



# 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](http://www.iecex.com)

Certificate No.: IECEx PTB 14.0004X issue No.: 0 Certificate history:

Status: **Current**

Date of Issue: **2015-02-05** Page 1 of 3

Applicant: **ATB Nordenham GmbH**  
Helgoländer Damm 75  
26954 Nordenham  
Germany

Electrical Apparatus: **Motor of type CD 56.-...**  
Optional accessory:

Type of Protection: **Flameproof Enclosure, Protection by Enclosure**

Marking: Ex d IIC T3...T6 Gb  
Ex tb IIIC T85°C...T200°C Db


Approved for issue on behalf of the IECEx  
Certification Body:

Dr.-Ing. D. Markus

Position:

Head of Working Group "Flame Transmission Processes"

Signature:  
(for printed version)

  
\_\_\_\_\_  
16.02.2015

Date:

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:

**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany





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Manufacturer: **ATB Nordenham GmbH**  
Helgoländer Damm 75  
26954 Nordenham  
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** Explosive atmospheres - Part 0: General requirements  
Edition: 6.0
- IEC 60079-1 : 2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition: 6
- IEC 60079-31 : 2008** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'  
Edition: 1

*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:  
[DE/PTB/ExTR14.0005/00](#)

Quality Assessment Report:

[DE/TUN/QAR06.0001/03](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The equipment is a rotary electric machine. The shaft rotates in rolling bearings and forms the flameproof joint on the drive end side together with the end shield.

More details are specified in the annex.

### CONDITIONS OF CERTIFICATION: YES as shown below:

Special conditions of safe use apply and are specified in the attachment to the Certificate which is available from the On-Line Version.



**Manufacturer: ATB Nordenham GmbH, 26954 Nordenham, Germany**

For three-phase motors of type series CD 56

Description of equipment

The equipment is a rotary electric machine. The shaft rotates in rolling bearings and forms the flameproof joint on the drive end side together with the end shield.

For "G" areas (areas with potentially explosive gas, vapour, mist, air mixtures), the motor compartment has been designed to Flameproof Enclosure "d" type of protection. A direct flameproof cable gland provides for power input.

For "D" areas (areas with inflammable dust), the machine is designed to type of protection by enclosure "tb". For "D" areas, the shaft is provided with sealing rings, which ensure that the IP degree of protection is maintained.

Rated ambient temperature range (°C):

-55°C up to 60 °C for gas atmospheres

-40°C up to 60 °C for dust atmospheres

These ranges may be restricted by the terminal boxes, components or enclosures selected or by the data sheet specifying the electrical design.

The electric motor data, including specifications safeguarding compliance with the temperature class, are defined in a data sheet attached.

Type Designation:	CD 56-. OK	e.g. CD 56-2 OK
	C	= Group IIC, flameproof enclosure = Group IIIC, protection by enclosure
	D	= Three phase motor
	56	= frame size
	2, 4,	= no. of poles

The type designation can optionally be extended by additional characters. For instance:

K	= without terminal box, direct cable entry
O	= without external fan
0 to 9	= design numbers

Special conditions for safe use

Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repair in compliance with the values in tables 1 and 2 of IEC 60079-1 is not accepted.

By using special painting/coating systems the unit should not be used in proximity to processes generating high charges. Details are specified in the manufacturer's documents. In case of any restrictions a separate label will appear on the enclosure.



Attachment to Certificate

IECEX PTB 14.0004 X  
And Test report  
DE/PTB/ExTR14.0005



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## DATA SHEET 01

**Manufacturer: ATB Nordenham GmbH, 26954 Nordenham, Germany**

For three-phase motors of type series CD 56

### Electrical data

The motors of type series CD 56 manufactured by ATB Nordenham GmbH, D-26954-Nordenham, are designed for ratings up to the following values:

	CD 56	
Voltage:	500	V
Current:	0.6	A
Output:	0.12	kW
Max. Speed (converter):	12,000	Rpm
Frequency (mains):	max. 60	Hz
Frequency (converter):	1 - 200	Hz

For each motor design, compliance with the governing regulations has to be verified in the form of a type test. Due regard must in this connection be given to the code of practice "Merkblatt für die elektrische Auslegung und Prüfung von Motoren in der Zündschutzart Druckfeste Kapselung im Rahmen der EG-Baumusterprüfbescheinigung" and the agreement „PTB LA 013/00“ in accordance with IECEx OD 024.

The motors may be employed only for the duty type and under the ambient conditions for which they were type tested. This equally applies to operation with frequency converter.



Attachment to Certificate

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Additional notes for safe operation

Screws complying with strength class 8.8 as a minimum must be used for enclosure of the flameproof chamber.

Components attached or installed (e.g. cable entry) have to be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions, and be covered by a separate examination certificate. The special conditions specified for the components must be complied with and may have to be included in the type test. This also applies to components already specified in the technical description.

Monitoring devices must satisfy the requirements of IEC 60079-14.