



TYPE APPROVAL CERTIFICATE
No. ELE066114CS/012

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	ELECTRIC CABLES
<i>Type</i>	LKSM-HF 0.6/1 kV; LKSM-SHF2 0.6/1 kV.
<i>Applicant</i>	HELKAMA BICA OY LAKIMIEHENKATU 4 FIN 20780 KAARINA FINLAND
<i>Manufacturer</i>	HELKAMA BICA OY
<i>Place of manufacture</i>	LAKIMIEHENKATU 4 FIN 20780 KAARINA FINLAND
<i>Reference standards</i>	RINA Rules for the Classification of Ships, Part C, Chapter 2, Section 9; RINA Rules for Testing and Certification of Marine Materials and Equipment; IEC 60092-350; IEC 60092-353.

Issued in **Genova** on **April 7, 2015**. This Certificate is valid until **April 7, 2020**

RINA Services S.p.A.
Valerio Bonanni

This certificate consists of this page and 1 enclosure



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LKSM-HF 0.6/1 kV

LKSM-SHF2 0.6/1 kV.

Materials/Components

Shipboard power cables, flame retardant, low smoke emission, halogen free.

Rated voltage: 0.6/1 kV

Type: LKSM-HF 0.6/1 kV; LKSM-SHF2 0.6/1 kV.

Marking: "lot number" Cable type n x s mm² 0.6/1 kV 90°C IEC 60092-353 IEC 60332-3-22 HELKAMA
"month-year" "length marking"

Construction:

conductor: stranded plain or tinned copper (IEC 60228 Class 2 or Class 5)

insulation: XLPE

inner covering: separator tape wrapping

screen: plain copper wire braid

sheath: SHF1 or SHF2

In accordance to IEC 60228 cl.2 and cl.5; IEC 60092-350; IEC 60092-351; IEC 60092-353; IEC 60092-359; IEC 60092-360 as applicable; IEC 60754-1; IEC 61034-1; IEC 61034-2; IEC 60332-1; IEC 60332-3-22; RINAMIL Rules.

Maximum conductor temperature: 90°C

Technical Specification: HELKAMA SPECIFICATION HBKQ 9.SPEC.5 5.7.2012/dk

The product is subject to the compliance with RINA Rules and Standards mentioned on the certificates
Type Approval certifies that a representative sample of the products has been found to meet the applicable design
criteria

Any modification of change shall not be valid until approval is granted by RINA as a result of due assessment.

Other Place of Manufacturing:

a) HELKAMA BICA (SHANGHAI) Co., Ltd.
Plot 1-2 Minghang Export Processing Zone, Shanghai, 201401 P.R.C.

b) HELKAMA BICA Oy
Lasitehtaankatu 12, FI-10960 Hanko, Finland.

Genova April 7, 2015