



Test Report issued under the responsibility of:



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

Report Number : 2.03.03056.1.0/ETI/PK1/CB/1

Date of issue : 14.11.2017

Total number of pages : 38

Applicant's name : ETI Elektroelement d.d.

Address : Obrezija 5, SI-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 : Low-voltage fuse-bases for fuse-links with blade contacts (NH type)

Trade Mark : ETI

Manufacturer : ETI Elektroelement d.d.

Model/Type reference : PK 1 (1-pole)
PK 1/3 (3-pole)

Ratings : 250A / 690V / 32W / 1p, 3p / size 1 / terminals M10-M10

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	
Testing location/ address		AIT Austrian Institute of Technology GmbH Giefinggasse 2, 1210 Vienna, Austria
		 
<input type="checkbox"/>	Associated CB Laboratory:	
Testing location/ address		-
Tested by (name + signature)		Hanna Raheb, MSc
Approved by (name + signature)		Ing. Johann Ainetter
<input type="checkbox"/>	Testing procedure: TMP	
Testing location/ address		-
Tested by (name + signature)		-
Approved by (name + signature)		-
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address		-
Tested by (name + signature)		-
Witnessed by (name + signature) ..		-
Approved by (name + signature)		-
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address		-
Tested by (name + signature)		-
Approved by (name + signature)		-
Supervised by (name + signature) .		-
<input type="checkbox"/>	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):

Type test acc. to IEC 60269-1 and IEC 60269-2:

- 8.1.4 Dimensions
- 8.2 Insulating properties and suitability for isolation
- 8.3 Temperature rise and acceptable power dissipation
- 8.5.5.1 Verification of the peak withstand current of a fuse-base
- 8.8 Degree of protection
- 8.9 Resistance to heat
- 8.10 Non-deterioration of contacts
- 8.10.1.2 Direct terminal clamps
- 8.11.1.2 Mechanical strength of the fuse-base
- 8.11.2.1 Freedom from season cracking *
- 8.11.2.2 Resistance to abnormal heat and fire
- 8.11.2.3 Resistance to rusting
- 8.11.2.4 Non-deterioration of insulating parts of fuse-link and fuse-base

The low-voltage fuse-bases for fuse-links with blade contacts (NH type)

- PK 1 (1-pole)
- PK 1/3 (3-pole)

passed the type test successfully.

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:

111

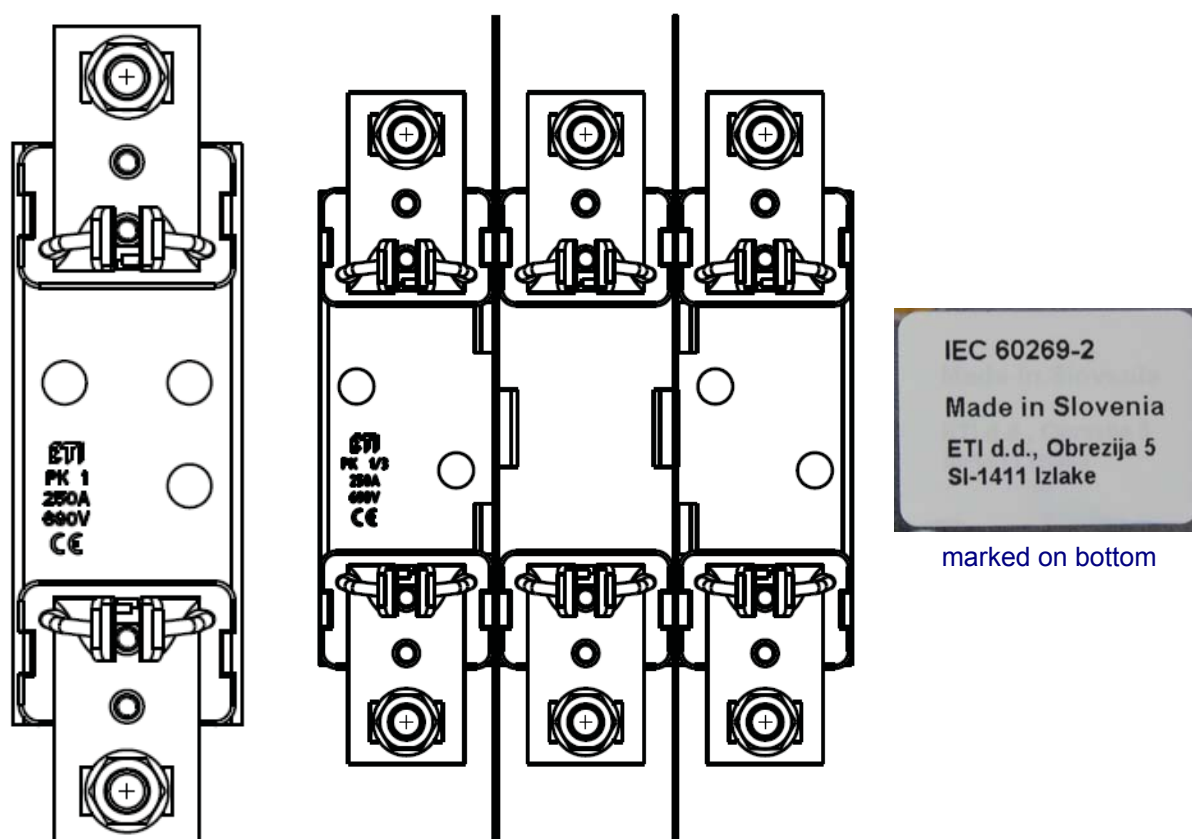
- ☒ **The product fulfils the requirements of**
 - **IEC 60269-1:2009 (Ed. 4.1) + A2:2014**
 - **IEC 60269-2:2013 (Ed. 5.0)**
- as well as**
- **EN 60269-1:2007 + A1:2009 + A2:2014**
 - **HD 60269-2:2013.**

