

Test Report issued under the responsibility of:



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

**Report Reference No.** ..... : 285640-TL3-1  
**Date of issue**..... : 2020-02-13; Amendment No.1: 2021-08-30  
**Total number of pages** ..... : 42

**Applicant's name**..... : ETI Elektroelement d.o.o.  
**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

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**Test item description** ..... : Fuse-link, NH-System

**Trade Mark** ..... : 

**Manufacturer** ..... : ETI Elektroelement d.o.o.; Obrezija 5; 1411 IZLAKE; Slovenia

**Model/Type reference** ..... : NH000; NH000I

**Ratings** ..... : NH 000; AC 400 V; AC 500 V; 2 A - 100 A; 120 kA; gG

<b>Testing procedure and testing location:</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	<b>IPH Institut "Prüffeld für elektrische Hochleistungstechnik" GmbH</b>
<b>Testing location/ address..... :</b>		Landsberger Allee 378A, 12681 Berlin, Germany
<input type="checkbox"/>	<b>Associated CB Laboratory:</b>	
<b>Testing location/ address..... :</b>		
<b>Tested by (name + signature)..... :</b>		<b>Paul Melchert</b> (authorization of test report) Testing Engineer
<b>Approved by (name + signature).. :</b>		<b>Clemens Wegener</b> Reviewer
<input type="checkbox"/>	<b>Testing procedure: TMP</b>	
<b>Testing location/ address..... :</b>		
<b>Tested by (name + signature)..... :</b>		
<b>Approved by (name + signature).. :</b>		
<input type="checkbox"/>	<b>Testing procedure: WMT</b>	
<b>Testing location/ address..... :</b>		
<b>Tested by (name + signature)..... :</b>		
<b>Witnessed by (name + signature). :</b>		
<b>Approved by (name + signature).. :</b>		
<input type="checkbox"/>	<b>Testing procedure: SMT</b>	
<b>Testing location/ address..... :</b>		
<b>Tested by (name + signature)..... :</b>		
<b>Approved by (name + signature).. :</b>		
<b>Supervised by (name + signature):</b>		
<input type="checkbox"/>	<b>Testing procedure: RMT</b>	
<b>Testing location/ address..... :</b>		
<b>Tested by (name + signature)..... :</b>		
<b>Approved by (name + signature).. :</b>		
<b>Supervised by (name + signature):</b>		

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

<b>Appendix 1: Values of resistance</b>	<b>page 37 (1 pages)</b>
<b>Appendix 2: Calibration of I1</b>	<b>page 38 (1 pages)</b>
<b>Appendix 3: Photo documentation</b>	<b>page 39-42 (4 pages)</b>

**Summary of testing:****History of CB-Certificates and test reports:**

Origin issue of CB-Certificate:	DE1-63154 dated 2020 February 19
Origin issue of CCA-Certificate:	DE1 34799 dated 2020 February 19
The original test report:	262286-TL3-1 dated 2020 February 13
	262286-TL3-2 dated 2020 February 13

**Reason for issuing of Amendment 1:**

DE1-63154/M1 and DE1 34799/M1 will be issued due to inclusion of rated current of 2 A. The fuse link is identical in construction to previous tested fuse links. Therefore, results were taken from test reports 268958-TL3-1 and 268958-TL3-2 dated 2020 December 10.

This test report must be read in conjunction with the above-mentioned test reports.

**Tests performed (name of test and test clause):**

6	Markings
8.1.4	Arrangement of the fuses and dimensions
8.1.5.1	Resistance
8.2.2	Insulating properties
8.3	Verification of temperature rise and power dissipation
8.4.3.1	Verification of conventional non-fusing and fusing current
8.4.3.2	Verification of rated current of "g" fuse-links
8.4.3.3.2	Verification of gates
8.4.3.4	Overload
8.4.3.6	Operation of indicating devices
8.5	Verification of the breaking capacity
8.6	Verification of the cut off current characteristics
8.7	Verification of I <sup>2</sup> t characteristics and overcurrent selectivity
8.9	Verification of resistance to heat
8.11.1.8	Impact resistance of gripping-lugs of moulded material or of metal fixed in moulded material
8.11.2.2*)	Verification of resistance to abnormal heat and fire
8.11.2.3	Verification of resistance to rusting
8.11.2.4	Non-deterioration of insulating parts of fuse-link and fuse-base

**Testing location:**

**IPH Institut "Prüffeld für elektrische Hochleistungstechnik" GmbH**  
Landsberger Allee 378A, 12681 Berlin, Germany

\*) **VDE Prüf- und Zertifizierungsinstitut**  
Merianstraße 28, 63069 Offenbach  
Germany  
Only horizontal standards as:  
IEC 60695-2-11:2014

**Summary of compliance with National Differences**

**List of countries addressed:**

**The product fulfils the requirements of**

IEC 60269-1:2006

IEC 60269-1:2006/AMD1:2009

IEC 60269-1:2006/AMD2:2014

IEC 60269-2:2013

IEC 60269-2/AMD:2016

DIN EN 60269-1 (VDE 0636-1):2015-05; EN 60269-1:2007 + A1:2009 + A2:2014

DIN VDE 0636-2 (VDE 0636-2):2014-09; 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.

