



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX ITS 20.0018X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-03-04

Applicant: **Lind Jensens Maskinfabrik A/S**
Kroghusvej 7
Højmark
DK-6940 Lem St.
Denmark

Equipment: **Pump and Agitator Motors X100/X100L, X112/X112L, X132/X132L, X160/X160L, X180L and X225L**

Optional accessory:

Type of Protection: **Flameproof**

Marking: **Ex db IIB T3 Gb**
-20°C ≤ Tamb ≤ +60°C

Approved for issue on behalf of the IECEx
Certification Body:

Wesley Van Hill

Position:

Technical Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road
Leatherhead
Surrey, KT22 7SA
United Kingdom



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Date of issue: 2020-03-04

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Manufacturer: **Lind Jensens Maskinfabrik A/S**
Kroghusvej 7
Højmark
DK-6940 Lem St.
Denmark

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/ITS/ExTR17.0022/00](#)

Quality Assessment Report:

[GB/ITS/QAR14.0024/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

See Annex for full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. No modifications must be made to the flamepaths of the unit without consultation with the manufacturer.
2. 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.
3. 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.
4. The front flange of the motor must always be mounted to a non-hazardous area.

Annex:

[Annex to IECEx ITS 20.0018X Iss 0.pdf](#)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ITS 20.0018X	Issue No. 0
Annex No. 1		

Technical 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

Certificate issued by:

intertek
Total Quality. Assured.

Intertek Testing & Certification Limited
Intertek House, Cleeve Road,
Leatherhead, Surrey, KT22 7SA
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(0)1372 370977

<http://www.intertek.com>

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

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SFT-IECEX-OP-HAZ-19f (10/23/2017)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ITS 20.0018X	Issue No. 0
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
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

General product information:

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 ±10%	480 V ±10%
Power [kW]	≤3,0	≤3,0
Frequency [Hz]	50	60
Synchronous speed [min ⁻¹]	750-1000-1500-3000	900-1200-1800-3600

X112/X112L

Voltage [V]	400V / 690V ±10%	480 V ±10%
Power [kW]	≤4,0	≤4,0
Frequency [Hz]	50	60
Synchronous speed [min ⁻¹]	750-1000-1500-3000	900-1200-1800-3600

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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

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 IECEx PTB 06.0080U) 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.

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