



1. **EU-TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in  
Potentially explosive atmospheres  
Directive 2014/34/EU**

3. Reference: **VTT 13 ATEX 060X Issue 3**

4. Equipment: **Range of cage induction motors**

Certified types: **M3AA 90..., M3AA 100..., M3AA 112...,  
M3AA 132..., M3AA 160..., M3AA 180...,  
M3AA 200..., M3AA 225..., M3AA 250..., and  
M3AA 280...**

5. Applicant: **ABB Oy Motors and Generators  
Strömbergin puistotie 5A  
FI-65320 Vaasa  
Finland**

Manufacturing locations: **ABB Oy Motors and Generators  
Strömbergin puistotie 5A  
FI-65320 Vaasa  
Finland**

**ABB Sp.zo.o  
ul. Placydowska  
95-070 Aleksandrow Lodzki  
Poland**

**ABB Logistics Center Europe GmbH  
Bräuckerweg 132  
58708 Menden  
Germany**

6. These equipment and any acceptable variations thereto are specified in the schedule and possible supplements to this Certificate and the documents therein referred to.



7. VTT Expert Services Ltd, notified body number 0537, in accordance with Article 21 of the Directive 2014/34/EU of February 2014, certifies that these equipment have been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
8. The examination and test results are recorded in confidential report no. VTT-S-00154-17.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0 (2012)**  
**EN 60079-31 (2014)**
10. If there appears sign X in the code, there are special conditions for safe use which are specified in the Annex of this Certificate.
11. This EU-Type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
12. The marking of the equipment shall include the following:



**II 2 D**

**Ex tb IIB or IIC T125 °C Db**

Espoo, 22.3.2017

**VTT Expert Services Ltd**



Martti Siirola  
Senior Expert



Jenni Hirvelä  
Expert

13. **Schedule**14. **EU-TYPE EXAMINATION CERTIFICATE No. VTT 13 ATEX 060X Issue 3**15. Description of Equipment

The M3AA range of motors are three phase squirrel cage induction motors of a closed type with cast aluminium frame. The main terminal box is integrated in motors with shaft height 90...180 and separate with shaft heights 200...280.

Technical Data

The Certificate is valid for the range of induction motors having shaft heights 90, 100, 112, 132, 160, 180, 200, 225, 250, and 280 and the electrical values within the following limits:

Nominal voltage:	190 V...690 V (shaft heights 90...132) 190 V...800 V (shaft heights 160...280)
Output power:	0.37...90 kW
Frequency:	50 Hz or 60 Hz or variable frequency
Duty:	S1, S2, S6 or S9
Degree of protection:	IP65
Cooling method:	IC411 or IC418

16. Report No. VTT-S-00154-1717. Special Conditions for Safe Use

The allowed ambient temperature range of a motor depends on the design and auxiliary devices. The allowed ambient temperature range of each motor is marked on the rating plate. The marked ambient temperature is always within the range of -40 °C...+60 °C (shaft heights 90...132) or -20 °C...+60 °C (shaft heights 160...280).

Depending on the design, the equipment group may be IIIB or IIIC. The equipment group of each motor is marked on the rating plate.

The special conditions in the Certificates of the separately certified auxiliary devices shall be conformed to.

The motors may present a potential electrostatic charging hazard due to paint; the manufacturer's instructions shall be followed in order to minimize the risk of electrostatic discharge.

For motors with shaft height 90...132 a double fan cover shall be used when cooled by a fan - IC411 (TEFC).

If the motor is intended for VSD supply, the motor will be marked accordingly and the following conditions apply:

The motors can be used in frequency converter supply with the converter types ACS 550, ACS 580, ACS 800 or ACS 880 series manufactured by ABB Ltd or a comparable converter in reference to the output voltage and current specifications. The comparable converter shall be DTC or PWM type.

The allowed speed and torque range of each motor is marked on the rating plate and all manufacturer's instructions shall be followed.

# 18. Essential Health and Safety Requirements

Met by compliance with the standards referred in clause 9.

## Certificate History

Issue	Date	Report No.	Comment
-	12.2.2014	VTT-S-00525-14	Original Certificate
1	3.11.2014	VTT-S-04695-14	A motor with an output power of 9.2 kW added. Additional duty types for DOL supply included. A new manufacturing location added.
2	20.5.2015	VTT-S-02209-15	ABB Oy was added as a new manufacturing location and it also replaces ABB AB as the Applicant.
3	22.3.2017	VTT-S-00154-17	Updated to the latest standards of IEC 60079-31. Motors with shaft height 160...280 added. Certificate revised.

Espoo, 22.3.2017

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