



## ***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 28-MAR-2024. 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: Actuator, Electric for Valves**  
**Model Name(s): HQ Series**

**Presented to:**  
HKC CO., LTD.  
26, EMTIBEUI 28-RO  
SIHEUNG-SI  
Korea, Republic of

<b>Intended Service:</b>	Actuators for valves in piping systems of Ships/Offshore Units.
<b>Description:</b>	Electric Actuators assembled with quarter-turn valves to control the flow or the temperature of fluids, such as water, steam gas, oil, etc.
<b>Tier:</b>	3
<b>Ratings:</b>	HQ series: HQ-006/008/010/015/020/030/050/060/080/120/200/270/300 - Torque range: 60Nm to 3000Nm - On/Off or Modulating Control by Single & Three Phase Motor - Temperature Range: -20degC to 70degC (Standard) and -40degC to 150degC(Option) - Minimum degree of protection: IP67, Option: 68 - Explosion Proof Type (Option) - Electric position indicator unit, local/remote control (Option)
<b>Service Restrictions:</b>	1. Unit Certification is not required for this product. 2. 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.
<b>Comments:</b>	1. Application and use are to be in accordance with the manufacturer's instructions. 2. The manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
<b>Notes / Documentation:</b>	This Product Design Assessment is based on as follows: a). HKC Documents - Approval Drawing for HQ series dated 09-Jul-2018 b). IECEx Test Report - Ref. No. NL/DEK/ExTR16.0061/01 dated 16-Nov-2018 c). CSA Test Report - Report

No. 70015929 dated 27-May-2018, 2618022 dated 22-Feb-2018 d). KOMERI Test Report - Report No. KOMERI-0307-17T0424 dated 16-Mar-2017 & KOMERI-0307-17T0425 dated 30-May-2017 e). KTL Test Report - Report No. 15-058460-01 dated 14-Oct-2015, R1454-333/04-Nov-2004, 09-1455-205 dated 28-Apr-2009, 09-1455-113 dated 18-Mar-2009, R1454-051/22-Mar-2004, R1454-164/26-Jun-2004, 09-1455-088 dated 05-Mar-2009, R1454-165/26-Jun-2004, 09-1455-112 dated 18-Mar-2009, 2011-1455-535 dated 17-Aug-2011, R1454-255/07-Sep-2004, 07-1454-087 dated 02-Mar-2007, 09-1455-683 dated 02-Dec-2009, R1471-272/16-Nov-2004, 2010-1455-594 dated 15-Sep-2011, 08-2374-08-04 dated 29-Jan-2008, PNS071081-12-5 dated 13-Nov-2007, 08-2374-08-03 dated 29-Jan-2008, PNS071081-12-4 dated 13-Nov-2007, 08-2374-08-02 dated 29-Jan-2008, PNS071081-12-2 dated 02-Nov-2007, PNS071081-12-3 dated 13-Nov-2007, 08-2374-08-01 dated 29-Jan-2008, PNS071081-12-1 dated 02-Nov-2007 & 17-038904-01-1 dated 03-Jul-2017 f). Certificates - TUV Test Report CPSA01173016 dated 23-May-2016, CPSA01172816 dated 25-May-2016, ERi Report No. ERI-EN08-0070023 dated 14-Jan-2008, IECEx DEK16.0042X dated 21-Nov-2018, IECEx EPS 15.0075X dated 03-Jul-2018, EAC Cert. No. 0112715/0112716/0207940, RINA Certificate No. ELE108916PU dated 08-Jul-2016

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 19-BK1840940-1-PDA, dated 29/Mar/2019 remains valid until 28/Mar/2024 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:**

2019 ABS Rules for Condition of Classification 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2019 Marine Vessels Rules 4-8-3/1.11 & 4-8-3/13 2019 Steel Vessels Rules Under 90m in Length 4-6-1/15 & 4-6-3/11.3 2019 Offshore Support Vessels Rules 4-8-3/1.11 & 4-8-3/13 2019 ABS 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 Units Rules 4-3-1/15 & 4-3-3/9.3 2019 Facilities on Offshore Installations 1-1-4/9.7, 1-1-A2 & 1-1-A3

**National Standards:**

CSA C22.2 No.139-13 (2016 edition); Electrically operated valves UL 429 (Seventh Edition); Electrically Operated Valves

**International Standards:**

1. IEC 60079 series (2018 edition); Explosive atmospheres 2. IEC 60529 (2013 edition); Degrees of protection provided by enclosures (IP Code)

**Government Authority:**

**EUMED:**

**Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	19-BK1840940-1-PDA	26-MAY-2019	28-MAR-2024

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.