



Confirmation of Product Type Approval

Company Name: TELDOR CABLES & SYSTEMS LTD

Address: EIN DOR, 0 KIBBUTZ EIN-DOR 19335 Israel

Product: Communication Cable

Model(s): Teldor MG Hybrid / Composite cables (Combination of Data/Lan – Fiber optic – BUS – Instrumentation 300V – Low Voltage 600V cables)

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	19-GE1877576-PDA	23-AUG-2019	22-AUG-2024
Manufacturing Assessment (MA)	24-6314471	02-APR-2024	07-APR-2029
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Data transmission, Communications, LAN, Instrumentations, Control / Signal and low voltage Hybrid (FO+Copper) cables for Marine and Offshore applications with Low smoke, Zero halogens and flame retardant characteristics.

Description

Multi-core, multi-pair or multi-triad & Fiber Optics Instrumentations, Data transmission, Communications, LAN, Control / Signal Copper and FO cables, flame retardant, halogen free, low smoke emission, armored and non-armored cables made with solid or stranded Copper conductors and Fiber Optics.

The cables are used in Marine, OIL/GAS and Offshore applications.

The cables are made from SHF1 / SHF2 / SHF2-Mud-resistant per NEK606 jackets.

The cables are flame retardant per IEC60332-3, fire resistant (optional) per IEC60331-21/23/25, halogen free, low smoke emission, armored and non-armored.

The cables are oil resistant and designed for harsh conditions.

Ratings

Voltage max.: 600/1000V

Operating Temperature Range: - 40°C to + 90°C

Service Restrictions

1. Unit Certification is not required for this product.

2. If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
3. Termination itself shall be in the outer sheath of the cable and conductors should be locked in place in order to avoid damage from vibration.
4. In order to achieve transmission compliant cables, these cables shall be installed with suitable termination equipment according to manufacturer's recommendations.
5. The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.

Comments

1. The Manufacturer has provided a declaration about the lack of Asbestos in this product.
2. The sheath shall be clearly marked with the following data as a minimum:
 - Manufacturer's identification (name or trade name)
 - Cable designation (Cable type) Number of fibers / cores
 - Jacket type
 - Armor Type
 - Voltage rating
 - Year of manufacture
 - Batch number, Flame test, Meter mark.

The marking shall be repeated at least every 1,0 m.

Notes, Drawings and Documentation

Data Sheet Teldor Hybrid Composite cables v13

Catalogue Offshore Rev.01/2015

TELDOR Technical Specifications HN - HYB-SDA-6-04HTH+2X2.0MM-D-KH-D_S BK Part Number: FH0040412B Rev.1.12 dated 30 September 2014

TELDOR Type Test Report dated 15 September 2014

TELDOR Test Report No.9MGD240xxx dated 07 February 2014

BRE Global Report 287633-1 - Teldor Cables - IEC60754 dated 28 August 2013

TELDOR Test Report No.36 (P/N 9MGD240129-VER3) Particular Sheathing dated 06/02/2014

TELDOR Test Report No.36 (P/N 9MGD241239-VER3) Particular Sheathing dated 07/02/2014

TELDOR Test Report P/N F60040477S Multi Tight Steel Braid Armor Fire resistance SHF2 MUD dated 21-06-2016

TELDOR Test Report P/N FH0040412B v02 dated September 15, 2014

TELDOR Test Report P/N 8MG155510 for IEC60332-3-22 dated 12.10.2017

TELDOR Test Report P/N FH0020134B for IEC60332-3-22 dated 22.10.2017

BRE Global Test Report No. P100530-1 Issue 1 for IEC60754 SHF1 dated 1 July 2015

TELDOR Test Report P/N FH0020134B for MG-HYB-MTA-6-1x2KH+2(Cat.6subAsubSFTP247) + 3x1219+2x1619IFS-LSZH-SHF2 dated 18-09-2017

TELDOR Test Report No. 9DNV026101 for Mud Resistance dated 23 January 2014

TELDOR Test Report No. P/N 7MGF032108 for Nek 606: 2016 dated 15 July 2019

TELDOR Test Report No. P/N 8MG1555101 for Power & Control Offshore 600V COMBI 16 (6x2x18 AWG+1x2x12 AWG+1x18 AWG+1 dated 12-03-2017

TELDOR Test Report No. P/N TAB136A129 for Data Cable Fire Resistance dated 14-10-2015

TELDOR Test Report No.7MG0016101 for RS485 Shielded SHF2 dated 2018-01-11

TELDOR Test Report No.7MG0116101 for DeviceNet Armored SHF1 dated 2018-01-11

TELDOR Test Report No. P/N 8MG0036101 2Pairs Shielded SHF1 dated 11 January 2018

TELDOR Test Report No. P/N 8MG1186101 12Pairs Armored SHF2-MUD dated 11 January 2018

TELDOR Test Report No. P/N 8MG1296101 2x1.5 Fire Resistance SHF1 dated 11 January 2018

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 22/Aug/2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2019 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2019 Steel Vessels Rules 4-8-3/9.1, 4-8-3/9.5, 4-8-3/9.13

2019 Offshore Support Vessels Rules, 4-8-3/9.1, 4-8-3/9.5, 4-8-3/9.13

2019 Steel Vessels Under 90 Meters (295 Feet) in Length Rules, 4-6-4/13.1.1, 4-6-4/13.1.2, 4-6-4/13.1.6

2019 International Naval Ships Guide 4-8-3/9.1, 4-8-3/9.5, 4-8-3/9.13

2019 Marine Vessels Rules 4-8-3/9.1, 4-8-3/9.5, 4-8-3/9.13

2019 Rules for Conditions of Classification – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2019 Mobile Offshore Drilling Unit Rules, 4-3-4/7.1.1, 4-3-4/7.1.2, 4-3-4/7.1.6

2019 Facilities on Offshore Installations Rules 3-6/13

2019 Mobile Offshore Unit Rules, 4-3-4/7.1.1, 4-3-4/7.1.2, 4-3-4/7.1.6

International Standards

IEC 60092-350 Edition 4.0 (2014-08)

IEC 60092-353 Edition 4.0 (2016-09)

IEC 60092-360 Edition 1.0 (2014-04)

IEC 60754-1 Edition 3.0 (2011-11)

IEC 60754-2 Edition 2.0 (2011-11)

IEC 60331-21 Edition 1.0 (1999-04)

- IEC 60331-23 Edition 1.0 (1999-04)
- IEC 60331-25 Edition 1.0 (1999-04)
- IEC 60332-3-22 Edition 2.0 (2018-07)
- IEC 60332-3-24 Edition 2.0 (2018-07)
- IEC 61034-1 Edition 3.1 (2013-06)
- IEC 61034-2 Edition 3.1 (2013-06)
- IEC 60332-1-1 Edition 1.1 (2015-07)
- IEC 60332-1-2 Edition 1.1 (2015-07)
- IEC 60332-1-3 Edition 1.1 (2015-07)
- IEC 60332-2-1 First edition (2004-07)
- IEC 60092-376 Edition 3.0 (2017-05)
- IEC 61158-1 Edition 2.0 (2019-04)
- IEC 61158-2 Edition 6.0 (2014-07)
- IEC 61784-1 Edition 5.0 (2019-04)
- IEC 61784-2 Edition 4.0 (2019-04)

EU-MED Standards

NA

National Standards

NEK TS 606: 2016

Government Standards

NA

Other Standards

NA



A handwritten signature in blue ink, appearing to read "Joseph W. ...".

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 29-Jul-2024 7:54

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations

regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.