



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 CML 16.0050X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2020-12-22\)](#)
[Issue 0 \(2016-07-09\)](#)
Date of Issue: 2025-04-11
Applicant: **Invicta Vibrators, A Division of Grantham Engineering**
Harlaxton Road
Grantham
Lincolnshire NG31 75F
United Kingdom
United Kingdom
Equipment: **Lz, BLz, BLTz, CLz and FBLz Series Rotary Electric Vibrators**
Optional accessory:
Type of Protection: **Dust ignition protection**
Marking: Ex tb IIIC T**_°C Db IP66 (**As defined on the manufacture's documentation)
Ta -20°C to 50°C (Model: CLz180-95/8)
Ta -20°C to 40°C (All other models)

Approved for issue on behalf of the IECEx
Certification Body:

M Gibbons

Position:

Operations Director

Signature:
(for printed version)

Date:
(for printed version)

11 Apr 2025

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:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Harlaxton Road
Grantham
Lincolnshire NG31 75F
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Manufacturing locations: **Invicta Vibrators, A Division of Grantham Engineering**
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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 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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 Reports:

[GB/CML/ExTR16.0091/00](#)

[GB/CML/ExTR20.0259/00](#)

[GB/CML/ExTR25.0047/00](#)

Quality Assessment Reports:

[GB/CML/QAR16.0007/03](#)

[GB/CML/QAR16.0007/0](#)

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Lz, BLz, BLTz, CLz and FBLz Series Rotary Electric Vibrators. The industrial rotary electric vibrators have a squirrel cage rotor and wound stator built into a heavy duty enclosure that incorporates features to provide an ingress protection of IP66.

See Annex for full description and Conditions of Manufacture

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to certificate Annex for Specific Conditions of Use

A handwritten signature in black ink, appearing to be 'M. J. ...'.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) **Issue 1**

This issue introduced the following modifications:

1. Addition of the FBLz40-27/6 (L/406/0/3313) and FBLz40-25/6 (L/406/0/3370) motors.
2. Change to the location of a marked warning.

Issue 2

This issue introduced the following modifications:

1. To increase the thermistor trip temperature.
2. To introduce the IBLZ range to the certification.
3. To introduce a wire retaining system into the terminal box.
4. To include additional models across the series.
5. Update to the latest standards.
6. To permit an additional option to the gasket/O-ring adhesive.

Annex:

[Certificate Annex IECEx CML 16.0050X, Iss 2.pdf](#)

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Annexe to: IECEx CML 16.0050 Issue 2
Apparatus: Lz, BLz, IBLz, BLTz, CLz and FBLz Series Rotary Electric Vibrators
Applicant: Grantham Engineering Limited, Invicta Vibrators



Description

The Lz, FBLz, BLz, IBLz, BLTz, and CLz Series of industrial rotary electric vibrators have a squirrel cage rotor and wound stator built into a heavy duty enclosure that incorporates features to provide an ingress protection of IP66.

The machines are rated at 70 to 14920 W, up to 690 V, 3 phase, 50 or 60 Hz. A large diameter shaft to minimise deflection and stress is supported by two rolling element bearings that carry the centrifugal loadings generated by a set of out of balance weights fitted to each end of the shaft.

The out of balance weights are enclosed under covers that also provide IP66 protection

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

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- i. Holders of EU-Type Examination certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- ii. Vibrator motor silicone rubber O-rings and gaskets shall only be secured with a silicone sealant having a continuous operating temperature range of at least -20°C, and 20°C higher than the maximum surface temperature intended to be marked on the product (which differs dependent upon the model designation).
- iii. Converter-fed electrical machines shall additionally be marked in accordance with EN 60079-0:2012, Clause 29.15.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. Specific to Variable Frequency Drives
- ii. The user is advised that this equipment is fitted with thermistors, RTDs or thermostats, therefore, when a vibrator is fed from a variable speed drive, it shall be connected to a suitable controlling and regulating device, as defined in article 1(b) of European Directive 2014/34/EU, and when located in hazardous area, shall be covered / protected by an appropriate EC / EU Type Examination Certificate [depending upon when the product was placed on the market].
- iii. Frequency limits, are defined in the associated manufacturers manual.
- iv. The effectiveness of the temperature correction shall be verified and documented in accordance with IEC 60079-14:2013
- v. Specific to Machine Orientation
- vi. The user is advised that this equipment is fitted with thermistors, RTDs or thermostats, when a vibrator is mounted in any other orientation than horizontal, it shall be connected to a suitable controlling and regulating device, as defined in Article 1(b) of European Directive 2014/34/EU, and when located in a hazardous area, shall be covered / protected by an appropriate EC / EU Type Examination Certificate [depending upon when the product was placed on the market].
- vii. Frequency limits, are defined in the associated manufacturers manual.



Certificate Annex IECEx
Version: 9.1 Approval: Draft



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- viii. The effectiveness of the temperature controlling system shall be verified and documented in accordance with IEC 60079-14:2013
- ix. This condition does not apply to the smaller vibrators in the Invicta range from BLz03 up to BLz25, fitted with ball bearings, which may be installed in other orientations without a temperature controlling system.
- x. It is the end users responsibility to install and fit the pneumatic force wheel assemblies in line with the manufacturer's instructions for the CLz80-95/8 motor. Along with the use of a suitably certified connector providing an ingress protection rating of IP66 and a minimum of 5 full threads for engagement in accordance with EN 60079-31:2014, Clause 5.3.2.
- xi. It is the end users responsibility to install a suitably certified cable glands having sealing rings with a minimum service temperature of 132°C with the CLz80-95/8 vibrator motor.
- xii. The CLz80-95/8 (8-pole) industrial rotary electric vibrator motor is suitable for an ambient temperature range of -20°C to +50°C, other models are suitable for an ambient temperature range of -20°C to +40°C only.

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