



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx LCI 05.0002X Issue No: 3 Certificate history:  
Status: **Current** Issue No. 3 (2018-02-20)  
Date of Issue: **2018-02-20** Issue No. 2 (2014-01-23)  
Page 1 of 4 Issue No. 1 (2011-05-02)  
Issue No. 0 (2005-05-23)  
Applicant: **ELNOR MOTORS NV**  
De Costerstraat 45  
BE-3150 Haacht  
**Belgium**  
Equipment: **Three phase and single phase asynchronous motors, Type BA(V/X)3xy\*\*\***  
*Optional accessory:*  
Type of Protection: **Ex db, Ex tb**  
Marking:  
Ex db IIB T3 Gb  
Ex tb IIIC T195°C Db  
Refer to the annex of the certificate for full marking.

Approved for issue on behalf of the IECEx  
Certification Body:

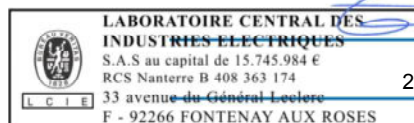
Julien GAUTHIER

Position:

Certification Officer

Signature:  
(for printed version)

Date:



1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Laboratoire Central des Industries Electriques (LCIE)**  
**33 Avenue du General Leclerc**  
**FR-92260 Fontenay-aux-Roses**  
**France**





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Manufacturer: **ELNOR MOTORS NV**  
De Costerstraat 45  
BE-3150 Haacht  
**Belgium**

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-1 : 2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-31 : 2008** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'  
Edition:1

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

IECEX ATR:

ExTR Free Reference N° 60028278-524554

ExTR Reference N° FR/LCI/ExTR11.0007/01

Refer to the annex of the certificate for more informations.

File Reference:

ExTR Reference N° FR/LCI/ExTR11.0007/00

ExTR Reference N° FR/LCIE/ExTR18.0014/00



# IECEX Certificate of Conformity

Certificate No: IECEx LCI 05.0002X

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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The motor is equipped with a flameproof enclosure of steel (three phases or single phase). The motor can be constituted with :

- A junction box,
- An external fan with a cover,
- Of two parts spindle,
- A push button.

The motor is equipped with thermal protection which ensures the temperature class of the equipment (T3).

The thermal protection are not in the scope of this certificate.

Instructions: Instruction Manual:Explosion proof motors, Ref. Technical notes.

Refer to the annex of the certificate for full description.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flameproof joints are not intended to be repaired.
- The property class of the special fasteners used to fasten the end shields onto the stator housing (See note).
- Model BAV : The motor may be equipped with one or two end shaft(s) or with an external fan. For the fan cooled motors in BAV construction, the motor fan intended for cooling down the motor.
- Model BAX : When the motor is used to drive a fan, the new assembly, fan and motor unit, requires separate certification.
- The temperature classification of motor depends on the thermal protection (See note).

Note: See tables in annex for additional details.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

### Issue 00:

- Initial certification.

### Issue 01:

- Normative update according to IEC 60079-0 Ed.4 and IEC 60079-1 Ed.6 standards.
- Addition of an end shield in aluminium (drawing 517994601H).
- Addition of an end shield model 74310 (drawing 517431005A).
- Addition of an end shield model 74122 (drawing 517412215B).
- Using thermal protection for the determination of class temperature and the maximum surface temperature.

### Issue 02:

- Addition of an end shield model 79860 (drawing 507986070B).
- Addition of an end shield model 79929 (drawing 517992905B).
- Normative update according to IEC 60079-0 Ed.6.0 and IEC 60079-31 Ed.1 standards.
- Correction of mistake due in the last issue (01) of the certificate: voltage up to 690 V instead of voltage limited at 230/400V.

### Issue 03:

- Normative update according to IEC 60079-1 Ed.7.0 standard.
- Update of specific conditions of use.
- Update of ratings.

### Annex:

[IECEX LCI 05.0002 X - Issue 03 - Annex 01 - ELOR MOTORS.pdf](#)



# Annex 01 to Certificate IECEx LCI 05.0002 X issue 03



## MARKING

ELNOR MOTORS NV

Address: ...  
 Type: BA(V/X)3xy\*\*\*\*\*  
 Serial number: ...  
 Year of construction: ...

