



# S&C ELECTRIC COMPANY

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## CERTIFIED TEST ABSTRACT

### Dielectric -- Radio Influence Voltage

#### TYPE OF EQUIPMENT

**S&C Fuse Cutout — Type XS — Outdoor Distribution — Overhead Pole-Top Style**, with the following mounting configuration, catalog number, and ratings:

<u>Catalog Number</u>	<u>Style*</u>	<u>kV Max.</u>	<u>kV BIL</u>
89021R10	EHD	15	110
89031R10	UHD	15	110
89071R11	EHD	15	110
89221R10	DISC	15	110

\*EHD = Extra-Heavy Duty

\*UHD = Ultra-Heavy Duty

\*DISC = Disconnect

#### APPLICABLE TEST SPECIFICATIONS

Test procedure in accordance with ANSI/IEEE C37.41-1994, *IEEE Standard Design Tests for High-Voltage Fuses, Distribution Enclosed Single-Pole Air Switches, Fuse Disconnecting Switches, and Accessories*, and ANSI C37.42-1989, *Distribution Cutouts and Fuse Links — Specifications*.

#### TEST RESULTS

S&C Test Reference Number: 8796, 13320

The device tested was Type XS Fuse Cutout Catalog No. 89021R10. All of the devices listed under Type of Equipment utilize the same mounting. The fuse tubes and blades are interchangeable. Radio-influence behavior of the mounting is unaffected. The components used at both S&C Electric Company, Chicago, and S&C Electric Company, Suzhou, come from the same, or identically qualified suppliers, and the internal quality requirements are identical. Engineering experience and judgement, along with the testing shown in this

document, dictate that Type XS Fuse Cutouts will meet the requirements of the applicable standards regardless of the location of assembly.

Refer to the following tables, "Summary of Radio-Influence Voltage Test Results."

Table 1: Summary of Radio-Influence-Voltage Test Results, Chicago Assembly

TEST CONFIGURATION	60 Hz TEST VOLTAGE kV	AMBIENT RIV AT 1 MHz μ VOLTS	TOTAL RIV AT 1 MHz μ VOLTS
Cutout closed Upper terminal energized Rear insert grounded	9.6	5.2	5.3
Cutout open Upper terminal grounded Hinge terminal energized Rear insert floating	9.6	5.2	5.3
Cutout open Upper terminal energized Hinge terminal grounded Rear insert floating	9.6	5.2	5.3

Table 2: Summary of Radio-Influence-Voltage Test Results, Suzhou Assembly

TEST CONFIGURATION	60 Hz TEST VOLTAGE kV	AMBIENT RIV AT 1 MHz μ VOLTS	TOTAL RIV AT 1 MHz μ VOLTS
Cutout closed Upper terminal energized Rear insert grounded	9.7	0.001	0.001
Cutout open Upper terminal grounded Hinge terminal energized Rear insert floating	9.7	0.001	0.001
Cutout open Upper terminal energized Hinge terminal grounded Rear insert floating	9.7	0.001	0.001

1. A 60-Hz test voltage of 9.6 kV was chosen; this value exceeds the 9.41 kV test voltage requirement of ANSI C37.41.
2. ANSI C37.42 specify a maximum RIV of 250 μV at 1 MHz for all voltage ratings.
3. Ambient RIV is the measured voltage at 1 MHz in the test area with the fuse unenergized; total RIV is the measured voltage at 1 MHz with the fuse energized at the given test voltage and includes the ambient RIV.

