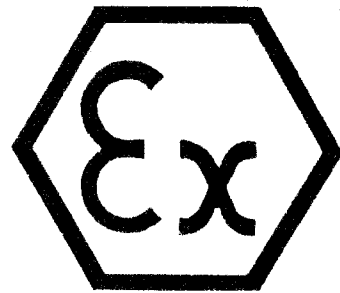




Institut Scientifique de Service Public



- (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: **ISSeP02ATEX058**
- (4) Equipment or protective system:  
Direct current motor - Series AP 80 \* \*
- (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 n° 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 n 01188.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
EN 50014:1997 + A1 et A2: 1999      EN 50018:2000      EN 50281-1-1:1998
- (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 D	EEx d IIB T6 to T3	IP 64
	II 2 G	EEx d IIB T6 to T3	IP 54

Colfontaine, the 09.12.2002

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC  
Zoning A. Schweitzer, rue de la Platinerie  
B-7340 COLFONTAINE (Wasmes)  
Tél: ++ 32 65 610811 - Fax: ++ 32 65 610808

  
Renaud Alain  
Manager of Colfontaine division

This certificate may only be reproduced in its entirety and without any change, schedule included

## SCHEDULE

### EC TYPE EXAMINATION CERTIFICATE N<sup>R</sup> ISSeP02ATEX058

- (16) The document Table n° MIS / E-4d related to the insulation system of the motor dated October 1994 - Rev May 2001 signed on 12.04.2002 (1 page)  
The calculation sheets related to the expansion of the enclosure with regards to the pressure of 17.11.0997 signed on 12.04.2002 (2 pages).  
The data sheets related to the parts of the flameproof enclosure Rev.:1 of 4.11.2002 - signed on 4.11.2002 (3 pages)
- The drawings:  
818801001D of 10.11.1997 Rev. D of 4.11.2002  
240000409A of 5.04.2002 Rev. A of 4.11.2002
- (17) Special conditions for safe use: none
- (18) Essential Health and Safety Requirements: covered by the standards listed at 9 and by the descriptive documents of the manufacturer.

(13)

## SCHEDULE

(14)

### EC TYPE EXAMINATION CERTIFICATE N<sup>R</sup> ISSeP02ATEX058

(15)

Description of the equipment or protective system:

Direct current permanent magnet motor.

This motor bears the type designation:

A P 8 0 \* \*

Permanent magnet

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

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 (except for the motors of the temperature classes T6 or T5)

#### Temperature classes

The motors operating on S1 duty have the temperature classes according to the note of the manufacturer of 30.04.1998. The ambient temperature is limited to 40°C.

The motors operating on S2 to S9 duty service are provided with a thermal protection or a PTC thermistor suitable to the temperature class - to see document of the manufacturer Ref.:ES:2014

#### Electrical characteristics

Power range : from 100 W to 1000 W

Voltages supply : from 12 VDC to 48 VDC

Insulation class : F

#### Eventual prescriptions

Ambient temperature range: -30°C up to +50°C

If the motor is IP 64 it shall be provided with a shaft seal

#### 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.

(16)

Report n° 01188 of 29.11.2002 composed in total of 23 pages

The manual of instructions of the manufacturer signed on 12.04.2002 (4 pages)

The letters from the manufacturer Ref. ES: 2014 and ES:2032 respectively dated of 15.04.2002 and 4.11.2002 (2 pages)

The technical notes related to the thermal protections (29 pages)

The technical note of the manufacturer describing for the temperature classes T3 and T4 and the duty service S1, the output power versus the type and the rotating speed of the motor - document dated 30.04.1998 - signed on 12 April 2002

The results of electrical load tests performed on the motors AP80L and AP80S respectively dated 17.11.1997 and 26.01.1998 signed on 12.04.2002 (2 pages)

The data related to the self-adhesive marking plate - document signed on 12.04.2002 (1 page)

The data sheets related to the material of the marking plate - documents signed on 12.04.2002 (4 pages)

## VARIATION

### EC TYPE EXAMINATION CERTIFICATE N° ISSeP02ATEX058/1

(14) Equipment : direct current permanent magnet motor  
AP 80 \* \* series

(15) Subject to the variation :

The ambient temperature range of the motors under duty service S2 to S9 is enlarged.  
This one becomes  $-30^{\circ}\text{C} \leq T_{\text{amb.}} \leq +60^{\circ}\text{C}$  instead of  $-30^{\circ}\text{C} \leq T_{\text{amb.}} \leq +50^{\circ}\text{C}$ .  
These motors are equipped with a thermal protection suitable to the temperature class.  
The flameproof properties of this apparatus remain unchanged

Marking : Unchanged except the ambient temperature range

Eventual Prescriptions :

The ambient temperature range  $-30^{\circ}\text{C} \leq T_{\text{amb.}} \leq +60^{\circ}\text{C}$

(16) Report n° 03238 of 11.12.2003 (5 pages)

The letter from ELNOR MOTOR reference EM 3058 of 10.10.2003

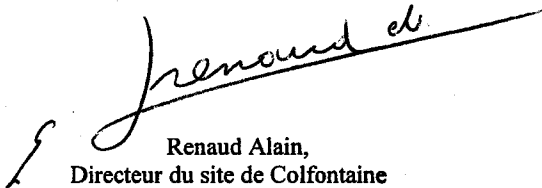
The drawing 240000409B of 5.04.2002 Rev.B of 10.12.2003

(17) Special conditions for safe use : none

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

Colfontaine, 11.12.2003.

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Renaud Alain,  
Directeur du site de Colfontaine

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