

REPORT N°
IS - 1598

HIGH VOLTAGE LABORATORY



TEST REPORT

Client: AREVA T&D

Equipment under test: S2DAT-252/2000

Test performed: LIGHTNING IMPULSE WITHSTAND TEST

Normative documents: IEC 62271-102 IEC 694


Test date: 03 / 05 / 2004

Test performed at: AREVA T&D S.p.A. NOVENTA DI PIAVE ITALY


Ambient air temperature: 15°C

Issue date: 03 / 05 / 2004

Test performed by:

Mr M. da Villa


Test verified by:

Mr S. Pagotto


Equipment and rated characteristics:	Disconnecter type:	S2DAT
	Serial number: if any	-
	Rated Current	2000A
	Rated Voltage	252kV
	Rated Frequency	50Hz
	Short circuit rated current	50kA
	Short-circuit duration	3s
	Lightning impulse	950 kV

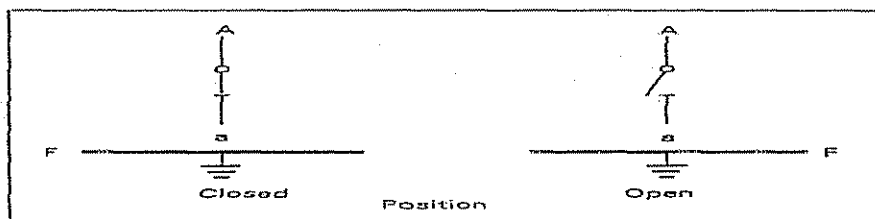
Assembly drawing number DIN - 14938

TEST PROCEDURE :

- Disconnecter closed, energized live part, earth on frame
n° 15 positive and 15 negative impulses at 950 kV as indicated in test condition n° 1
- Disconnecter open, energized male arm, female arm and frame earthed
n° 15 positive and 15 negative impulses at 950 kV as indicated in test condition n° 2
- Disconnecter open, energized female arm, male arm and frame earthed
n° 15 positive and 15 negative impulses at 950 kV as indicated in test condition n° 3
- Disconnecter open, energized male arm, female arm earthed, frame insulated
n° 15 positive and 15 negative impulses at 1050 kV as indicated in test condition n° 4
- Disconnecter open, energized female arm, male arm earthed, frame insulated
n° 15 positive and 15 negative impulses at 1050 kV as indicated in test condition n° 5

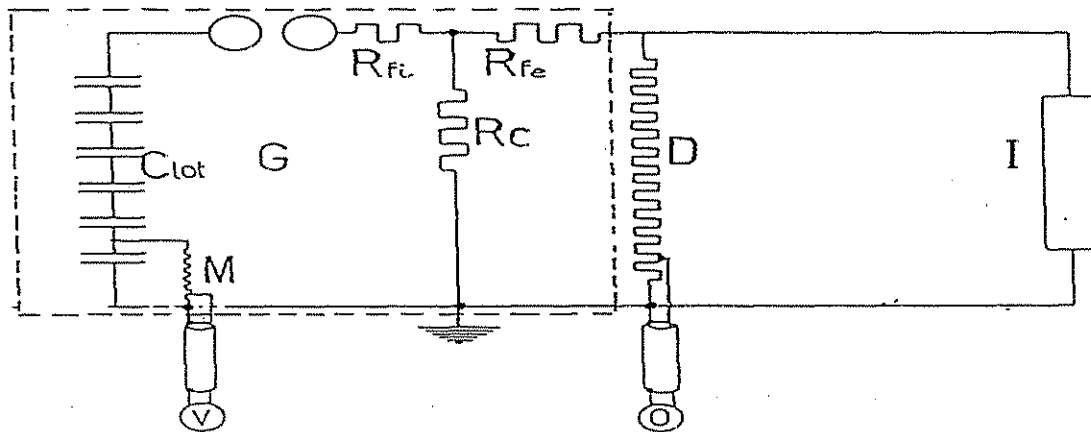
TEST DISPOSITION

Test Condition	Disconnecter	Voltage applied to	Earth connected to
1	Closed	Aa	F
2	Open	A	aF
3	Open	a	AF
4	Open	a	A
5	Open	A	a



TEST CIRCUIT:

- G) impulse generator AREVA
- C tot) 10,4 nF
- Rfi) 370 Ω
- Rfe) 300 Ω
- Rc) 8400 Ω
- M) ohmic voltage divider 200 M Ω
- V) Voltmeter
- D) ohmic – capacitive voltage divider 24 k Ω - 0,75 nF
- O) oscilloscope Tektronix type TDS 520 C , serial number : 5.1.707/A
- I) subject under test



Scope of test:

withstand voltage test with fifteen positive and negative impulses of 950/1050 kV peak value

Ambient conditions:

- temperature 15 °C
- atmospheric pressure 756 mHg
- absolute humidity 11,5 g/m³
- adjustment factor K 1,011

Characteristics of the test wave:

- duration of wave front : 1,5 μ s
- duration of wave tail: 51 μ s

TEST RESULTS

During the tests neither discharge nor other appreciable phenomena occurred