



Confirmation of Product Type Approval

Company Name: KONGSBERG MARITIME AS, TRONDHEIM

Address: SKONNERTVEGEN 17053 RANHEIMP.O. BOX 2434 TRONDHEIM 7005 Norway

Product: Shaft Torquemeter

Model(s): Meta Power Quad ShaPoLi for compliance with Cyber Resilience IACS UR E27

Endorsements: CyberSecurity

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	24-0088775-PDA	07-NOV-2024	06-NOV-2029
Manufacturing Assessment (MA)	20-4414541	27-AUG-2020	26-AUG-2025
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Marine & Offshore Application

Description

Meta Power is a torque meter system with various functions and functionalities. This PDA confirms Meta Power's cyber security capabilities and demonstrates that it meets 2023 "IACS UR E27 Rev. 1 – Cyber Resilience of On-Board Systems and Equipment" . The system employs several design principles and functions to achieve its cyber security objectives.

Ratings

NA

Service Restrictions

1. 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.

2. This Product Design Assessment (PDA) Certificate remains valid until 06/11/2029 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).

3. Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

4. This PDA (24-0088775-PDA) would be invalid if the hardware PDA certificate 23-2481686-PDA is no longer valid.

5. To ensure security, implement physical protection measures, such as lockable doors/ hatches and secure cable management, to prevent unauthorized access to hardware, software, cables, and data. Safeguards must also be in place to prevent changes to the network topology and the connection of unauthorized devices excluded from the PDA.

6. This PDA does not cover the embedded software's functionality, as required by IACS UR E22.

7. This PDA does not cover the environmental/EMC performance of the system hardware, as required by IACS UR E10.

Comments

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. The system doesn't have wireless capability, so this PDA does not cover this aspect.

3. The system is only to be connected to networks in the manner which is stated in the Kongsberg MPQ Security Capabilities to satisfy IEC 62443-3-3 item 3.1.45

4. ABS Engineering must review any modification to the hardware, software, or firmware that might significantly impact the performance of the cyber resilience capabilities.

5. When a type-approved computer-based system or component software is proposed for use on board a vessel, a vessel-specific system certification verifying compliance with applicable requirements from Sections 4-9-3, 4-9-13, and 4-9-14 is still required since vessel-specific functions, parameter configurations, and installation elements demand vessel-specific verifications and testing.

Notes, Drawings and Documentation

Drawing No. , KMPO 001-775298,

Drawing No. , 110-0064995B - MPQ Test Procedure,

Drawing No. , 110-0061719B - MPQ Asset Inventory,

Drawing No. , Test procedure 110-0064995 rev, B Metapower Quad tested and signed by ABS

Drawing No. , 110-0082763B - MPQ Security Capabilities

Drawing No. , 110-0061720B - MPQ System Topology

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 06/Nov/2029 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.

ABS Rules

The Rules for Conditions of Classification, 2024 Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2024 Rules for Building and Classing Marine Vessel Rules: 4-9-14

International Standards

2023 "IACS UR E27 Rev. 1 – Cyber Resilience of On-Board Systems and Equipment"

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 09-Jan-2025 6:49

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 is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

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 prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. 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.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

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.

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.