



CALIBRATION REPORT

ORDER No.

DECEMBER 4, 2019

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MANUFACTURER: OHM-LABS, INC.
DESCRIPTION: HIGH VOLTAGE DIVIDER
MODEL: KV-10A
SERIAL:

PROCEDURE: HV CAL
LAB ENVIRONMENT: 22.3 °C / 34 %RH
CALIBRATION DATE: 04/DEC/2019

PLEASE SEE PAGE 2 FOR MEASUREMENT DATA.

THE DIVIDER WAS TESTED ON A 60 CM (24 IN) SQUARE GROUND PLANE.

OUR DC BRIDGE IS A HIGH VOLTAGE WHEATSTONE CIRCUIT WHICH DOES NOT SIGNIFICANTLY BURDEN THE DC OUTPUT OF THE DIVIDER UNDER TEST. FOR DC RATIO MEASUREMENTS THE DC METER IMPEDANCE WAS SET TO $>10\text{ G}\Omega$.

THE DC METER IMPEDANCE SWITCH WAS VERIFIED TO HAVE $<0.005\%$ EFFECT ON RATIO BY COMPARING THE OUTPUT WITH AN AGILENT 34401A METER SET ALTERNATELY FOR INPUT IMPEDANCE OF $10\text{ M}\Omega$ AND $>10\text{ G}\Omega$.

AC RATIOS WERE DETERMINED USING AN AGILENT 3458A METER WITH AN INPUT IMPEDANCE OF $1\text{ M}\Omega$ (+/- 1 %) SHUNTED BY $<180\text{ pF}$. THE AC OUTPUT CABLE WAS COAXIAL TYPE. SEE NOTES BELOW FOR AC V RANGE SETTINGS.

THE APPLIED VOLTAGES WERE WITHIN 1 % OF THE NOMINAL VALUE REPORTED.

| ID | DESCRIPTION | STANDARDS USED | |
|--------|-------------------------|-----------------|-------------|
| | | MAKE & MODEL | CAL DUE |
| AS3701 | HIGH VOLTAGE BRIDGE | OHM-LABS HVB | 31/DEC/2019 |
| AS3714 | HIGH VOLTAGE DIVIDER | OHM-LABS HVS | 31/JAN/2020 |
| AS3730 | AC HV INDUCTIVE DIVIDER | HiVOLT PFT-1003 | 26/MAY/2020 |
| AS3530 | METER | AGILENT 3458A | 18/JAN/2020 |
| AS3531 | METER | AGILENT 3458A | 11/JAN/2020 |

COMMENTS:

OHM-LABS, INC. CERTIFIES THAT THIS CALIBRATION IS TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST), OR ANOTHER RECOGNIZED NATIONAL MEASUREMENT INSTITUTE, OR DERIVED BY A RATIO TYPE SELF-CALIBRATION TECHNIQUE, AND IS ACCREDITED TO ISO/IEC 17025:2005. OHM-LABS' QUALITY CONTROL SYSTEM MEETS THE REQUIREMENTS OF ANSI/NCSL Z540-1-1994. THE REPORTED UNCERTAINTIES REPRESENT EXPANDED UNCERTAINTIES EXPRESSED AT A CONFIDENCE LEVEL OF APPROXIMATELY 95 %, USING A COVERAGE FACTOR OF $k=2$. THIS UNCERTAINTY IS AT THE TIME OF TEST ONLY AND DOES NOT TAKE INTO ACCOUNT TRANSIT, USAGE, DRIFT OVER TIME, OR OTHER FACTORS AFFECTING STABILITY. THIS DOCUMENT RELATES ONLY TO THE ITEMS IDENTIFIED HEREIN, AND IS IN COMPLIANCE WITH ALL REQUIREMENTS OF THE ABOVE REFERENCED PURCHASE ORDER. THE CALIBRATION PERFORMED WAS IN ACCORDANCE WITH THE CURRENT REVISION LEVEL OF OHM-LABS' QUALITY CONTROL SYSTEM. TRAINED AND QUALIFIED PERSONNEL PERFORMED THE CALIBRATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ISO/IEC 17025:2005. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION OF OHM-LABS, INC.



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SERIAL:

| DC RATIO – AS FOUND & AS LEFT | | | | |
|-------------------------------|---------------------|----------------------|--------------------|----------------------|
| APPLIED KV DC | 10,000 : 1 RATIO | RATIO UNCERTAINTY | 1,000 : 1 RATIO | RATIO UNCERTAINTY |
| 2 | 10,000.06 | 0.51 : 1 | 1,000.001 | 0.040 : 1 |
| 4 | 9,999.92 | 0.47 | 1,000.002 | 0.044 |
| 6 | 10,000.00 | 0.40 | 1,000.004 | 0.043 |
| 8 | 10,000.05 | 0.43 | 1,000.012 | 0.043 |
| 10 | 10,000.16 | 0.40 | 1,000.016 | 0.045 |

| AC RATIO – AS FOUND & AS LEFT | | |
|-------------------------------|--------------------|-------------------------|
| APPLIED KV AC 60 HZ RMS | 1,000 : 1 RATIO | AC RATIO UNCERTAINTY |
| 2 | 1,000.11 | 0.55 : 1 |
| 4 | 1,000.31 | 0.61 |
| 6 | 1,000.29 | 0.52 |
| 7 | 1,000.29 | 0.50 |

PERFORMED BY

APPROVED BY:

