and convenient.

Technical Parameters:

Voltage	AC 30-480V		
Current	Terminal input	5A	
Transformer input	5A	20A 100A 500A 1000A	
transformer input	5A	20A	±0.2% (with self-calibrate function)
100A	500A 1000A	±0.5%	
Constant of electric energy	5A impulse	FL=36000P/KWh FH=3.6×10000000P/KWh	
others	FL=36000×5/rated current (P/KWh)	FH=3.6×10000000×5/ rated current (P/KW	

Frequency	45-55Hz
Phase testing range	-180--+180º
Transformer rate ratio	< ±0.5%
Voltage influence	< ±0.01%
Frequency influence	< ±0.01%(45-55Hz)
Temperature influence	< ±5ppm/ □ (typical)
Variation within 24hours	

(0.1level) < ±0.02% (0.5 level) < ±0.01%

Intrinsic errors		U. I harmonic wave test	
Terminal input		Testing range	2-51 harmonic wave
Active electric energy	±0.1% ±0.05%	Testing accuracy	±0.01%(relative to 100% fundamental wave)
Reactive	electric energy ±0.1%	Other technical data	

Power	±0.1% ±0.05%	Power source	AC57.7~480V (50~60Hz)	
Voltage	±0.1% ±0.05%	Power consuming	About 10VA	
Current	±0.1% ±0.05%	Ambient temperature	-20□	--+40□ (assure acc

Frequency	±0.05Hz	Relative humidity	40%-95% no moisture condensation	
Phase	±0.1º ±0.05º	Preheat time	< 3 minutes	
Weight	1.8kg	Size	(Length) 249*(width)154*(height)	58 mm