



# S&C ELECTRIC COMPANY

GENERAL OFFICES • CHICAGO

*Specialists in High-Voltage Switching and Protection*

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Reference Number: 40-CERT85-109  
Original Issue Date: June 24, 1985  
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## CERTIFIED TEST ABSTRACT

### **Fault Interrupting at 60 Hz**

#### TYPE OF EQUIPMENT

**S&C Fuse Cutout — Type XS — Outdoor Distribution — Extra-Heavy-Duty Overhead Pole-Top Style, Catalog No. 89071R11**

Maximum Voltage .....	15	kV
BIL.....	110	kV
Amperes Maximum.....	200	A
Asymmetrical Interrupting Current.....	12,000	A

#### 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: 9812

Successful interrupting test results are presented in the following table, "Interrupting Test Results — Fault Current Testing."

**INTERRUPTING TEST RESULTS  
 FAULT CURRENT TESTING**

Required Test Current Levels		TEST SERIES									
		1		2		3		4		5	
		Rated Interrupting Current +5% / -0%		From 70% to 80% Rated Interrupting Current		From 20% to 30% Rated Interrupting Current		From 400 to 500 Amperes		From 2.7 to 3.3 X Fuse Link Rating	
60 Hz Recovery Voltage, kV		15.0		15.0		15.0		TEST SERIES NOT REQUIRED		15.0	
X/R Ratio		13.5		13.1		13.6				1.2	
Transient <sup>1</sup> Recovery Voltage	kHz	2.38		2.33		2.50				Not Applicable	
	PKF <sup>3</sup>	1.41		1.31		1.30				776 <sup>4</sup>	
Prospective Current rms Amps	Sym.	8,000		6,210		2,090				—	
	Asym.	12,200		9,430		3,190				140K	
Fuse Link Rating		140K	200T	140K	200T	140K	200T				
Making Angle Related to Voltage Zero, Degrees <sup>2</sup>	0	X	X	X	X						
	90	X	X	X	X	X	X			X	
	140	X	X	X	X						
Number of Tests		3	3	3	3	1	1	2			
Number of Tests on Each Cutout		3	3	3	3	2		2			
Duration of Normal Frequency Recovery Voltage After Interruption, Seconds		0.5		0.5		0.5		0.5			

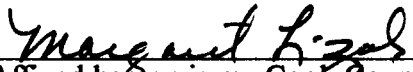
1. The prospective transient recovery voltage is described by a natural frequency and a peak factor.
2. X indicates a performed test. All tests were successful.
3. PKF (Peak Factor) is the ratio of the prospective first peak of the transient recovery voltage to the instantaneous value of the 60 Hz source voltage at the moment of current interruption.
4. This current results in a melting time of approximately 2 seconds.

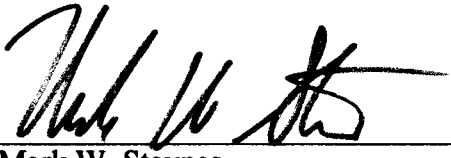
STATE OF ILLINOIS )  
                                  )ss  
COUNTY OF COOK )

Mark W. Stavnes, being sworn, states that: He is Assistant Manager – Product Engineering – Fuse Products Division for S&C Electric Company and is authorized to execute this certificate on its behalf, and said tests were conducted in the manner above set forth, and the results are accurately reported above.

Subscribed and sworn to before me  
this 10 day of November 1998.

S&C ELECTRIC COMPANY

  
Affixed hereon is my Cook County,  
Illinois Notary Public Seal

by   
Mark W. Stavnes  
Assistant Manager – Product Engineering  
Fuse Products Division

