



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 CES 13.0008U Issue No.:0 Certificate history:

Status: **Current**

Date of Issue: 2013-07-19 Page 1 of 3

Applicant: **CORTEM S.p.A.**
Via Aquileia 10
I - 34070 Villesse (GO)
Italy

Electrical Apparatus: **Electronic Ballasts, series EB... and Electronic Inverter type EI-58**
Optional accessory:

Type of Protection: **Increased safety 'e'; Flameproof enclosures 'd'**

Marking: **Ex de IIC Gb**


Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)

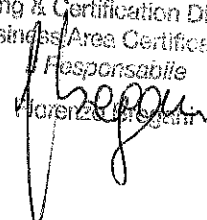

19-07-2013

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 the Official IECEx Website.

Certificate issued by:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy

CESI
CESI S.p.A.
Testing & Certification Division
Business Area Certification
Responsabile

Lorenzo



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Manufacturer: **CORTEM S.p.A.**
Via Aquileia 10
I - 34070 Villesse (GO)
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 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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:
IT/CES/ExTR13.0010/00

Quality Assessment Report:
IT/CES/QAR06.0002/07



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Explosion proof electronic ballasts series EB... and electronic inverter type EI-58 are suitable to be installed into an increased safety lighting fixture for lighting mono-pin and bi-pin fluorescent tubes.

The electronic ballasts series EB.. are used for normal working, the electronic inverter model EI-58 is used with IECEx certified rechargeable batteries for emergency working.

The electronic ballasts series EB.. can drive one or two fluorescent tubes from 1x18 W up to 2x58 W. The electronic parts of the ballast are contained in an external body of tubular form, sealed with resin at the two ends to allow only the cable passage for the electrical connection to the external circuit.

The electronic ballasts type EB .., have adequate protection to prevent lamp cap overheating at the end of the lamp life and have been tested according to annex "H" of IEC 60079-7 regarding End Of Life lamp protection (EOL),

The electronic ballasts and electronic inverter rated characteristics and a Schedule of Limitations are further described in the Annexe of this certificate.

CONDITIONS OF CERTIFICATION: NO



Prot: B3028432

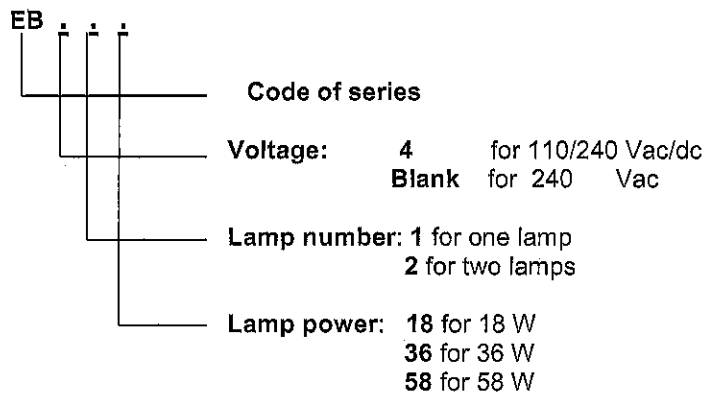
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Annex to certificate: IECEx CES 13.0008U Issue No.:0 of 2013-07-19
Applicant: CORTEM S.p.A., Via Aquileia 10,
 I - 34070 Villesse (GO), Italy
Electrical Apparatus: Electronic Ballasts, series EB... and Electronic Inverter type EI-58

Model Identification:

The electronic ballasts are identified by the following code:



The electronic inverter series EI-58 is part of emergency lighting equipment and it is installed inside the lighting fixture enclosure in combination with a CORTEM battery pack series G-0309 and a signaling led , object of separate IECEx certification.

The electronic inverter series EI-58, (as per ballast components) is contained in an external body of tubular form, sealed with resin at the two ends to allow only the cable passage for the electrical connection to the external circuit..

In both cases (ballast and inverter), the external body and covers are made in aluminum or aluminum alloy.

Electrical characteristics:

Ballasts series EB...

Ballast	EB4118	EB4218	EB4136	EB4236	EB158	EB258
Rated power (lamps)	1x18 W	2x18 W	1x36 W	2x36 W	1x58W	2x58 W
Rated voltage	110 + 240 Vac - Vdc				240 V ac - V dc	
Working voltage	100 + 264 V ac; 110 + 264 V dc				208 + 264 V ac; 208 + 254 V dc	
Rated frequency	50/60 Hz					

Inverter series EI-58

- Rated voltage: 110/240 V ac/dc
- Working voltage: 90 + 264 V ac; 90 + 264 V dc
- Rated frequency: 50/60 Hz
- Rated power (lamps): da 6 W a 58 W
- Group of battery: G-03009 - NiCd 4 A/h or 7 A/h



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CESI

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Electrical Apparatus: Electronic Ballasts, series EB... and Electronic Inverter type EI-58

Schedule of limitations

- The condition of the installation of the electronic ballasts series EB.. and of the inverter type EI-58, are included within the safety instructions.
- Electronic ballasts and inverter shall be installed into a suitably approved Ex enclosures having a minimum degree of protection IP54.
- The maximum operating temperature for ballasts or inverter shall not exceed + 75°C.
- The operating temperature of the sealed parts of ballasts or inverter must be within the range -40°C + +100°C.
- When electronic inverter EI-58 is used with battery group G-0309, the minimum operating temperature shall not be lower than -20°C as indicated on battery tag and on external tag of lighting fixture