**ETI** Obrezija 5  
SI-1411 Izlake  
  
NH000  
NV00C

**ETI** Obrezija 5  
SI-1411 Izlake  
  
NH000I  
NV00CI 

**EAC**   

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2A gG  

---

~500V  
120kA  
IEC/EN 60269-2  
004181201   
Made in Slovenia

**EAC**   

---

2A gG  

---

~500V  
120kA  
IEC/EN 60269-2  
004191201   
Made in Slovenia

**ETI** Obrezija 5  
SI-1411 Izlake  
  
NH000  
NV00C

**ETI** Obrezija 5  
SI-1411 Izlake  
  
NH000I  
NV00CI 

**EAC**   

---

2A gG  

---

~400V  
120kA  
IEC/EN 60269-2  
004181101   
Made in Slovenia

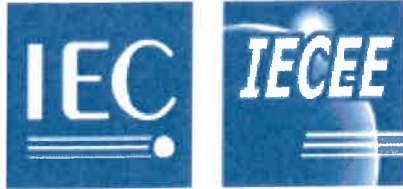
**EAC**   

---

2A gG  

---

~400V  
120kA  
IEC/EN 60269-2  
004191101   
Made in Slovenia



Test Report issued under the responsibility of:



<b>TEST REPORT</b> <b>IEC 60269-2</b> <b>Low-voltage fuses</b> <b>Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Examples of standardized systems of fuses A to K</b>	
<b>Report Number.....:</b>	285640-TL3-2
<b>Date of issue .....</b>	2020-02-13; Amendment No.1: 2021-08-30
<b>Total number of pages.....</b>	22
<b>Applicant's name .....</b>	ETI Elektroelement d.o.o.
<b>Address .....</b>	Obrezija 5; 1411 IZLAKE; Slovenia
<b>Test specification:</b>	
<b>Standard.....:</b>	IEC 60269-2: 2013 (Fifth Edition) to be used in conjunction with IEC 60269-1:2006 (Fourth Edition) + A1:2009
<b>Test procedure.....:</b>	CB Scheme
<b>Non-standard test method.....:</b>	N/A
<b>Test Report Form No. ....:</b>	IEC60269_2C
<b>Test Report Form(s) Originator ....:</b>	EZU
<b>Master TRF .....</b>	Dated 2014-06
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OD ECS 040-1  
January 2019

Responsible CB



### TEST REPORT SUMMARY

**Report Number**..... : 285640-TL3-3  
**Date of issue**..... : 2021-08-30  
**Tested by (name, function, signature):** Melchert  
 (Authorization of test report) *Melchert*  
 Testing engineer  
**Witnessed by (name, function, signature):**  
**Approved by (name, function, signature):** Wegener  
 Technical Certification Officer *W*  
**Supervised by (name, function, signature):**

**Testing Laboratory**..... : **IPH Instiut**  
**“Prüffeld für elektrische Hochleistungstechnik“ GmbH**  
**Address** ..... : Landsberger Allee 378A, 12681, Germany  
**Testing procedure**..... :  ENEC  CCA NTR  
 ENEC based on IEC EE CBTC with number: .....  
**Customer Testing Procedure**..... :  TMP/CTF Stage 1  WMT/CTF Stage 2  SMT/CTF Stage 3

**Applicant**..... : ETI Elektroelement d.o.o.  
**Address** ..... : Obrezija 5; 1411 IZLAKE; Slovenia  
**Manufacturer** ..... : ETI Elektroelement d.o.o.; Obrezija 5; 1411 IZLAKE; Slovenia

**Product**..... : **Fuse-link, NH-System**  
**Model/Type reference** ..... : NH000; NH000I  
**Trademark** ..... : **ETI**  
**Ratings** ..... : NH 000; AC 400 V / AC 500 V; 2 A – 100 A; 120 kA

**Certification Scheme** ..... :  ENEC  CCA  Other: \_\_\_\_\_  
**Standard(s)**..... : EN 60269-1:2007 + A1:2009 + A2:2014 used in conjunction with  
 HD 60269-2:2013  
 The text of the a.m. European Standard was approved by CENELEC is equivalent with  
 the corresponding IEC Publication.  
 The text of the a.m. European Standard was approved by CENELEC with agreed common  
 modifications and is not equivalent with the corresponding IEC Publication. An EU Deviation  
 Addendum has to be issued.

**This EN test report consists of the following parts:**  
 IEC Test Report Number..... : IEC TRF No. 60269\_1B: 285640-TL3-1  
 IEC TRF No. 60269\_2C: 285640-TL3-2  
 EU Deviation Addendum..... :

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