



# 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 14.0026X** issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2015-04-08** Page 1 of 3

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

Electrical Apparatus: **Flameproof brake CM 132**  
Optional accessory:

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

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

Approved for issue on behalf of the IECEX  
Certification Body:

Dr. Uwe Klausmeyer

Position:

Head of Department Explosion Protection in Energy Technology

Signature:  
(for printed version)

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

Certificate issued by:

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



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Manufacturer: **ATB Nordenham**  
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:

<b>IEC 60079-0 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2008</b> Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
<b>IEC 60079-7 : 2006-07</b> 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:  
DE/PTB/ExTR14.0042/00

Quality Assessment Report:  
DE/TUN/QAR06.0001/05



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## Schedule

### EQUIPMENT:

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

The equipment is a flameproof and dust tight brake to mount on electric machines in an explosive atmosphere.

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.



Applicant: ATB Nordenham GmbH  
Helgoländer Damm 75  
26954 Nordenham  
Germany

Electrical Apparatus: Flameproof brake CM 132

### Description

The equipment is a flameproof brake to mount on rotary electric machines. The cooling of the equipment result from free convection and the enclosure of the equipment is a cast or steel construction. The shaft rotates in rolling bearings. Together with the end shield on drive end and the motor enclosure on the non-drive end, the shaft forms a flameproof shaft joint. For "G" areas (areas with potentially explosive gas, vapour, mist, air mixtures), the terminal compartment has been designed to Flameproof Enclosure "d" type of protection. A separately certified direct flameproof cable gland or terminal compartments designed to Flameproof Enclosure "d" or Increased Safety "e" type of protection provide for power input. For "D" areas (areas with inflammable dust), the machine with its terminal compartments 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.

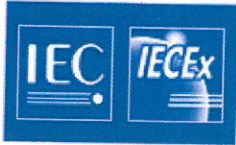
<b>Type Designation</b>	CM ... -...	for example CM 132
	C	= Group IIC, flameproof enclosure
	D	= Group IIIC, protection by enclosure
	132	= Three phase motor
		= Size

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

D	= terminal box „flameproof enclosure“
E	= terminal box „increased safety“
K	= without terminal box, direct cable entry
N	= mounting to the motor on DS
NN	= mounting to the motor on NS
0 bis 9	= design numbers

### Technical data

Voltage:	207 VDC $\pm$ 10 %
Current:	3.6 A
Power:	88 W
Rotation Frequency:	4000 min <sup>-1</sup>
Braking torque:	150 Nm



### **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.

### **Additional notes for production**

The fasteners to mount the end shield with the enclosure have to be considered as special fasteners as defined in IEC 60079-0. The tolerances class of the screw and the hole must be 6g/6H or better.

### **Additional notes for safe operation**

Screws complying with strength class A\*-70 or 8.8 as a minimum must be used for enclosure of the flameproof chamber.

Components attached or installed (terminal compartments, bushings, cable entry fittings, connectors) 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.

The drain holes must not be removed while the three-phase motor is in operation. After the three-phase asynchronous motor has been stopped, a minimum waiting period of 10 min. must be observed before the condensate drain can be removed. The motor must not be restarted until after the drain unit has been replaced and tightened.