



## *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 20-MAY-2020. 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, Propulsion or Propulsion Control

**Model Name(s):** H-FLEX CTL PUR 250V; H-FLEX CTL C-PUR 250 V

**Presented to:**

HELKAMA BICA (SHANGHAI) CO LTD  
PLOT 1-2, MINHANG EXPORT PROCESSING ZONE  
NO. 3111 HUAN CHENG WEST ROAD  
FENGXIAN DISTRICT  
201401  
China

<b>Intended Service:</b>	ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards.
<b>Description:</b>	Cable sizes over 1.5 mm <sup>2</sup> intended for propulsion or propulsion control. Halogen Free, flame retardant and highly flexible, oil resistant armoured control cable for flexible use and fixed installations in industrial use and different marine and offshore applications.
<b>Tier:</b>	5
<b>Ratings:</b>	-Maximum temperature at the conductor in service +90 C degrees. -Maximum temperature at the conductor in short circuit conditions +250 C degrees. -Maximum surface temperature at fixed installation and mobile operation +80 C degrees. -Minimum surface temperature at fixed installation -45 C degrees. -Minimum surface temperature at mobile operation -35 C degrees. -Cable sizes as in attached datasheet.
<b>Service Restrictions:</b>	Unit Certification is required for this product. Where the intended use is as propulsion cable, the cable is to be subjected to dielectric and insulation tests at the plant of manufacture in the presence of the Surveyor as required by the ABS Rules for Building and Classing Steel Vessels 2015, 4-8-5/5.17.11(e), 4-1-1/Table 3 item 21 and to the requirements of Tier 5 as detailed in 1-1/Appendix 4.

**Comments:** The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. Manufacturer's cable markings are to be verified by attending Surveyor.

**Notes / Documentation:** Drawing No. H-FLEX CTL PUR 250V Cable Data Sheet, Revision: -, Pages: -

**Term of Validity:** This Product Design Assessment (PDA) Certificate 15-LD1365145-1-PDA-DUP, dated 26/Jun/2015 remains valid until 20/May/2020 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 applicable to this assessment are: -2015 Steel Vessel Rules 1-1-4/7.7, 1-1-A 3 and 4, 4-8-3/9.1, 4-8-3/9.3, 4-8-3/9.5, 4-8-3/9.9, 4-8-3/9.11, 4-8-3/9.17, 4-8-5/5.17.11 -2015 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A 2 and 3, 4-3-4/7.1.1, 4-3-4/7.1.2, 4-3-4/7.1.4, 4-3-4/7.1.5. -2015 Steel Vessel Rules Under 90 Meters (295 feet) 1-1-4/7.7, 1-1 A 3 and 4; 4-6-4/13.1.1, 4-6-4/13.1.2, 4-6-4/13.1.3, 4-6-4/13.1.4, -2015 Offshore Support Vessels 1-1-4/7.7 1-1-A 3 and 4; 4-8-3/9.1, 4-8-3/9.3, 4-8-3/9.5, 4-8-3/9.9, 4-8-3/9.11, 4-8-3/9.17., 4-8-5/5.17.11 -2015 Steel Vessels for Service on Rivers & Intracoastal Waterways 1-1-4/7.7, 1-1-A 3 and 4, 4-1-1/3.3 & 4-5-4/13.

**National Standards:**


**International Standards:** IEC 60092-350 Ed. 3: 2008; IEC 60092-351 Ed. 2004; IEC 60754-1 Ed. 3: 2011; IEC 60754-2 Ed. 2: 2011; IEC 60684-2 Ed. 2.1: 2003; IEC 60228 Ed. 3: 2004; IEC 60332-1 Ed. 1: 2004.

**Government Authority:**

**EUMED:**

**Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA-DUP	15-LD1365145-1-PDA-DUP	26-JUN-2015	20-MAY-2020



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.