Ex db IIB T3 Gb  
 Ex tb IIIC T195°C Db  
 IECEx LCI 05.0002 X

**WARNING – DO NOT OPEN WHEN ENERGIZED**

On the marking plate:  
 CAUTION: cable entry temperature: (°)°C

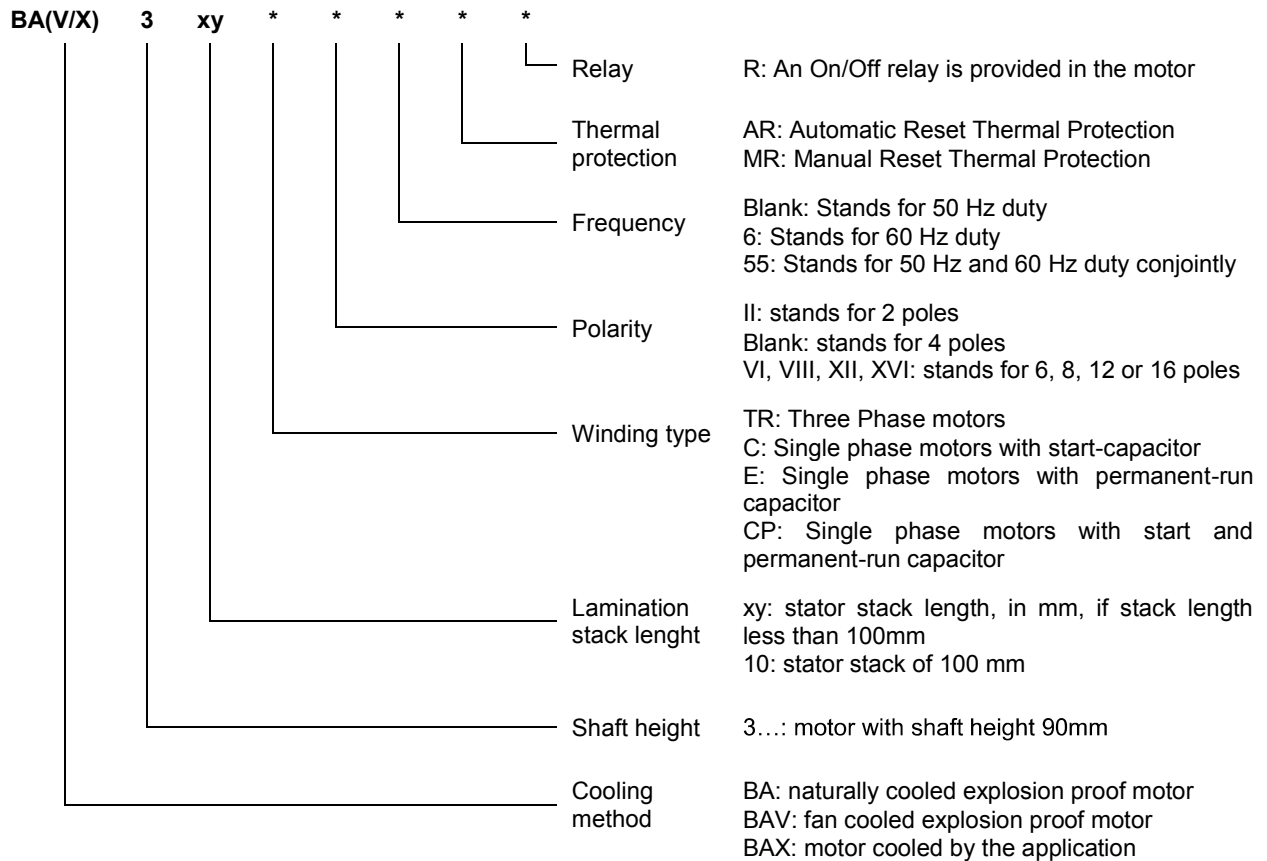
Ambient temperature: -40°C to +70°C

U = ....V; F = ... Hz; I = .... A; P = .... W <sup>(1)</sup>

(°) see full conditions of certification.

<sup>(1)</sup> completed by electrical parameters

## RANGE DETAILS



## RATINGS

Motor description	Max. Voltage (V)	Frequency (Hz)	Max. power (kW)	Max. current (A)
BA(V/X)327***	415	50/60	0.25	1.8
BA(V/X)335***			0.37	4.7
BA(V/X)350***			0.74	11.2
BA(V/X)370***			1.1	14.5
BA(V/X)310***			2.2	17

Maximum speed: 3600 rpm

## FULL CONDITIONS OF CERTIFICATION

- The flameproof joints are not intended to be repaired.
- The property class of the special fasteners used to fasten the end shields onto the stator housing must be at least:

Property class	Part of the special fastener
4.6	Hexagon cap screws
5	Hexagon nut (if used)
8.8	Socket cap screws

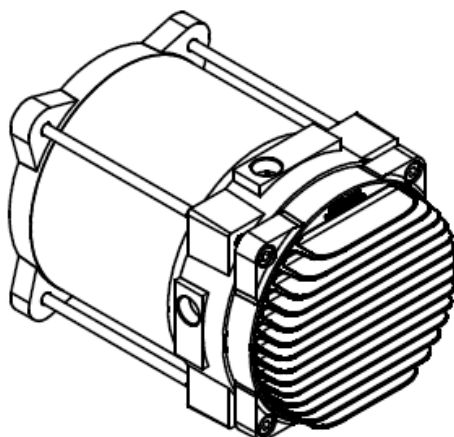
- Model BAV: The motor may be equipped with one or two end shaft(s) or with an external fan. For the fan cooled motors in BAV construction, the motor fan intended for cooling down the motor.
- Model BAX: When the motor is used to drive a fan, the new assembly, fan and motor unit, requires separate certification.
- The temperature classification of motor depends on the thermal protection. See table below.

Thermal protection location	Switch off thermal protection (°C)	Temperature at the entry point (°C)	Temperature class	Maximum surface temperature
Winding	135	115	T3	T195°C
	150	118	T3	T195°C
End shield / bearing	120	117	T3	T195°C
	135	130	T3	T195°C

## ROUTINE TESTS

According to clause 16.1.1 of standard IEC 60079-1:2014, each apparatus shall be submitted to an overpressure test under 11 bar during minimum 10 seconds.

## APPARATUS OVERVIEW





## Annex 01 to Certificate IECEX LCI 05.0002 X issue 03



LCIE

### TEST & ASSESSMENT REPORTS

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Test Report:

ExTR Reference Number	ExTR Free Reference Number
---	60028278-524554
FR/LCI/ExTR11.0007/00	99109-596924
FR/LCI/ExTR11.0007/01	119052-637637-02
FR/LCIE/ExTR18.0014/00	150082-707702

Quality Assessment Report:

FR/LCI/QAR06.0007/10