

[1] **EU-TYPE EXAMINATION CERTIFICATE - TRANSLATION**



[2] Equipment and protective systems intended for use
in potentially explosive atmospheres, directive 2014/34/EU

[3] EU-Type Examination Certificate Number **IBExU03ATEX1171 X** | Issue 1

[4] Equipment: **Three-phase Submersible motor**
Type: FK 17.1-./...Ex

[5] Manufacturer: **WILO SE**

[6] Address: **Nortkirchenstraße 100
44263 Dortmund
GERMANY**

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

[8] IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 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 test report IB-19-3-0173.

[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 or T3 Gb**

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(Notified Body number 0637)

Certificates without seal and signature are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail

Freiberg, 2020-07-02

[13]

Schedule

[14]

Certificate number IBExU03ATEX1171 X | Issue 1

[15] **Description of product**

The Three-phase Submersible motor type FK 17.1-./...Ex is a closed three-phase asynchronous motor with squirrel-cage rotor. The outer enclosure is made of grey cast iron. The Submersible motor is functionally designed without an external fan. The motor is cooled with medical white oil in the motor chamber. The white oil is circulated by means of an impeller installed on the motor shaft.

The electric connection is carried out with connecting cables, which are inserted into the flameproof enclosure directly with special cable glands.

Rated values and technical data

- | | |
|------------------------------------|----------------------------------|
| - Rated voltage: | max. 690 V |
| - Rated power (input): | max. 13 kW |
| - Mode of operation: | S1 submerged |
| - Ambient temperature range: | -20 °C up to +40 °C |
| - Property class fastening screws: | min. A2-50 according to ISO 4762 |

The exact electrical data and operating modes are specified in the continuation sheets to this certificate.

Variations compared to the EC-Type Examination Certificate and its amendments:

- The Three-phase Submersible motor is manufactured according to the current standards editions of EN 60079 and marked with the equipment protection level.
- The Three-phase Submersible motor can be operated for temperature class T3 with standard frequency converters.

[16] **Test report**

The examination and test results are recorded in the confidential test report IB-19-3-0173 of 2020-07-01. The test documents are part of the test report and they are listed there.

Summary of the test results

The Three-phase Submersible motor type FK 17.1-./...Ex fulfils the requirements of explosion protection for equipment of Group II and Category 2G, type of protection flameproof enclosure "db" for explosive atmospheres with gases and vapors up to explosion group IIB and temperature class T4 or T3.

The rated values are specified in the Continuation Sheets to this EU-Type Examination Certificate. The safety instructions contained therein must be observed for the various motor types.

[17] **Special conditions for use**

- Repairs of the flameproof joints must be made in compliance with the constructive specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in table 2 of EN 60079-1.
- Only fastening screws of property class A2-50, specified by the manufacturer, shall be used.
- The motors must be protected by means of a device for the direct temperature control. This consists of temperature sensors built into the winding (bimetal according to EN 60730 or triple PTC thermistor according to EN 60947-8 or EN 60034-11) and an appropriate release device according to EN 1127-1.
- In converter operation, the current limitation of the converter is set to a maximum of 1.5 fold the rated motor current. Further parameters and settings of the converter can be found in the respective Continuation Sheet and in the operating manual. The temperature class for converter operation is T3.

[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 test report:

- not applicable -

[19] Drawings and documents

The documents are listed in the test report.

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