



CERTIFICATE NUMBER

02-LD327930B/1-PDA

DATE

22 August 2008

ABS TECHNICAL OFFICE

London Engineering Department

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. 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: M3HP 160-315

ABS RULE: 2008 Steel Vessel Rules Section 4-8-3/3 and 1-1-4/7.7

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING

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

ABB Oy

Electrical Machines - LV Motors
P.O. Box 633
Vaasa
FIN-65101
Finland
Telephone: +358 10 22 11
Fax: +358 10 22 47372

Product: Motor, Low Voltage

Model: M3HP 160-315

Intended Service:

Marine and Hazardous Environments

Description:

Cast iron framed, three phase increased safety induction motors in frame sizes 160 to 315.

Ratings:

220-690 Volts, 50/60Hz, 2-12 and multiple poles, IP55 and IP65

Insulation Class F and Temperature rise Class B

Increased Safety : II 2 G T3 (200 °C) EEx e T2-T3

The following certificates apply : LCIE 01 ATEX 6015, LCIE 01 ATEX 6021, LCIE 01 ATEX 6022, LCIE 01 ATEX 6023, LCIE 01 ATEX 6024, LCIE 02 ATEX 6071, LCIE 02 ATEX 6072.

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 and certified for ambient temperature between -20 °C and +50 °C
2. Each particular installation of electric motors in hazardous locations is to be specifically approved.

Notes/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 Design Assessment Certificate number 02-LD327930B/1-PDA, dated 22/Aug/2008 will expire on 21/Aug/2013 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2009, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

STANDARDS

ABS Rules:

2008 Steel Vessel Rules Section 4-8-3/3 and 1-1-4/7.7

