



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE00001CR
Revision No:
2

This is to certify:

That the Electric Motor

with type designation(s)
M3BP 71 up to M3BP 450 & M2BAX 71 up to M2BAX 355

Issued to
ABB Oy, IEC LV Motors
Vaasa, Finland

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Degree of protection	IP 55, IP 56
Insulation class	155 (F), 180 (H)
Temp. class (°C)	+45
Voltage (V)	220 V up to 690 V
Power (kW)	0,12 kW up to 1100 kW
Frequency (Hz)	50 Hz, 60 Hz
Speed (RPM)	500 up to 3600

Issued at **Høvik** on **2022-10-24**

for **DNV**

This Certificate is valid until **2026-02-23**.

DNV local unit: **Finland CMC**

Approval Engineer: **Marcin Tobiasz**

.....
Frederik Tore Elter
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.





Job Id: 262.1-023682-3
Certificate No: TAE00001CR
Revision No: 2

Name and place of manufacturer

ABB Oy IEC LV Motors, Strömbergin Puistotie 5A, 65320 Vaasa, Finland
ABB Sp. z o.o. , Placydowska 27, 95-070 Aleksandrow Lodzki, Poland
ABB Shanghai Motors Co., Ltd. 88, Tianning Road, Minhang Econ & Tech Dev. Zone, Shanghai 200245 Shanghai, China

Product description

Induction motors (Cast iron frame)

Type:

M3BP 71 up to M3BP 450

M2BAX 71 up to M2BAX 355

Application/Limitation

Higher ambient temperatures are allowed, but the thermal class of the insulation system 155 (F) or 180 (H) shall be respected.

Environmental categories according to DNV-CG-0339:

Temperature Class:	D
Vibration Class:	B
Humidity Class:	B

Motors ≥ 300 kW serving essential or important functions as defined in DNV Rules Pt.4 Ch.8 shall have a product certificate according to DNV Pt.4 Ch.8 Sec.1 Table 3 for each delivery to DNV classed vessels.

Type Approval documentation

Drawings, descriptions and technical data

Catalogue: EU-MEPS-9AKK105944-EN11-2014

Testreports KTXC7/17.09.+18.09.+19.09.2002, testreports "ref. fax 4.8.2004",

Testreports 3G1F1513256701/ 2015-07-14, 3G1F1543291412/25.11.2015

Tests carried out

According to IEC 60034-1:2010-02, IEC 92-301-3rd ed.1980 + Amd 1:1994 + Amd 2:1995
GL Test Requirements for Electrical Machinery (VI-7-6), edition 1999.

Marking of product

According to IEC 60034-1 clause 10.2, at least

- Manufacturers name and type designation
- Serial number and date of manufacture
- Voltage, frequency, rpm
- Power class (kW / kVA)
- Winding insulation class
- Degree of protection

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests, RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE