



## 1. EC-TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**
3. **EC-Type Examination Certificate Number:** ITS13ATEX17870X Issue 1
4. **Equipment or Protective System:** DC Motor Type E225
5. **Manufacturer:** STS Motors LTD
6. **Address:** Doulton Road, Cradley Heath, West Midlands, B64 5QB, UK
7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
8. Intertek Testing and Certification Limited, notified body number 0359 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 confidential Intertek Report Ref 101324774MAN-001b dated October 2013 and 102049620CHE-001 dated May 2015.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012 and EN 60079-1:2007 except in respect of those requirements referred to at item 16 of the Schedule.
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 EC Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
12. The marking of the equipment or protective system shall include the following:-



I M2 Ex d I Mb  
II 2 G Ex d IIB T4 Gb  
-40°C ≤ Ta ≤ +\*\*°C

\*\* ambient temperatures may be either -40°C to +60°C or -40°C to +80°C dependant on the rating of the motor, see product description for details.



P Moss  
Certification Officer  
9<sup>th</sup> June 2015

Intertek Testing & Certification Limited  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977  
[www.intertek.com](http://www.intertek.com)

Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification's Conditions for Granting Certification.



SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS13ATEX17870X Issue 1

13. **Description of Equipment or Protective System**

The E225 is a flameproof DC Motor that can be supplied in various sizes dependant on rating (voltage/output power/duty cycle).

The motor comprises of motor frame, C.E (Comm End) cover and terminal box manufactured from cast iron to BS EN 1563 grade EN-GJS-500-7, D.E (Drive End) cover and comm inspection doors manufactured from cast iron to BS EN 1561 grade EN-GJL-250, terminal box lid manufactured from S275JR steel to BS EN 10025 and a D.E inside cap manufactured from EN3 steel. The enclosure comprises of the following flamepaths:

D.E inside cap to D.E cover – flange with interrupted holes.

D.E cover to frame – flange with interrupted holes.

C.E cover to frame – flange with interrupted holes.

Terminal box to C.E cover – flange with interrupted holes.

Terminal box lid to terminal box – flange with interrupted holes.

Comm inspection door to C.E cover – flange with interrupted holes.

Shaft to D.E inside cap – cylindrical (with rolling element bearings).

Pole and Interpole Securing holes (32 max) – threaded.

Cable entries (3 max) – threaded.

The motor has the following overall dimensions: Overall Length – 660mm to 720mm (dependant on armature core length), Overall Width – 440mm, Overall Height – 575mm.

Both internal and external earthing points are provided and must be connected.

Variants covered by this certificate are rated as follows:

Type	Voltage	Output (kW)	Duty	Ambient temperature range
E225	110-130Vdc	6.5kW	S2 60m	-40°C to +60°C
E225	110-130Vdc	4.5kW	S1	-40°C to +60°C
E225	110-130Vdc	3.0kW	S1	-40°C to +80°C

Motors have been certified for a maximum ambient temperature range of -40°C to +80°C. Motors may be marked with any minimum and maximum ambient temperature providing it falls within this range.

14. **Report Number**

Intertek Report Ref: 101324774MAN-001b Dated: October 2013

Intertek Report Ref: 102049620CHE-001 Dated May 2015

**Intertek Testing & Certification Limited**  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977

[www.intertek.com](http://www.intertek.com)

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

This Certificate is the property of Intertek Testing and Certification Ltd and is subject to Intertek Testing and Certification's Conditions for Granting Certification.

SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS13ATEX17870X Issue 1

15. **Conditions of Certification**

(a). Special Conditions for safe use

- Temperatures at the cable entry or branching point could reach +93.86°C or +109.76°C respectively – suitably rated cable must be utilized.
- No modifications must be made to the flamepaths of the unit without consultation of the manufacturers drawing.
- Any fasteners used to maintain the type of protection (Ex d) must be of property class 8.8 with minimum tensile strength of 800MPa.
- Motors marked with a duty cycle must be operated in accordance with the requirements of EN 60034-1 (Rotating Electrical Machines, Part 1: Rating and Performance).
- Motors marked with a lower ambient of  $\leq -30^{\circ}\text{C}$  must use L627 grease (or equivalent to cover the operating temperature range of the motor).

(b). Conditions of Manufacture

- A routine overpressure test in accordance with EN 60079-1:2007 Clause 16.1 shall be carried out on all motors, including shaft assembly, at a pressure of 494.85psi (34.13bar) for a period of between 10 and 60 seconds and must be recorded. There shall be no deformation or damage to the enclosures.

16. **Essential Health and Safety Requirements (EHSR's)**

The relevant EHSR's have been identified and assessed in Intertek Report Ref: 101324774MAN-001b  
Dated: October 2013.

**Intertek Testing & Certification Limited**  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977

[www.intertek.com](http://www.intertek.com)

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

This Certificate is the property of Intertek Testing and Certification Ltd and is subject to Intertek Testing and Certification's Conditions for Granting Certification.




## SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS13ATEX17870X Issue 1

### 17. Drawings and Documents

Title	Drawing No.:	Rev. Level:	Date:
E225 Certification Drawing	W24441	3	17/10/13
E225 Certification Drawing	W24442	3	17/10/13
E225 Certification Drawing	W24443	3	17/10/13
E225 Certification Drawing	W24444	3	17/10/13
E225 Certification Drawing	W24468	3	17/10/13
Warning Label	SK24460	2B	17/10/13

### 18. Details of Certificate Changes (for issue 1 and above)

Original	24 October 2012	<p>Completed to standards EN 60079-0:2012 and EN 60079-1:2007.</p> <p>Marking</p> <p>I M2 Ex d I Mb   II 2 G Ex d IIB T4 Gb                      -40°C ≤ Ta ≤ +60°C</p> <p>Refer to report101324774MAN-001b Dated: October 2013.</p>
Issue 1	05 June 2015	Increase in maximum upper ambient from +60°C to +80°C for a 3.0kW rated motor.

*This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.*

**Intertek Testing & Certification Limited**  
 Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
 Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977

[www.intertek.com](http://www.intertek.com)

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

This Certificate is the property of Intertek Testing and Certification Ltd and is subject to Intertek Testing and Certification's Conditions for Granting Certification.