Title: Calibration Of Shunt

Scope

Work Instruction for the internal calibration of Shunts. 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 Fluke DMM Model 8842A.

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 Connect the current terminals of the shunt to the Datron 9100 and with 10A applied, measure the volt drop using the Fluke DMM. Enter the values onto the result sheet. Repeat with the current flow reversed. Calculate the shunt accuracy (%) and enter on the results sheet.

2.4 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration Results for Shunts

Documents
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Appendix A

Calibration Results for Shunts

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.

Test 1 Is the shunt mechanically sound? Pass / Fail

Test 2
UUT accuracy: ±1%

Applied Current (Amps)	Theoretical Volt-Drop at 10 Amps (mV)	Actual Volt-Drop at 10 Amps (mV)	Accuracy %	Results
+10				Pass / Fail
- 10				Pass / Fail

The UUT was calibrated using the following equipment:

1. Datron 9100 Calibrator S/N _____
2. Fluke DMM Model 8842A S/N _____

The uncertainty of measurement is estimated not to exceed:

± ?

The uncertainty limits quoted refer to the applied values only and do not relate to the stability of the UUT.

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