

EU-TYPE EXAMINATION CERTIFICATE

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

- EU-Type Examination Certificate Number:** ITS20ATEX102012X **Issue 00**
- Product:** Pump and Agitator Motors X100/X100L, X112/X112L, X132/X132L, X160/X160L, X180L and X225L
- Manufacturer:** Lind Jensen Maskinfabrik A/S
- Address:** Kroghusvej 7, Højmark, DK-6940, Lem St
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II of the Directive.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2018 and EN 60079-1:2014 except in respect of those requirements referred to within item 14 of the Schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- 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 this certificate.
- The marking of the product shall include the following:



II 2 G Ex db IIB T3 Gb

-20°C ≤ Ta ≤ +60°C

Certification Officer: _____

W Van Hill

Date: _____

4 March 2020

SCHEDULE:

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11. Description of Equipment or Protective System

Pump and Agitator Motors Type X100/X100L, X112/X112L, X132/X132L, X160/X160L, X180L and X225L are flameproof motors for submerged application at sewage/wastewater treatment plants and biogas plants for agitators/mixers/flow makers/submerged pumps. Range covered by this certificate is as follows:

X100/X100L

Voltage [V]	400V / 690V $\pm 10\%$	480 V $\pm 10\%$
Power [kW]	$\leq 3,0$	$\leq 3,0$
Frequency [Hz]	50	60
Synchronous speed [min^{-1}]	750-1000-1500-3000	900-1200-1800-3600

X112/X112L

Voltage [V]	400V / 690V $\pm 10\%$	480 V $\pm 10\%$
Power [kW]	$\leq 4,0$	$\leq 4,0$
Frequency [Hz]	50	60
Synchronous speed [min^{-1}]	750-1000-1500-3000	900-1200-1800-3600

X132/X132L

Voltage [V]	400V / 690V $\pm 10\%$	480 V $\pm 10\%$
Power [kW]	$\leq 7,5$	$\leq 7,5$
Frequency [Hz]	50	60
Synchronous speed [min^{-1}]	750-1000-1500-3000	900-1200-1800-3600

X160/X160L

Voltage [V]	400V / 690V $\pm 10\%$	480 V $\pm 10\%$
Power [kW]	$\leq 18,5$	$\leq 18,5$
Frequency [Hz]	50	60
Synchronous speed [min^{-1}]	750-1000-1500-3000	900-1200-1800-3600

X180L

Voltage [V]	400V / 690V $\pm 10\%$	480 V $\pm 10\%$
Power [kW]	$\leq 22,0$	$\leq 22,0$
Frequency [Hz]	50	60
Synchronous speed [min^{-1}]	750-1000-1500-3000	900-1200-1800-3600

X225L

Voltage [V]	400V / 690V $\pm 10\%$	480 V $\pm 10\%$
Power [kW]	≤ 30	≤ 30
Frequency [Hz]	50	60
Synchronous speed [min^{-1}]	750-1000-1500-3000	900-1200-1800-3600

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Intertek Testing & Certification Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

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Motors are manufactured from cast iron with quality > 150 according to ISO 185 and consist of a frame, front flange (containing rotating shaft) and integrated terminal box. Both front flange and terminal box form a flameproof joint with the motor frame and are secured with hex head fasteners. The motor frame also include two threaded holes (M16 to M24 dependant on motor type) which are always fitted with blanking plugs.

Terminal box contains either one or two metric threaded entries (M25 to M40 dependant on motor type) which is supplied pre-wired using suitably certified Ex db IIB Gb or better cable glands.

The front flange of the motor includes an Ex d bushing feed through (certificate number PTB 00 ATEX 1066U) fitted through the flange wall and used for leakage control in the adjoining gearbox or oil chamber (gearbox/oil chamber must be classified as a non-hazardous area).

Internal earth point is provided in the terminal box and external earth is provided by the pre-wired metallic conduit type cable glands.

12. Report Number

Intertek Report: 101732951CHE-001 Dated: 03 March 2020.

13. Special Conditions of Certification

(a). Special Conditions of Use

- No modifications must be made to the flamepaths of the unit without consultation with the manufacturer.
- Use only fasteners of the following property class:
 - Bottom flange fasteners: 12.9 with minimum tensile strength of 1220MPa.
 - Terminal box fasteners: A4-80 – minimum tensile strength 800MPa.
- Temperatures at the cable entry or branching point could reach +107.97°C or +116.03°C respectively – suitably rated cable and cable entry devices must be utilised.
- The front flange of the motor must always be mounted to a non-hazardous area.

(b). Conditions of Manufacture - Routine Tests

None.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 101732951CHE-001 Dated: 03 March 2020.

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15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Bottom flange IM B5 X100/100L/112/112L	10000102511	02	28.02.20
Bottom flange IM B5 X132/132L	10000102741	02	28.02.20
Bottom flange IM B5 X160/160L	10000101325	02	28.02.20
Bottom flange IM B5 X180	10000102636	03	28.02.20
Bottom flange IM B5 X225L	10000150256	03	28.02.20
Motor house IM B5 X100/100L	10000101390	02	28.02.20
Motor house IM B5 X112/112L	10000098890	02	28.02.20
Motor house IM B5 X132/132L	10000101806	02	28.02.20
Motor house IM B5 X160/X160L	10000097001	02	28.02.20
Motor house IM B5 X180L	10000101886	03	28.02.20
Motor house IM B5 X225L	10000150287	03	28.02.20
Motor X100/100L (2 sheets)	10000100493	02	28.02.20
Motor X112/112L (2 sheets)	10000100541	02	28.02.20
Motor X132/132L (2 sheets)	10000100567	03	28.02.20
Motor X160/160L (2 sheets)	10000096961	03	28.02.20
Motor X180L (2 sheets)	10000100582	03	28.02.20
Motor X225L (2 sheets)	10000150238	03	28.02.20
Rotor with shaft X100/100L	10000102649	02	28.02.20
Rotor with shaft X112/112L	10000102670	02	28.02.20
Rotor with shaft X132/132L	10000102708	02	28.02.20
Rotor with shaft X160/160L	10000097311	02	28.02.20
Rotor with shaft X180L	10000102767	02	28.02.20
Rotor with shaft X225L	10000150244	02	28.02.20
Terminal box X100/100L/112/112L M25	10000102510	03	28.02.20
Terminal box X132/132L M32	10000103149	03	28.02.20
Terminal box X132/132L M40	10000150449	03	28.02.20
Terminal box X160/160L/180L/225L M25/M40	10000097421	03	28.02.20
Terminal box X160/160L/180L/225L M32	10000149727	03	28.02.20
Terminal box X160/160L/180L/225L M40	10000117583	03	28.02.20
Yellow label	10000170402	00	28.02.20
Type plate for motor acidproof IECEx/ATEX	10000115709	02	25.02.20
Flange mounted to non-hazardous area	10000224230	00	21.02.20
ATEX IECEx motor manual (5 pages)	10000151384	00	28.02.2020

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