

# TEST RECORD

NO. 2315.2100198.0064

THS Industria e Comercio Ltda.  
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BRAZIL

CLIENT

THS Industria e Comercio Ltda.

MANUFACTURER

Fuse links

TEST OBJECT

Traction fuse 8001000

TYPE

Test samples

SERIAL NO.

Rated voltage

1000 V DC

RATED  
CHARACTERISTICS  
GIVEN BY THE  
CLIENT

Rated current

800 A

Following to  
ESPECIFICAÇÃO TÉCNICA DOS FUSÍVELS DE 600A-1000Vcc  
EC-9.86.01.41/700-003 Rev. 1: 26.10.05  
Sub-clause 5.7

NORMATIVE  
DOCUMENT

Verification of the breaking capacity at 1150 V DC and 100 kA

TEST PERFORMED

19 March 2010

DATE OF TEST

See Sub-clause 3

TEST RESULT

This test document comprises 10 sheets.



**RONALD BORCHERT**  
Test engineer in charge  
Berlin, 19 March 2010



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Independent test laboratory, accredited by Deutsche Akkreditierungsstelle Technik (DATech) e.V. in the fields of h.v. apparatus and switchgear, power cable and power cable accessories, l.v. apparatus and switchgear, installation equipment and switching and control equipment with DAR Record No. DAT-P-019/92.

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**1. Participants in the test**

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Mr. Borchert, Ronald                      IPH test engineer in charge

**2. Test performed**

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Verification of the breaking capacity at 1150 V DC and 100 kA

### 3. Test results

Oscillogram No.		208 3812	210 1149	210 1150	210 1151
No. of test object		-	5	10	15
Rated current of fuse-link	A	-	800	800	800
Test voltage	V	1151	1151	1151	1151
Prospective peak current	kA	-	-	-	-
Prospective test current $I_p$	kA	101	101	101	101
Time constant	ms	17.7	17.7	17.7	17.7
Rate of current rise	kA/ms	5.71	5.71	5.71	5.71
Melting current $i_s$	A	-	33.2	33.5	32.6
Cut-off current	A	-	33.7	34.0	33.0
Melting time	ms	-	7.16	7.26	6.90
Arcing time	ms	-	5.54	5.66	5.42
Break time	ms	-	12.7	12.9	12.3
Melting integral	$10^3 \text{ A}^2\text{s}$	-	2909	3006	2699
Arcing integral	$10^3 \text{ A}^2\text{s}$	-	1716	1768	1684
Breaking integral	$10^3 \text{ A}^2\text{s}$	-	4603	4751	4361
Arc energy	kVA $\cdot$ s	-	149	151	146
Switching voltage	V	-	2491	2491	2431
Recovery voltage	V	-	1150	1150	1151
Resistance after test <sup>1)</sup>	M $\Omega$		0.48	0.59	0.51
Notes		Setting	-	-	-
Evaluation		-	OK	OK	OK

#### Notes:

- 1) Resistance was measured 10 minutes after the test.  
 OK - The test object was able to break properly.

