



EU Type Examination Certificate CML 18ATEX3073X Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Lighting Fixtures EXENC -... Series**
- 3 Manufacturer **Cortem S.p.A.**
- 4 Address **via Aquileia 10
34070 Villesse
Gorizia
Italy**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012+A11:2013

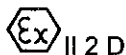
EN 60079-31:2014

EN 60079-28:2015

- 10 The equipment shall be marked with the following:

Fluorescent type EXENC-...

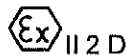
LED type EXENC-...L



Ex tb IIIC T** °C Db

Ta = **

** See Below



Ex tb op is IIIC T** °C Db

Ta = **

** See Below



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11 Description

The Lighting Fixtures EXENC-... Series are luminaries suitable for use in Dust atmospheres.

They are constructed using a 2-part housing with lockable Polycarbonate transparent lid, hinged to a Polyester resin glass fibre reinforced base. The enclosure has an environmental rating of IP65. The manufacturer may claim a higher rating.

The enclosures contain electrical equipment for LED or Fluorescent Tube lighting sources mounted on internal frames. The Fluorescent Tube version is available with and without a rechargeable battery for either emergency and normal working.

The Lighting Fixtures EXENC-... Series consists of the following types:

EXENC-...	Fluorescent Tube lighting source for normal working only.
EXENC-...EE	Fluorescent Tube lighting source for emergency working only.
EXENC-...EF	Fluorescent Tube lighting source for normal working and emergency working.
EXENC-...L	LED lighting source for normal working only
EXENC-...LEE	LED lighting source for emergency working only
EXENC-...LEF	LED lighting source for normal working and emergency working

Nomenclature:

EXENC- a bb cc - dd e

Where:

EXENC- Lighting Fixture Series

a = No. Fluorescent Tubes/ LED Strips

1 1 x Tube or 1 x LED Tube

2 2 x Tubes or 2 x LED Tube

bb = Power (W)

18 18 W Fluorescent Tube

36 36 W Fluorescent Tube

01 Short LED Tube LTT36700N

02 Medium LED Tube LTT72700N

cc = Model Type

None Fluorescent Tubes

L LED Strips

dd = Emergency Lighting Fixture

EF Normal + Emergency Working

EE Emergency Working Only

e = Emergency Unit Battery Rating

4 4 Ah

7 7 Ah



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The Lighting Fixtures EXENC-... Series are suitable for use in the following Maximum Surface Temperatures and ambient temperature ranges:

Fluorescent type EXENC-...

Fixture Type		Internal Battery Pack	Minimum Ambient Temperature	Temperature Class/ Maximum Surface Temperature		
				Tamb: +40°C	Tamb: +47°C	Tamb: +50°C
EXENC-1.. EXENC-2..	Normal Only	NO	-20°C	T55°C	T62°C	T65°C
EXENC-1..EF EXENC-2..EF	Normal + Emergency	YES	-20°C	T55°C	T62°C	T65°C
EXENC-1..EE EXENC-2..EE	Emergency Only	YES	-20°C	T55°C	T62°C	T65°C

LED type EXENC-... L

Fixture Type		Internal Battery Pack	Minimum Ambient Temperature	Temperature Class/ Maximum Surface Temperature		
				Tamb: +40°C	Tamb: +47°C	Tamb: +50°C
EXENC-1..L EXENC-2..L	Normal only	NO	-40°C	T50°C	T57°C	N/A
EXENC-1..LEF EXENC-2..LEF	Normal + Emergency	YES	-20°C	T50°C	T57°C	N/A
EXENC-1..LEE EXENC-2..LEE	Emergency Only	YES	-20°C	T50°C	T57°C	N/A

The Lighting Fixtures EXENC-... Series has the following electrical ratings:

Rating - Fluorescent type EXENC-...

Type	Power Supply		Pilot Line		Battery pack	Power rating	
	INPUT VOLTAGE	INPUT FREQUENCY	INPUT VOLTAGE	INPUT FREQUENCY		bb=18	bb=36
EXENC-1.. EXENC-2..	220 – 240 Vac	50/60 Hz				24W	41W
							39W
EXENC-1..EE EXENC-2..EE			100 – 240 Vac	50/60 Hz	4 Ah or 7 Ah 6 V	24W	41W
						39W	68W
EXENC-1..EF EXENC-2..EF	220 – 240 Vac	50/60 Hz					
							39W



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Rating - LED type EXENC-...L

