

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATE

Br /No 03-001512/031224

Potvrđuje se da je ovaj proizvod, u skladu s Pravilima za klasifikaciju brodova, Dio 1. - Opći propisi, Odjeljak 3. - Tipno odobrenje proizvoda, odobren za ugradnju na brodove i postrojenja pod nadzorom Hrvatskog registra brodova.

This is to certify that this product, on the basis of the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products, is approved for use on board ships and installations under supervision of the Croatian Register of Shipping.

TIP I OPIS PROIZVODA:

TYPE AND DESCRIPTION OF PRODUCT:

BRODSKI INSTRUMENTACIJSKI, KOMUNIKACIJSKI I KONTROLNI KABEL BEZHALOGENI I TEŠKO GORIVI**SHIPBOARD INSTRUMENTATION, COMMUNICATION AND CONTROL CABLE HALOGEN FREE AND FLAME RETARDANT****LKM-HF / LKSM-HF/ LKAM-HF 150/250 V (300 V)**
LKM-SHF2 / LKSM-SHF2/ LKAM-SHF2 150/250 V (300 V)**PROIZVOĐAČ:**

MANUFACTURER:

HELKAMA BICA Oy
Lakimiehenkatu 4
FI-20780 Kaarina
FINLAND**DODATNO MJESTO PROIZVODNJE:**

ADDITIONAL PLACES OF PRODUCTION:

HELKAMA Bica Oy, Lasitehtaankatu 12, FI-10960 Hanko, FINLAND**PROIZVOD UDOVOLJAVA SLIJEDEĆIM PRAVILIMA/PROPISIMA:**

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

HRB PRAVILA ZA KLASIFIKACIJU BRODOVA: DIO 12 - ELEKTRIČNA OPREMA
CRS RULES FOR THE CLASSIFICATION OF SHIPS: PART 12 - ELECTRICAL EQUIPMENT

Helkama specification: HBKQ 9 spec. 56, 65, 66, 123, 125 and 129

Technical specification:

Design standard: IEC 60092-376 (2nd ed. 2003-05),

Cable for control and instrumentation circuits 150/250 V (300 V)

Other standards:

- testing: IEC 60092-350 Ed.4.0 (2014-08), General constructions and testing requirements
- insulation: IEC 60092-360 (1.0 ed. 2014-04), Insulating materials for shipboard power cables
- sheathing: IEC 60092-360 (1.0 ed. 2014-04),
Sheathing materials for shipboard power and telecommunication cables

DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEĐINI.**FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.****ODOBRENJE VRIJEDI DO: 2020-04-04**

APPROVAL IS VALID UNTIL:

Mjesto i datum: Split, 2016-04-04

Place and date:

M.P.

(Seal)

Marinko Popović, dipl.ing.

NAPOMENA: Ova potvrda nije valjana ako se proizvod ili način njegove proizvodnje promijenio u odnosu na tipno ispitani proizvod. Proizvođač treba obavijestiti Hrvatski registar brodova o bilo kojoj izmjeni na proizvodu kako bi ishodio valjanu potvrdu.

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.

PODROBNIJI OPIS PROIZVODA:*DETAILED PRODUCT DESCRIPTION:*

Flame retardant, halogen free, XLPE insulated, low smoke instrumentation, communication and control cable.

LKM-HF 250 V	Unarmoured
LKM-SHF2 250 V	
LKSM-HF 250 V	Cu-or CuSn-wire braid armoured
LKSM-SHF2 250 V	(Collectively screened)
LKAM-HF 250 V	Al/pest-tape collectively screened
LKAM-SHF2 250 V	

Types	Number of conductors	Conductor cross section [mm ²]
LKM-HF LKM-SHF2 LKSM-HF LKSM-SHF2 LKAM-HF LKAM-SHF2	2, 3, 4, 5, 7, 10, 12, 14, 16, 19, 20, 24, 27, 32, 37, 61	0.5, 0.75

PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:*APPLICATION / LIMITATIONS:*

Fiksna ugradnja na pomorskim brodovima, odobalnim objektima i industriji.

Fixed installations in marine, offshore and industrial use.

DOKUMENTACIJA ZA TIPNO ODOBRENJE:*TYPE APPROVAL DOCUMENTATION:*

Helkama LKM-HF 250 V Cable Data Sheet Specification HBKQ 9. Spec 65 incl. App 2	2014-12-30
Helkama LKSM-HF 250 V Cable Data Sheet Specification HBKQ 9. Spec 56 incl. App 2	2014-12-30
Helkama LKAM-HF 250 V Cable Data Sheet Specification HBKQ 9. Spec 66 incl. App 2	2014-12-30
Helkama LKM-SHF2 250 V Cable Data Sheet Specification HBKQ 9. Spec 123 incl. App 2	2016-03-21
Helkama LKSM-SHF2 250 V Cable Data Sheet Specification HBKQ 9. Spec 125 incl. App 2	2016-03-21
Helkama LKAM-SHF2 250 V Cable Data Sheet Specification HBKQ 9. Spec 129 incl. App 2	2016-03-21

Izveštaj o ispitivanju/ test report:

LKSM-HF 250V TT; LKAM-HF 24 x 0,75 250V GL TT
Helkama Test report for SHF2 sheathed cables dated 19.03.2012.

OZNAČAVANJE PROIZVODA:*MARKING OF PRODUCT:*

LOT ##### LKM-HF/LKM-SHF2/ LKSM-HF/LKSM-SHF2/ LKAM-HF/LKAM-SHF2 <number of conductors> x <size>
mm² 250 V + 90°C IEC 60092-376, 60332-3-22 HELKAMA "month-year" and "length marking"

UVJETI ZA CERTIFIKACIJU:*CONDITIONS FOR CERTIFICATION:*

NON

Račlana

12.05.01

Zamjenjuje potvrdu

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