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 02 ATEX 3119

(4) Equipment: three-phase motor of the type series SK 80 ./. ED .

(5) Manufacturer: Getriebebau Nord GmbH & Co. KG

(6) Address: Rudolf-Diesel-Str. 1, 22941 Bargteheide, 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 01-30079.

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

EN 50014:1997 + A1 + A2 **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 e II T1, T2, T3 oder T4

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Engel
Regierungsdirektor

Braunschweig, February 05, 2003

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • D-38116 Braunschweig

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 3119

(15) Description of equipment

Three-phase motors of the type series SK 80 ./. ED . of the type of protection Increased Safety "e", whose mechanical construction has been specified in the test report according to clause 16 below and whose electrical design has been specified in an associated data sheet, each according the manufacturer´s application.

(16) Report PTB Ex 01-30079

(17) Special conditions for safe use

not applicable

(18) Essential health and safety requirements

met by standards

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Engel
Regierungsdirektor

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT
II

Braunschweig, February 05, 2003

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DATA SHEET 02 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 3119

Manufacturer: Getriebebau Nord GmbH & Co. KG, 22941 Bargteheide, Germany

for the three-phase asynchronmotor type series SK 80 S/4 ED TF

Ratings

This certificate is valid for the following designs providing the motors of this type differ only negligibly from the sample tested as regards the electrical and thermal stresses:

Power:		0.55		
Voltage:	105 - 115	418 - 462	655 - 725	V
Current:	5.8	1.45	0.93	A
Power factor:		0.71		
Frequency:		60		Hz
Speed: (motor)		1685		min^{-1}
Duty Type:		S1		
I_A/I_N ratio:		4.6		
Thermal class:		F		

In addition to the above-mentioned voltages, intermediate values are also permissible. The associated currents are to be converted in the inverse ratio to the voltages. The mains voltage may vary by up to ± 5% and the mains frequency by up to ± 2% from the rated values, in keeping with range A according to IEC 34-1.

Temperature monitoring

For the selection of a current dependent time-lag protective device, the times t_E were determined as follows:

Temperature class:	T1	T2	T3	
Time t_E:	30	30	29	s

If embedded temperature sensors (PTC thermistors DIN 44 082-M110) are used together with a control unit tested for its function by a notified body the requirements of EN 50 019, subclause 4.7.4 are also met for motors under locked-rotor conditions up to **temperature class T3**. For the mean value of the rated voltage and starting from the cold state (20 °C) the tripping time will be t_A = 35 s.

Report PTB Ex 02-32228

Zertifizierungsstelle Explosionsschutz
By order

Dr.-Ing. U. Engel
Regierungsdirektor

Braunschweig, February 05, 2003