

Title: Calibration Of Megger BM400 Series Insulation And Continuity Tester

Scope

Work Instruction for the internal calibration of Megger BM400 Series Insulation and Continuity Tester. To be used in the absence of a manufacturers calibration instruction.

Preparation

Calibration must be carried out using Category A Master instruments as required.

Equipment required;-

- 1.1 Datron 9100 Calibrator.
- 1.2 Keithley DMM Model 136.
- 1.3 High Resistance Box.
- 1.4 Decade Resistance Box.
- 1.5 250kΩ Resistor.
- 1.6 500kΩ Resistor.
- 1.7 1MΩ Resistor.

Method

- 2.1 All calibration results must be entered on the results sheets (see appendix A).
- 2.2 Note the lab temp / relative humidity and enter on calibration results sheet.
- 2.3 Carry out tests 1 to 10 using item 1.1.
- 2.4 Carry out tests 12 to 14 using items 1.2, 1.5, 1.6 and 1.7.
- 2.5 Carry out tests 15 to 38 using item 1.3.
- 2.6 Carry out tests 39 to 50 using item 1.4.
- 2.7 Carry out test 51.
- 2.8 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration Results for Megger BM400 Series Digital Insulation and Continuity Tester

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Appendix A

Calibration Results for Megger BM 400 Series Digital Insulation and Continuity Tester

Model Serial No

Date Result

Lab Temp / RH Operator

User Location Certificate No

Accuracies quoted are from the manufacturer's specification or relevant British Standard.

AC Voltage Range

Accuracies: Digital < 450V $\pm$ (1% + 2d)
Analogue Up to 500v; $\pm$ 1 division

Test No	Range	Calibrator Output Volts (50Hz)	UUT Reading	Allowed Limits	Result
1	Analogue	20		10 to 30	Pass / Fail
2	Digital	20		18 to 22	Pass / Fail
3	Analogue	300		290 to 310	Pass / Fail
4	Digital	300		295 to 305	Pass / Fail
5	Analogue	400		390 to 410	Pass / Fail
6	Digital	400		394 to 406	Pass / Fail

DC Voltage

Accuracies: Digital < 450V $\pm$ (1% + 2d)
>450V $\pm$ (2% $\pm$ 2d)
Analogue Up to 500v; $\pm$ 1 division

Test No	Range	Calibrator Output Volts DC	UUT Reading	Allowed Limits	Result
7	Analogue	20		10 to 30	Pass / Fail
8	Digital	20		18 to 22	Pass / Fail
9	Analogue	300		290 to 310	Pass / Fail
10	Digital	300		295 to 305	Pass / Fail

Test 7

Audible Warning

Switch UUT to any insulation range.

Apply 25V AC or DC

Does UUT revert to voltage range and an audible warning sound? Pass / Fail