

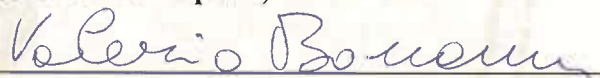


**TYPE APPROVAL CERTIFICATE**  
No. **ELE066114CS/015**

**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>	<b>ELECTRIC CABLES</b>
<i>Type</i>	<b>RFA-FRHF 250 V; RFA-FRSHF2 250 V</b>
<i>Applicant</i>	<b>HELKAMA BICA OY LAKIMIEHENKATU 4 FIN 20780 KAARINA FINLAND</b>
<i>Manufacturer</i>	<b>HELKAMA BICA OY</b>
<i>Place of manufacture</i>	<b>LAKIMIEHENKATU 4 FIN 20780 KAARINA FINLAND</b>
<i>Reference standards</i>	<b>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 60092-376; IEC 60331.</b>

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



**TYPE APPROVAL CERTIFICATE**

No. **ELE066114CS/015**

Enclosure - Page 1 of 1

**RFA-FRHF 250 V**

**RFA-FRSHF2 250 V**

**Materials/Components**

Shipboard communication, control and instrumentation cables, halogen free with low smoke emission, flame retardant, fire resisting.

Rated voltage: 250 V

Type: RFA-FRHF 250 V RFA-FRSHF2 250 V

Marking: cable type - n X s mm<sup>2</sup> - 250 V - +90°C - IEC 60092-376 - IEC 60332-3-22 - IEC 60331-1 (or 60331-2) - HELKAMA - month-year - length marking.

**Construction:**

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

mica tape on the conductor

insulation: XLPE

separator tape

collectively screen: aluminium-polyester tape

sheath: SHF1 or SHF2

Max. conductor temperature: +90°C.

In accordance to rules IEC 60228 cl.2; IEC 60092-350; IEC 60092-351; IEC 60092-376; IEC 60092-359; IEC 60092-360 as applicable; IEC 60331-1; IEC 60331-2; IEC 60332-1-2; IEC 60332-3-22; IEC 60754-1; IEC 60754-2; IEC 601034-1; IEC 61034-2; RINAMIL Rules.

Technical specification: HBKQ 9 spec.57 dated 03/08/2010, TS/RFA-FRHF.XLS dated 26/10/2010.

**Note/Remarks:**

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.

The present Certificate cancel and supersedes the previous N. ELE438810CS/007 dated September 7, 2011.

**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**