



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

S&C ELECTRIC COMPANY - NICOLAS J. CONRAD LABORATORY

6601 North Ridge Blvd.

Chicago, IL 60626

Mr. Jaden Martz (Authorized Representative) Phone: 773-338-1000

Email: jaden.martz@sandc.com

ELECTRICAL

Valid to: November 30, 2025

Certificate Number: 3348.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following electrical tests on re-closers, fault interrupters, switches, fuses, and switchgear:

Test Type/Test Parameters¹:

Test Method(s):

Line Charging

Up to 52 kV

1 to 10 Amps

IEC 62271-111:2019, Sub clause 7.101;
IEEE Std. C37.60-2018, Sub clause 7.101;
IEC 62271-100:2017, Sub clause 6.111;
IEEE Std. 1247-2005, Sub-clause 8.3.2.4

Cable Charging

Up to 52 kV

1 to 40 Amps

IEC 62271-111:2019, Sub clause 7.101;
IEEE Std. C37.60-2018, Sub clause 7.101;
IEEE Std. C37.74-2014, Sub clause 6.7.5.6;
IEC 62271-100:2017, Sub clause 6.111;
IEEE Std. 1247-2005, Sub-clause 8.3.2.3

Interrupting

Up to 52 kV

Up to 40 kA

IEC 62271-111:2019, Sub clause 7.103;
IEEE Std. C37.60-2019, Sub clause 7.103;
IEC62271-100:2017, Sub clause 6.108

Fault-making

Up to 52 kV

Up to 63 kA

IEC 62271-111:2019, Sub clause 7.102;
IEEE Std. C37.60-2018, Sub clause 7.102;
IEEE Std. C37.74-2014, Sub clause 6.7.4.6;
IEEE Std. 1247-2005, Sub-clause 8.5

Short Time and Peak Withstand

Up to 63 kA

IEC 62271-1:2017, Sub clause 7.6;
IEC 62271-102:2018, Sub clause 7.6;
IEC 62271-103:2011, Sub clause 6.6;
IEC 62271-111:2019, Sub clause 7.6;
IEEE Std. C37.60-2018, Sub clause 7.6;
IEC 62271-200:2011, Sub clause 6.6;
IEC 62271-201:2014, Sub clause 6.6;
IEEE Std. C37.74, Sub clause 6.7.4.3;
IEEE Std. C37.74-2014, Sub clause 6.7.4.5;
IEC 62271-100:2017, Sub clause 6.6;
IEEE Std. 1247-2005, Sub-clause 8.4.2;
IEEE Std. 1247-2005, Sub-clause 8.4.3

Test Type/Test Parameters¹:

Load and Loop Switching
(Making and Breaking)
Up to 52 kV
Up to 2 kA

Breaking
Up to 40 kA

Critical Current
Up to 40 kA

Temperature-rise / Continuous Current
Up to 1,500 amps

Lightning Impulse Voltage Test
Up to 1,300 kV

Partial Discharge
Up to 40 kV

Power-frequency Voltage Dry Test
Up to 600 kV

Power-frequency Voltage Wet Test
Up to 600 kV

Switching Impulse Voltage Test
Up to 1,300 kV

Test Method(s):

IEC 62271-103:2011, Sub clause 6.101;
IEC 62271-201:2014, Sub clause 6.101;
IEEE Std. C37.74-2014, Sub clause 6.7.5.4;
IEEE Std. C37.74-2014, Sub clause 6.7.5.5;
IEC 62271-100:2017, Sub clauses 6.102 to 6.106;
IEEE Std. 1247-2005, Sub-clause 8.3.2.1;
IEEE Std. 1247-2005, Sub-clause 8.3.2.2

IEC 60282-2:2008, Sub clause 8.6

IEC 62271-111:2019, Sub clause 7.104;
IEEE Std. C37.60-2019, Sub clause 7.104

IEC 62271-1:2017, Sub clause 7.5;
IEC 62271-102:2018, Sub clause 7.5;
IEC 62271-103:2011, Sub clause 6.5;
IEC 62271-111:2019, Sub clause 7.5;
IEEE Std. C37.60-2018, Sub clause 7.5;
IEC 62271-200:2011, Sub clause 6.5;
IEC 62271-201:2014, Sub clause 6.5;
IEEE Std. C37.74-2014, Sub clauses 6.7.3 and 6.7.6;
IEC 62271-100:2017, Sub clause 6.5

IEC 62271-102:2018, Sub clause 7.2.4;
IEC 62271-103:2011, Sub clause 6.2;
IEC 62271-111:2019, Sub clause 7.2.7.3;
IEC 62271-200:2011, Sub clause 6.2.6.2;
IEC 62271-201:2014, Sub clause 6.2.6.2;
IEC 60282-2:2008, Sub clause 8.4.4

IEC 62271-102:2018, Sub clause 7.2.9;
IEC 62271-111:2019, Sub clause 7.106;
IEC 62271-200:2011, Sub clause 6.2.9;
IEC 62271-201:2014, Sub clause 6.2.9

IEC 62271-102:2018, Sub clause 7.2;
IEC 62271-103:2011, Sub clause 6.2;
IEC 62271-111:2019, Sub clause 7.2.7.2;
IEC 62271-200:2011, Sub clause 6.2;
IEC 62271-201:2014, Sub clause 6.2;
IEC 60282-2:2008, Sub clause 8.4

IEC 62271-102:2018, Sub clause 7.2;
IEC 62271-103:2011, Sub clause 6.2;
IEC 62271-111:2019, Sub clause 7.2.3;
IEC 62271-200:2011, Sub clause 6.2;
IEC 60282-2:2008, Sub clause 8.4

IEC 62271-102:2018, Sub clause 7.2.4;
IEC 62271-103:2011, Sub clause 6.2

Test Type/Test Parameters¹:

Ice Loading Test
Up to ¾ inch

Mechanical Duty Test
Automatic Operation: Up to 10
operations per minute

Test Method(s):

IEC 62271-111:2019, Sub clause 7.110

IE271-111:2019, Sub clause 7.109

¹This laboratory also uses customer supplied specifications and/or methods directly related to the testing technologies and parameters listed above.



Accredited Laboratory

A2LA has accredited

S & C ELECTRIC COMPANY - NICOLAS J. CONRAD LABORATORY

Chicago, IL

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 30th day of November 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3348.01
Valid to November 30, 2025

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