

Lloyd's  
Register

# Type Approval Certificate Extension

This is to certify that Certificate No. 90/00127(E7) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

**PRODUCER**

Mersen France SB S.A.S.  
15 Rue Jacques de Vaucanson  
69720 Saint Bonnet De Mure  
France

**PLACE OF  
PRODUCTION**

Fusetech Elektronikai  
Alkatrész Gyártó és  
Kereskedelmi Kft.  
7400 Kaposvár  
Guba S. u. 38.  
Hungary

**DESCRIPTION**

IEC Low Voltage General and Partial Purpose Fuse-Links  
Knife fuse-links with/without fuse indicator or striker  
gG and aM  
Type 'g': general purpose fuse link  
Type 'a': backup fuse link

**TYPE**

NH000, NH00, NH0, NH1, NH2, NH3

**APPLICATION**

Marine installations

**Certificate No.**

90/00127(E8)

**Issue Date**

02 December 2015

**Expiry Date**

20 June 2020

**Sheet**

1 of 4



LR031.1.2013.12

L. Green

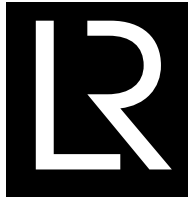
Marine Technology & Engineering Services, Southampton  
Lloyd's Register EMEA

*Lloyd's Register EMEA*

*Southampton Boldrewood Innovation Campus, Burgess Road, Southampton, SO16 7QF*

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**SPECIFIED STANDARDS** IEC 60269-1  
IEC 60269-2

**RATINGS** Breaking capacity:  
<400V: 100 kA  
<500V: 120 kA  
<690V: 80 kA

Double indicator isolated or not isolated			
Type	Size	Voltage (V)	Current (A)
NH gG	000	400	2 to 100
NH gG	00	400	20 to 160
NH gG	1	400	35 to 250
NH gG	2	400	35 to 400
NH gG	3	400	250 to 630
NH gG	000	500	2 to 100
NH gG	00	500	25 to 160
NH gG	1	500	16 to 250
NH gG	2	500	35 to 400
NH gG	3	500	250 to 630
NH gG	000	690	2 to 80
NH gG	00	690	32 to 125
NH gG	0	690	6 to 160
NH gG	1	690	16 to 250
NH gG	2	690	32 to 355
NH gG	3	690	250 to 500

**Certificate No.** 90/00127(E8)  
**Issue Date** 02 December 2015  
**Expiry Date** 20 June 2020  
**Sheet** 2 of 4

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LR031.1.2013.12



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Not isolated with french striker			
Type	Size	Voltage (V)	Current (A)
NH gG	0	500	125 to 200
NH gG	1	500	224 to 355
NH gG	2	500	355 to 500
NH gG	3	500	630
NH gG	0	690	32 to 100
NH gG	1	690	80 to 200
NH gG	2	690	125 to 315
NH gG	3	690	315 to 500

Double indicator not isolated			
Type	Size	Voltage (V)	Current (A)
NH aM	000	500	2 to 80
NH aM	00	500	100 to 160
NH aM	0	500	100 to 200
NH aM	1	500	100 to 315
NH aM	2	500	250 to 500
NH aM	3	500	315 to 630
NH aM	000	690	2 to 63
NH aM	00	690	50 to 125
NH aM	0	690	6 to 160
NH aM	1	690	16 to 250
NH aM	2	690	35 to 400
NH aM	3	690	250 to 500

**Certificate No.** 90/00127(E8)  
**Issue Date** 02 December 2015  
**Expiry Date** 20 June 2020  
**Sheet** 3 of 4

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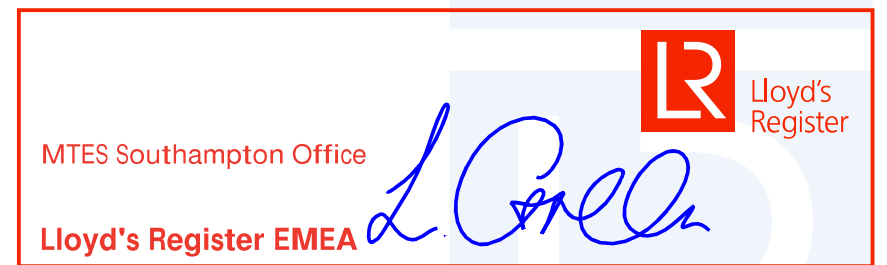
Not isolated with french striker			
Type	Size	Voltage (V)	Current (A)
NH aM	0	500	200
NH aM	1	500	315
NH aM	2	500	500
NH aM	3	500	630
NH aM	0	690	32 to 160
NH aM	1	690	80 to 250
NH aM	2	690	125 to 400
NH aM	3	690	315 to 500

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."*

*The attached Design Appraisal Document No. 90/00127(E8) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

*All other details remain as the previous Certificate No. 90/00127(E7) to which this extension should be attached.*

**Certificate No.** 90/00127(E8)  
**Issue Date** 02 December 2015  
**Expiry Date** 20 June 2020  
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**Part 2**  
**Fuses (Part 2)**

