



CALIBRATION REPORT

ORDER No.

DECEMBER 2, 2021

PAGE 1 OF 2

MANUFACTURER: OHM-LABS, INC.
DESCRIPTION: HIGH VOLTAGE DIVIDER
MODEL: KV-30A
SERIAL:

PROCEDURE: HV CAL
LAB ENVIRONMENT: 23.6 °C / 35 %RH
CALIBRATION DATE: 02/DEC/2021

PLEASE SEE PAGE 2 FOR MEASUREMENT DATA.

DIVIDER WAS ALLOWED TO STABILIZE AT EACH APPLIED VOLTAGE. ACTUAL APPLIED VOLTAGES WERE WITHIN 1 % OF NOMINAL VALUES LISTED.

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

DC MEASUREMENTS WERE WITH A HIGH VOLTAGE WHEATSTONE CIRCUIT WHICH DOES NOT SIGNIFICANTLY BURDEN THE DC OUTPUT OF THE DIVIDER UNDER TEST. IF A METER IS USED, A CORRECTION MAY NEED TO BE APPLIED FOR THE METER INPUT IMPEDANCE. METER INPUT IMPEDANCE SHOULD BE $>10\text{ G}\Omega$ TO MINIMIZE ERRORS.

AC RATIOS WERE AVERAGED FROM A SERIES OF METER READINGS. THE AC VOLTMETER BURDEN ON THE AC OUTPUT OF THE DIVIDER WAS $1\text{ M}\Omega$, SHUNTED BY $<180\text{ PF}$ METER AND CABLE.

A 100 MM (4 IN) FLEXIBLE ALUMINUM TUBE CONNECTED THE UUT TO THE STANDARD. THIS TUBE EXTENDED UPWARDS ABOVE THE UUT FOR APPROXIMATELY 30 CM (12 IN) BEFORE ANGLING ACROSS TO THE STANDARD. THE UUT WAS PLACED ON A GROUNDED PLANE APPROXIMATELY 10 CM (4 IN) OFF OF THE FLOOR. A MINIMUM OF 60 CM (24 IN) CLEARANCE ON ALL SIDES WAS ALLOWED TO REDUCE GROUND PLANE COUPLING.

STANDARDS USED

ID	DESCRIPTION	MAKE & MODEL	CAL DUE
AS3701	HIGH VOLTAGE BRIDGE	OHM-LABS HVB	31/DEC/2021
AS3714	HIGH VOLTAGE DIVIDER	OHM-LABS HVS	30/MAR/2022
AS3730	AC HV INDUCTIVE DIVIDER	HIVOLT PFT-1003	31/MAY/2022
AS3530	STD AC METER	AGILENT 3458A	29/MAR/2022
AS3531	UUT AC METER	AGILENT 3458A	14/APR/2022

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 17025:2017. 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 17025:2017. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION OF OHM-LABS, INC.



CALIBRATION REPORT

ORDER No.

DECEMBER 2, 2021

PAGE 2 OF 2

MANUFACTURER: OHM-LABS, INC.

MODEL: KV-30A

SERIAL: :

MEASUREMENT DATA

DC RATIO				
APPLIED KV DC	10,000 : 1 RATIO	RATIO UNCERTAINTY	1,000 : 1 RATIO	RATIO UNCERTAINTY
5	9,999.89	0.64 : 1	999.985	0.064 : 1
10	9,999.87	0.63	999.987	0.062
15	9,999.94	0.62	999.994	0.063
20	10,000.04	0.63	1,000.005	0.062
25	10,000.11	0.62	1,000.012	0.062
30	10,000.08	0.61	1,000.009	0.061

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 MΩ AND >10 GΩ.

AC RATIO		
APPLIED KV AC 60 HZ RMS	1,000 : 1 RATIO	AC RATIO UNCERTAINTY
5	999.99	0.40 : 1
10	999.67	0.47
15	1,000.01	0.42
20	999.92	0.43

PERFORMED BY:

APPROVED BY: _____