Type	Power Supply		Pilot Line		Battery pack	Power rating	
	INPUT VOLTAGE	INPUT FREQUENCY	INPUT VOLTAGE	INPUT FREQUENCY		bb=01	bb=02
EXENC-1..L	220 – 240 Vac	50/60 Hz	100 – 240 Vac	50/60 Hz	4 Ah or 7 Ah 6 V	13W	25W
EXENC-2..L						26W	52W
EXENC-1..LEE	13W	25W					
EXENC-2..LEE	26W	52W					
EXENC-1..LEF	220 – 240 Vac	50/60 Hz				13W	25W
EXENC-2..LEF						26W	52W

Variation 1

This variation introduces the following changes:

- i. Changes to the model numbering system
- ii. The introduction of emergency working LED models
- iii. A change to the label marking which does not affect product certification

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	08-06-2018	R11426A-00	Initial Issue
1		R11950A/00	The introduction of Variation 1

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of manufacture

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

- 13.1 All Ex Components fitted shall be installed in compliance with their schedule of limitations and manufacturer's instructions. All other equipment shall be installed in accordance with the requirements of the manufacturer's instructions. The manufacturer shall provide the installer/user copies of all Ex Equipment and Components certificates.
- 13.2 The manufacturer shall ensure that when Bi-pin non-sparking lampholders are installed, the contact pressures shall be adequate, and the pins of the lamp shall be supported to prevent distortion when they are subject to contact side pressure. The mechanical dimensions and the mounting conditions in the luminaire shall take into account the mechanical values and the tolerances specified for the type of lamp in IEC 60061-1, IEC 61195 and IEC 60400.



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14 Specific Conditions of Use (Special Conditions)

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

- 14.1 Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust and steam generation) is unlikely to be present. Additionally, clean with a damp cloth or Antistatic Product.
- 14.2 All cable glands and plugs/stoppers for unused entries shall be suitable for use with the equipment and shall be:
- certified as Ex tb IIIC Db
 - minimum IP6X for Db. However, to maintain the maximum ingress protection level of the equipment, they shall be IP65 minimum. Additionally, they shall be suitable for the lower ambient temperature and an upper temperature of at least 10K above the upper ambient.
- 14.3 The battery pack used in the emergency lighting has a minimum service temperature of -20 °C.
- 14.4 The Lighting Fixtures are manufactured from non-metallic materials that require installation in locations with respect to the risk of mechanical danger:

Types	Risk of Mechanical Danger
EXENC-136EF, EXENC-236EF; EXENC-136., EXENC-236.; EXENC-136EE, EXENC-236EE; EXENC-102L, EXENC-202L; EXENC-102LEE, EXENC-202LEE; EXENC-102LEF, EXENC-202LEF;	Low
EXENC-118EF, EXENC-218EF; EXENC-118., EXENC-218.; EXENC-118EE, EXENC-218EE; EXENC-101L EXENC-201L; EXENC-101LEE EXENC-201LEE; EXENC-101LEF EXENC-201LEF;	High

Certificate Annex



Certificate Number CML 18ATEX3073X
Equipment Lighting Fixtures EXENC -... Series
Manufacturer Cortem S.p.A.

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
A3-6707	1 of 6	0	08-06-2018	Lighting Fixture Series EXEN-..C.. Assembly and External Dimensions
A3-6707	2 of 6	0	08-06-2018	Lighting Fixture Series EXEN-..C.. Assembly and External Dimensions
A3-6707	3 of 6	0	08-06-2018	Lighting Fixture Series EXEN-..C.. Assembly and External Dimensions
A3-6707	4 of 6	0	08-06-2018	Lighting Fixture Series EXEN-..C.. Labelling and Gaskets
A3-6707	5 of 6	0	08-06-2018	Lighting Fixture Series EXEN-..C.. Assembly and External Dimensions
A3-6707	6 of 6	0	08-06-2018	Lighting Fixture Series EXEN-..C.. Assembly and External Dimensions
A3-7132	1 of 2	0	08-06-2018	LED Tube LTT..N Creepage distances/ Creepage Distances / Clearances
A3-7132	2 of 2	0	08-06-2018	LED Tube LTT..N Creepage distances/ Clearances
A4-6708	1 to 7	0	08-06-2018	Technical Note Explosion Proof Luminaries Series EXEN-..C..
A2-7177	1 of 1	-	08-06-2018	EXEN-218C Enclosure Thicknesses and Hinges
A3-7177	1 of 1	-	08-06-2018	EXEN-236C Enclosure Thicknesses and Hinges

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Drawing No	Sheets	Rev	Approved date	Title
A3-7245	1 to 2	0	29-10-2018	Lighting fixture series EXENC-..L electrical circuit
A4-7246	1 to 4	0	29-10-2018	Luminaire series EXENC... Technical note