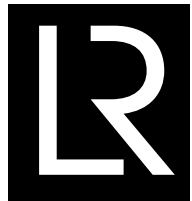
Producer/Licence No.	Type			Rating		Category Additional Tests	Remarks	Cert. No.		
	Link	Base	Carrier	Volts	Amperes					
Mersen France SB S.A.S., 15 Rue Jacques de Vaucanson, 69720 Saint Bonnet De Mure, France.	NH000GG			400 500 690	2 to 100 2 to 100 2 to 80	Marine installations	Expires: 20 June 2020  Knife fuses breaking capacity: <400V: 100 kA <500V: 120 kA <690V: 80 kA  Double indicator isolated or not isolated	90/00127(E8)		
	NH00GG			400 500 690	20 to 160 25 to 160 32 to 125					
	NH1GG			400 500 690	20 to 160 25 to 160 6 to 160					
	NH2GG			400 500 690	35 to 250 16 to 250 16 to 250					
	NH3GG			400 500 690	35 to 400 35 to 400 32 to 355					
	NH0GG			400 500 690	250 to 630 250 to 630 250 to 500					
	NH1GG			500 690	125 to 200 32 to 100					
	NH2GG			500 690	224 to 355 80 to 200					
	NH3GG			500 690	355 to 500 125 to 315					
				500 690	630 315 to 500					
									Not isolated with french striker	

**Part 2**  
**Fuses (Part 2)**

Producer/Licence No.	Type			Rating		Category Additional Tests	Remarks	Cert. No.
	Link	Base	Carrier	Volts	Amperes			
NH000AM				500 690	2 to 80 2 to 63		Double indicator not isolated	
NH00AM				500 690	100 to 160 50 to 125			
NH0AM				500 690	100 to 200 6 to 160			
NH1AM				500 690	100 to 315 16 to 250			
NH2AM				500 690	250 to 500 35 to 400			
NH3AM				500 690	315 to 630 250 to 500			
NH0AM				500 690	200 32 to 160		Not isolated with french striker	
NH1AM				500 690	315 80 to 250			
NH2AM				500 690	500 125 to 400			
NH3AM				500 690	630 315 to 500			

*L. O'Neil*





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## Lloyd's Register EMEA

*Marine Technology & Engineering Services*

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*Email MTES/TASS@lr.org*

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Document number 90/00127(E8)
Issue number 1

### DESIGN APPRAISAL DOCUMENT

Date 02 December 2015	Quote this reference on all future communications MTES/ETS/LG/WP21573061/W04063730
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## LLOYD'S REGISTER TYPE APPROVAL SYSTEM, 2015.

**Issued to: MERSEN FRANCE SB S.A.S.**

**for: IEC LOW VOLTAGE GENERAL AND PARTIAL PURPOSE FUSE-LINKS  
NH KNIFE FUSE-LINK WITH/WITHOUT FUSE INDICATOR OR STRIKER**

**Types: 'g' GENERAL PURPOSE FUSE LINK**

**'a': BACKUP FUSE LINK**

**TYPE APPROVAL CERTIFICATE No. 90/00127(E8)**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System, 2015 and this Design Appraisal Document forms part of the Certificate.

#### APPROVAL DOCUMENTATION

Application Form 2571

Facility Inspection Report VNA 1500749

DAkS ISO 9001:2008 and ISO 14001:2004 Certification

Test Report Translation Template 835201/1

19.Jan.2015  
23.Apr.2015  
01.May.2017  
12.Nov.2009

#### TEST REPORTS

VDE IEC 60269-1 5003214-1150-0001/159992-01

VDE IEC 60269-1 5003214-1150-0002/159990-01

VDE IEC 60269-1 5003214-1150-0006/159997-01

VDE IEC 60269-1 5003214-1150-0007/159999-01

VDE IEC 60269-1 5003214-1150-0008/159993-01

VDE EN 60269-1 5003214-1150-0012/208717/CC2/KOH Certificate 40041751

VDE EN 60269-1 5003214-1150-0012/208718/CC2/KOH Certificate 40041752

Updated supplement to 40041752

VDE EN 60269-1 5003214-1150-0724/207708/CC2/KOH Certificate 40041779

VDE EN 60269-1 5003214-1150-0012/208719/CC2/KOH Certificate 40041861

Updated supplement to 40041861

VDE EN 60269-1 5003214-1150-0012/208720/CC2/KOH Certificate 40041833

Mersen 2015257/B

Mersen 2015257/C

Mersen 2015257/D

Mersen 2015257/H

Mersen 2015257/I

Mersen 2015257/J

Mersen 2015257/K

Mersen 2015257/L

Mersen 2015257/M

Mersen 2015420/A

Mersen 2015420/B

Mersen 2015420/C

Mersen 2015420/D

22.Jan.2013  
22.Jan.2013  
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22.Jan.2013  
22.Jan.2013  
24.Feb.2015  
24.Feb.2015  
26.Jun.2015  
25.Feb.2015  
11.Mar.2015  
26.Jun.2015  
05.Mar.2015  
11.Aug.2015  
12.Aug.2015  
12.Aug.2015  
12.Aug.2015  
12.Aug.2015  
10.Nov.2015  
10.Nov.2015  
10.Nov.2015  
16.Oct.2015  
26.Nov.2015  
12.Nov.2015  
17.Nov.2015  
12.Nov.2015

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## Lloyd's Register EMEA

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Mersen 2015420/E  
Mersen 2015420/F

16.Nov.2015  
16.Nov.2015

Also, all the documentation listed on Design Appraisal Documents associated with Type Approval Certificate No. 90/00127(E7).

#### Supplementary Type Approval Terms and Conditions

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*



LR031.1.2013.12

Leon Green  
Electrotechnical Systems  
Marine Technology & Engineering Services, Southampton  
Lloyd's Register EMEA

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