

TYPE APPROVAL CERTIFICATE
No. ELE066114CS/025

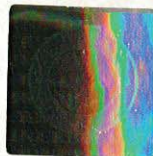
This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	ELECTRIC CABLES
<i>Type</i>	RFE-EMC- 250 V; RFE-EMC-SHF2 250 V.
<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 60092-376.

Issued in **Genova** on **April 27, 2015**. This Certificate is valid until **April 27, 2020**

RINA Services S.p.A.
Valerio Bonanni

This certificate consists of this page and 1 enclosure



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RFE-EMC- 250 V

RFE-EMC-SHF2 250 V.

Materials/Components

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

Rated voltage: 250 V

Type: RFE-EMC- 250 V ; RFE-EMC-SHF2 250 V

Marking: "lot number" cable type n x s mm² 250 V 90°C IEC 60092-376 IEC 60332-3-22 HELKAMA
"month-year" "length marking"

Construction:

conductor: stranded plain or tinned copper (IEC 60228 Class2)

insulation: XLPE

pairs: two insulated cores twisted together with a short lay.

covering: wrapped tapes of non-hygroscopic material

screen: collective metallic screen of copper tape, coverage 100%

armour: braid of plain or tinned copper wires

sheath: SHF1 or SHF2

In accordance to IEC 60228 class 2; IEC 60092-350; IEC 60092-351; IEC 60092-359; IEC 60092-360 as applicable;
IEC 60092-376; IEC 60754-1; IEC 61034-1; IEC 61034-2; IEC 60332-1-2; IEC 60332-3 - 22; EN 50289-1-6:2002;
RINAMIL Rules.

Maximum conductor temperature: 90°C

Technical Specification: HELKAMA SPECIFICATION HBKQ 9.SPEC.77, 6.7.2012/dk.

EMC tests:

DELTA Test Report N. DANAK-19J2399; Project N. 312910, dated 25 January 2011.

DELTA Test Report N. DANAK-19J2493; Project N. 312990, dated 15 June 2011.

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.

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 27, 2015