



1. **TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective Systems Intended for use in
Potentially explosive atmospheres
Directive 94/9/EC**
3. Reference: **VTT 06 ATEX 054X Issue 2**
4. Equipment: **Range of cage induction motors**
Certified types: **AMI 560...
AMI 630...**
5. Applicant: **ABB Oy Motors and Generators
Strömbergintie 1
FI-00380 Helsinki
Finland**
6. Manufactured by **ABB Oy Motors and Generators
Hiomotie 13
FI-00380 Helsinki
Finland**

or

**ABB Electrical Machines Ltd
No. 380, Tian Xing Road
Minhang District, Shanghai
People's Republic of China**
7. These equipment and any acceptable variations thereto are specified in the schedule and possible supplement(s) to this certificate and the documents therein referred to.
8. VTT Expert Services Ltd/Electrical Ex-apparatus, Inspection Body No. I018 accredited by the Finnish Accreditation Service (FINAS), certifies that these equipment have been found to comply with the Essential Health and Safety Requirements in Annex II to European Union Directive 94/9/EC of March 1994 relating to the design and construction of Category 3 equipment intended for use in potentially explosive atmospheres.



- 9 The examination and test results are recorded in confidential Report no FI/VTT/ExTR11.0008/00 (VTT-S-06347-11).
10. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

IEC 60079-0 (2011)
EN 60079-15 (2010)

11. If the sign "X" is placed after the certificate number, it indicates that these equipment is subject to special conditions for safe use specified in the schedule to this Statement.
12. This Type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the directive 94/9/EC.
- Further requirements of the Directive may apply to the manufacturing process and supply of these equipment. These are not covered by this certificate.
13. The marking of the equipment shall include the following:



II 3 G
Ex nA IIA/IIB/IIC T1-T4 Gc

Espoo, 19.12.2011

VTT Expert Services Ltd



Martti Siirola
Senior Expert



Risto Sulonen
Team Manager

14.

Schedule

15.

TYPE EXAMINATION CERTIFICATE NO. VTT 06 ATEX 054X Issue 2

16.

Description of Equipment

Three phase squirrel cage induction motors of a closed type with welded steel frame and fitted out with Ex-certified main terminal boxes and Ex-certified auxiliary terminal boxes. The temperature class of the motor depends on the ratings of the motor and temperature class of the accessories.

Technical data

The Certificate is valid for the range of induction motors having the technical values within the limits in the following table:

Shaft height	U _{MAX} / kV	Number of poles	f / Hz	P _{MAX} / kW
560	13,8*	2 – 20	50/60	9000
630	13,8*	2 – 20	50/60	9000

*U_{MAX} = 13,2 kV for equipment group IIC

In the 50/60 Hz supply the duty type of the motors shall be S1 or S2.

17.

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18.

Special conditions for safe use

The motors may be indicated to be used in ambient temperature other than specified in the standard (- 20 °C... + 40 °C).

Temperature class may vary between T1 - T4 depending of the design and the motor is marked accordingly.

Equipment group may be IIA, IIB or IIC depending of equipment groups of the used auxiliaries and the motor is marked accordingly.

Certificate without signatures shall not be valid.

This certificate, including the schedule, may only be reproduced in its entirety and without any change.

The Certificate covers also the following frequency converter drives with the converter types ACS 600- , ACS 800- , ACS 1000- , ACS 2000- and ACS 5000-series manufactured by ABB Group Ltd:

1. Squared torque drive, and
2. Drives featuring constant torque up to the field weakening point, or/and constant power in speed range above the field weakening point, presuming that the main motor is equipped with a separate (Ex-certified) fan motor or the stator windings are equipped with detectors for temperature control.

All the manufacturer's instructions concerning the speed range and the torque restrictions shall be followed.

19. Essential Health and Safety Requirements

Met by compliance with the standards IEC 60079-0 and EN 60079-15.

Certificate history

Issue	Date	Report No.	Comment
-	22.9.2006	FI/VTT/ExTR06.0001/00	Prime certificate
1	5.3.2010	FI/VTT/ExTR06.0001/01	A new manufacturing site added and the certificate was updated to cover new standards
2	19.12.2011	FI/VTT/ExTR11.0008/00	Change of the applicant's name. Certification documents are updated with new tests results and construction changes especially with main terminal boxes. Use with the converter type ACS 2000 added. The certificate is extended to cover the new standards IEC 60079-0 (2011) and EN 60079-15 (2010)

Espoo 19.12.2011

VTT Expert Services Ltd



Martti Siirola
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