



CERTIFICATE NUMBER 22-2249925-PDA  
EFFECTIVE DATE 18-MAY-2022  
EXPIRATION DATE 17-MAY-2027  
ABS TECHNICAL OFFICE CN Shanghai ESD

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

### **WUXI ORIGINAL MECHANICAL & ELECTRICAL CO., LTD.**

located at

**NO. 8, LuDai Road, YangShan Industrial Park, HuiShan Economic  
Development Zone, WuXi, JiangSu, China**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product Motor**

**Model OMT and OMD Series**

This Product Design Assessment (PDA) Certificate remains valid until 17/May/2027 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.

American Bureau of Shipping

Bin-Hong Wang, Director

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement

**WUXI ORIGINAL MECHANICAL & ELECTRICAL CO.**

NO.8, LUDAI ROAD, YANGSHAN INDUSTRIAL PARK, HUISHAN ECONOMIC DEVELOPMENT ZONE

WUXI JIANGSU

China

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**Tier: 5 - Unit Certification Required**

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**Product:** Motor  
**Model:** OMT and OMD Series  
**Endorsements:**

**Intended Service:**  
For use on ABS classed Vessels and Offshore Facilities in accordance with the listed ABS Rules  
Non Propulsion Service

**Description:**  
Three phase induction motors in frame sizes type: OMT(X)-80 ~ OMT(X)-355 Series and OMD(X)-250 ~ OMD(X)-355 Series.

**Rating:**  
OMT(X)-80 ~ OMT(X)-355 Series:  
Frame size range: H80 ~ H355  
Power range: 0.75kW ~ 500kW  
Insulation class: F or H  
Voltage: AC 220V ~ AC 690V  
Frequency: 50HZ/60HZ  
Pole: 2/4/6/8p  
Duty: S1 or S2  
Speed range: 750 ~ 3600 r/min  
Ambient temperature: -15°C ~ +50°C  
Ingress protection: IP54 or IP55 or IP56

OMD(X)-250 ~ OMD(X)-355 Series:  
Frame size range: H250 ~ H355  
Power range: 37kW ~ 710kW  
Insulation class: F or H  
Voltage: AC 220V ~ AC 690V  
Frequency: 50HZ/60HZ  
Pole: 2/4/6/8p  
Duty: S1 or S2  
Speed range: 750 ~ 3600 r/min  
Ambient temperature: -15°C ~ +50°C  
Ingress protection: IP23

- Service Restriction:**
1. Unit Certification is required for motor of 100 kW (135 hp) and over for essential services or for services indicated in 4-8-3/15 Table 7 of ABS MVR 2022.
  2. Each design of motor of 100 KW (135 hp) and over intended for essential services or for services indicated in 4-8-3/15 TABLE 7 on board ABS Classed vessels is to be assessed by testing in accordance with the "type tests" schedule indicated in 4-8-3/Table 3 of ABS MVR 2022 or 6-1-7/Table 2 of ABS MOU Rules 2022.
  3. Each subsequent production unit of an approved design is to be tested in accordance with the "routine tests" schedule indicated also in 4-8-3/Table 3, 4-8-3/3.17 of ABS MVR 2022 or 6-1-7/Table 2 of ABS MOU Rules 2022. Type test report of same type is to be submitted to our attending surveyor before routine test.
  4. These motors are not intended for operation in hazardous areas.
  5. 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:**
1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
  2. Motors, rated 50kW and over, used for essential services and located in damp spaces or exposed to weather are to

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be provided with a means to prevent moisture condensation in the machine when idle. See 4-8-3/3.11.5 of ABS MVR 2022 or 6-1-7/5.11.7 of ABS MOU Rules 2022.

3. Coupling & Coupling bolts not part of this Design Assessment.

4. Dimension and material mechanical property of each approved motor is to be checked by our surveyor before delivery according to our approved design documents.

5. Evidence of degree of protection is to be submitted to our attending surveyors for verification.

**Notes/Drawing/Documentation:**

Drawing No. NA01, OMD Series Motor Drawings, Revision: 0, Pages: 1

Drawing No. NA02, OMD Series Shaft Calculation, Revision: 0, Pages: 1

Drawing No. NA03, OMD Test Report, Revision: 0, Pages: 1

Drawing No. NA04, OMT Series Motor Drawings, Revision: 0, Pages: 1

Drawing No. NA05, OMT Series Motor Key Calculation, Revision: 0, Pages: 1

Drawing No. NA06, OMT Series Motor Shaft Calculation, Revision: 0, Pages: 1

Drawing No. NA07, OMT Test Report, Revision: 0, Pages: 1

Drawing No. NA08, OMT Shaft and Key Calculation, Revision: 0, Pages: 1

Drawing No. OMEC-00-MA01, OMT Series Motor, Revision: 1.0, Pages: 1

Drawing No. OMEC-00-MA02, OMD Series Motor, Revision: 1.0, Pages: 1

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 17/May/2027 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).

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**STANDARDS**

**ABS Rules:**

2022 ABS Rules for Conditions of Classification, Part 1 - 2022 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2022 MVR 4-8-3/1.11, 4-8-3/3, 4-8-3/Table 3

2022 ABS Rules for Conditions of Classification, Part I - 2022 Offshore Units and Structures, 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2022 MOU Rules 6-1-7/5, 6-1-7/Table 2.

**National:**

NA

**International:**

NA

**Government:**

NA

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**Tier: 5 - Unit Certification Required**

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**EUMED:**

NA

**OTHERS:**

NA