



Marine & Offshore

Certificate number: 55647/A0 BV

File number: ACE1/852/2

Product code: 2505I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ERISIM KABLO SANAYI VE TIC.LTD.STI.
KÜCÜKKÖY-ISTANBUL - TURKEY

for the type of product

INSTRUMENTATION AND COMMUNICATION CABLES

150/250V

F-MX type

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IEC 60092-350 (2014), IEC 60092-360 (2014), IEC 60092-376 (2017)

IEC 60228 (2004)

IEC 60331-1/2 (2018)

IEC 60332-1-2 (2015), IEC 60332-3-22 (2018)

IEC 60754-1/2 (2011)

IEC 61034-1/2 (2013)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 07 May 2024

For Bureau Veritas Marine & Offshore,

At BV ISTANBUL, on 07 May 2019,

Gurcan Yilmaz



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=guxlbpmndn6>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Communication and signal cables for Marine and Offshore applications.

1.1 - Specifications:

Rated voltage:	150/250V
Temperature class:	90°C
Fire resistant:	IEC 60331-1/2 (-FR type)
Flame retardant:	IEC 60332-1-2, IEC 60332-3-22 Cat.A
Halogen free:	IEC 60754-1/2
Low smoke:	IEC 61034-1/2

1.2 - Construction:

Conductor:	Annealed or tinned stranded copper wire, Class 2 or 5
Fire resisting layer:	Mica tape (-FR type)
Insulation:	XLPE
Armour:	Annealed or tinned copper wire braid (C type) Tinned copper drain wire, AL-Pes tape ((st) type)
Outer sheath:	SHF1

1.3 - Approval range:

Type	Number of core	Cross-Sect. area (mm ²)
F-MXCH, F-MXCH-FR	1C to 24C	0.5 to 2.5
F-MX(st)H-TP, F-MX(st)H-TP-FR	1P to 24P	0.5 to 2.5

2. DOCUMENTS AND DRAWINGS :

Specification ref. Ersm:012, Rev. 01, dated Nov 2018.

Specification ref. Ersm:014, Rev. 02, dated Mar 2019.

Specification ref. Ersm:018, Rev. 01, dated Nov 2018.

Specification ref. Ersm:016, Rev. 02, dated Apr 2019.

3. TEST REPORTS :

ERISIM KABLO:

- Tests report N° 8979, dated 04 Jan 2017.
- Tests report N° BV-006-0002, dated 14 Mar 2019.
- Tests report N° BV-006-0003, dated 14 Mar 2019.

ERSE:

- Tests report N° 000000001, dated 14 Mar 2019.
- Tests report N° 287, dated 14 Mar 2019.

4. APPLICATION / LIMITATION :

BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships, Offshore Units, Naval Ships and Yachts.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The INSTRUMENTATION AND COMMUNICATION CABLES are to be supplied by **ERISIM KABLO SANAYI VE TIC.LTD.STI.** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

5.4 - For information, **ERISIM KABLO SANAYI VE TIC.LTD.STI.** has declared to Bureau Veritas the following production site:

ERISIM KABLO SANAYI VE TIC.LTD.STI.
Karayollari Mah.
Abdi Ipekci Cad. N0:13
KÜCÜKKÖY-ISTANBUL
TURKEY

6. MARKING OF PRODUCT :

The cable shall be marked on the surface outer sheath, in a durable legible and visible manner, with the following information through the length of cable:

- 1) - Voltage grade.
- 2) - Cable symbol and temperature class.
- 3) - Number of conductors and conductor size.
- 4) - Applicable standard(s) to flame retardant and fire resistance if any
- 5) - Manufacturer's name or trade mark.
- 6) - Year of manufacture.

7. OTHERS :

It is **ERISIM KABLO SANAYI VE TIC.LTD.STI.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

***** END OF CERTIFICATE *****