



University of Tehran

High Voltage Laboratory

Test Report

No: 01H373

**Short-time withstand current and peak withstand current tests
20kA_{rms} 1sec, On 24 kV, 630 A SF6 load breaker switch
Elko Pars Co.**





Test Report No 01H373

Test Object: 24 kV, 630 A SF6 load breaking switch

Type: EGYA-G24

Serial Number: LBS24/G-1587

Manufacturer: Elko Pars Co. (Islamic Republic of Iran)

Test Performed on order of: Elko Pars Co. (Islamic Republic of Iran)

Test Scope: Short-time withstand current

Tests Procedure: According to standard IEC 62271-100 (2017)

Test Performed: March 12, 2023

Test Result: Indicated in Report
The test result refers to the tested object only.





Test Participants:

Ms. Seraj

Elko Pars Co.

High Current Laboratory Participants:

M. JebeliJavan

A. Nikraftar

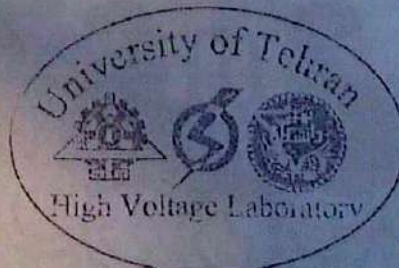
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S. Mohseni

Head of Laboratory:

A. A. Shayegani Akmal



Tehran, March 12, 2023



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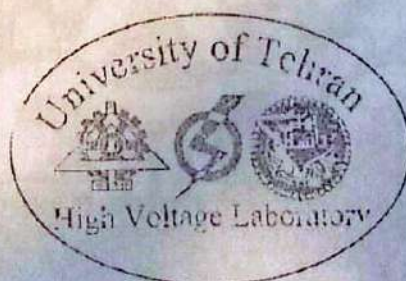
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This Report contains, 7 numbered pages

- 1 photo
- 1 drawing
- 2 oscillograms





1. Description of test object

The test object was 24 kV, 630 A three pole SF6 load breaker switch, manufactured by Elko Pars Co. (Iran).

2. Short-time withstand current

This arrangement was composed of a high current transformer, time controlled switch and a proper capacitor bank. The scheme is shown on Figure 1.

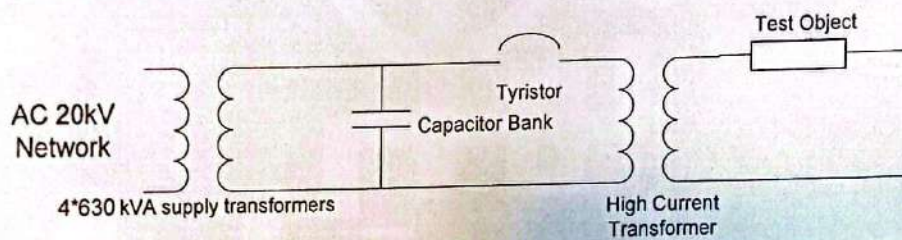
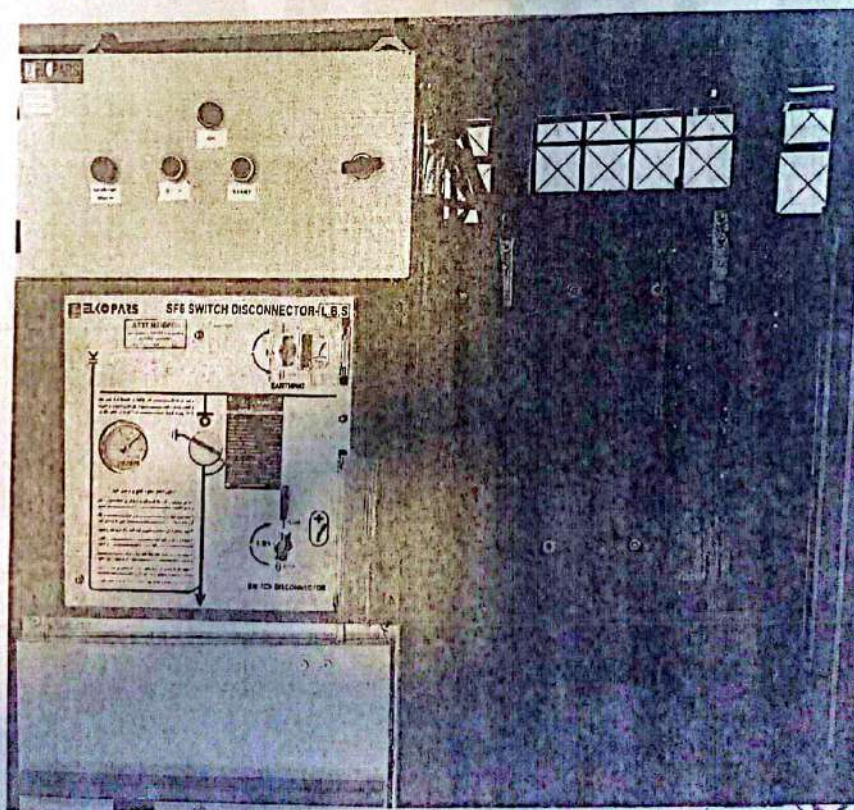
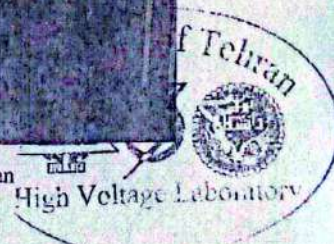


