



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 22/SEP/2019. 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 04/AUG/2019 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, Electric

Model Name(s): FMGCG, FMGCH, FMGCCH, FMGCH-FFR, FM2XCY-FR,
FM2XCH

Presented to:

UNTEL KABLOLARI SANAYI VE TICARET ANONIM SIRKETI
MAKINE OSB, 6.CAD. NO: 4 41455
DILOVASI-GEBZE
KOCAELI
Turkey

Intended Service:

Control and Instrumentation Cables, Marine and Offshore.

Description:

"FMGCG" 60/250V screened control and instrumentation cables, "FMGCH" 60/250V halogen free screened control and instrumentation cables, "FMGCCH" 60/250V halogen free individually screened, overall screened control and instrumentation cables, "FMGCH-FFR" 60/250V halogen free fire resistant, screened control and instrumentation cables, "FM2XCY-FR" 60/250V screened control and instrumentation cables, "FM2XCH" 60/250V halogen free screened control and instrumentation cables.

Tier:

2

Ratings:

60/250V screened control and instrumentation cables

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

FMGCG 60/250V screened control and instrumentation cables (copper conductors class 2 or class 5, HEPR insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, copper braided screen, foil above braided

screen, outer sheath SE1); FMGCH 60/250V halogen free screened control and instrumentation cables (copper conductors class 2 or class 5, HF-HEPR insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath SHF1); FMGCCCH 60/250V halogen free individually and collectively screened control and instrumentation cables (copper conductors class 2 or class 5, HF-HEPR insulation, cores laid up in pairs-pairs laid up concentrically, aluminum foil and drain wire over each pair, polyester foil over pairs or halogen free bedding compound (optional), electrolytic plain copper braided screen, polyester foil above braided screen, outer sheath SHF1); FMGCH-FFR 60/250V halogen free, fire resistant, screened control and instrumentation cables (copper conductors class 2 or class 5, Mica tape, HF-HEPR insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath SHF1); FM2XCY-FR 60/250V screened control and instrumentation cables (copper conductors class 2 or class 5, XLPE insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath ST2); FM2XCH 60/250V halogen free screened control and instrumentation cables (copper conductors class 2 or class 5, HF-XLPE insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath SHF1). The Manufacturer has provided a declaration about the absence of Asbestos in his products.

Notes / Documentation:

This Product Design Assessment (PDA) is valid only 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.

Term of Validity:

This Product Design Assessment (PDA) Certificate 14-PR1203985A-PDA, dated 05/Aug/2014 remains valid until 04/Aug/2019 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:

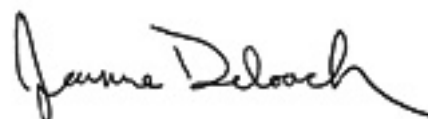
The Rules for Conditions of Classification, Part 1 2014 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2014 Steel Vessels Rules 4-8-3/9.1, 9.3, 9.5, 9.7, 9.9, Steel Vessels Under 90 meters (295 feet) in Length 4-6-4/13.1, 2014 Offshore Support Vessels (OSV Rules) 4-8-3/9.1, 9.3, 9.5, 9.7, 9.9 The Rules for Conditions of Classification, Part 1 - 2014 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: 2014 MODU Rules 4-3-4/7.1.

**National Standards:
International Standards:**

IEC 60092-375 (1977-01), IEC 60092-376 (2003-05) and the applicable IEC standards referred to in the above standards (IEC 60228(2004-11), IEC 60092-359(1999-08), IEC 60092-351(2004-04), IEC 60332-3, IEC 60331-21, IEC 60811)

**Government Authority:
EUMED:
Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	14-PR1203985A-PDA	05/AUG/2014	04/AUG/2019



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.