



**TYPE APPROVAL CERTIFICATE**  
No. **ELE066114CS/019**

**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>RFE-FRHF 250 V; RFE-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



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**RFE-FRHF 250 V**

**RFE-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: RFE-FRHF 250 V; RFE-FRSHF2 250 V

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

#### Construction:

conductor: stranded plain or tinned copper

mica tape on the conductor

insulation: XLPE

inner covering: synthetic tape

collectively screen: braid of plain or tinned copper wires

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.25 dated 03/08/2010; TS/RFE-FRHF 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 replaced the previous N. ELE438810CS/004 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**