Test Report

Project designation	**Type test according to IEC/EN 60269-1 and IEC/EN 60269-2**
Product description	**Low-voltage fuse-links for use by authorized persons: Fuse-links with blade contacts type NH00 (NV00) / 690V / aM**
Client	ETI Elektroelement d.d. Obrezija 5 1411 Izlake SLOVENIA
Order from / No.	02/2015 / ---
Project number	2.03.02913.1.0/NH00/690V/aM
Date of issue	14.08.2015
Test engineer	H. Raheb, MSc
Total number of issues / No.	1 / 1
Number of pages	4
Annex: Number of pages	CB - Test Report No. 2.03.02913.1.0/NH00/690V/aM/CB/1 (40 pages) CB - Test Report No. 2.03.02913.1.0/NH00/690V/aM/CB/2 (20 pages) CCA - Test Report No. 2.03.02913.1.0/NH00/690V/aM/CCA (2 pages)

Test item

Identification:

Low-voltage fuse-links for use by authorized persons:
Fuse-links with blade contacts type NH00 (NV00) / 690V / aM

Manufacturer:	ETI Elektroelement d.d.
Factory location:	Gabersko 12, 1420 Trbovlje, SLOVENIA
Trademark:	ETI
Size:	00
Rated voltage(s):	~690V
Rated current(s):	50A, 63A, 80A, 100A, 125A, 160A
Rated frequency:	45Hz to 62Hz
Utilization category:	aM

Technical data and description:

See page 4

Testing location, Period of testing

Testing location:

AIT Austrian Institute of Technology GmbH
Business Unit Electric Energy Systems
Giefinggasse 2
1210 Vienna
AUSTRIA

Period of testing:

02 to 07/2015

Test(s)

Test(s) performed:

Type test

Test standard(s):

IEC 60269-1:2009 (Ed. 4.1)+A2:2014 and EN 60269-1:2007+A1:2009+A2:2014
IEC 60269-2:2013 (Ed. 5.0) and HD 60269-2:2013

Test procedure(s):

CB-Scheme and CCA-Scheme

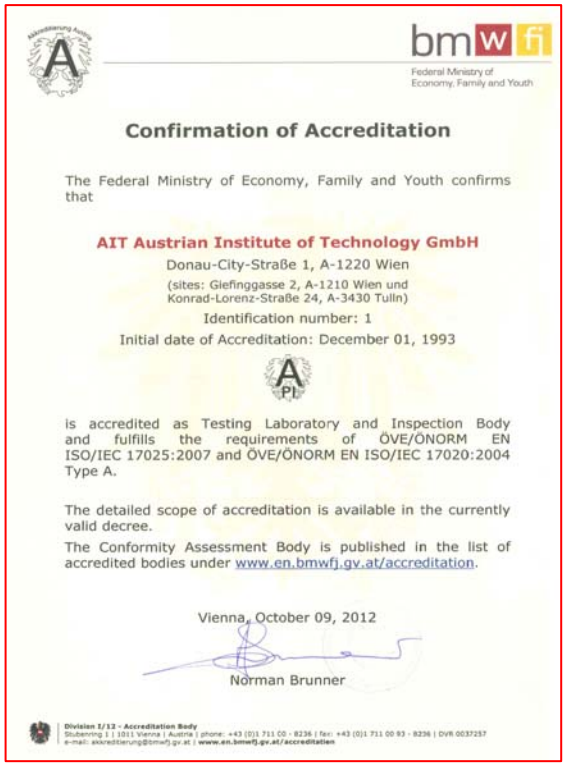
Result

The Low-voltage fuse-links for use by authorized persons:
Fuse-links with blade contacts type NH00 (NV00) / 690V / aM have passed the type test successfully.

Seal

Test engineer	Responsible for the content
……..……..	……..……..
H.Raheb, MSc	Ing.J.Ainetter

Testing laboratory



Confirmation of Accreditation

The Federal Ministry of Economy, Family and Youth confirms that

AIT Austrian Institute of Technology GmbH
Donau-City-Straße 1, A-1220 Wien
(sites: Giefinggasse 2, A-1210 Wien und Konrad-Lorenz-Straße 24, A-3430 Tulln)
Identification number: 1
Initial date of Accreditation: December 01, 1993

