



- (1) **EC TYPE EXAMINATION CERTIFICATE**
- (2) **Equipment or protective system intended for use  
in potentially explosive atmospheres  
Directive 94/9/EC**
- (3) EC type examination certificate number: **ISSeP09ATEX038X**
- (4) Equipment : Direct current flameproof motor  
Series BA-AP80 \* \*
- (5) Applicant – Manufacturer:  
ELNOR MOTORS N.V.
- (6) Address: De Costerstraat 45  
3150 Haacht (Wespelaar)
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) ISSeP, notified body no 492 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has 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.
- The examination and test results are recorded in confidential report no 08141
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
EN 60079-0:2006 (IEC 60079-0:2004) IEC 60079-0:2007  
EN 60079-1:2007 (IEC 60079-1:2007)
- (10) If the symbol "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate
- (11) This EC TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of this Directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include the following indications:
-  II 2 G      Ex d IIB T6 to T3      (according to standard EN 60079-0 : 2006)  
Ex d IIB T6 to T3      Gb (according to standard IEC 60079-0 : 2007)

Colfontaine, the 25.08.2009

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC  
Zoning A. Schweitzer - B7340 Colfontaine (Wasmès)  
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808

  
Marcel Lambert,  
Manager.

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(13)

## SCHEDULE

(14)

### EC TYPE EXAMINATION CERTIFICATE No ISSeP09ATEX038X

(15) Description of the equipment or protective system:

Direct current permanent magnet motor.

This motor bears the type designation:

BA - AP 80 \* \*

Code for flameproof motor

Permanent magnets

Output diameter of the armature

SH: 1 row of 4 magnets

S: 2 rows of 4 magnets

SI: 3 rows of 4 magnets

M: 4 rows of 4 magnets

MI: 5 rows of 4 magnets

L: 6 rows of 4 magnets

The flameproof enclosure of this motor consists of a carcass made of steel and end shields made of cast iron.

This motor is provided with a terminal box compartment located at the non-drive end.

If the supply cable is provided by the user, an additional marking will indicate that the insulation of the cable shall be compatible with a temperature of 100°C (for the temperature class T4) and 120°C (for the temperature class T3).

The fastenings are made by through bolts of property class 8.8 and internal socket head screws class 8.8.

#### Temperature classes

The motors on S1 duty service have the temperature classes T3 and T4.

The motors on S2 to S9 duty service are provided with a thermal protection or a PTC thermistance suitable to the temperature class.

#### Electrical characteristics

Power range : up to 1 kW

Voltages supply : from 6 VDC to 230 VDC

Insulation class : F

#### Eventual prescriptions

Ambient temperature range: -40°C up to +70°C or -20°C up to + 70°C

#### Routine test

Each apparatus shall be submitted to the routine verifications and tests necessary to ensure that it complies with the specification submitted to the testing station with the prototype.

The motors are exempted from the overpressure routine test.

However a control of the welding of the carcass shall be made.

(16) Report no 08141 dated 25.08.2009 composed of 28 pages.

The manual of instructions from the manufacturer – document signed on 19.12.2008 (5 pages)

The data sheets related to the construction elements of the flameproof enclosure – revision dated of 11.06.2009 (4 pages)

A document of general information - revision of 24.08.2009 (1 page)

The technical note of the manufacturer specifying for the temperature classes T3 and T4 and the duty service S1, the output power in relation with the type of motor and its rotating speed – revision of 11.06.2009 ( 1 page)

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## SCHEDULE

### EC TYPE EXAMINATION CERTIFICATE No ISSeP09ATEX038X

- (16) The data related to the self-adhesive marking plates – revision of 24.08.2009 (1 page)  
The document related to the minimum radial clearance (k) and the maximum radial clearance (m) of the shaft glands, revision of 11.06.2009 (1 page)  
The drawings:  
818801001E of 10.11.1997 Rev. E of 15.06.2009  
505970225A of 18.12.2008 Rev. A of 15.06.2009  
505990125C of 11.03.2002 Rev. C of 21.10.2008  
240000426A of 12.12.2008 Rev. A of 24.08.2009
- (17) Special conditions for safe use: symbol X
- To refer to the data sheets related to the parts of the flameproof enclosure for the values of the flameproof joints
- (18) Essential Health and Safety Requirements: covered by the standards listed under point 9 of the present certificate and by the descriptive documents from the manufacturer.

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## VARIATION

### EC TYPE EXAMINATION CERTIFICATE N° ISSeP09ATEX038X/1

(14) Equipment: Direct current flameproof motor  
Series BA – AP 80 \* \*

(15) Subject to the variation:  
To allow the modification of the text related to the temperature and duty classes in the document  
"General information".

Marking: Unchanged

Eventual prescriptions  
The ambient temperature range: -40°C up to +70°C or - 20°C up to + 70°C

(16) Report n° 11104 of 10.11.2011 (6 pages)  
The document "General information" dated 17.10.2011 signed on 18.10.2011

(17) Special conditions for safe use: Unchanged

(18) Essential Health and Safety Requirements: Covered by the standards listed at point 9 of the initial  
certificate

Colfontaine, 18.11.2011



Lambert Marcel,  
Director

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## VARIATION

### EC TYPE EXAMINATION CERTIFICATE N° ISSeP09ATEX038X/2

(14) Equipment : : Flameproof motors  
Series BA – AP 80 \* \*

(15) Subject of the variation :

Update of the initial certificate with the ATEX standards EN 60079-0, with the last edition (EN 60079-0 : 2012),

Marking:  II 2 G Ex d IIB T6...T3 Gb

Eventual Prescriptions: no change

Routine verifications and tests: (Clause 27 of EN 60079-0)

The manufacturer must do the verifications and individual tests to assure that the produced electrical apparatus conforms with the specification submitted to the test station

(16) Report n° 15017 of 16.02.2015 (13 pages)

(17) Special conditions for safe use : Symbol X

To refer to the data sheets related to the parts of the flameproof enclosure for the values of the flameproof joints

(18) Essential Health and Safety Requirements :

- Covered by the detailed norms on point 9 of the initial certificate.

Colfontaine, 18.02.2015

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