

Title: Calibration Of Megger BMD3 Insulation And Continuity Tester

Scope

Work Instruction for the internal calibration of Megger BMD3 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 Megadek High Resistance Box.
- 1.4 Decade Resistance Box.
- 1.5 100 k Ω Resistor.
- 1.6 250k Ω Resistor.
- 1.7 500 k Ω Resistor.
- 1.8 1M Ω 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 4 using item 1.1.
- 2.4 Carry out tests 5 to 8 using items 1.2, 1.5, 1.6, 1.7 and 1.8.
- 2.5 Carry out tests 9 to 34 using item 1.3.
- 2.6 Carry out tests 35 to 41 using items 1.4.
- 2.7 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration Results for Megger BMD3 Insulation and Continuity Tester

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Appendix A

Calibration Results for Megger BMD3 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 (50Hz)

UUT Accuracy $\pm 2\%$ Rdg ± 1 digit

Test No	Calibrator Output Volts AC	UUT Reading	Allowed Limits	Result
1	300		293 to 307	Pass / Fail
2	600		587 to 613	Pass / Fail

DC Voltage Range

UUT Accuracy $\pm 2\%$ Rdg ± 1 digit

Test No	Calibrator Output Volts DC	UUT Reading	Allowed Limits	Result
3	300		293 to 307	Pass / Fail
4	600		587 to 613	Pass / Fail

Insulation Ranges – DC Output Voltages

UUT Accuracy : 100; 250; 500; 1000 volt minimum at load resistance listed

Test No	Range	Load Resistor	Output Voltage	Allowed Limits	Results
5	100V	100 k Ω		100V min	Pass / Fail
6	250V	250 k Ω		250V min	Pass / Fail
7	500V	500 k Ω		500V min	Pass / Fail
8	1000V	1M Ω		1000V min	Pass / Fail