



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 02-AUG-2023. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

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.

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.

Product Name: Cable, Ship and Offshore Flame Retardant Electric Cables
Model Name(s): AIL/UC Series

Presented to:

APAR INDUSTRES LTD (UNIT : UNIFLEX CABLES)
KHATA NO-1932 , SURVEY NO-82/2/ PI,88,861/1,862/1,863/1
MANEKPUR ROAD
VILLAGE KHATALWADA
GUJARAT 396 120
India

Intended Service:	Armored and unarmored cable for fixed installation on ship and offshore for power, lighting, communication and control.
Description:	Shipboard power, control and instrumentation cables. See attached details.
Tier:	3
Ratings:	Voltage: 150/250V, 440V, 0.6/1.0kV Ambient temperature: 0 to 45 degree C No IP degree of protection
Service Restrictions:	1) Unit certification is not required for this product. 2) Unit Certification is required where the cables are used for propulsion systems. All propulsion cables, other than internal wiring in control gears and switchboards, are to be subjected to dielectric and insulation tests in the presence of the Surveyor (See 4-8-5/5.17.11 of 2018 Steel Vessels Rules.)
Comments:	1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. 2) Cables shall be provided with a continuous marking as follows: - Manufacturer's identification (name or trade name) - Conductor Size - Number of conductors - Voltage Rating
Notes / Documentation:	1) Uniflex Cable Ltd test report No.180586 dated 26/27 May 2005, Pages 4, Rev.0, issued by Uniflex cables Ltd. 2) Uniflex Cable Ltd test report No.K2/07/2008-09

dated 15 May 2009, pages 2, Rev.0, issued by Uniflex cables Ltd. 3) Uniflex Cable Ltd test report No.2030023689 dated 04-24 Feb. 2011, pages 3, Rev.0, issued by Uniflex cables Ltd. 4) Drawing No. ---, Technical data sheet for control cables, pages 80, Rev.0, 5) Drawing No. ---, Technical data sheet for instrument cables, pages 160, Rev.0, 6) Drawing No. ---, Technical data sheet for power cables, pages 227, Rev.0, 7) Drawing No. ---, Technical data sheet for Cat-6 and 7 cables, pages 2, Rev.0, 8) Test report No. EL/QC/8.2.4/01, Type test approval, Rev.1, dated 18 July 2017, pages 20, issued by APAR Industries Ltd, 9) Test report No. EL/QC/8.2.4/02, Inspection Type tests report, Rev.0, dated 17 July 2016, pages 4, issued by APAR Industries Ltd, 10) Test report No. EL/QC/8.2.4/02-01, Type tests report, Rev.0, dated 7 February 2016, pages 12, issued by APAR Industries Ltd,

Term of Validity:

This Product Design Assessment (PDA) Certificate 18-YO1782272-PDA, dated 03/Aug/2018 remains valid until 02/Aug/2023 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules:

2018 Rules for Conditions of Classification 1-1-4/7.7, 1-1-A3 and 1-1-A4, which covers the following: 2018 Steel Vessel Rules 4-8-3/9, 2018 Offshore Support Vessels 4-8-3/9, 2018 Steel Vessels Under 90 Meters in Length 4-6-3/5, 2018 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-4/7, 2018 High-Speed Craft 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-6-4/13

National Standards:

International Standards:

IEC 60092-350 (ED.4.0 B: 2014), IEC 60092-353 (ED.4.0 B: 2016), IEC 60092-360 (ED.1.0 B: 2014), IEC 60092-376 (ED.3.0 EN: 2017) IEC 60332-1-1 (ED.1.1 B: 2015), IEC 60332-1-2 (ED.1.1 B: 2015), IEC 60332-1-3 (ED.1.1 B: 2015), IEC 60332-3-21 (ED.2.0 B: 2018), IEC 60332-3-22 (ED.2.0 B: 2018), IEC 60331-1 (ED.2.0 EN: 2018), IEC 60331-2 (ED.2.0 EN: 2018), IEC 60331-3 (ED.2.0 EN: 2018)

Government Authority:

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	18-YO1782272-PDA	20-SEP-2018	02-AUG-2023

ABS Programs

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 was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. 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.