Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) # EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 06 ATEX 1053

(4) Equipment: three-phase motor of the type series DEx 180 G ./, DEx 200 G ./ and DEx 225 G ./

(5) Manufacturer: HERFORDER ELEKTROMOTOREN-WERKE GmbH Co.

(6) Address: Goebenstraße 106, 32051 Herford, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 06-16289.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2 **EN 50018:2000 + A1** **EN 50019:2000**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2 G EEx d IIC T4 – T6 and EEx de IIC T4 – T6

Zertifizierungsstelle Explosionsschutz Braunschweig, 21 September 2006

By order:

Dr.-Ing. [illegible]
Regierungsrat

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 30

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1053

(15) Description of equipment

The motor housing, designed to Flameproof Enclosure type of protection, is made from grey cast iron. It is delimited at both ends by end shields. The shaft rotates in rolling bearings. Together with the internal bearing caps, it forms the flameproof shaft joints on the drive- and the non-drive end. The motor is connected by means of a terminal compartment designed to Flameproof Enclosure “d” or Increased Safety "e" type of protection, or by direct cable entry. Electric energy is transmitted into the motor compartment by means of separately certified cable entries or non-sheathed cable bushings.

Max. admissible ambient temperatures: -20 °C to 60 °C. The admissible ambient temperature range may be restricted by the terminal boxes or components selected, or by the data sheet for the electrical design.

The electrical motor data as well as the specifications for compliance with the temperature class are shown in a data sheet forming part of the EC Type-Examination Certificate.

(16) Report PTB Ex 06-16289

(17) Special conditions for safe use

None

Additional notes for safe operation:

Any components attached or installed (terminal compartments, bushings, cable entries, connectors) shall be of a technical standard that complies with the specifications on the cover sheet and for which a separate examination certificate has been issued. The special conditions specified for the components shall be complied with, and the components may also have to be included into the type test.

Any monitoring devices provided shall comply with the requirements set forth in Directive 94/9 EC and EN 1127-1.

(18) Essential health and safety requirements

Met by compliance with the aforementioned Standards.

Zertifizierungsstelle Explosionsschutz
By order

Braunschweig, 21 September 2006

Dr.-Ing. M[illegible]
Regierungsrat

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 30

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

DATA SHEET 01 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1053

Manufacturer: **HERFORDER ELEKTROMOTOREN-WERKE GmbH Co.**
Goebenstraße 106, 32051 Herford, Germany

for the three-phase asynchronous motors of type series DEx 180 G ./

Ratings

The motors of type series DEx180 G . / produced by HERFORDER ELEKTROMOTOREN-WERKE GmbH Co., Goebenstraße 106, 32051 Herford/Germany, are designed for the following maximum ratings:

Voltage (mains):	1000	V
Voltage (converter):	690	V
Power:	22	kW
Frequency (mains):	50 / 60	Hz
Frequency (converter):	5 - 87	Hz
Duty type:	S1 – S10	

For each motor design, compliance with the governing regulations shall be verified in the form of a type test. Due regard shall 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".

The motors may be employed only for the type of duty, and under the ambient conditions, for which they were type tested. This includes frequency converter operation.

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. M.
Regierungsdirektor

Braunschweig, 21 September 2006

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

DATA SHEET 02 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1053

Manufacturer: **HERFORDER ELEKTROMOTOREN-WERKE GmbH Co.**
Goebenstraße 106, 32051 Herford, Germany

for the three-phase asynchronous motors of type series DEx 200 G ./

Ratings

The motors of type series DEx 200 G ./ produced by HERFORDER ELEKTROMOTOREN-WERKE GmbH Co., Goebenstraße 106, 32051 Herford/Germany, are designed for the following maximum ratings:

Voltage (mains):	1000	V
Voltage (converter):	690	V
Power:	30	kW
Frequency (mains):	50 / 60	Hz
Frequency (converter):	5 - 87	Hz
Duty type:	S1 – S10	

For each motor design, compliance with the governing regulations shall be verified in the form of a type test. Due regard shall 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".

The motors may be employed only for the type of duty, and under the ambient conditions, for which they were type tested. This includes frequency converter operation.

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. M[illegible]
Regierungsrat

Braunschweig, 21 September 2006

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

DATA SHEET 03 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1053

Manufacturer: **HERFORDER ELEKTROMOTOREN-WERKE GmbH Co.**
Goebenstraße 106, 32051 Herford, Germany

for the three-phase asynchronous motors of type series DEx 225 G ./

Ratings

The motors of type series DEx 225 G ./ produced by HERFORDER ELEKTROMOTOREN-WERKE GmbH Co., Goebenstraße 106, 32051 Herford/Germany, are designed for the following maximum ratings:

Voltage (mains):	1000	V
Voltage (converter):	690	V
Power:	45.5	kW
Frequency (mains):	50 / 60	Hz
Frequency (converter):	5 - 87	Hz
Duty type:	S1 – S10	

For each motor design, compliance with the governing regulations shall be verified in the form of a type test. Due regard shall 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".

The motors may be employed only for the type of duty, and under the ambient conditions, for which they were type tested. This includes frequency converter operation.

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. T...
Regierungsrat

Braunschweig, 21 September 2006