

[1]

EU-TYPE EXAMINATION CERTIFICATE



[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3]

EU-Type Examination Certificate Number: **DEMKO 08 ATEX 0726988X Rev. 10**

[4]

Product: **Flameproof Electric Vibrating Motors, Type EX, SGX, SG2X & SG3X**

[5]

Manufacturer: **Derrick Mfg. Corporation**

[6]

Address: **590 Duke Road, Buffalo, NY 14225, USA**

[7]

This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to 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 confidential report no. **4787620889**

[9]

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

EN 60079-0:2012+A11:2013

EN 60079-1:2007

[10]

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

[11]

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12]

The marking of the equipment or protective system shall include the following:

 **II 2 G Ex d IIB T3 Gb**

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2008-04-08

Re-issued: 2016-10-31

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule

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Description of Equipment or protective system

The series EX, SGX, SG2X and SG3X motors are totally enclosed non-ventilated industrial flameproof vibrating motors intended for continuous operation. They are provided with integral mounting pads and self-contained eccentric weights which cause the motor to produce the desired vibration of the equipment to which the motor is mounted.

Nomenclature for type EX, SGX, SG2X and SG3X

EX	-230/460	-5	-003
I	II	III	IV

I – Series Designation

- EX - Ex series
- SGX - SGX series
- SG2X - SG2X series
- SG3X – SG3X series

II – Supply Voltage Rating

- 215/220 - 215/220 VAC
- 230/240 - 230/240 VAC
- 380/400 - 380/400 VAC
- 415 - 415 VAC
- 440 - 440 VAC
- 460/480 - 460/480 VAC
- 575/600 - 575/600 VAC
- 690 - 690/700 VAC

III – Frequency Rating (50 Hz or 60 Hz or variable frequency)

- 5 – 50 Hertz Sinusoidal Power or 30-60 Hz Constant Torque, Frequency Converter Use
- 6 – 60 Hertz Sinusoidal Power or 30-60 Hz Constant Torque, Frequency Converter Use

IV - Certified Designation

- 003 – ATEX Constant
- 014 – NEC/CEC/ATEX/IECEX Constant

Temperature range

Ambient Temperature Range, °C	Current, A	Temperature Class
-20°C to 55°C	5.2	T3
-20°C to 40°C	8.7	T3

Electrical data

- 215/220 VAC, 8.7 A Max
- 230/240 VAC, 8.7 A Max
- 380/400 VAC, 8.7 A Max
- 415 VAC, 8.7 A Max
- 440 VAC, 8.7 A Max
- 460/480 VAC, 8.7 A Max
- 575/600 VAC, 8.7 A Max
- 690/700 VAC, 8.7 A Max

Installation instructions

Before opening the enclosure in a flammable atmosphere the circuits must be interrupted.

The certification applies to equipment with and without cable glands and cables. All cable entry devices, elbows, and blanking elements shall be ATEX certified in type of explosion protection flameproof enclosure "d", suitable for the conditions of use and correctly installed.

Unused apertures shall be closed with ATEX certified suitable blanking elements.

Vibrators having NEC/CEC/ATEX/IECEX certification may be repaired only to the extent that the repair does not compromise the flameproof safety aspects of the enclosure. Consequently, repair is limited to parts external to the flameproof enclosure. All other repairs shall be performed at Derrick Corporation or a Derrick approved NEC/CEC/ATEX/IECEX authorized repair facility.

Mounting instructions

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Mounting instructions are provided in the manufacturer's Maintenance and Operating Manual DER07010 and DER07024.

Routine tests

Routine tests according to EN 60079-1:2007, cl. 16 are not required, as the enclosures have been successfully tested at four times the reference pressure.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Specific conditions of use:

- Flameproof joints are other than those specified in Table 1 of EN 60079-1. Contact Derrick for joint dimensions.
- Warning - To minimize the risk of electrostatic discharge, adequate earthing/grounding must be maintained.
- For motors for use with a frequency converter, use of the $145 \pm 5^\circ\text{C}$ thermostat is mandatory for appropriate direct thermal protection and marking of T3 temperature code.

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The series EX, SGX, SG2X, and SG3X motors have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.