4. Photographs



Photo 1: Test object No. 5 after test



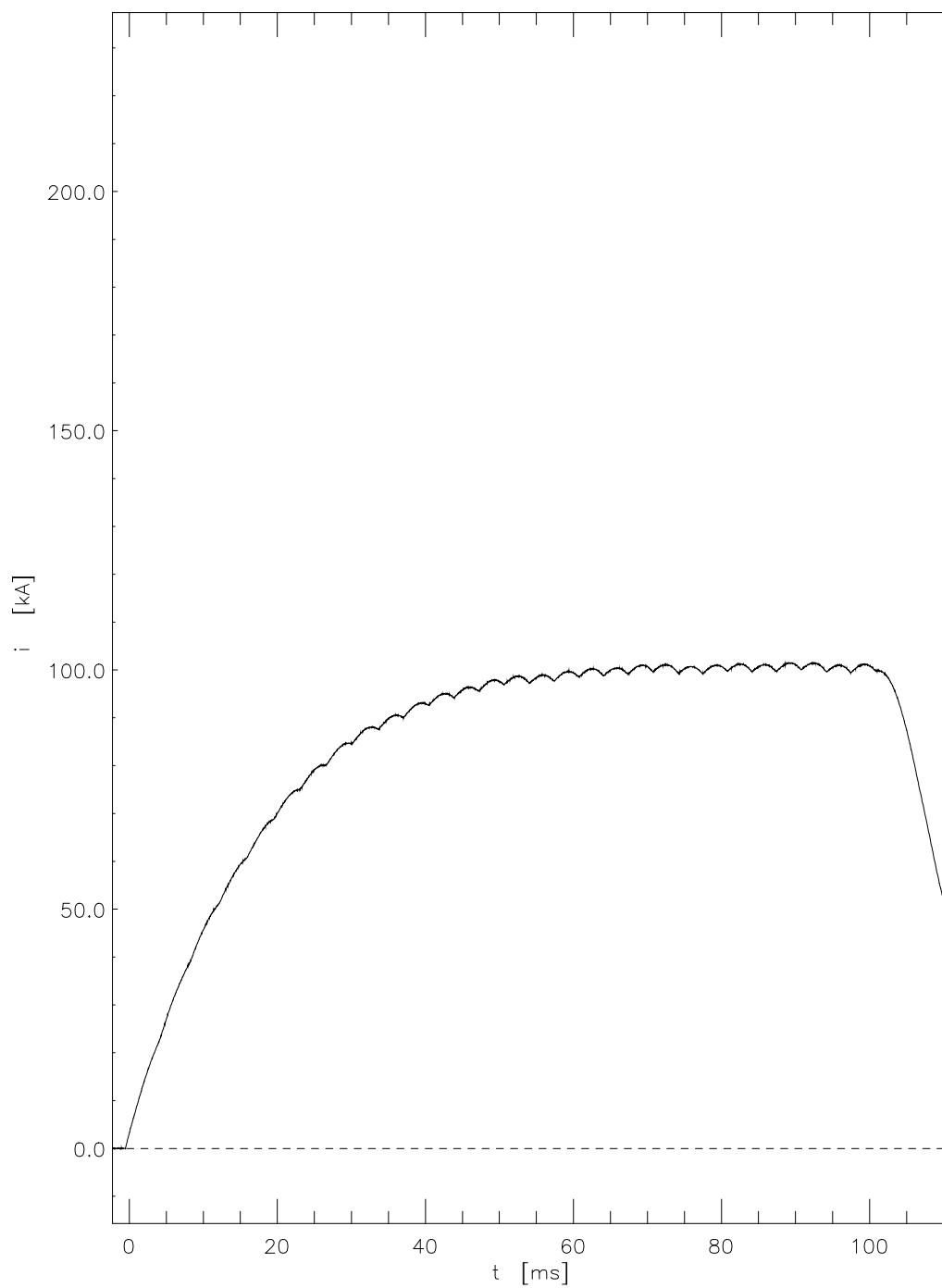
Photo 2: Test object No. 10 after test



