



Certificate No. 03-001778/031474

TYPE APPROVAL CERTIFICATE

This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TYPE AND DESCRIPTION OF PRODUCT:

SHIPBOARD SWITCHBOARD WIRE HALOGEN FREE AND FLAME RETARDANT

LKEM-HF 0,6/1 (1,2) kV
LKEM-SHF2 0,6/1 (1,2) kV

MANUFACTURER:

HELKAMA BICA Oy
Lakimiehenkatu 4
FI-20780 Kaarina
FINLAND

ADDITIONAL PLACES OF PRODUCTION:

HELKAMA Bica Oy, Lasitehtaankatu 12, FI-10960 Hanko, **FINLAND**

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

CRS RULES FOR THE CLASSIFICATION OF SHIPS, PART 12 - ELECTRICAL EQUIPMENT

Helkama specification: HBKQ 9 spec. 33
Technical specification:
Design standard: IEC 60092-353 Ed.4.0 (2016-09),
Single and multicore non-radial field power cable 0,6/1 kV
Other standars:
- testing: IEC 60092-350 Ed.5.0 (2020-01), General constructions and testing requirements
- insulation: IEC 60092-360 Ed.1.0 (2014-04), Insulating materials for shipboard power cables
- sheathing: IEC 60092-360 Ed.1.0 (2014-04),
Sheathing materials for shipboard power and telecommunication cables

FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.

APPROVAL IS VALID UNTIL: **2024-02-10**

Place and date: Split, 2020-10-09 Seal

Marinko Popović, dipl.ing.

NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

DETAILED PRODUCT DESCRIPTION:

Flame retardant, halogen free, crosslinked polyethylene insulated, power, lighting and switchboard wiring cable.
LKEM-HF 0.6/1(1.2) kV
LKEM-SHF2 0.6/1(1.2) kV

LKEM-HF/LKEM-SHF2

Number of cores	Cross sect. area [mm ²]
1	0.75 to 300

APPLICATION / LIMITATIONS:

Fixed installations in marine, offshore and industrial use.

TYPE APPROVAL DOCUMENTATION:

Helkama LKEM-HF/LKEM-SHF2 0.6 (1,2) kV Cable Data Sheet Specification HBKQ 9. Spec 33/176	2020-02-11
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Test report:

Dim/Type test 2000.xls; MC2/ Type test 2000.xls; Hostes/ Type test 2000.xls; Ins_res/ Type test 2000.xls; Inc.cap/ Type test 2000.xls; HST/ Type test 2000.xls; IEC 332-1/ Type test 2000.xls; Cold_S/ Type test 2000.xls; ozane/ Type test 2000.xls.

MARKING OF PRODUCT:

LKEM-HF size mm² 0,6/1 kV + 90°C HELKAMA (mm-yy)

LKEM-SHF2 size mm² 0,6/1 kV + 90°C HELKAMA (mm-yy)

CONDITIONS FOR CERTIFICATION:

NON