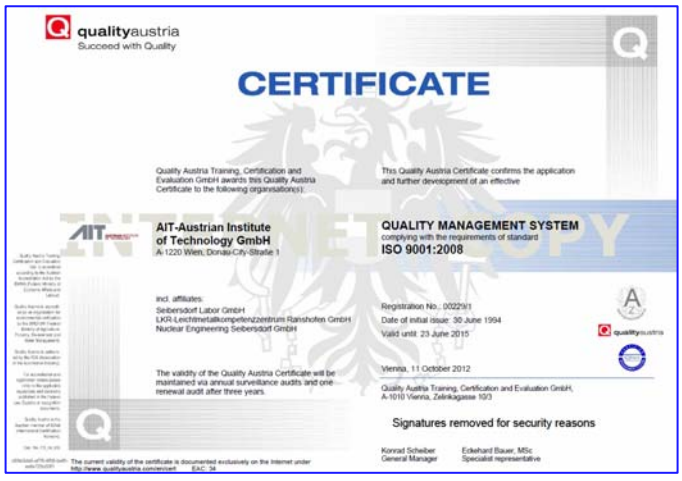
is accredited as Testing Laboratory and Inspection Body and fulfills the requirements of ÖVE/ÖNORM EN ISO/IEC 17025:2007 and ÖVE/ÖNORM EN ISO/IEC 17020:2004 Type A.

The detailed scope of accreditation is available in the currently valid decree.
The Conformity Assessment Body is published in the list of accredited bodies under www.en.bmwfj.gv.at/accreditation.

Vienna, October 09, 2012

Norman Brunner

ACCREDITED
according to
EN ISO/IEC 17025
confirmed by
BMWFJ
with GZ 92714/237-IV/9/00



qualityaustria
Succeed with Quality

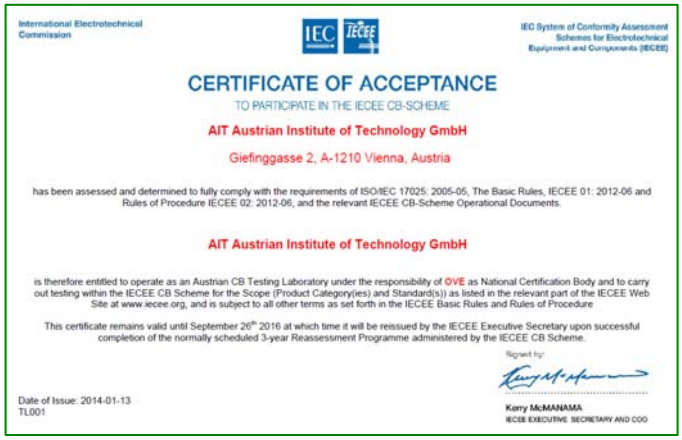
CERTIFICATE

AIT-Austrian Institute of Technology GmbH
A-1220 Wien, Donau-City-Straße 1

QUALITY MANAGEMENT SYSTEM
complying with the requirements of standard
ISO 9001:2008

Signatures removed for security reasons

CERTIFIED
according to
ISO 9001
confirmed by
Quality Austria
with Reg. No. 00229/1



International Electrotechnical Commission

CERTIFICATE OF ACCEPTANCE
TO PARTICIPATE IN THE IECEE CB-SCHEME

AIT Austrian Institute of Technology GmbH
Giefinggasse 2, A-1210 Vienna, Austria

has been assessed and determined to fully comply with the requirements of ISO/IEC 17025: 2005-05, The Basic Rules, IECEE 01: 2012-06 and Rules of Procedure IECEE 02: 2012-06, and the relevant IECEE CB-Scheme Operational Documents.

AIT Austrian Institute of Technology GmbH

is therefore entitled to operate as an Austrian CB Testing Laboratory under the responsibility of OVE as National Certification Body and to carry out testing within the IECEE CB Scheme for the Scope (Product Category(ies) and Standard(s)) as listed in the relevant part of the IECEE Web Site at www.iecee.org, and is subject to all other terms as set forth in the IECEE Basic Rules and Rules of Procedure.

This certificate remains valid until September 26th 2016 at which time it will be reissued by the IECEE Executive Secretary upon successful completion of the normally scheduled 3-year Reassessment Programme administered by the IECEE CB Scheme.

Signed by:

Kerry McMANAMA
IECEE EXECUTIVE SECRETARY AND COO

Date of Issue: 2014-01-13
TL001

RECOGNIZED CB TESTING LABORATORY
confirmed by
International Electrotechnical Commission
under the responsibility of
OVE
as the National Certification Body

Technical data and description

Test item	Low-voltage fuse-links for use by authorized persons: Fuse-links with blade contacts
Model/Type reference	NH00 (NV00)
Manufacturer	ETI Elektroelement d.d.
Factory location	Gabersko 12, 1420 Trbovlje, SLOVENIA
Size	00
Nature of supply	AC
Utilization category	aM
Rated voltage	~690V
Rated current	50A, 63A, 80A, 100A, 125A, 160A
Rated frequency	45Hz to 62Hz
Rated breaking capacity	100kA
Homogeneous series	50A 63A … 100A 125A … 160A
Indicating device	In the middle of ceramic body and on cover plate
Type of gripping-lugs	Energized
Material of fuse-link contacts	CuZn gal. Ag
Material of fuse-link body	Ceramic C221 (50A … 100A) Ceramic C610 (125A … 160A)
Material of cover plates	Al
Extinguishing means	Quartzsand