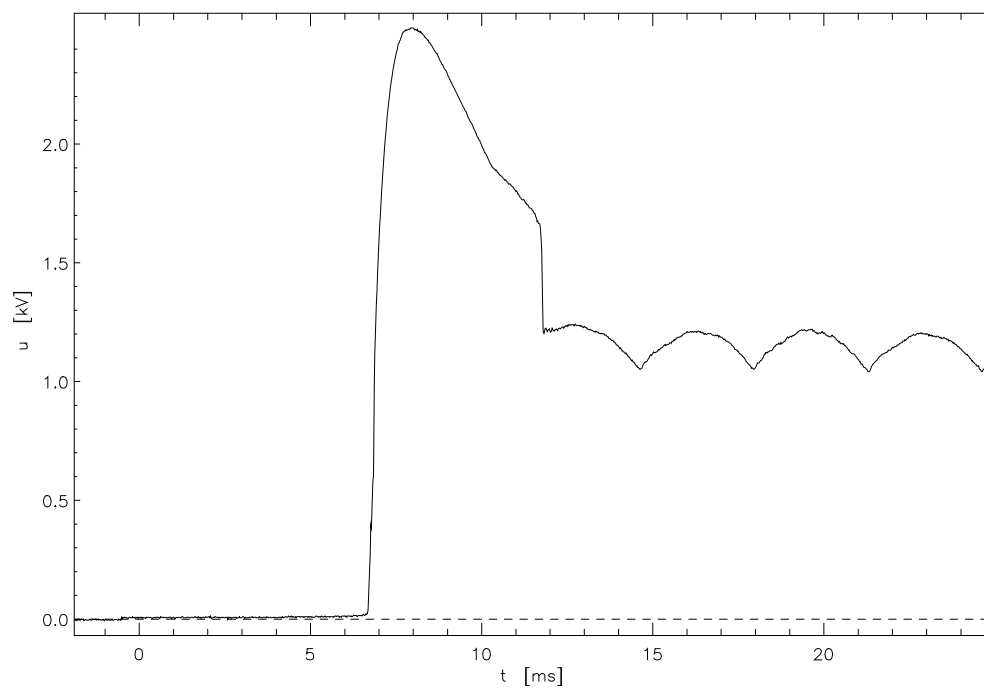
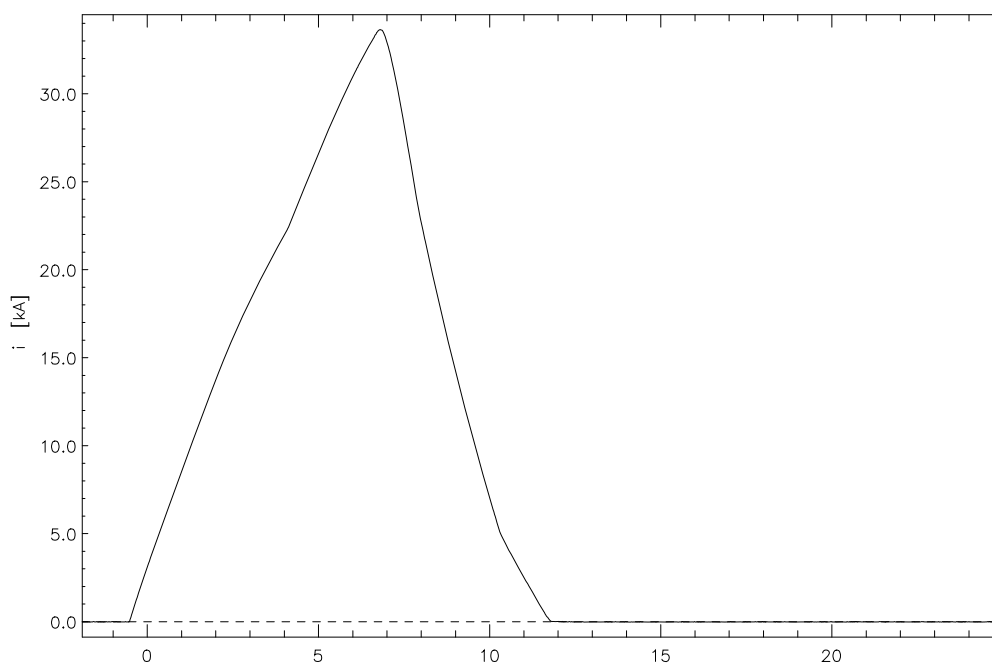
Photo 3: Test object No. 15 after test

