IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx CML 17.0061U

Issue No: 0

Certificate history:
Issue No. 0 (2017-06-15)

Status: **Current**

Date of Issue: **2017-06-15**

Applicant: **Cortem S.p.A.**
via Aquileia 10
34070 Villesse
Gorizia
Italy

Equipment: **EBL3040-1 and EBL4040-2 Ballast Enclosures. EIL4040-1 and EIF4040-1 Inverter Enclosures.**

Optional accessory:

Type of Protection: **Ex db**

Marking:
Ex db IIC Gb

Approved for issue on behalf of the IECEx Certification Body: A Snowdon

Position: Certification Officer

Signature:
(for printed version)

A Snowdon

Date: June 15, 2017

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 the Official IECEx Website.

Certificate issued by:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

IECEx Certificate of Conformity

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Date of Issue: **2017-06-15** Page 2 of 3

Manufacturer: **Cortem S.p.A.**
via Aquileia 10
34070 Villesse
Gorizia
Italy

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

*This Certificate **does not** indicate compliance with electrical 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/CML/ExTR17.0097/00

Quality Assessment Report:

IT/CES/QAR06.0002/11

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The EBL3040-1 and EBL4040-2 Electronic Ballasts Enclosures and EIL4040-1 Inverter Enclosures are Flameproof Ex components for use in increased safety luminaires for LED lighting tubes or strips.

The EIF4040-1 Inverter Enclosures are Flameproof Ex components suitable for use in increased safety luminaires for fluorescent lighting tubes.

Refer to Annex for full description, Conditions of Manufacture and the Schedule of Limitations.

SPECIFIC CONDITIONS OF USE: NO

Annex:

Certificate Annex IECEx CML 17.0061U Issue 0.pdf

Annexe to:	IECEx CML 17.0061U, Issue 0
Applicant:	Cortem S.p.A.
Apparatus:	EBL3040-1 and EBL4040-2 Ballast Enclosures
	EIL4040-1 and EIF4040-1 Inverter Enclosures

cml Ex certification management limited

Description

The EBL3040-1 & EBL4040-2 Electronic Ballasts Enclosures & EIL4040-1 Inverter Enclosures are Flameproof Ex components for use in increased safety luminaires for LED lighting tubes or strips.

The EIF4040-1 Inverter Enclosures are Flameproof Ex components suitable for use in increased safety luminaires for fluorescent lighting tubes.

The Electronic Ballasts and Electronic Inverters consist of an aluminium tube, with aluminium end-caps, that contains an electronic ballast or electronic inverter circuits. One end-cap provides flying leads for the electrical connections.

Ratings:

EBL3040-1	110 to 277 VAC/ VDC, 0/ 50/ 60 Hz, 0.11 to 0,60 A
EBL4040-2	220 to 240 VAC/ VDC, 0/ 50/ 60 Hz, 700 mA
EIF4040-1	110/ 240 VAC/VDC, 50/ 60Hz, 13 ... 58 W
EIL4040-1	110/ 240 VAC, 50/ 60Hz, 110/ 277 VDC, BATT 6 V Max 7A/h

Conditions of Manufacture

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

i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. Each of the Ballast enclosures and Inverter Enclosures shall undergo the following minimum routine overpressure tests in accordance with IEC 60079-1, clause 16.1:

Assembly	Required pressure (Bar)
EBL3040-1 ballast enclosures	33.93
EBL4040-2 ballast enclosures	33.93
EIL4040-1 inverter enclosures	28.62
EIF4040-1 inverter enclosures	28.62

The enclosures shall withstand the pressures without suffering permanent deformation of the joints, damage to the enclosure or leakage through the enclosure walls.

iii. The plugs fitted shall be type PLG, manufactured by ELFIT S.p.A., certificate number IECEx CES 10.0001X. The manufacturer shall only fit the following type:

Material type Aluminium or Stainless Steel, no gasket fitted.

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iv. The LED Drivers and Inverters specified by the manufacturer may be replaced with alternate devices, provided that they do not exceed the dimensions specified on the CML approved certification drawings.

Schedule of Limitations

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

i. The external case temperature shall not exceed +70°C.

ii. The EBL3040-1 and EBL4040-2 have the following service temperature range: -60°C to +75°C. The limits of this service temperature range shall not be exceeded.

iii. The EIF4040-1 and EIL4040-1 have the following service temperature range: -60°C to +70°C. The limits of this service temperature range shall not be exceeded.

iv. The flameproof joints are not intended to be repaired.

v. When installed in accordance with the requirements of IEC 60079-7, the clearances and creepage distances specified in Clauses 4.3 and 4.4 and Table 2 shall be considered and complied with.

vi. The wire leads are type GS, Single Core Non-Sheathed Internal Cables, 0.75mm^2, manufactured by Caviterm.

vii. The non-metallic materials used have not been assessed to the requirements of IEC 60079-0, clause 7.3, Resistance to light. It shall be ensured that the non-metallic materials are not exposed to light/UV.

viii. The components have not been assessed to IEC 60079-0, clause 26.4.5, Degree of protection (IP) by enclosures. Consideration shall be given to this if the type of protection applied to the equipment in which the component is to be installed requires a specific IP rating.

ix. An internal earth connection is provided between the case of the Electronic Ballast or Electronic Invertor and the metal enclosure.