



CERTIFICATE NUMBER

03-LD369674-PDA

DATE

2 June 2003

ABS TECHNICAL OFFICE

London ESD

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
ABB Oy

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; and 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: Low Voltage Motors
MODEL: M2LA 400 LKA 4 B35
ABS RULE: 1-1-4/3.7 and 4-8-3/3 of Steel Vessel Rules, 2003
OTHER STANDARD: N/A

AMERICAN BUREAU OF SHIPPING

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Product : Low Voltage Motors

Model Name: M2LA 400LKA 4 B35

Intended Service:

Marine Environments

Description:

Cast iron framed, three phase, water cooled, induction motors in frame size 400.

Ratings:

590 kW, 480 V, 60Hz, 1790 rpm;
Insulation Class F, Temperature Rise Class B, IP55, Duty type S1

Service Restrictions:

Each design of motor of 100 KW (135 hp) and over intended for essential services on board ABS Class vessels is to be assessed by testing in accordance with the "type tests" schedule indicated in 4-8-3/Table 3.

Each subsequent production unit of an accepted design is to be tested in accordance with the "routine tests" schedule indicated also in 4-8-3/Table 3.

Comments:

1. The motors are rated for maximum ambient temperature +40°C.
2. Method of cooling IC 31 W (Water Cooled)

Term of Validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 03-LD369674-PDA, dated 02/Jun/2003. This PDA Certificate expires June of 2008. 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:

2003 Steel Vessel Rules 1-1-4/3.7 and 4-8-3/3

