



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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ELECTRICAL

Valid To: November 30, 2024

Certificate Number: 3354.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following Electromagnetic Compatibility (EMC) and product safety tests on protective relays, substation equipment, and devices intended to operate with protective relays and substation equipment:

**Test:**

**Test Method(s)<sup>1</sup>:**

***Emissions***

Radiated and Conducted

CISPR 11; CISPR 11:2009 + A1:2010;  
EN 55011; EN 55011:2009 + A1:2010;  
CSA CISPR 11:19;  
KS C 9811; KS C 9811:2019;  
AS/NZS CISPR 11;

CISPR 16-2-1; CISPR 16-2-1:2003;  
EN 55016; EN 55016-2-1:2004;

CISPR 16-2-3; CISPR 16-2-3:2010 + A1:2010 + A2: 2014;  
EN55106-2-3; EN55016-2-3:2010 + AC:2013 + A1:2010 +  
A2: 2014;

CISPR 22; CISPR 22:2008;  
EN 55022; EN 55022:2010 + AC:2011;  
CNS 13438:2006 (*Up to 6 GHz*);  
KN 22

CISPR 32:2015 + A1:2019; CISPR 32: 2015 + A1:2019;  
EN 55032; EN 55032:2015 + A1 2020 (*excluding broadcast receivers*);  
KS C 9832; KS C 9832:2019 (*excluding broadcast receivers*);  
CNS 15936:2016;

47 C.F.R. §15 (Subpart B, using ANSI C63.4:2014);  
ICES-001 Issue 5;  
ICES-003 Issue 7

Harmonic Current Emissions

IEC 61000-3-2; IEC 61000-3-2:2014;  
EN 61000-3-2; EN 61000-3-2:2014

<b><u>Test:</u></b>	<b><u>Test Method(s)<sup>1</sup>:</u></b>
Voltage Fluctuations and Flicker	IEC 61000-3-3; IEC 61000-3-3:2013; EN 61000-3-3; EN 61000-3-3:2013
<b><i>Immunity</i></b>	
Surge Withstand Capability	IEEE C37.90.1; IEEE C37.90.1:2012
Electrostatic Discharge (ESD)	IEC 61000-4-2; IEC 61000-4-2:2008; EN 61000-4-2; EN 61000-4-2:2009; IEEE C37.90.3; IEEE C37.90.3:2001
Radiated RF Immunity	IEC 61000-4-3; IEC 61000-4-3:2006 + A1:2007 + A2:2010; EN 61000-4-3; EN 61000-4-3:2006 + A1:2008 + A2:2010; IEEE C37.90.2; IEEE C37.90.2:2004
Electrical Fast Transient Burst Immunity	IEC 61000-4-4; IEC 61000-4-4: 2004 +A1:2010 + Corr:2007; EN 61000-4-4; EN 61000-4-4:2004 + A1:2010
Surge Immunity	IEC 61000-4-5; IEC 61000-4-5:2005 + Corr:2009; EN 61000-4-5; EN 61000-4-5:2006
Conducted RF Immunity	IEC 61000-4-6; IEC 61000-4-6:2008; EN 61000-4-6; EN 61000-4-6:2009
Power Frequency Magnetic Field	IEC 61000-4-8; IEC 61000-4-8:2001; IEC 61000-4-8:2009; EN 61000-4-8; EN 61000-4-8:1993 + A1:2001; EN 61000-4-8:2010
Pulse Magnetic Field	IEC 61000-4-9; IEC 61000-4-9:1993 + A1:2000; EN 61000-4-9; EN 61000-4-9:1993 + A1:2001
Damped Oscillatory Magnetic Field	IEC 61000-4-10; IEC 61000-4-10:1993 + A1:2000; EN 61000-4-10; EN 61000-4-10:1993 + A1:2001
AC Voltage Dips and Interruptions	IEC 61000-4-11; IEC 61000-4-11:2004; EN 61000-4-11; EN 61000-4-11:2004
Ring Wave	IEC 61000-4-12; IEC 61000-4-12:2017; EN 61000-4-12; EN 61000-4-12:2017
Harmonics and Interharmonics	IEC 61000-4-13; IEC 61000-4-13:2002 +A1:2009 +A2:2015; EN 61000-4-13; EN 61000-4-13:2002 +A1:2009 +A2:2016
Power Frequency	IEC 61000-4-16; IEC 61000-4-16:2002; IEC 61000-4-16:1998 + A2:2009; EN 61000-4-16; EN 61000-4-16:1998 + A1:2004; EN 61000-4-16:1998 + A2:2011
Ripple on DC Input Power Port	IEC 61000-4-17; IEC 61000-4-17:1999 + A1:2001 + A2:2008; EN 61000-4-17; EN 61000-4-17:1999 + A1:2004 + A2:2009
Damped Oscillatory Wave Immunity	IEC 61000-4-18; IEC 61000-4-18:2006 + A1:2010; EN 61000-4-18; EN 61000-4-18:2007 + Corr:2007 + A1:2010

