

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate Number: **SGS21ATEX0135X**

4 Product: **BAAP80X DC Motor**

5 Manufacturer: **Elnor Motors**

6 Address: **De Costerstraat 45, 3150 Haact, Belgium**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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. **GB/BAS/ExTR20.0144/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-1:2014

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

⊕ II 2G Ex db IIB T4 Gb -20°C ≤ Ta ≤ +60°C

SGS Fimko Oy Customer Reference No. **7433**

Project File No. **20/0454**

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SGS Fimko Oy

Takomotie 8
FI-00380 Helsinki, Finland
Telephone +358 (0)9 696 361
e-mail sgs.fimko@sgs.com
web site www.sgs.fi

Business ID 0978538-5 Member of the SGS Group (SGA SA)



Tuomas Hänninen
SGS Fimko Oy

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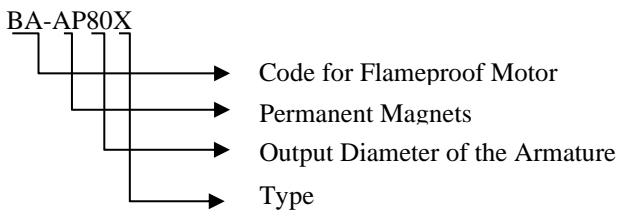
Schedule

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Certificate Number SGS21ATEX0135X

15 Description of Product

The DC Motors model BAAP80X are rated 12V, 24V or 48V DC, 50W (up to 1000W) and 40A. The motor is made up of three parts: a motor housing, drive end cover and non-drive end terminal enclosure with terminal cover. The housing is constructed from E235 tube.



The DC motor model BAAP80X consists of 4 types of motor: S, M, L and SH denoted by X.

The motor is made up of three parts: a motor housing, drive end cover and non-drive end terminal enclosure with terminal cover. The male to female mating on the housing and covers make the cylindrical flame paths and the terminal enclosure (and cover on the non-drive end) facilitate a spigot flame path.

The drive end cover and non-drive terminal enclosure facilitate three carbon steel rods of quality grade 8.8 which are secured in place by three bolts with a quality grade of 12.9 on the drive end. These are used to supplement the motor's structural integrity.

The power supply and motor accessories for the BAAP80X are supplied through two suitably certified Ex d cable glands. The accessories for the motor include a thermal protector and heater. The motor may be flange or foot mounted, in accordance with the manufacturer's instructions.

4 sizes of the motor are manufactured: the BAAP80L and BAAP80SH is 328mm (max) and 223mm (max) respectively; the BAAP80M and BAAP80S is 312mm (max) and 272mm (max) respectively.

The motors are supplied with thermal protection or with a thermal protection device. The thermal protection is calibrated for a switching temperature of 135°C. The motors have a rated ambient range of -20°C to +60°C and temperature class of T4. The operation of the thermal protection shall guarantee the disconnection of the supply. Once a disconnection does occur, the equipment shall be manually reset.

Electrical Characteristics

| | | |
|------------------|------------------------------|-----|
| Rated Voltage | 12/24/48 | Vdc |
| Rated Power | 50 up to 1000 | W |
| Rated Current | 40 | A |
| Maximum Speed | Up to 3000 (4000 w/ no load) | RPM |
| Insulation Class | F | |

16 Report Number

SGS Baseefa Certification Report GB/BAS/ExTR20.0144/00

17 Specific Conditions of Use

1. The equipment shall be suitably bonded prior to use.
2. The installer and/or the end user shall ensure that only suitably certified, Ex d cable glands are used with the equipment.
3. The selection of the cable and cable gland shall be suitable for the temperature of 80°C.
4. Only suitable, Ex d certified blanking elements shall be used on the equipment.
5. The motor shall be fitted with thermal protection with a switch temperature of 135°C in the drive end stator winding overhang; this is to limit the stator temperature and maintain the temperature class T4. Thermal protection shall guarantee the disconnection of the supply. When this occurs, the equipment shall be manually reset.
6. Hexagon socket set screws shall only be replaced by those which are identical and have a quality grade of at least 12.9.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

| Clause | ATEX Essential Health and Safety requirements not fully covered by standards | Compliance | Verdict |
|--------|--|--|---------|
| 1.2.8 | Overloading of equipment (protection relays, etc.) | Covered by installation rules and manufacturer's instructions | Pass |
| 1.4.1 | External effects | The Purchaser should make the manufacturer aware of such issues. Covered in Instructions | Pass |
| 1.4.2 | Aggressive substances, etc. | The Purchaser should make the manufacturer aware of such issues. Covered in Instructions | Pass |

19 Drawings and Documents

| Number | Sheet | Issue | Date | Description |
|------------|--------|-------|----------|---|
| 585411540A | 1 of 1 | A | 150920 | Lagerschild 54115 BAAP80 drive end shield |
| 808020001A | 1 of 1 | A | 090920 | BAAP80 Explosion proof DC motors free volume comparison |
| 468183600E | 1 of 1 | E | 150920 | Yoke Housing with magnets BAAP80 |
| 808010001E | 1 of 1 | E | 151021 | BAAP80 Explosion proof DC motors construction options |
| 238100108D | 1 of 1 | D | 150920 | Rotoras BAAP80M |
| 240000452I | 1 of 1 | I | 150920 | Name Plate Specification BAAP80 |
| 240000454B | 1 of 1 | B | 181021 | Name Plate Specification BAAP80 |
| 240000455A | 1 of 1 | A | 181021 | Name Plate Specification BAAP80 |
| 248100108B | 1 of 1 | B | 150920 | BAAP80 Shaft Assembly |
| 808010015J | 1 of 2 | J | 240621 | BAAP80 |
| 808010015J | 2 of 2 | J | 240621 | BAAP80 |
| 585411530C | 1 of 1 | C | 150920 | Drive End Shield |
| 585411535E | 1 of 1 | E | 150920 | Drive End Shield |
| 585970215D | 1 of 1 | D | 150920 | Rear end shield with terminal box |
| 585970218 | 1 of 1 | - | 14/10/20 | Rear endshield with terminal box 59702 |

| Number | Sheet | Issue | Date | Description |
|---------------|--------------|--------------|-------------|--|
| 808020015C | 1 of 1 | C | 070921 | Flamepaths, Gaps BAAP80 |
| 808030015C | 1 of 1 | C | 150920 | Fasteners and threaded joints |
| 808040015A | 1 of 1 | A | 150920 | BAAP80 External Grounding details |
| 585970216A | 1 of 1 | - | 160920 | Rear endshield with terminal box 59702 |
| 585990102A | 1 of 1 | A | 070921 | Terminal Box Cover (Spigot flamepath) |
| 585990101A | 1 of 1 | A | 080921 | Terminal Box Cover (Cylindrical flamepath) |
| 808050015 | 1 of 1 | - | 24/06/2021 | BAAP80 Internal Grounding details |

The drawings are common to IECEx BAS 15.0068X and Baseefa20ATEX0118X and held with the former.