



TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

This Certificate consists of 2 pages.

This is to certify that the

SHIP SWITCHBOARD CABLES

With type designations

M2X

Manufactured by

2M KABLO SANAYİ VE TİCARET A.Ş.

Is found to comply with

Türk Loydu Rules Chapter 5 – Electrical Installations,
IEC 60092-353

IEC 60092-350, IEC 60092-360, IEC 60228, IEC 60332-1-2, IEC 60332-3-22 Cat A,
IEC 60754-1, IEC 60754-2, IEC 60684-2, IEC 61034-1, IEC 61034-2

Application	: Switchboard cables for ships
Design	: Voltage rating: 0,6/1 (1.2) kV, Maximum rated conductor temperature: Normal operation: 90°C, Short circuit: 250°C.
Sizes	: Switchboard cables from 1mm ² to 300mm ² .
Address of Manufacturer	: Sancaktepe Mah. Klas Sok. No:8/1 Silivri İSTANBUL
Place and date	: İSTANBUL, 02.01.2018

Subject to the conditions referred to in the following pages, this certificate is valid until 17.05.2021.

This certificate supersedes TO.DEB.16-0063-2 numbered and 18.05.2016 date certificate

Emrah SÖĞÜTÇÜ
New Building Division Manager



O. Yalçın YALMAN
Surveyor



Product description : Ship Switchboard Cables

Type Designation : M2X 0.6/1 (1.2) kV

Materials used : Following materials are used where required:

Conductor: Plain annealed stranded copper wire class 2, tinned copper or class 5 (IEC 60228),

Insulation: HF90 (IEC 60092-360),

Application/ Limitation (Approval conditions):

For each new building ship and in service ships under major modifications, factory acceptance tests (routine tests) of cables shall be carried out before mounted to the ship with the witness of TL surveyor.

Non-fused conductors leading from the main busbar to fuses and circuit breakers shall be as short as possible, but not longer than 1 m. These wires shall not be run and mounted together with other wires. If not possible, these wires shall be double insulated.

Documentation :

2M KABLO datasheet, TSE test reports for fluorine content dated 11.03.2016, TSE test reports for ph/conductivity dated 09.02.2016, 2M KABLO test reports dated 05.04.2016.

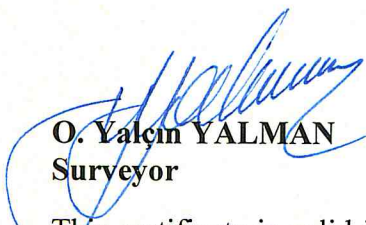
Test carried out (and results) :

Test carried out acc. to IEC 60092-353.

Place of test carried out : 2M KABLO Silivri İSTANBUL

Marking of product: The product to be marked same as below mentioned.

[Manufacturer trade mark][type] [size] [volt] [standards]


O. Yalçın YALMAN
Surveyor

This certificate is valid if retention/renewal surveys carried out to the satisfaction of TL surveyor and following entries made:

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.