Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) EU-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 10 ATEX 1054 X **Issue: 2**

(4) Product: Three-phase motor with integrated frequency converter, type FBM 4000 Ex

(5) Manufacturer: FLUX-GERÄTE GmbH

(6) Address: Talweg 12, 75433 Maulbronn, Germany

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the 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 Test Report PTB Ex 22-12107.

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

EN IEC 60079-0:2018+AC:2020-02, EN 60079-1:2014+AC:2018-09, EN IEC 60079-7:2015+A1:2018

(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 in accordance to the Directive 2014/34/EU. 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:

Ex II 2 G Ex db eb IIC T6 resp. T5 Gb

ZSEx001e c

Konformitätsbewertungsstelle, Sektor Explosionsschutz Braunschweig, October 11, 2022
On behalf of PTB:

Dr.-Ing. D. Markus
Direktor und Professor

(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 10 ATEX 1054X, Issue: 2**

(15) Description of Product

Three-phase motor with integrated frequency converter, type FBM 4000 Ex. The enclosure (motor compartment) is made from aluminium and is designed to Flameproof Enclosure "d" type of protection; the terminal is made from plastics and is designed to Increased Safety "e" type of protection. The motors are used for driving barrel pumps that are operated as category-1 pumps and are separately tested and certified.

Technical data

Rated output:	600	W
Voltage:	220 - 240	V AC
Current:	4.2	A
Frequency:	50 - 60	Hz
Speed:	5000 - 12000	rpm
Duty type:	S1	S1
Temperature classes	T6 resp. T5	

The motors may be operated on electric low-voltage power systems with nominal voltages (rated voltage = nominal voltage) and voltage tolerances that comply with IEC 60038 specifications, or other power or supply systems with nominal voltage tolerances of max. ±10 %.

Compliance with the maximum permissible temperatures specified in EN 60079-0, section 26.5.1.3, will be ensured by the manufacturer who also defines the temperature class under his own responsibility.

Changes with respect to previous editions:

The standards will be updated. Accordingly, the marking changes as indicated on the cover sheet.

(16) Test Report PTB Ex 22-12107

(17) Specific conditions of use

Repairs on flameproof joints may only be performed in accordance with the manufacturer's design specifications. Repair on the basis of the values in tables 1 and 2 of EN 60079-1 is not permitted.

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 10 ATEX 1054X, Issue:2

Additional notes for safe operation:

Components attached or installed (e.g. terminal compartments, bushings, cable glands, connectors) shall be of a technical standard that complies with the specifications on the cover sheet. They shall be suited for the operating conditions and have a separate examination certificate. The special conditions specified for the components shall be complied with, and the components shall be included into the type test, if necessary. This equally applies to the components mentioned in the technical description.

If the universal motors are operated together with the barrel pump, comprehensive and clear equipotential bonding must be provided in the form of an electrically conductive connection between the pump and the motor that complies with the specifications in EN 60079-0, section 15.

If, for practical reasons (e.g. remote control system), a no-volt release cannot be provided, the barrel pump unit has to be arranged so that no frictional or impact sparks can occur and that the operating conditions ensure safe operation.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz — Braunschweig, October 11, 2022
On behalf of PTB:

Dr.-Ing. D. Markus
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