

Type Test Certificate of Breaking performance

Apparatus Back-up current limiting fuses

Designation VV - THERMO

Rated voltage 12 kV ; Rated normal current (*) A ; Rated frequency 50 Hz
(*) Homogeneous series constituted by the following current ratings:
10 - 16 - 20 - 25 - 32 - 40 A

Manufacturer ETI ELEKTROELEMENT d.d. - Izlake - SLOVENIA

Tested for ETI ELEKTROELEMENT d.d. - Izlake - SLOVENIA

Date(s) of tests from July 9, 2003 to September 17, 2003

Tested by CESI S.p.A. - Milano - ITALY

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in the reference documents, identified in this certificate, has been subjected to the series of proving tests in accordance with

IEC 60282-1 (2002)

Clause 6.6

This Type Test Certificate has been issued by CESI following exclusively the STL Guides.

The results are shown in the record of Proving Tests and the oscillograms attached in the Test Reports. The values obtained and the general performance are considered to comply with the above Standards and to justify the ratings assigned by the Manufacturer as listed on page No.2 .

The Certificate applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

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Prove e Componenti

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit
Prove e Componenti
Il Responsabile del Laboratorio

1 - Ratings assigned by the Manufacturer as proved by the tests**Current limiting fuse**

Manufacturer	ETI ELEKTROELEMENT d.d. – Izlake - SLOVENIA
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- Fuse link

Type	VV - THERMO
Voltage	12 kV
Current	10 A - 16 A - 20 A - 25 A - 32 A - 40 A
Frequency	50 Hz
Maximum breaking current	50 kA
Minimum breaking current (at 12 kV)	(10 A Fuse) 50 A
Minimum breaking current (at 12 kV)	(40 A Fuse) 200 A

- Characteristics of the fuse link

Class	Back-up
Resistance	(10 A Fuse) 87 mΩ ± 10 %
Resistance	(40 A Fuse) 23 mΩ ± 10 %

- Characteristics of the striker

Type	Medium
Operating mechanism	Spring

2 – This Certificate also verifies

Not applicable.

3 – Reference documents*The following reference documents are integral part of this Certificate*

No.	Description	CESI registration
1	Test Report	A3/033271
2	Manufacturer's drawings	A4/014224

4 – Additional references

Not applicable.

Activity code	43295O
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5 – Record of proving tests

The table below lists all the tests performed and the references to the relevant Test Reports containing the test values.

No. Standard and clause	Description of tests	Reference documents
IEC 60282-1 (2002) – Clause 6.6	Test duty No.1	A3/033271
IEC 60282-1 (2002) – Clause 6.6	Test duty No.2	A3/033271
IEC 60282-1 (2002) – Clause 6.6	Test duty No.3	A3/033271

6 – Identification of the sample

The Manufacturer guarantees that the tested object is manufactured according to the submitted drawings.

CESI checked that these drawings adequately represent in shape and dimensions the essential details and the parts of the tested object.

These drawings identified by CESI and numbered A4/014224 No.1 and 2 have been returned to the Client.