

Test Document

Report No.: 04-010-MS/E

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Contents: 159 sheets

Equipment under test: Three-pole vacuum circuit-breaker 3AH5322-2, (36 kV, 16 kA, 1250 A) with vacuum interrupters VS 36025P

Manufacturer: Siemens AG, PTD M C PB1, 13623 Berlin

Client: Siemens AG, PTD M C R&D 1, 13623 Berlin

Testing station: Siemens AG, Prüffeld der Schaltwerke, Berlin

Date of test: April 26, 2004 till May 07, 2004

Applied test specifications:

IEC Publication 60694, edition 2.2, 2002-01

DIN EN 60694 (VDE 0670, Teil 1000), 2002-09

IEC Publication 62271-100, 1st edition, 2001-05

DIN EN 62271-100 (VDE 0671 Teil 100) 2004-04

Tests performed: Basic short-circuit tests in test-duties:
T10, T30, T60, T100s, T100a
Single-phase and double-earth fault tests
Short-time and peak withstand current test
Out-of-phase tests in test-duties:
OP1, OP2

Test results: The apparatus tested has passed the above indicated tests for a rated short-circuit current of 25 kA at a rated voltage of 36 kV without any objection. The results obtained and the proved performance comply with the requirements mentioned above.

Siemens Aktiengesellschaft
Prüffeld der Schaltwerke, Berlin

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Berlin, May 14, 2004

The test results exclusively
relate to the items tested.



DAT-P-017/92-02

Technical Data of Test Object

Switching Device

Ratings assigned by the manufacturer

Test object: Three-pole vacuum circuit-breaker
Type: 3AH5322-2 with vacuum interrupters VS 36025P
Manufacturer: Siemens AG, PTD M C PB1, 13623 Berlin
Serial No.: 3AH53/00000378 **Year of manufacture:** 2003
Drawing No.: Drawings and part lists - see sheet 6

Rated voltage	36 kV
Rated lightning impulse withstand voltage	170 kV
Rated switching impulse withstand voltage	- kV
Rated short-duration power-frequency withstand voltage	70 kV
Rated frequency	50/60 Hz
Rated normal current	1250 A
Rated peak withstand current	40/42 kA
Rated short-time withstand current	16 kA
Rated duration of short-circuit	3 s
Rated short-circuit breaking current	
Rated short-circuit current	16 kA
D.C. component	36 %
Rated short-circuit making current	40/42 kA
Rated transient recovery voltage	
Peak value	62 kV
Rate of rise	0.57 kV/μs
First-pole-to-clear-factor	1.5
Rated operating sequence	O-0.3s-CO-3min-CO
Arc extinguishing medium	Vacuum
Rated pressure (20 °C) (absolute)	< 0.01 Pa
Insulating medium	Air
Rated pressure / Minimum pressure (20 °C)	- MPa
Driving mechanism	
Type of drive	Motor/spring
Rated voltage	110 V DC
Number of poles	3
Number of units per pole	1
Rated opening time	< 75 ms
Rated closing time	< 65 ms
Rated voltage of opening release	110 V DC
Rated voltage of closing release	110 V DC
Rated supply voltage	- V DC
Rated frequency of supply voltage	- Hz
Further specifications:	
Tube in pole R	S.-No.: 7775
Tube in pole S	S.-No.: 7780
Tube in pole T	S.-No.: 7767

Essential characteristics: -

Remarks: -