



## TYPE APPROVAL CERTIFICATE

### 형식 승인증서

**Certificate No.** : HEL04300-EL002 **Initial Approval** : 4th April, 2002.  
**Product** : Electric Motors  
**Manufacturer** : ABB Oy, Motors  
Strombergin Puistotie 5A, FI-65100 Vaasa, Finland

**Product Description** : Type : Steel Motors M2CA280 up to M2CA400

- Sizes : IEC 280 up to 400
- Rated Voltage : 220 V up to 690 V
- Rated Power : 12 kW up to 710 kW
- Synchronous Speed : 500 rpm up to 3600 rpm
- Rated Frequency : 50Hz, 60Hz
- Ambient Temp. : 45 °C
- Duty type : S1, S2-30 min, S6-40 %
- Insulation Class : F
- Type of Enclosure : IP55
- Number of Poles : 2, 4, 6, 8, 10, 12, 2/4, 4/6, 4/8, 6/8

**Approval Condition** : Individual Product Certification is required.

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 1, Art. 109 and Pt. 6, Ch. 1, Sec. 2 of the Rules for Classification, Steel Ships.

This Certificate is valid until 3rd April, 2015.

Issued at Daejeon, Korea on 12th May, 2010.



한국선급  
KOREAN REGISTER OF SHIPPING

Lee Woon-ho

General Manager of  
Materials and Equipment Team

*Note 1* : The approval will be automatically suspended and the Certificate become invalid from the expiry date of the Certificate in the event that the extension has not been granted or the renewal of the Certificate is not underway.

*Note 2* : The manufacturer should notify this Society of any modification or changes that may affect the validity of this Certificate.