

# 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 99 ATEX 3404**



(4) Equipment: three-phase motor of the type series eD.. 90..

(5) Manufacturer: SEW-EURODRIVE

(6) Address: Ernst-Blickle-Straße 42, D- 76646 Bruchsal

(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 99-30134.

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

**EN 50014:1997**

**EN 50019:1994**

(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 and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

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



**II2G EEx e II T1, T2,T3 or T4 bzw. EEX ed IIB T1,T2,T3 or T4**

Zertifizierungsstelle Explosionsschutz  
By order:

Braunschweig, 15.März 2000

Dr.-Ing. U. Engel  
Regierungsdirektor

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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

Braunschweig und Berlin

(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 3404

(15) Description of equipment

Three-phase motors of the type series eD.. 90.. 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 to the manufacturer's application.

(16) Report PTB Ex 99-30134

(17) Special conditions for safe use

not applicable

(18) Essential health and safety requirements

met by standards

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## DATA SHEET 07 TO EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 3404

**Manufacturer: SEW-EURODRIVE GmbH & Co, D-76646 Bruchsal**

for the three-phase asynchronmotor type series eD.T 90 S 4

### 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 on the output shaft:            |     |      | 0,75   |      |      |  | kW                |
| Voltage:                              | 110 | 230  | 400    | 500  | 690  |  | V                 |
| Current:                              | 6,6 | 3,15 | 1,82   | 1,45 | 1,05 |  | A                 |
| Power factor:                         |     |      | 0,76   |      |      |  |                   |
| Frequency:                            |     |      | 50     |      |      |  | Hz                |
| Speed: (motor)                        |     |      | 1435   |      |      |  | min <sup>-1</sup> |
| Duty Type:                            |     |      | S1     |      |      |  |                   |
| I <sub>A</sub> /I <sub>N</sub> ratio: |     |      | 6,1    |      |      |  |                   |
| Thermal class:                        |     |      | B or 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  $\pm 5\%$  and the mains frequency by up to  $\pm 2\%$  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 | T4   |
| Time $t_E$ :       | 23 | 23 | 23 | 12 s |

Report PTB Ex 99-30122

Zertifizierungsstelle Explosionsschutz  
By order

Braunschweig, 15.März 2000

Dr.-Ing. U. Engel  
Regierungsdirektor