Test Report issued under the responsibility of:

TEST REPORT
IEC 60269-1
Low-voltage fuses
Part 1: General requirements

Report Number.....:	2.03.02913.1.0/NH00/690V/aM/CB/1
Date of issue.....:	14.08.2015
Total number of pages .....:	40
Applicant's name .....:	ETI Elektroelement d.d.
Address.....:	Obrezija 5, 1411 Izlake, SLOVENIA
Test specification:	
Standard .....:	IEC 60269-1:2006 (Fourth edition)+ A1:2009
Test procedure.....:	CB Scheme
Non-standard test method .....:	N/A
Test Report Form No. .....:	IEC60269_1B
Test Report Form(s) Originator ....:	EZU
Master TRF .....:	Dated 2010-08

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description.....:	Low-voltage fuse-links for use by authorised persons - fuse-links with blade contacts (NH fuse system)
Trade Mark.....:	ETI
Manufacturer .....:	ETI Elektroelement d.d., Obrezija 5, SI-1411 Izlake, Slovenia
Model/Type reference.....:	NH00 (NV00)
Ratings.....:	50 A, 63 A, 80 A, 100 A, 125 A, 160 A / aM / ~690 V / 100 kA

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**		
Testing location/ address ..... :		AIT Austrian Institute of Technology GmbH, Giefinggasse 2, 1210 Vienna, AUSTRIA	
☐	**Associated CB Laboratory:**		
Testing location/ address ..... :		-	
	Tested by (name + signature).....:	H.Raheb, MSc	.....
	Approved by (name + signature)...:	Ing.J.Ainetter	.....
☐	**Testing procedure: TMP**		
Testing location/ address ..... :		-	
	Tested by (name + signature).....:	-	.....
	Approved by (name + signature)...:	-	.....
☐	**Testing procedure: WMT**		
Testing location/ address ..... :		-	
	Tested by (name + signature).....:	-	.....
	Witnessed by (name + signature) .:	-	.....
	Approved by (name + signature)...:	-	.....
☐	**Testing procedure: SMT**		
Testing location/ address ..... :			
	Tested by (name + signature).....:	-	.....
	Approved by (name + signature)...:	-	.....
	Supervised by (name + signature) :	-	.....
☐	**Testing procedure: RMT**		
Testing location/ address ..... :		-	
	Tested by (name + signature).....:	-	.....
	Approved by (name + signature)...:	-	.....
	Supervised by (name + signature) :	-	.....

List of Attachments (including a total number of pages in each attachment):

Summary of testing:

Tests performed (name of test and test clause) acc. to IEC 60269-1 and IEC 60269-2:

Test	Sample No.					
	50A	**63A**	**80A**	**100A**	**125A**	**160A**
8.1.4 Dimensions	10-12	4-6	1-3	10-12	4-6	10-12
8.1.5.1 Resistance	1-19	1-13	1-7	1-19	1-13	1-19
8.3 Power dissipation / Temperature rise	19	-	-	19	-	19
8.4.3.3 Time-current characteristics, Gates	10-15	4-10	1-7	10-15	4-10	10-15
8.4.3.4 Overload	16-18	11-13	-	16-18	11-13	16-18
8.4.3.6 Indicating device	1-9	1-3	-	1-9	1-3	1-9
8.5 No.1 Breaking capacity	1-3	1-3	-	1-3	1-3	1-3
8.5 No.2 Breaking capacity	4-6	-	-	4-6	-	4-6
8.5 No.3 Breaking capacity	7	-	-	7	-	7
8.5 No.4 Breaking capacity	8	-	-	8	-	8
8.5 No.5 Breaking capacity	9	-	-	9	-	9

Remark: **The Amendment 2:2014 of IEC 60269-1:2009 (Ed. 4.1) has been taken into consideration. No additional tests are necessary to perform at aM fuse-links.**

Testing location:

AIT Austrian Institute of Technology GmbH
Business Unit Electric Energy Systems
Giefinggasse 2
1210 Vienna
AUSTRIA

The AIT Austrian Institute of Technology GmbH is a recognized CB/CCA Testing Laboratory under the responsibility of OVE as the National Certification Body.

Summary of compliance with National Differences:

List of countries addressed:

☒ **The product fulfils the requirements of IEC 60269-1:2009 (Ed. 4.1) + A2:2014, IEC 60269-2:2013 and EN 60269-1:2007 + A1:2009 + A2:2014, HD 60269-2:2013**

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.