Certificate No: TO.DEB.21-1272-02



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 Part B Chapter 5 Jan 2021, Part E Chapter 105 Jan 2016, 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 1mm² to 300mm².

Address of Manufacturer

: Gazi Osman Paşa OSB Mah. 4. Cad. No:18 A

Çerkezköy/TEKİRDAĞ

Place and date

: İSTANBUL, 04.08.2021

Subject to the conditions referred to in the following pages, this certificate is valid until 03.08.2026.

Emrah SÖĞÜTÇ

New Building Division Manager



Product description: Ship switchboard cables, Voltage rating: 0,6/1 (1.2) kV, Maximum rated conductor temperature: Normal operation: 90°C, Short circuit: 250°C.

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. 2M KABLO test reports for items: S6400300075, K662042050, 3M000002101, 3M000032093, 3M000032103

Test carried out (and results): Type tests have been carried out according to IEC 60092-350, IEC 60092-353, IEC 60092-360

Place of test carried out : 2M KABLO FACTORY / Çerkezköy - TEKİRDAĞ

Marking of product: The product to be marked with lot no, cross-section, core number, length

Surveyor fer

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.