



# TÜRK LOYDU

## TYPE APPROVAL CERTIFICATE

This Certificate consists of 2 pages.

This is to certify that the

### SHIPBOARD AND YACHT POWER CABLES

With type designations

MX, MX-FR, MXY, MXY, MXH, MXH-FR, MXCH, MXCH-FR

Manufactured by

ERİŞİM KABLO SANAYİ VE TİCARET LTD. ŞTİ.

Is found to comply with

Part B Chapter 5 ( July 2016)- Rules for Classification of steel Ships,  
Part E Chapter 105 ( January 2016 ) - Naval Ship Technology, Electrical Installation  
IEC 60092-350/353/360, IEC 60228, IEC 60754/1-2, IEC 60331-1/2/21,  
IEC 60332-1/3-22 Cat. A, IEC 61034-2, IEC 60684-2

<b>Application</b>	: Shipboard and Yacht Power cables
<b>Design</b>	: Voltage class 0.6/1 kV Temp. class 90°C
<b>Sizes</b>	: from 0.5 mm <sup>2</sup> up to 120 mm <sup>2</sup> for 1 core cables from 0.5 mm <sup>2</sup> up to 70 mm <sup>2</sup> for 2,3,5 core cables from 0.5 mm <sup>2</sup> up to 2.5 mm <sup>2</sup> for 5,..24 core cables
<b>Address of Manufacturer</b>	: Karayolları mah. Abdi ipekçi cad. No: 13 Küçükköy- İSTANBUL
<b>Place and date</b>	: İSTANBUL / 15.06.2017

Subject to the conditions referred to in the following pages, this certificate is valid until 14.06.2022

**Emrah SÖĞÜTÇÜ**  
New Building Division Manager



**O. Yağın YALMAN**  
Surveyor



**Product description:** Halogen-free, Flame Retardant, Fire- Resistant ( only –FR type ) Shipboard and Yacht power cables

**Type Designation :**  
MX / MX-FR 0.6/1 kV. (conductor + insulation)  
MXH /MXH-FR 0.6/1 kV. (con + ins + inner covering + outer sheath)  
MXCH / MXCH-FR 0.6/1 kV. (con + ins + inner covering + screen + outer sheath)  
MXY 0.6/1 kV. (con + ins + outer sheath)  
MXCY 0.6/1 kV. (con + ins + screen + outer sheath)

**Materials used :**  
**Conductors (con.) :** Class 2 or 5, Stranded multi wire copper or Tinned multi wire copper  
**Insulation (ins.) :** XLPE , Cross-linked HFFR , Mica tape for –FR , FR. PVC for Y  
**Inner covering :** Pes-Tape or HFFR  
**Outer Sheath (she.) :** HFFR

**Application/ Limitation (Approval conditions): -**

**Documentation :** Product data sheets and test reports.

**Test carried out (and results) :**

Type tests according to IEC 60228, IEC 60092-350/353/360, IEC 60332-3-22, IEC 61034-2, IEC 60754 1-2, IEC 60684-2 for MX, MXH and MXCH cables

Type tests according to IEC 60228, IEC 60092-350/353/360, IEC 60332-3-22, IEC 61034-2, IEC 60754 1-2, IEC 60684-2 , IEC 60331-21 for MX-FR, MXH-FR and MXCH-FR cables

**Place of test carried out :** Erişim Cable Factory Küçükköy -İSTANBUL

**Marking of product:** The product to be marked same as below mentioned.  
ERİŞİM kablo [type] [size] [volt. class] [temp. class] [related standards]

  
**O. Yalçın YALMAN** *y.*  
Surveyor

This certificate is valid if annual audits carried out to the satisfaction of TL surveyor and following entries made:

Surveyor	Surveyor	Surveyor	Surveyor
/ /	/ /	/ /	/ /
Audit Date	Audit Date	Audit Date	Audit Date

This certificate is subject to terms and conditions described below:

- Any significant change in design or construction may render this Certificate invalid. Type Approval Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to the equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and relevant international instruments that apply to it. This Certificate is not valid if the annual audits cannot be carried out in the  $\pm 3$  months window by Surveyors to Türk Loydu.