



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

25-0174597-PDA
29-May-2025
28-May-2030
London Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

UNTEL KABLOLARI SANAYI VE TICARET ANONIM SIRKETI

located at

**MAKINE OSB, 6.CAD. NO: 4 41455, DILOVASI-GEBZE, , KOCAELI,
Turkey**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Cable, Electric
Model: Type P101 RFOU (RFOU P1 - RFOU P1/P8) , Type P105 BFOU (BFOU P5 - BFOU P5/P12) ,Type P110 BU (BU P17) ,Type P111 RU (RU P18)
Not the full range of cables, but the cables indicate...
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 28/May/2030 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.

American Bureau Of Shipping

SBarua

Siddharth Barua,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

UNTEL KABLORARI SANAYI VE TICARET ANONIM SIRKETI

MAKINE OSB, 6.CAD. NO: 4 41455

DILOVASI-GEBZE

KOCAELI

Turkey

Telephone: + 90 262 722 93 30

Fax: + 90 262 722 94 92

Email: gozde.turkkan@untel.com.tr

Web: www.untel.com

Tier: 3 - Type Approved, unit certification not required

Product: Cable, Electric
Model: Type P101 RFOU (RFOU P1 - RFOU P1/P8) , Type P105 BFOU (BFOU P5 - BFOU P5/P12) ,Type P110 BU (BU P17) ,Type P111 RU (RU P18)

Not the full range of cables, but the cables indicated in the attachment to this PDA.

Endorsements:

Intended Service:

Marine Shipboard and Offshore Application

Description:

Type P101 RFOU

- Summary: Halogen free, flame retardant, low smoke, oil & mud resistant cables.
- Applications: Fixed installation for power, control, and lighting in both safe areas, emergency, and offshore applications.
- Construction: Tinned stranded Class 5 or Class 2 copper conductor, EPR insulation, halogen-free compound filler, SHF2 outer sheath.

Type P105 BFOU

- Summary: Halogen free, flame retardant, fire resistant, low smoke, oil & mud resistant cables.
- Applications: Fixed installation for power, control, and lighting in both safe areas, emergency, and offshore applications.
- Construction: Tinned stranded Class 5 or Class 2 copper conductor, EPR or XPLE insulation, fire-resistant tape, halogen-free compound filler, SHF2 outer sheath.

Type P110 BU (EPR)

- Summary: Halogen free, flame retardant, fire resistant, low smoke, oil resistant cables.
- Applications: Fixed installation for power, control, and lighting in both safe areas, emergency, and offshore applications.
- Construction: Tinned stranded Class 5 or Class 2 copper conductor, EPR insulation, fire-resistant tape, halogen-free compound filler, SHF2 outer sheath.

Type P111 RU

- Summary: Halogen free, flame retardant, low smoke, oil resistant cables.
- Applications: Fixed installation for power, control, and lighting in both safe areas, emergency, and offshore applications.
- Construction: Tinned stranded Class 5 or Class 2 copper conductor, EPR insulation, halogen-free compound filler, SHF2 outer sheath

Rating:

See attachment

Service Restriction:

1. Unit Certification is required for propulsion controls, propulsion semiconductors and propulsion cables.
2. All propulsion cables, other than internal wiring in control gears and switchboards are to be subjected to Dielectric and Insulation Tests at the Plant of Manufacture and On-board in the presence of the Surveyor. As per Marine Vessel Rules 4-8-5/5.17.11 or as applicable.
3. The cable must include IEC 60092-353:2024, continues to mandate that cable markings include ,Indication of origin: Manufacturer's name or trade mark.Rated voltage (U₀/U),Construction: Number of cores and cross-sectional area of the conductor

Comments:

1. The installation of single conductor cables is to be in accordance with the applicable rule sets.
2. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

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Notes/Drawing/Documentation:

Test Report TR202417, Type P101 RFOU H-M 37x1 FINAL TEST REPORT , Untel Test Laboratory, Turkey , Dated 15.05.2024, Pages: 21

Test Report TR202412, Type P105 BFOU H-M 4x70 FINAL TEST REPORT , Untel Test Laboratory , Turkey , Dated 15.05.2024 , Pages: 21

Test Report TR202413, Type P110 BU H-M 5x300 FINAL TEST REPORT , Untel Test Laboratory , Turkey , Dated 15.05.2024 , Pages: 21

Test Report TR202415, Type P111 RU H-M 4x70 FINAL TEST REPORT , Untel Test Laboratory , Turkey , Dated 15.05.2024 , Pages: 21

Terms of Validity:

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STANDARDS

ABS Rules:

Marine Vessels Rules (2025): 1-1-4/7.7, 1-1-A3, 1-1-A4 which covers the following:
4-8-3/9.1, 4-8-3/9.3, 4-8-3/9.5, 4-8-3/9.9

Offshore Rules (2025) 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:
4-3-4/7, 6-1-1/13, 6-1-7/17.3.6

National:

NA

International:

IEC 60092-350: 2020

IEC 60092-360: 2021

IEC 60092-376:2025

IEC 60754-1:2011+AMD1:2019

IEC 60754-2:2011+AMD1:2019

IEC 61034-1: 2019

IEC 61034-2: 2019

IEC 60331: 2018

NEK TS 606:2022

Government:

NA

EUMED:

NA

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OTHERS:

NA