

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATE

Br /No 03-001655/031376

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 ENERGETSKI KABELI
SHIPBOARD POWER CABLES

Type	Voltage class (kV)	Temp. class (°C)
MarineLine & MarineLine+ & MarineFlex YZp	0,6/1	90
MarineLine YZafp	0,6/1	90

PROIZVOĐAČ:

MANUFACTURER:

B.V. Twentsche Kabelfabriek
Haaksbergen, Netherlands**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

IEC 60092-350; IEC 60092-353; IEC 60092-360; IEC 60332-1-2; IEC 60332-3-22; IEC 60754-1/2; IEC 61034-1/2

DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEDINI.

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

ODOBRENJE VRIJEDI DO: 2022-10-25

APPROVAL IS VALID UNTIL:

Mjesto i datum: Split, 2018-10-25

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:*

Low voltage power cables for power and lighting applications in all ship areas. High abrasion resistant sheath. Halogen free and low smoke, flame retardant in fire conditions. Different sheath colours. Maximum conductor temperature: 90°C

Specifications:

Rated voltage: 0,6/1kV
 Temperature class: 90°C
 Flame retardant: IEC 60332-1 and IEC 60332-3-22 Cat. A
 Halogen Free: IEC 60754-1/2
 Low Smoke: IEC 61034-1/2

Construction:

Conductor: Plain or tinned stranded copper Class 2, round or sector shaped or Class 5 (MarineFlex)
 Core insulation: XLPE
 Common screen: Aluminium PE foil (YZafp types only)
 Outer Sheath: SHF1

Product Range:

MarineLine YZp 0,6/1 kV

Number of cores	Cross sectional area (mm ²)
1 – 37	1,5 2,5
1 – 5	4 – 300

MarineLine + YZp 0,6/1 kV

Number of cores	Cross sectional area (mm ²)
1 – 5	1 – 300

MarineFlex YZp 0,6/1 kV

Number of cores	Cross sectional area (mm ²)
1 – 5	10 – 300

MarineLine YZafp 0,6/1 kV

Number of cores	Cross sectional area (mm ²)
1 – 37	1,5 2,5

PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:*APPLICATION / LIMITATIONS:***Fiksna ugradnja na pomorskim brodovima i odobalnim objektima.**

Fixed installation in marine and offshore.

DOKUMENTACIJA ZA TIPNO ODOBRENJE:*TYPE APPROVAL DOCUMENTATION:*

TKF_Catalogue Marine cables_version 01-2018

Izveštaj o ispitivanju/ test report:

Report no. 301 dated 2004
 Report no. P109452-1001 Issue: 3; BRE Global Ltd dated 2018-05-01
 Report no. RD000693-1; J. Petrocchi/Laboratory dated 2017-09-06

OZNAČAVANJE PROIZVODA:*MARKING OF PRODUCT:*

TKF – Size – 0,6/1kV – CS – mbzh – MarineLine YZp – HALOGEN FREE {Batch No}
TKF – Size – 0,6/1kV – CS – mbzh – MarineLine+ YZp – HALOGEN FREE {Batch No}
TKF – Size – 0,6/1kV – CS – mbzh – MarineFlex YZp – HALOGEN FREE {Batch No}
TKF – Size – 0,6/1kV – CS – mbzh – MarineLine YZafp – HALOGEN FREE {Batch No}

UVJETI ZA CERTIFIKACIJU:*CONDITIONS FOR CERTIFICATION:*

Registar zadržava pravo zahtijevati da se provedu potvrdni testovi na kabelima u bilo kojem trenutku.
The Society reserves the right to require check tests to be carried out on the cables at any time.