

**TEST REPORT**

**Client:** ALSTOM T&D

**Equipment under test:** S2DAT-252/2500

**Test performed:** IMPULSE VOLTAGE TEST

**Normative documents:** IEC 62271-102 IEC 694

**Test date:** 30/ 04 / 2002

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

**Ambient air temperature:** 15°C

**Issue date:** 09 / 05 / 2002

**Test performed by:** Mr M. da Villa

**Test verified by:** Mr E. Perissinotto

<b>Equipment and rated characteristics:</b>	Disconnecter type:	S2DAT
	Serial number: if any	-
	Rated Current	2500A
	Rated Voltage	252kV
	Rated Frequency	50Hz
	Short circuit rated current	50kA
	Short-circuit duration	3s
	Lightning impulse	kV

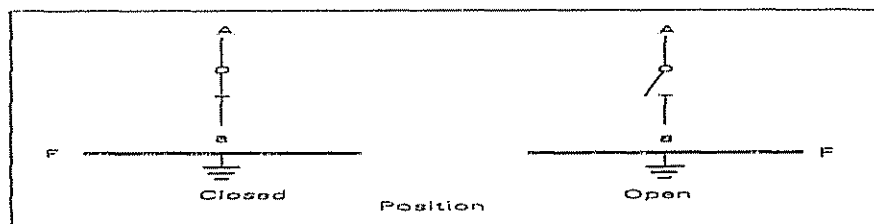
Assembly drawing number DIN - 12430

### TEST PROCEDURE :

- Disconnecter closed, energized live part, earth on frame  
n°15 positive and 15 negative impulses at 1050 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 1050 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 1050 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 1200 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 1200 kV as indicated in test condition n° 5

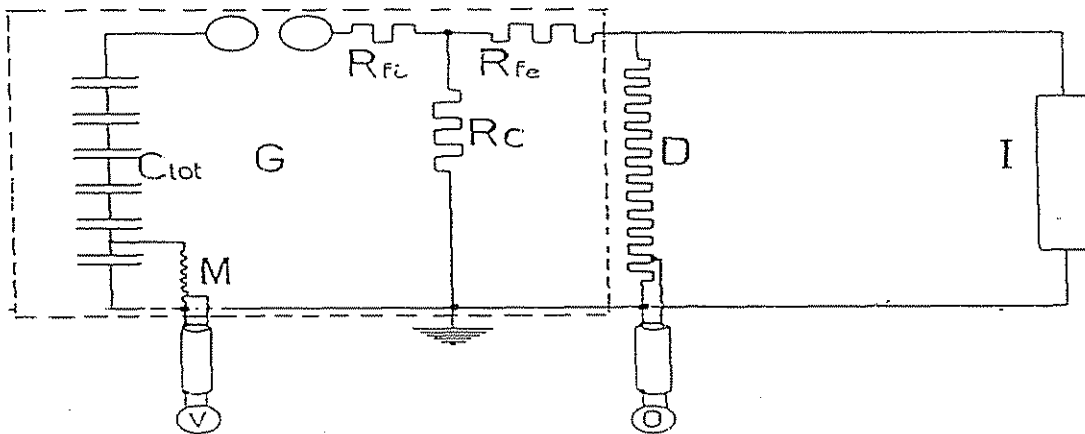
### TEST DISPOSITION

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 ALSTOM  
C tot) 10,4 nF  
Rfi) 370  $\Omega$   
Rfe) 300  $\Omega$   
Rc) 8400  $\Omega$   
M) ohmic voltage divider 200 M $\Omega$   
V) Voltmeter  
D) ohmic – capacitive voltage divider 24 k $\Omega$  - 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/m<sup>3</sup>
- adjustment factor K 1,011

**Characteristics of the test wave:**

- duration of wave front : 1,5  $\mu$ s
- duration of wave tail: 51  $\mu$ s

**TEST RESULTS**

During the tests neither discharge nor other appreciable phenomena occurred