<b><u>Test:</u></b>	<b><u>Test Method(s)<sup>1</sup>:</u></b>
DC Voltage Dips and Interruptions	IEC 61000-4-29; IEC 61000-4-29:2000; EN 61000-4-29; EN 61000-4-29:2000
<b><i>Product Safety</i></b>	
Degrees of protection provided by enclosures (IP Code)	IEC 60529; IEC 60529:1989/A1:1991/A2:2013; EN 60529; EN 60529:1991/A1:2000/A2:2013/AC:2019 (Excluding clauses 6, 7, 8, 11.1, 14, 15)
Insulation Coordination (Dielectric Strength and Impulse)	IEEE C37.90; IEEE C37.90:2005
Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements	IEC 61010-1; IEC 61010-1:2010/AMD1:2016/COR1:2019; EN 61010-1; EN 61010-1:2010/A1:2019/AC:2019 UL 61010-1; UL 61010-1 Third Edition; CAN/CSA-C22.2 No. 61010-1; CAN/CSA-C22.2 No. 61010-1-12/A1:18 (Excluding clauses 7.3, 11.3, 11.4, 11.7, 12.2, 12.4 12.5, 13.2.3, 14.3 and 14.7, Annex H, DVD.3, and DVD.4)
Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-030: Particular requirements for equipment having testing or measuring circuits	IEC 61010-2-030; IEC 61010-2-030:2017; EN 61010-2-030; EN 61010-2-030:2018; UL 61010-2-030; UL 61010-2-030 Second Edition; CAN/CSA-C22.2 No. 61010-2-030:18
Safety requirements for electrical equipment for measurement, control and laboratory use – Part 2-201: Particular requirements for control equipment	IEC 61010-2-201; IEC 61010-2-201:2017; EN 61010-2-201; EN 61010-2-201:2018; UL 61010-2-201; UL 61010-2-201 Second Edition; CAN/CSA-C22.2 No. 61010-2-201; CAN/CSA-C22.2 No. 61010-2-201:18
Safety of laser products – Part 1: Equipment classification and requirements	IEC 60825-1; IEC 60825-1:2014; EN 60825-1; EN 60825-1:2014
Safety of laser products – Part 2: Safety of optical fiber communication systems (OFCS)	IEC 60825-2; IEC 60825-2:2004 + A1:2006 + A2:2010; EN 60825-2; EN 60825-2:2004 + A1:2007 + A2:2010
<b><i>Family Standards</i></b>	
Measuring relays and protection equipment – Part 1: General requirements	IEC 60255-1; IEC 60255-1:2009; EN 60255-1; EN 60255-1:2010; KS C IEC 60255-1:2019 (excluding clause 6.5)
Measuring relays and protection equipment – Part 26: Electromagnetic compatibility requirements	IEC 60255-26; IEC 60255-26:2013; EN 60255-26; EN 60255-26:2013 + AC:2013; KS C IEC 60255-26:2020
Measuring relays and protection equipment – Part 27: Product safety requirements (Excluding Flammability testing)	IEC 60255-27; IEC 60255-27:2013; EN 60255-27; EN 60255-27:2014; KS 60255-27:2013
Electromagnetic compatibility (EMC) Part 6-4: Generic standards – Immunity standard for industrial environments	IEC 61000-6-2; IEC 61000-6-2:2005; EN 61000-6-2; EN 61000-6-2:2005; + AC:2005; KS C 9610-6-2: 2019

<b><u>Test:</u></b>	<b><u>Test Method(s)<sup>1</sup>:</u></b>
Electromagnetic compatibility (EMC) Part 6-4: Generic standards – Emission standard for industrial environments	IEC 61000-6-4; IEC 61000-6-4:2006 + A1:2010; EN 61000-6-4; EN 61000-6-4:2007 + A1:2011; KS C 9610-6-4: 2017
Programmable controllers - Part 2: Equipment requirements and tests	EN 61131-2; EN 61131-2:2007; IEC 61131-2; IEC 61131-2:2007
Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	IEC 61326-1; IEC 61326-1:2012; EN 61326-1; EN 61326-1:2013
Electrical equipment for measurement, control and laboratory use – EMC requirements –Part 2-2: Particular requirements – Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems	IEC 61326-2-2; IEC 61326-2-2:2013; EN 61326-2-2; EN 61326-2-2:2013
Communication Network and Systems for Power Utility Automation: Part 3 General	IEC 61850-3; IEC 61850-3:2013; EN 61850-3; EN 61850-3:2014
Electromagnetic compatibility for multimedia equipment – Immunity requirements	CISPR 35; CISPR 35:2016; EN 55035; EN 55035:2017; KS C 9835: 2019 (Excluding broadcast receivers)
Environmental and Testing Requirements for Communications Networking Devices Installed in Electric Power Substations	IEEE 1613; IEEE 1613:2009
Environmental and Testing Requirements for Communications Networking Devices Installed in Transmission and Distribution Facilities	IEEE 1613.1; IEEE 1613.1:2013
Instrument Transformers – Part 13: Stand-alone merging unit (SAMU)	IEC 61869-13:2021; EN 61869-13:2021 (Clauses 6.607, 7.2.5.2.603 – 7.2.5.2.615, 7.2.5.2.1301, 7.2.5.2.1302, 7.2.6.601, 7.2.601, 7.2.1301, 7.2.1302, and 9.1302)
Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1 <sup>2</sup>	

<b>Rule Subpart/Technology</b>	<b>Test Method</b>	<b>Maximum Frequency</b>
Unintentional Radiators Part 15B	ANSI C63.4:2014	26500 MHz

<sup>1</sup>When the date, revision or edition of a test method standard is not identified on the scope of accreditation, the laboratory may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard test method, per part C., Section 1 of A2LA R101 - *General Requirements - Accreditation of ISO-IEC 17025 Laboratories*.

<sup>2</sup>Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.





## Accredited Laboratory

A2LA has accredited

# SCHWEITZER ENGINEERING LABORATORIES, INC.

Pullman, WA

for technical competence in the field of

## Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 24<sup>th</sup> day of January 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 3354.01  
Valid to November 30, 2024

*For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.*