

EU-Type Examination Certificate Supplement 2

Change to Directive 2014/34/EU

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 12 ATEX E 044 X**

Product: **Brake motor type BM 4KT* ***/**/***

Manufacturer: **BARTEC VARNOST, d.o.o.**

Address: **Cesta 9. avgusta 59, 1410 Zagorje ob Savi, Slovenia**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 12 ATEX E 044 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, 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 the confidential Report No. BVS PP 14.2088 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	General requirements
EN 60079-1:2014	Flameproof enclosure "d"
EN IEC 60079-7:2015 + A1:2018	Increased Safety "e"
EN 60079-31:2014	Protection by Enclosure "t"

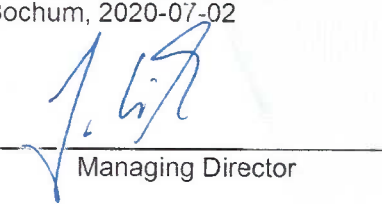
If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

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.

The marking of the product shall include the following:

II 2G Ex db IIC T4-T6 Gb or
II 2G Ex db IIB T4-T6 Gb or
 II 2G Ex db eb IIC T4-T6 Gb or
II 2G Ex db eb IIB T4-T6 Gb or
II 2D Ex tb IIIC T85°C - T135°C Db

DEKRA Testing and Certification GmbH
Bochum, 2020-07-02


Managing Director

13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 12 ATEX E 044 X
Supplement 2**

15 **Product description**

15.1 **Subject and type**

Brake motor type BM 4KT* ***/**/*
Type designation to BM¹⁾ 4KT²⁾*³⁾ ***/**5)*⁶⁾

1): Brake Motor

2): Motor generation

3): Explosion Group

- B: Flameproof enclosure for Group IIB
- C: Flameproof enclosure for Group IIC
- D: Applicable in the presence of combustible dust IIIC

4): Frame size of motor

- 71 71 mm
- 80 80 mm
- 90 90 mm
- 100 100 mm
- 112 112 mm
- 132 132 mm (Gas Group IIB for version with hand release mechanism)

5): Frame size of the brake

- 08 71 mm
- 10 80 mm
- 13 90 mm
- 15 100 mm
- 17 112 mm
- 20 132 mm

6): Hand release mechanism (motor size 132)

15.2 **Description**

The brake motors are an assembly of motors type 4 KT** ***/**/* (BVS 13 ATEX E 125 X) and the spring loaded brakes type 4BM ***/** (BVS 12 ATEX 043 U).

Reasons for this supplement:

- Update to the current standard
- Add the hand release mechanism for frame size 132

ParametersBrake motor

Rated voltage		up to	690	V AC
Rated rotational speed	500	up to	3600	min ⁻¹
Rated rotational speed (with converter)	48	up to	6000	min ⁻¹
Frequency (mains)			50 / 60	Hz
Frequency (converter)	5	up to	100	Hz
Duty type	S1	up to	S9	

Rated power

Frame size		50 Hz		60 Hz	
71	up to	0.55	kW	0.66	kW
80	up to	1.1	kW	1.3	kW
90	up to	2.2	kW	2.6	kW
100	up to	3	kW	3.6	kW
112	up to	4	kW	4.8	kW
132	up to	7.5	kW	9	kW

Brake

Rated voltage 24 VDC, up to 230 VDC

Size of the brake	4BM 71/08	4BM 80/10	4BM 90/13	4BM 100/15	4BM 112/17	4BM 132/20
Power in Watt (at 20 °C)	22	28	34	42	50	76

Monitoring circuit

Temperature sensors (ptc thermistors)	According to the specifications given in the certificate of the trigger unit and the electrical design
Circuits of the resistance thermometer (Pt100)	According to the specifications given in the certificate of the trigger unit and the electrical design
Bimetal switch	According to the specifications given in the certificate of the trigger unit and the electrical design $U_{max} = 250 \text{ VAC}; I_{max} = 10 \text{ A}$

Thermal ratings

Type of protection	Explosion Group	Lower limit	Upper limit
Ex db	IIC	-50 °C	+60 °C
Ex db	IIB	-50 °C	+85 °C
Ex db eb	IIB / IIC	-20 °C	+60 °C
Ex tb	IIIC	-30 °C	+85 °C

Ambient temperature range, temperature class and surface temperature

The electrical data, the temperature class, the surface temperature and the ambient temperature range of the respective version is determined by a routine test carried out by the manufacturer.

16 **Report Number**

BVS PP 14.2088 EU, as of 2020-07-02

17 **Special Conditions for Use**

The lengths of the flameproof joints are in parts longer and the gaps of the flameproof joints are in parts smaller than the values of table 2 and 3 of EN 60079-1:2014. For information of the dimensions of the flameproof joints contact the manufacturer.

Parts that have to meet the requirements of flameproof enclosure have to be fastened by means of steel screws of strength category 8.8 (640 N/mm²) minimum.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.