



Insulation Tester

Calibration Report for:

Run Energy

5009 South Danville

Abilene TX 79602

1600 E. Murdock Wichita, KS 67214
For Maintenance or Recalibration, call:
Phone: (866) 384-3010
Fax: (316) 686-3151

Calibration #:	160715.01.56818	Tool ID #:	1433851122
Calibration Date:	7/15/2016	Tool Type:	Insulation Tester
Expiration Date:	7/15/2017	Manufacturer:	Fluke
Temperature (°C):	21.1	Model # / Size:	1507
Humidity(%):	52.6	Serial #:	26640502

This calibration utilizes standards traceable to the SI through recognized national measurement institutes and is compliant with ISO17025 and ANSI/NCSL Z540.1. The calibration was completed in accordance with Alltite Quality Management System QA-002-12. This certificate is not valid without the signature of the technician and applies only to the item identified above. This certificate may not be used to claim evidence of approval, certification, or endorsement by A2LA, NIST, or any agency of the Federal Govt.

This certificate may not be covered in whole by Alltite's Scope of Accreditation. Accredited test points are indicated by an accompanying uncertainty measurement. Unaccredited Points are evident by the lack of uncertainty data. Functional tests are by nature not accredited.

Any measurement uncertainties given are calculated with the method described in JCGM 100:2008 *Guide for the expression of the Uncertainty in Measurement*. The reported expanded uncertainty of measurement is stated as the standard uncertainty of the measurement multiplied by the coverage factor (k) such that the coverage probability corresponds to approximately 95%.

Remarks: Readings were taken at each point before and after maintenance was performed (if applicable).

(1) "As Found" Data: **In Tolerance**
Calibration test results are acceptable per applicable specification requirements.

(2) "As Left" Data: **In Tolerance**
Test Instrument was left within applicable tolerance levels.

Technician Comments:
Rev. 1.1 Added tool asset# to field
4-20-2017 GD

Aaron Fry

Calibration Technician

Notes:

- A. This accredited organization maintains both A2LA accreditation to ISO/IEC 17025 and ANSI/NCSL Z540-1-1994 for the specific tests/calibrations listed in A2LA Certificate #3040.01, and ISO 6789.
- B. Environmental conditions were held within MobileCal's standards of 60 to 88 degrees Fahrenheit and below 90% relative humidity.
- C. Procedures for this calibration method are outlined in Fluke 150X Series Calibration Manual November 2005 Rev.1 7/07
- D. Customer acknowledges and agrees that MobileCal's standard sales terms and conditions are incorporated herein by reference and made a part of this calibration report
- E. This document relates only to the test instrument listed on this certificate and cannot be reproduced, except in full, without written approval of MobileCal.
- F. This calibration document is followed by a Calibration Schedule page.
- G. The unaccredited material is either confined to sections of this certificate that are clearly marked or as "Not Accredited" or is indicated by the lack of a displayed value of "Measurement Uncertainty" adjacent to affected parameter or is indicated by the word "No" in the Accred. column.



In-House (Electrical Lab, Wichita) Calibration Laboratory: Certification Schedule

Description	NIST traceable Cert ID	Serial Number	Calibration Date	Date Due Cal
Fluke5500A	42236	2385010	8/20/2016	8/20/2017

Supplemental Data

Set Point	Range	Reading	Upper Tol.	Lower Tol.
Voltage Accuracy Tests				
3v, 0Hz	600v	3.3	3.3	2.7
8v, 0Hz	600v	8.2	8.5	7.5
8v, 400Hz	600v	PASS	<i>Display shows vAC annunciator</i>	
50v, 0Hz	600v	50.2	51.3	48.7
100v, 0Hz	600v	100.3	102.3	97.7
250v, 0Hz	600v	250	255.3	244.7
500v, 0 Hz	600v	500.1	510.3	489.7
120v, 60Hz	600v	120	122.7	117.3
230v, 50Hz	600v	229.9	234.9	225.1
600v, 400Hz	600v	599.9	612.3	587.7

Insulation Resistance Accuracy Test				
9GΩ	1000V	8.4	7.8	10.2
1.9GΩ	1000V	1.9	1862	1938
1MΩ	1000V	1	0.5	1.5
49MΩ	1000V	49	47.8	50.2
60MΩ	1000V	60	58.6	61.4
500kΩ	500V	0.5	0.44	0.56
250kΩ	250V	0.2	0.2	0.3
100kΩ	100V	0.1	0.06	0.15
50kΩ	50V	0.1	0	0.1

Open Circuit, Source Voltage Accuracy				
Open Circuit	1000V	1051.73	1000	1200
Open Circuit	500V	527.04	500	600
Open Circuit	250V	276.52	250	300
Open Circuit	100V	110.547	100	120
Open Circuit	50V	56.109	50	60

End of Certificate