Model 905D Functional Specifications

Unless otherwise stated, accuracies are relative to a laboratory standard measurement.

905D INPUT	
Voltage	115 / 230V selectable, ± 10 % variation
Frequency	50/60 Hz ± 5%
Fuse	115 VAC, 230VAC - 1A slow-blo 250VAC
DUT POWER	
Voltage	0.0 - 300.0 VAC Single Phase Unbalanced
Current	0.0 - 10.0A AC max continuous
Voltage Display	Range: 30 - 300VAC Full Scale Resolution: 0.1V Accuracy: ± (1% of reading + 0.2V)
DUT Watts	3000 W max
Short Circuit Protection	20 Amps AC Response time < 1s
DELAY and DWELL TIMER SETTINGS	
Delay time setting	Range: 0.2 - 999.9 seconds Resolution: 0.1 second Accuracy: ± (0.1% + 0.05 sec)
Dwell time setting	Range: 0.0 - 999.9 seconds 0 = continuous Resolution: 0.1 second Accuracy: ± (0.1% + 0.05 sec)
TRIP POINT SETTINGS	
Voltage: Volt-Hi Volt-LO	Range: 0.0 - 300.0 VAC Resolution: 0.1 V Accuracy: ± (1.5% of setting + 0.2 V)
Current: Amp-HI Amp-LO	Range: 0.1 - 10.00 AAC Resolution: 0.01 A Accuracy: ± (2.0% of setting + 0.02A)
Watts: Watt-HI Watt-LO	Range: 0 - 3000 W Resolution: 1 W Accuracy: ± (5.0% of setting + 3W)
Power Factor: PF-HI PF-LO	Range: 0.000 - 1.000 Resolution: 0.001 Accuracy: ± (8% of setting + 2 Counts)
Leakage Current: Leak-HI Leak-LO	Range: 0.00 - 10.00 mA 0 = OFF Resolution: 0.01 mA Accuracy: ± (2% of setting + 0.02mA) Leakage current measuring resistor MD=2KΩ ± 1%

METERING	
Voltmeter	Range: 0.0 - 300.0 VAC Resolution: 0.1 V Accuracy: ± (1.5% of reading + 0.2 V)
Ammeter	Range: 0.1 - 10.00 AAC Resolution: 0.01 A Accuracy: ± (2.0% of reading + 0.02A)
Wattmeter	Range: 0 - 3000 W Resolution: 1 W Accuracy: ± (5% of reading + 3 W)
Power Factor	Range: 0.000 - 1.000 Resolution: 0.001 Accuracy: ± (8% of reading + 2 Counts)
Leakage Current	Range: 0.00 - 10.00 mA Resolution: 0.01 mA Accuracy: ± (2% of reading + 0.02 mA) Leakage current measuring resistor MD = 2KΩ ± 1%
Timer display	Range: 0.0 - 999.9 seconds Resolution: 0.1 second Accuracy: ± (0.1% of reading + 0.05 seconds)
GENERAL SPECIFICATIONS	
PLC Remote Control	The following input and output signals are provide through two 9 pin D type connectors; 1. Remote control: Test, Reset, and Remote interlock 2. Remote recall of memory program #1, #2, and #3 3. Outputs: Pass, Fail and Test in Process
Memory	Allows storage of up to 10 different test programs.
Bus Remote Interface	GPIB (IEEE-488) remote interface is standard but may be substituted by an RS-232 interface option. The RS-232 interface uses the same command list as the GPIB with the exception of the SRQ functions
Security	Programmable password lockout capability to avoid unauthorized access to test set-up program.
LCD Contrast Setting	9 ranges set by the numeric keys on the front panel.
Volume Setting	10 ranges set by the numeric key on the front panel.
Line Cord	Detachable 7 ft. (2.13m) power cable terminated in a three prong grounding plug.
Switch Matrix	The switching matrix allows for the interconnection of an Electrical Safety Analyzer to the Run Test System. The run test may be started after the pass signal is received from the Safety Analyzer

Terminations	A standard U.S. style (NEMA 5-15) remote receptacle box for testing items terminated with a line cord. International receptacles also available.
Mechanical	Bench or rack mount (2U height) with tilt up front feet Dimensions: (w x h x d) 17 x 4.1 x 12.0 in. (432 x 103 x 305mm) Weight: 12.86 lbs. (5.84 kgs.)
Environmental	Operating Temperature : 32° - 104°F (0° - 40°C) Relative Humidity : 0 to 80%
Calibration	Traceable to National Institute of Standards and Technology (NIST). Calibration controlled by software. Adjustments are made through front panel keypad in a restricted access calibration mode. Calibration information stored in non-volatile memory.

KEY FEATURES & BENEFITS SUMMARY: MODEL 905D

FEATURES	BENEFITS
Measures input power requirements and the power factor of the DUT.	Accurately measures DUT input Voltage, Amperage, Power(Watts) and Power factor.
Measures earth leakage current	Accurately measures leakage current from the enclosure of the DUT, to the neutral of the input power.
Programmable security password system	Avoids tampering with settings by only allowing authorized personnel with a user programmable security password to change test parameters.
Front panel calibration	All calibration is done through a simple user interface from the front panel. No need to open the instrument.
PLC, RS-232 or GPIB Control	Provides flexibility for semi-automatic or automatic operation with a choice of communication protocols which provides the capability for easy test data storage.
Microprocessor control with software menus	Microprocessor control allows for many advanced features such as automatic testing, memories and software control.
Separate trip points for each test	The 905D is capable of testing for several "windowed" minimum and maximum trips points simultaneously: DUT voltage, current, wattage, power factor, and earth leakage current.
10 Memories for test storage	Storage of test set-ups so parameters only need to be entered once then memorized.
Complete with software driver	National Instruments LabVIEW® software driver is provided for automated applications to ease the testing process.
Built in H.V. switching matrix	Allows the user to perform safety tests and then run the DUT with a single connection.