

MTS-100 Meter Test System(100A)



Phase: 3
Accuracy class: 0.05 or 0.1
AC voltage output: 0-792V
AC current output: 0-120A

This Meter Test System features state-of-art designing with high accuracy. It is composed of high accurate (class 0.05% or 0.1%) standard reference meter and power source (up to 120A). This system is particularly designed with modular structure for calibration and test of different single phase/3 phase electronic/inductive active and reactive energy meters.

Main function:

- ◆ Calibrate all kind of single/three phase electronic/inductive active and reactive energy meter;
- ◆ Automatically or single-step manually test basic error, creeping, starting, standard deviation of single/three phase energy meter, save user-defined calibrating scheme in Auto calibration;
- ◆ Support variables influence tests, such as: Voltage, frequency, harmonics, reverse phase sequence, Voltage unbalance, etc.
- ◆ Support special tests in energy meter type test, such as: phase triggering, pulse train triggering, etc.
- ◆ Support DLT-645 communication protocol, multi-testing of multifunction meter such as: demand indication error, demand cycle error, time slot switching error, energy error of different tariff period, etc.
- ◆ With OCXO, daily error of energy meter can be detected;
- ◆ Output 2nd ~63rd harmonics.

Main features:

- ◆ 8" color touch screen, interface friendly, easy to operate;
- ◆ Equipped with RS232, Ethernet, and WiFi interface, MTS-100 can either support stand-alone operation, PC control or handy wireless terminal control;
- ◆ Communicate with tested meters thru RS-485;
- ◆ Automatically calculate the error of meter, and the related data can be downloaded thru U-disk;
- ◆ Self-protection, alarming and displaying overload location for equipment output overload, Voltage short-circuit, Current open-circuit;
- ◆ Automatically detect, diagnose and alarm for failure.
- ◆ Remotely updating online, easily achieve software updating;
- ◆ Support calibration by user locally.

Order Info

MTS-100 contains 2 models with different accuracy below:
MTS-100C: Accuracy Class 0.05
MTS-100B: Accuracy Class 0.1

Technical Specification

AC Voltage output:

Range: 100V, 220V, 380V;
Adjusting range: (0~120) %RG, RG refers to range;
Adjusting resolution: 0.01%RG, 0.1%RG, 1%RG, or 10% RG;
Stability: 0.01%/2min (Class 0.05), 0.02%/2min (Class 0.1);
Distortion: ≤0.2% (Non capacitive load);
Max output load: 20VA each phase;
Accuracy: 0.05%RG (Class 0.05), 0.1%RG (Class 0.1);

**Technical
Specification****AC Current output:**

Range:	0.05A, 0.2A, 1A, 5A, 20A, 100A
Adjusting range:	(0~120) %RG, RG refers to range, similarly hereafter
Adjusting resolution:	0.01%RG, 0.1%RG, 1%RG, or 10% RG
Stability:	0.01%/2min (Class 0.05), 0.02%/2min (Class 0.1)
Distortion:	≤0.2% (Non capacitive load)
Max output load:	120VA (100A range)
Accuracy:	0.05%RG (Class 0.05); 0.1%RG (Class 0.1)

Power output

Power output stability: 0.01%/2min (Class 0.05), 0.02%/2min (Class 0.1)
Active/reactive power measurement accuracy: 0.05%RG;

Phase output

Output adjusting range:	0°~360°;
Output adjusting resolution:	10°, 1°, 0.1°, or 0.01°;
Resolution:	0.01°;
Measurement accuracy:	0.05°.

Power factor output:

Adjusting range:	-1 ~ 0 ~ +1;
Measuring resolution:	0.0001;
Measurement accuracy:	0.0005

Frequency output

Adjusting range:	40Hz ~70Hz;
Output adjusting resolution:	1Hz, 0.1Hz, 0.01Hz, or 0.001Hz;
Resolution:	0.001Hz;
Accuracy:	0.002 Hz.

Harmonic setting

Harmonic order:	2 nd ~63 rd
Harmonic amplitude:	0~40%
Harmonic angle:	0°~359.99°
Harmonic set error:	2~31times: ≤±0.1%, 32~63 times: ≤±0.2%;

Energy error measurement:

Active energy basic error limit:
±0.05%RD (Voltage 15V~660V, Current 0.02A~120A, PF≥0.5);
±0.1%RD (Voltage 15V~660V, Current 0.01A~0.02A, PF=1);
Reactive energy basic error limit:
±0.1%RD (Voltage 15V~660V, Current 0.02A~120A, PF≥0.5);
±0.2%RD (Voltage 15V~660V, Current 0.01A~0.02A, PF=1);

Energy pulse input

Input pulse: 3 channels active, 3 channels reactive

Other parameters:

Power supply:	90-265VAC/DC
Power frequency:	50Hz~60Hz
Power consumption:	50VA~1000VA
Environment condition:	20°C~30°C, Humidity: RH≤85%
Storage environment:	-20°C~50°C
Size:	600(L)*440(W)*266mm(H)
Weight:	35kg