

IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

[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 **IBExU24ATEX1017 X** | Issue 0

[4] Equipment: **Three-phase Asynchronous Motor frame size 112**
Type series: (IE.-) KP.D 112... (Ex db (eb) (tb)...)
(IE.-) KPE.D 132... (Ex db (eb) (tb)...)

[5] Manufacturer: VEM motors GmbH, Werk Zwickau

[6] Address: Äußere Dresdner Straße 35
08066 Zwickau
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-23-3-0081.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014
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:

(IE.-) KP(E).D ... (Ex db (tb)...):

II 2 G Ex db IIC T4 Gb

II 2 D Ex tb IIIC T125 °C Db

(IE.-) KP(E).D ... (Ex db eb (tb)...):

II 2 G Ex db eb IIC T4 Gb

II 2 D Ex tb IIIC T125 °C Db

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By order

Dr.-Ing. P. Cimalla



(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, 2024-05-08

[13] **Schedule**

[14] **Certificate Number IBExU24ATEX1017 X | Issue 0**

[15] **Description of product**

The Three-phase Asynchronous Motor frame size 112 is a flameproof encapsulated low-voltage motor in surface-cooled cast iron design. It is equipped with temperature limiters. The connection is made via the terminal box in type of protection flameproof enclosure or increased safety. For group IIIC, protection is provided by type of protection "Ex tb".

Rated values and technical data

- Rated voltage:	max. 690 V
- Rated power:	max. 25 kW
- Rated frequency	50 Hz/60 Hz
- Mode of operation:	S1 (S3, S6, S9)
- Design according to EN 60034-7:	IM B3/IM 1001, IM B35/IM 2001, IM B5/IM 3001, IM B14/ IM3601, IM B34/IM2101 and derived designs
- Cooling method according to EN 60034-6:	IC411 (KPRD), IC410 (KPOUD), IC416 (KPFD), IC418 (KPOD)
- Property class fastening screws:	min. 8.8 or A*-70 according to ISO 4762
- Ambient temperature range:	-40 °C or -20 °C up to +40 °C ... +60 °C (gas) -30 °C or -20 °C up to +40 °C ... +60 °C (dust)

The specific electrical data as well as the permissible cooling and operating modes and a maximum surface temperature for dust deviating from 125 °C are specified in the Continuation Sheets to this certificate.

[16] **Test report**

The test results are recorded in the confidential test report IB-23-3-0081 of 2024-05-03.
The test documents are part of the test report and they are listed there.

Summary of the test results

The Three-phase Asynchronous Motor frame size 112 of type series (IE.-) KP.D 112... (Ex db (tb)...) and (IE.-) KPE.D 132... (Ex db (tb...)) fulfils the requirements of explosion protection for equipment of Group II, Category 2G, type of protection flameproof enclosure "db" and Category 2D, type of protection dust ignition protection by enclosure "tb".

The Three-phase Asynchronous Motor frame size 112 of type series (IE.-) KP.D 112... (Ex db eb (tb)...) and (IE.-) KPE.D 132... (Ex db eb (tb...)) fulfils the requirements of explosion protection for equipment of Group II, Category 2G, type of protection flameproof enclosure "db" and increased safety "eb" and Category 2D, type of protection dust ignition protection by enclosure "tb".

Verification of compliance with the temperature class and the maximum surface temperature for the individual motor types is provided in the associated test reports of the respective Continuation Sheets to this certificate.

[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 tables 2 and 3 of EN 60079-1.
- Only fastening screws according to ISO 4762 (property class 8.8 or A*-70), specified by the manufacturer, shall be used.
- The Three-phase Asynchronous Motor can be used also in an extended ambient temperature range. This is specified in the respective continuation sheet to this certificate and in the motor-specific data sheet or on the type plate.

- The rated values and the measures to comply with the temperature class and the maximum surface temperature for dust are specified in the respective continuation sheet to this certificate. The instructions and electrical data contained therein, in particular for operation on the frequency inverter, must be observed for the individual motor types. The Three-phase Asynchronous Motor can also be marked with a maximum surface temperature for dust deviating from 125 °C if tested accordingly.
- For the construction types IM V6, IM 2131 and IM V19, additional measures must be taken by the user to prevent foreign objects from falling vertically into the fan.
- Only cable glands and blanking plugs with seal shall be used for the Three-phase Asynchronous Motors with terminal box in type of protection Ex eb/Ex tb (type series (IE.-) KP(E).D ... (Ex db eb tb...)).

[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:

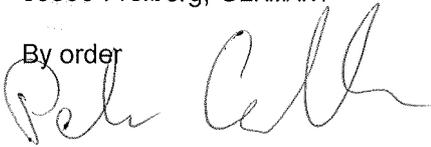
- not applicable -

[19] Drawings and documents

The documents are listed in the test report.

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Freiberg, 2024-05-08