



Lloyd's  
Register

## Type Approval Certificate Extension

This is to certify that Certificate No. 00/00076(E3) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

**PRODUCER** Helkama Bica Oy, Finland

**PLACE OF PRODUCTION** Helkama Bica Oy  
Lakimiehenkatu 4  
FI- 20780 Kaarina  
Finland

Helkama Bica Oy  
Lasitehtaankatu 12  
FI- 10960 Hanko  
Finland

Helkama Bica (Shanghai) CO., LTD  
Plot 1-2, Minhang Export Processing Zone  
No. 3111 Huan Cheng West Road  
Fengxian District, Shanghai 201401  
China

**DESCRIPTION** Flame retardant, halogen free, crosslinked polyolefine insulated, power, lighting and switchboard wiring cable.

**TYPE** LKEM-HF 0.6/1 (1.2) kV

Number of conductors	Conductor cross section (mm <sup>2</sup> )
1x	(0.75), 1.0, 1.5, 2.5, 4, 6, 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300

**Certificate No.** 15/20062

**Issue Date** 29 June 2015

**Expiry Date** 21 May 2020

**Sheet** 1 of 2

Lloyd's Register EMEA  
71 Fenchurch Street, London EC3M 4BS



Jochen Körner  
Hamburg Technical Support Office  
Lloyd's Register EMEA

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**APPLICATION** Fixed wiring on ships, offshore and industrial installations.

**SPECIFIED STANDARDS**

Construction:	IEC 60092-353: 2011 and IEC 60092-350: 2014
Conductor:	Annealed stranded copper wire IEC 60228: 2004
Insulation:	HF90 to IEC 60092-360: 2014

**ADDITIONAL TESTS**

Flame retardant	IEC 60332-1-2: 2004
Smoke emission	IEC 61034-1: 2013

**RATINGS**

Rated voltage:  $U_o/U (U_m)$ : 0.6/1 (1.2) kV  
 Maximum conductor temperature: 90 °C  
 Minimum installation temperature: -15 °C

*"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. HTS/ETS 32000-15 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 00/00076(E3) to which this extension should be attached.

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**Sheet** 2 of 2

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 Jochen Körner  
 Hamburg Technical Support Office  
 Lloyd's Register EMEA  
 LR031.1.2013.12



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# Marine Design Appraisal Document

Lloyd's Register EMEA  
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E-mail: hamburg-technical-support@lr.org

Date  
29 June 2015

Please quote this reference number on all future communications  
HPC1562037/32000-15/JK/ND/SC

**THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002  
ISSUED TO: HELKAMA BICA OY, FINLAND  
FOR: FLAME RETARDANT, HALOGEN FREE, CROSSLINKED POLYOLEFINE INSULATED,  
POWER, LIGHTING AND SWITCHBOARD WIRING CABLE.  
TYPE: LKEM-HF  
TYPE APPROVAL CERTIFICATE EXTENSION NO. 15/20062**

The additional undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

## ADDITIONAL APPROVAL DOCUMENTATION

Form 2571	Application for Type Approval Certification	19.01.2015
W04097854	Production Quality Assessment Form China	22.05.2015
HEL1501308/1	Production Quality Assessment Form Kaarina Finland	07.05.2015
HEL1501308/02	Production Quality Assessment Form Hanko Finland	07.05.2015
HBKQ9.SPEC.33	Data Sheet LKEM-HF 0,6/1 kV	27.10.2014
Unnumbered	Statement of compliance	22.04.2015
Unnumbered	Statement of compliance	24.06.2015
Unnumbered	Certificate of Product Conformity	24.06.2015

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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### **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 LR Type Approval System Procedure.*

  
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