List of tested samples:

Test		Sample No.	
		1p	3p
8.1.4	Dimensions	1 - 18	19 - 26
8.2	Insulating properties and suitability for isolation	3	19
8.3	Temperature rise and acceptable power dissipation	4, 5	20
8.5.5.1	Verification of the peak withstand current of a fuse-base	1, 2	-
8.8	Degree of protection	3	21
8.9	Resistance to heat	6	22
8.10	Non-deterioration of contacts	7, 8, 9	-
8.10.1.2	Non-deterioration of direct terminal clamps	N/A	N/A
8.11.1.2	Mechanical strength of the fuse-base	10 11, 12, 13	23, 24, 25, 26
8.11.2.1	Freedom from season cracking *	N/A	N/A
8.11.2.2	Resistance to abnormal heat and fire	14	-
8.11.2.3	Resistance to rusting	15	-
8.11.2.4	Non-deterioration of insulating parts of fuse-link and fuse-base	16, 17, 18	-

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.



Test item particulars	Low-voltage fuse-bases for fuse-links with blade contacts (NH type)
Classification of installation and use	Fuses for use by authorised persons
Supply Connection	Acc. to IEC 60269-1 and IEC 60269-2
Possible test case verdicts: - test case does not apply to the test object: N/A - test object does meet the requirement: P (Pass) - test object does not meet the requirement: F (Fail)	
Testing: Date of receipt of test item: 05/2016 and 09/2017 Date (s) of performance of tests: 05/2016 to 10/2016 and 09/2017	
General remarks: The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 6.2.5 of IEC 60269-1: The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable	
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies): ETI d.d. Bakovnik 4 SI-1240 Kamnik Slovenia	
General product information: <div style="text-align: center;"> Low-voltage fuse-bases 1-pole, 3-pole for fuse-links with blade contacts (NH type) type PK 1 </div>	

Reference list:

Type	ETI Code
PK 1 M10-M10 1p S	004123100
PK 1 M10-M10 3p S	004132200

Accessories:

Terminal covers	ZP PT 1-1	004129012
Fuse covers	PZP PT 1-1	004129022
Protective barriers	PR PK1 S	004941321

Technical data:

Rated voltage:	690V
Rated current:	250A
Rated frequency:	45-62Hz
Rated acceptable power dissipation:	32W
Size:	1
Number of poles:	1, 3
Type of terminals:	M10-M10
Material of contacts:	Cu, gal. Ag
Material of body:	Ceramic Steatit C221 mounted on metal plate DC03 gal. Zn
Material of terminal cover:	LATAMID 66 H2 G/25-V0 HF1 BLACK
Material of fuse cover:	HOPELEX 1220 U NATURAL
Material if partition wall:	Cloth Phenolic PF CP 207

Photos: