

PITE's Meter Test Equipment

Before PITE acquires Haiyan, our series power meter test equipments have been active players in the market since the year 1975. With Haiyan's more than 35 years rich experience and expertise in developing and manufacturing power meter calibrating equipments, PITE's new series testing systems have been widely applied by metrological institutes, QC department, test laboratories, meter manufacturer and management department of energy providers. With optional standard referenced meter, amplifier, meter position and so on, customers with different demands will find their ideal models accordingly.

PITE 9353 Three-phase Kwh Meter Test Equipment

Design of A
Standard equipment



The Equipment



PITE 9353 consists of the latest power electronic developments, newest digital measurement engineering and system-control software solutions according to the actual standards. It is specially designed to calibrate all 3 phase electronic and inductive watt-hour meters, 3 phase multi-rate meters and single phase power meters (optional). It covers reactive power meters of different measuring theories including 3 phase 4 wire true reactive meter, 3 phase 3 wire true reactive meter, 3-element 90°artificial reactive meter, 2-element 90°reactive meter and 2-element 60°reactive power meters.

Features

- ◆ Modular design allows customized configurations on hardware and software, customer-friendly and future-proof
- ◆ Perform measuring like shunting, starting, basic errors, standard deviation and etc with multiple measurement modes: automatic, semi-automatic or manual measurement for power meters
- ◆ Able to measure all types of single phase mechanical meters, electric mechanical meters and electronic meters of class 0.5 or lower; different meters could be measured simultaneously

- ◆ There are error calculation reset buttons in error testing panel of each meter position; error of each meter is shown on LED display timely.
- ◆ Config with specific meter connector of intelligent meter standard, connected at one time for measurement of voltage, current and small signal
- ◆ Measuring functions for current open-circuit, auto short-circuit and malfunction, and with optional modular for temperature monitor
- ◆ Use multilink protocol converting server for communication protocol conversion, each meter position has independent RS485 interface for communication processing.
- ◆ Rs485 and Rs232 communication interfaces isolated from each other
- ◆ Able to test output accuracy of meter timing pulse, and measure daily timing error
- ◆ Voltage auto searching color code, time saving for measurement of shunting and starting
- ◆ Able to calibrate different mechanical and electronic power meters or different constants at the same time
- ◆ Universal barcode input, and supports self-defined barcode
- ◆ Smart solutions for calibration with updateable software
- ◆ Temporary storage of data for later continued calibration
- ◆ Calibrate parameters including voltage, current of each phase, phase/phase difference, active/reactive/apparent power of each phase, total active/reactive/apparent power, total power factor, frequency, etc with real time display of vector graph
- ◆ Self-testing function for all phases power, total power stability, symmetry of 3 phase voltage and current
- ◆ Measure vibration caused by influence qualities like voltage, frequency, harmonics and external magnetic field
- ◆ Powerful PC software for data analyzing, waveform playback and detailed report exportation



- ◆ Harmonic testing adjustable from 2 to 21 times with harmonic distortion measurement
- ◆ Reserved MIS net interface, future proof for update
- ◆ With auto restore function for malfunction-protection
- ◆ Experiment for meter online countering ensures accuracy of power meters
- ◆ Optional to calibrate single phase power meters

Technical parameter

Accuracy class:	PITE 93XXC: 0.1 PITE 93XXD: 0.05 PITE 93XXE: 0.03
Output voltage:	0~380V 0~120% consecutively adjustable regulating fineness better than 0.01%

Output Current:	0.01-100A 0~120% consecutively adjustable, Regulating fineness better than 0.01%
Output Power:	≥ 20VA for voltage circuit each meter position ≥ 25VA for voltage circuit each meter position
Output power stability:	0.1 class equipments: ≤0.1%/120S PF=1.0 0.05 class equipments: ≤0.05%/120S PF=1.0 0.03 class equipments: ≤0.03%/120S PF=1.0
Output wave distortion	≤0.5%
Three-phase symmetry:	≤120°±0.3°
Frequency:	45~65HZ, regulating fineness: 0.01HZ
Phase shifting range:	0°~360°, regulating fineness: 0.1°
Stability of standard crystal oscillator:	10 ⁻⁷
Phase:	0.5°
Instruments Monitoring rate:	Voltage: 0.2 Current & Frequency: 0.5
Voltage-withstand test:	Output voltage: 500~4000V, Regulating scope: 0~120%, consecutively fine adjustment Master-control Leakage current: 100mA±5% Sub-control leakage current: 5mA Voltage withstand time: can be set arbitrarily High voltage output capacity: 500VA Insulation resistance: ≥5MΩ; Voltage-withstand intensity: ≥AC 2000V/1min
Meter positions	12, 24, 36, 48 meters (customized configuration)
Power supply voltage:	3*220V±10%, 50HZ
Working environment:	Temperature: 20±5℃ 35%<humidity<85%