



CERTIFICATE NUMBER

DATE

05-LD489786B-1-PDA

25 June 2010

ABS TECHNICAL OFFICE

London Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
ABB OY MOTORS - VAASA

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 as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Motor, Low Voltage

MODEL: M2CA

ABS RULE: 2010 Steel Vessel Rules 1-1-4/7.7 and 4-8-3/3

OTHER STANDARD IEC 60034-1 Ed.12.0:2010;

AMERICAN BUREAU OF SHIPPING

Jean-Claude G. Dennemont
Engineering Type Approval Co-ordinator

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 the terms and conditions as contained in ABS Rules 1-1-A3/5 9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

ABB OY MOTORS

P.O. BOX 633
VAASA
FIN-65101
Finland
Telephone: +358 10 22 11
Fax: +358 10 22 47372

MA Certificate No. 08-TU1078235-X

Product: Motor, Low Voltage

Model: M2CA

Intended Service:
Marine Environments

Description:
Steel framed, three phase induction motors in frame sizes 280 to 400.

Ratings:
12 kW to 710 kW, 220-690 Volts, 50/60Hz, 2-10 and multipole, IP55 and Insulation Class F.

Service Restrictions:
The enclosure ingress protection is to be suitable for its intended location.

Comments:
1. The motors are rated and certified for ambient temperature between -20 degrees C and +40 degrees C.

2. Each design of motor of 100 kw (135hp) and over intended for essential services 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

Notes / Drawings / Documentation:
This Product Design Assessment (PDA) is valid only 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.

Term of Validity:
This product/model is covered under Product Design Assessment (PDA) Certificate # 05-LD489786B-1-PDA, dated 25/Jun/2010. This PDA Certificate expires 24/Jun/2015. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is valid for all vessels contracted on or before the date of the Rules used in this evaluation.

STANDARDS

ABS Rules:
2010 Steel Vessel Rules 1-1-4/7.7 and 4-8-3/3

National:
NA

International:
IEC 60034-1 Ed.12.0:2010

Government Authority:
NA

EUMED:
NA

Others:
NA

