

Title: Calibration Of Megger BM200 Series Insulation And Continuity Tester

Scope

Work Instruction for the internal calibration of Megger BM200 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 250kΩ 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, 1.7.
- 2.5 Carry out tests 15 to 38 using item 1.3.
- 2.6 Carry out tests 39 to 51 using item 1.4.
- 2.7 Carry out tests 52.
- 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 BM200 Series Digital Insulation and Continuity Tester

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Appendix A

Calibration Results for Megger BM200 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.

A.C. Voltage Range

Accuracies: Digital: $\pm 3\%$ reading $\pm 3V$
Analogue: $\pm 3\%$ reading $\pm 10V$

Test No	Range	Calibrator Output Volts (50Hz)	UUT Reading	Allowed Limits	Result
1	Analogue	20		9.4 to 30.6	Pass / Fail
2	Digital	20		16.4 to 23.6	Pass / Fail
3	Analogue	300		281 to 319	Pass / Fail
4	Digital	300		288 to 312	Pass / Fail
5	Analogue	400		378 to 422	Pass / Fail
6	Digital	400		385 to 415	Pass / Fail

D.C. Voltage Range

Accuracies: Digital: $\pm 3\%$ reading $\pm 3V$
Analogue: $\pm 3\%$ reading $\pm 10V$

Test No	Range	Calibrator Output Volts D.C.	UUT Reading	Allowed Limits	Result
7	Analogue	20		9.4 to 30.6	Pass / Fail
8	Digital	20		16.4 to 23.6	Pass / Fail
9	Analogue	300		281 to 319	Pass / Fail
10	Digital	300		288 to 312	Pass / Fail

Test 11

Audible Warning

Was an audible warning given for each test 1 to 10?

Pass / Fail

Insulation Ranges – DC Output Voltages

Accuracies: 250v range : 250v min at 250k Ω
500v range : 500v min at 0.5M Ω
1000v range : 1000v min at 1 M Ω

Test No	Range	Load Resistor	Output Voltage	Allowed Limits	Result
12	250V	250k Ω		250V Min	Pass / Fail
13	500V	0.5M Ω		500V Min	Pass / Fail
14	1000V	1 M Ω		1000V Min	Pass / Fail