



CERTIFICATE NUMBER

01-LD204092/1-PDA

DATE

09 December 2004

ABS TECHNICAL OFFICE

London Ship Engineering

# CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of  
**ABB Automation Technologies AB**

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. It will remain valid for five years from the date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Motors, Low Voltage

MODEL: M3AA 112 to M3AA 250  
M2AA 112 to M2AA 250

ABS RULE: 2004 Steel Vessel Rules, 4-8-3/ Section 3

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING

Jean-Claude G. Dennemont

Engineering Type Approval Co-ordinator

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**Product:** Motors, Low Voltage

**Model:** M3AA 112 to M3AA 250  
M2AA 112 to M2AA 250

**Intended Service:**

General purpose motors for the marine environment

**Description:**

Low voltage, totally enclosed squirrel cage induction motors with aluminium frame

**Ratings:**

Single and two speed motors with voltage range to 690 V, at both 50 Hz and 60 Hz, in 2, 4, 6 or 8 pole version

The motor power ratings are specified for the following duties: S1, S2 (30 minutes), S6 (25%, 40%, 60% intermittent duty)

Insulation Class F, Enclosure protection: IP55, IP56, IP65 and IP66.

**Service Restrictions:**

Unit certification is required for motors of 100 kW and above for essential services and are to be tested in accordance with 4-8-3/3.15 of the Rules in the presence of the Surveyor as required by 4-1-1/Table 3

**Comments:**

Not Applicable

**Term of Validity:**

This product/model is covered under Product Design Assessment (PDA) Certificate # 01-LD204092/1-PDA, dated 09/Dec/2004. This PDA Certificate expires Dec of 2009. It will remain valid for the 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first).

**STANDARDS**

**ABS Rules:**

2004 Steel Vessel Rules, 4-8-3/ Section 3

