IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx SIQ 16.0002X	Issue No: 0	Certificate history: Issue No. 0 (2016-04-19)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2016-04-19**		

Applicant: **Herforder Elektromotoren-Werke GmbH & Co. KG**
Goebenstraße 106
32051 Herford
Germany

Electrical Apparatus: **Electric motor, type D*Ex** */*** **

Optional accessory:

Type of Protection: **Flameproof enclosures, Increased safety, Dust ignition protection by enclosure**

Marking:

- Ex db IIC T4–T6 Gb or Ex db e IIC T4–T6 Gb
- Ex db IIB T4–T6 Gb or Ex db e IIB T4–T6 Gb
- Ex tb IIIB T135°C–T85°C Db
- Ex tb IIIC T135°C–T85°C Db

Approved for issue on behalf of the IECEx Certification Body: Igor Likar

Position: Managing Director

Signature:
(for printed version)

Date: 2016-04-19

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Slovenian Institute of Quality and Metrology (SIQ)
Trzaska cesta 2
SI-1000 Ljubljana
Slovenia

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Manufacturer:	Herforder Elektromotoren-Werke GmbH & Co. KG Goebenstraße 106 32051 Herford Germany	
Additional Manufacturing location(s):		

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

SI/SIQ/ExTR16.0002/00

Quality Assessment Report:

DE/BVS/QAR14.0009/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Electric motor, type D*Ex** */*** **, is designed in the type of protection flameproof enclosure Ex d with terminal box designed in the type of protection flameproof enclosure Ex d or increased safety Ex e. Terminal box is the same for both cases. The enclosure, the bearing shield, the terminal box and the cover of the terminal box are made from cast-iron. The terminal box is casted together with the enclosure. Between motor's enclosure and terminal box a hole for line bushing type BV, Bartec Varnost, d.o.o., with component certificate No. IECEx SIQ 13.0001U, is provided. For the variant with terminal box in the type of protection flameproof enclosure Ex d line bushing is not installed. For the variant with terminal box in the type of protection increased safety Ex e line bushing is installed. The squirrel-cage rotor is made from aluminium. The shaft is made from steel C45 or C60. The shaft seals are made from NBR. Stator windings are equipped with three temperature sensors (PTC) connected in series. Optionally stator windings can be equipped with three bimetal switches (PTO).

Electric motor, type DDEx** */*** **, is designed in the type of protection equipment dust ignition protection by enclosure Ex t. Design is the same as for electric motor in the type of protection flameproof enclosure Ex d with terminal box designed in the type of protection flameproof enclosure Ex d with modified shaft and shaft seals made from 75 FKM 585. Paint used for these types of motors has surface resistance less than 1 GΩ.

Electric motors for use at ambient temperatures lower than -20°C can be equipped with space heater.

Technical data: see Annex.

CONDITIONS OF CERTIFICATION: YES as shown below:

- Repair 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 IEC 60079-1 : 2014 is not permitted.

- The electrical data, the temperature class, the surface temperature and the ambient temperature range from Annex is for the respective version determined by the routine test carried out by the manufacturer.

- Temperature sensors (PTC) and/or bimetal switches (PTO) shall be connected to disconnecting device according to manufacturer's instructions.

- Shaft seal of electric motor for explosive dust atmospheres shall be protected from light.

Annex:

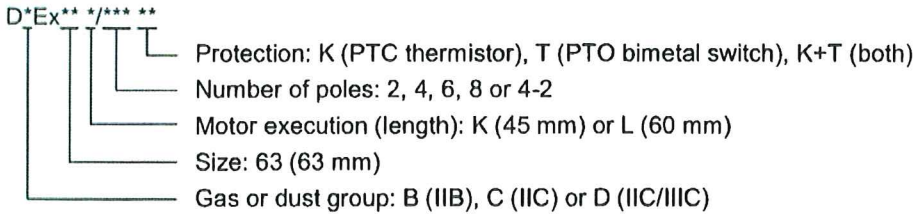
Annex to_IECEx_16142.pdf

Annex to IECEx Certificate IECEx SIQ 16.0002X

Date: 19. 4. 2016

Technical data

Type key:



Rated voltage: up to 690 V a.c.

Frequency: 50 Hz/60 Hz

Rated speed (S1-S9): from 750 rev/min to 3600 rev/min

Frequency for inverter supply: from 5 Hz to 100 Hz

Rated speed for inverter supply: from 48 rev/min to 6000 rev/min

Rated power for different motor executions (lengths) and number of poles:

Type D*Ex** x/y **	Rated power (50 Hz) [W]					Rated power (60 Hz) [W]
	x2	x4	x6	x8	x4-2	
Ky	180	120	90	60	90	Up to 220
Ly	250	180	120	90	120	Up to 300

Maximum ambient temperature range: - from -30°C to +60°C (for gas version)
- from -30°C to +85°C (for dust version)

Ingress protection: - terminal box (all versions): IP66
- motor enclosure (dust version): IP6X