Figure 1: Scheme of short-time withstand current test



Test object in High Voltage Institute, University of Tehran





The load breaker switch under test has been supplied with high current on two adjacent poles in series according to standard IEC 62271-1(2007) clause 6.6.1. and the current has been measured.

Current waveform

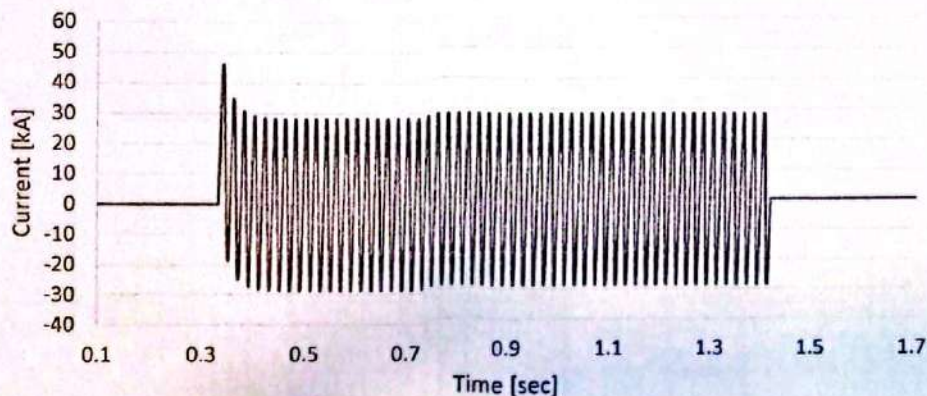


Figure 2: Current waveform, 20 kA_{rms}/1 sec

Peak current waveform

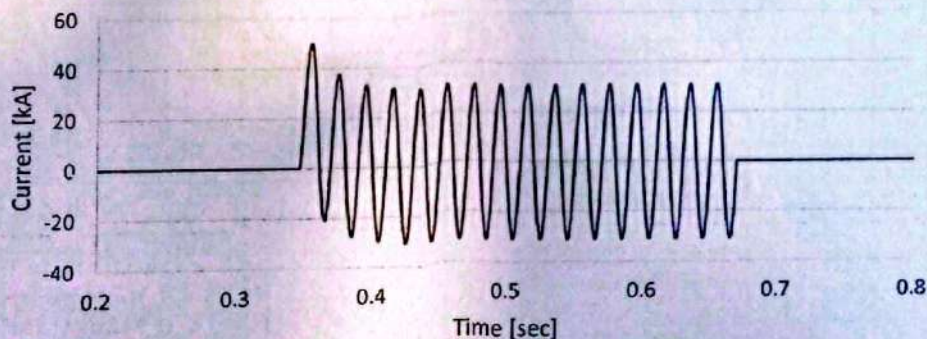


Figure 3: Peak current, 50 kA_{rms}

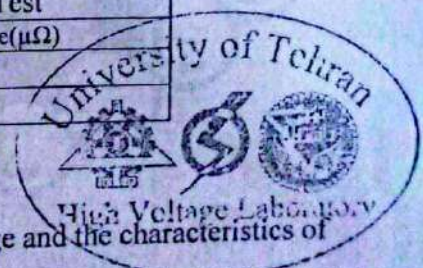
- Resistance measurement circuits before and after high current test

Phase	Before Test	After Test
	Resistance($\mu\Omega$)	Resistance($\mu\Omega$)
R	80	69
S	56	55

Test Evaluation

With reference to the standards/specifics of the tested sample assigned by manufacturer.

Tested in the second page and the characteristics of the carried out tests passed SUCCESSFULLY.



- **Annex**

Drawing supplied by the manufacturer (1 Page)