5. Oscillograms

Test-No. 2083812

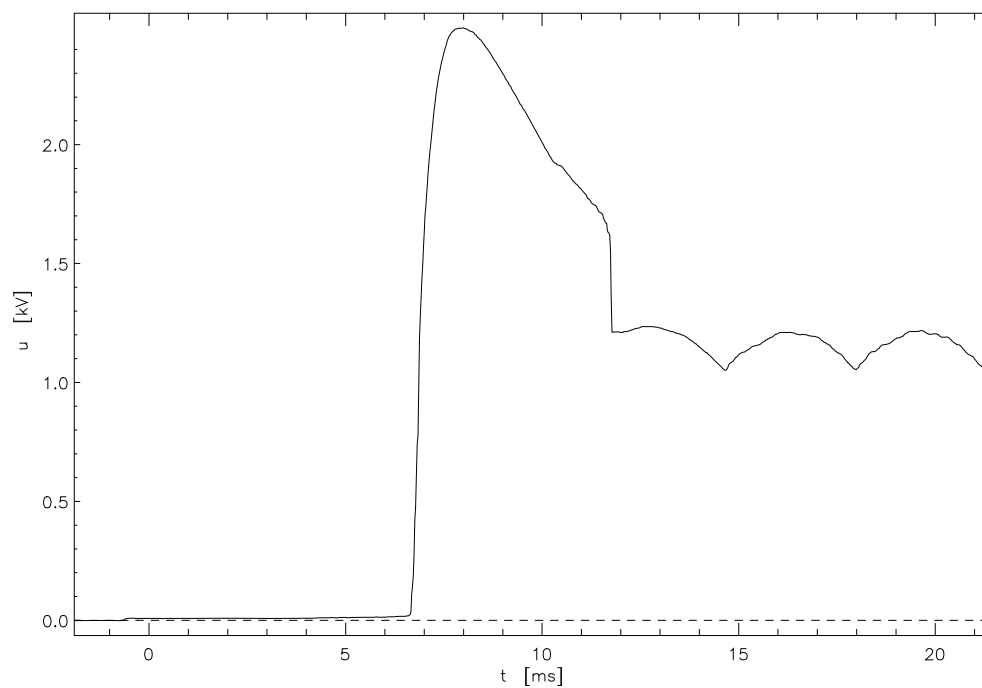
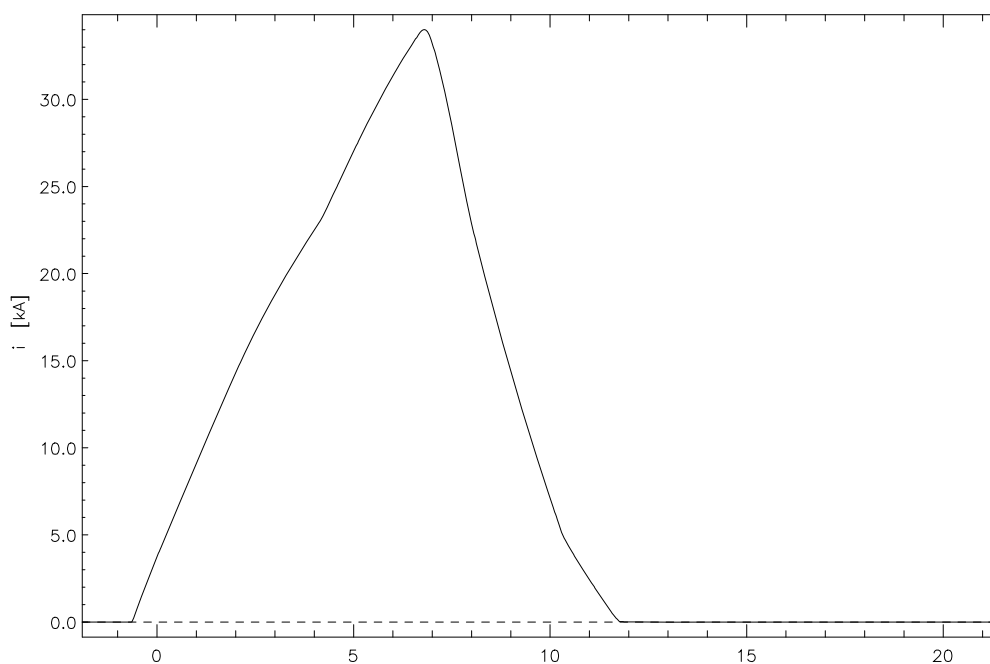


Test-No. 2101149





Test-No. 2101150



Test-No. 2101151

