

CERTIFICATE NUMBER

10-SG625128-PDA

DATE

13 September 2010

ABS TECHNICAL OFFICE

Singapore Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of **AUCOM ELECTRONICS LIMITED - CHRISTCHURCH**

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 Controller

MODEL:

EMX3 frame sizes G1B, G2B and G4B

ABS RULE:

2010 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 4-8-3/5.3.3(a).

OTHER STANDARD:

IEC 60947-4-2, IEC 60068-2-30:2005, IEC 60068-2-6:2007, IEC 60068-2-1:2007, IEC 60068-2-6:1995 & IEC 60068-2-6:2007.:

AMERICAN BUREAU OF SHIPPING

Ta-Loong Tan

Engineering Type Approval Co-ordinator

AUCOM ELECTRONICS LIMITED

PO BOX 80208 CHRISTCHURCH 8440 New Zealand

Product:

Motor Controller

Model:

EMX3 frame sizes G1B, G2B and G4B

Intended Service:

Soft starter for electric motors

Description:

Solid State AC motor controllers

Ratings:

1. EMX3 Frame Size G1B:- EMX3-0023B (Rating: 23A)- EMX3-0043B (Rating: 43A)- EMX3-0050B (Rating: 50A)- EMX3-0053B (Rating: 53A)- EMX3-0076B (Rating: 76A)- EMX3-0097B (Rating: 97A)- EMX3-0100B (Rating: 100A)- EMX3-0105B (Rating: 105A)2. EMX3 Frame Size G2B:- EMX3-0145b (Rating: 145A)- EMX3-0170B (Rating: 170A)- EMX3-0200B (Rating: 200A)- EMX3-0220B (Rating: 220A)3. EMX3 Frame Size G4B:- EMX3-0270B (Rating: 270A)- EMX3-0350B (Rating: 350A)- EMX3-0425B (Rating: 425A)- EMX3-0500B (Rating: 500A)- EMX3-0580B (Rating: 580A)- EMX3-0700B (Rating: 700A)- EMX3-0820B (Rating: 820A)- EMX3-0920B (Rating: 920A)- EMX3-1000B (Rating: 1000A)

Service Restrictions:

Unit certification is required for this product in the following instances:- where used for essential services = 100kW (135hp) (See 4-8-1/7.3.3 of the Steel Vessels Rules), and- where used for LNG cargo or vapor handling services = 100kW (135hp) (See 5C-8-10/1.8 of the Steel Vessels Rules).

Comments:

Not Applicable

Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid only for products intended for use on ABS Classed vessels, MODUs or facilities that 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 Design Assessment (PDA) Certificate 10-SG625128-PDA, dated 13/Sep/2010 remains valid until 12/Sep/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2010 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 4-8-3/5.3.3(a).

National:

AUCOM ELECTRONICS LIMITED

PO BOX 80208 CHRISTCHURCH 8440 New Zealand

NA

International:

IEC 60947-4-2, IEC 60068-2-30:2005, IEC 60068-2-6:2007, IEC 60068-2-1:2007, IEC 60068-2-6:1995 & IEC 60068-2-6:2007.

Government Authority:

NA

EUMED:

NA

Others:

NA