

# INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: Status:	IECEx INE 18.0039X		Issue No: 0	Certificate history: Issue No. 0 (2019-02-22)
Date of Issue:	2019-02-22		Page 1 of 3	
Applicant:	APPLETON Group - ATX E.I.N. 35 rue André Durouchez CS 98017 80084 Amiens cedex 2 France			
Equipment: <i>Optional accessory:</i>	LED Luminaire type FELED30 - Model: FEL	ED *******		
Type of Protection:	eb mb op is tb			
Marking:	Ex eb mb op is IIC T4 Gb Ex op is tb IIIC T… Db IP66			
Approved for issue on Certification Body:	behalf of the IECEx	Thierry HOUEIX		
Position:	SPHERES EXPLO	Ex Certification Officer		
Signature: (for printed version)	AND CEER CEITER	De Thoueis	, 1	
Date:	COSIVE ATMO	2019-02-22		

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:

INERIS Institut National de l'Environnement Industriel et des Risques, BP n2 Parc Technologique ALATA France





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Manufacturer:	APPLETON Group - ATX	
	E.I.N.	
	35 rue André Durouchez	
	CS 98017	
	80084 Amiens cedex 2	
	France	

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 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-18 : 2017 Edition:4.1	Explosive atmospheres - Part 18: Protection by encapsulation "m"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2017 Edition:5.1	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:

FR/INE/ExTR19.0002/00

Quality Assessment Report:

FR/LCI/QAR07.0008/12



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Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

This product is a LED Luminaire protected by increased safety "eb" and by enclosure "tb" with encapsulated LED array "mb" and encapsulated LED driver "mb". It exists in standard version only.

Optical radiation has been evaluated according to the protection type "op is".

It comprises a body and a transparent lens with hinges.

The sealing is achieved using a gasket fixed in the groove of the lens.

The LED luminaire has two configurations in function of axis and lens gaskets used. The ambient operating temperature range of the luminaire is different according to these configurations. Details are specified in Annex.

This certificate covers the generation 3 of LED luminaire.

The LED luminaire can be equipped with the following certified Ex components. The list is provided in Annex.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- Permitted supply short circuit: 500 A.
- Beware of electrostatic charges: Wipe / clean only with a moist cloth.

#### Annex:

IECEx INE 18.0039X-00\_Annex.pdf



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# PARAMETERS RELATING TO THE SAFETY

	MODEL					
	ЗК	4K	5K	7K		
Rated supply voltage	120-277Vac, 50/60 Hz; 170-300Vdc					
Maximum current	0.3 A	0.4 A	0.45 A	0.65 A		
Quantity of driver	1	1	1	2		
Maximum driver output current	0.55 A	0.8 A	0.95 A	1.35 A (0.675 A for each driver)		

## MARKING

Marking has to be readable and indelible; it has to include the following indications:

- APPLETON ATX and/or EMERSON
- 80084 AMIENS France
- Type: FELED30
- Model: FELED\*\*\*\*\*\*\*\* (1)
- IECEx INE 18.0039X
- Serial Number
- Ex eb mb op is IIC T4 Gb
- Ex op is tb IIIC T...°C <sup>(2)</sup> Db
- IP66
- $-30^{\circ}$ C or  $-40^{\circ}$ C  $^{(3)} \le$  Ta  $\le +40^{\circ}$ C to  $+55^{\circ}$ C  $^{(2)}$
- Rated voltage
- Maximum current
- WARNING:
  - DO NOT OPEN WITH POWER ON
  - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
  - BEWARE OF ELECTROSTATIC CHARGES: WIPE / CLEAN ONLY WITH A MOIST CLOTH

### (1) Number Logic:





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(2) Maximum surface temperatures according to Maximum ambient temperature:

Explosive atmosphere			Dust			
Tamb max			+40°C	+45°C	+50°C	+55°C
Model Position Diffuser			Tsurface			
2ft 5000K or 4000K 3000Lm or 4000Lm	Horizontal	with or without	60	65	70	75
	Vertical	with or without	60	65	70	75
4ft 5000K or 4000K 5000Lm or 7000Lm	Horizontal	with or without	60	65	70	75
	Vertical	with or without	60	65	70	75

Explosive atmosphere			Gas			
Tamb max			+40°C	+45°C	+50°C	+55°C
Model	Position	Diffuser	Temperature class			
2ft 5000K or 4000K 3000Lm or 4000Lm	Horizontal	with or without	T4	T4	T4	T4
	Vertical	with or without	T4	T4	T4	T4
4ft 5000K or 4000K 5000Lm or 7000Lm	Horizontal	with or without	T4	T4	T4	T4
	Vertical	with or without	T4	T4	T4	T4

#### (3) Minimum ambient temperatures configurations:

Configuration	Configuration 1	Configuration 2	
Type of axis gasket	NBR 70sh 36624	EPDM 55914	
Type of lens gasket	EPDM BK1101	XIAMETER Silicon	
Minimum ambient temperature	-30°C -40°C		

### **ROUTINE EXAMINATIONS AND TESTS**

Each piece of equipment defined above must have successfully passed before delivery:

• In accordance with clause 7.1 of IEC 60079-7 standard, a test of dielectric strength on each of the different circuits.



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# CONFIGURATION OF THE AXIS AND LENS GASKET

Configuration	Configuration 1	Configuration 2	
Type of axis gasket	NBR 70sh 36624	EPDM 55914	
Type of lens gasket	EPDM BK1101	XIAMETER Silicon	
Ambient temperature range	-30°C up to +55°C	-40°C up to +55°C	

### LIST OF Ex COMPONENTS

Designation of component	Manufacturer	Туре	Certificate	Standards	Ex marking
Encapsulated LED Array	Appleton Group - ATX	299707430 and 299707539	IECEx UL 17.0008U	IEC 60079-0 :2017 IEC 60079-18 :2014 <sup>(1)</sup>	Ex mb IIC Gb
Drivers for Light-Emitting- Diode Arrays	Appleton Group - ATX	APMZ050C135UD	IECEx UL 17.0067U	IEC 60079-0 :2017 IEC 60079-18 :2014 <sup>(1)</sup>	Ex mb IIC Gb
Feed through and protective conductor terminal blocks	Weidmüller Interface GmbH & Co. KG	WDU-WPE	IECEx ULD 14.0005U	IEC 60079-0:2011 <sup>(2)</sup> IEC 60079-7:2006-07 <sup>(2)</sup>	Ex eb IIC
Terminal Strips	Weidmuller Interface GmbH & Co	МК 3	IECEx SIR 05.0036U	IEC 60079-0:2004 (3) IEC 60079-7:2001 (3)	Ex e II

(1) The Ex component is not impacted by the major technical changes of IEC 60079-18:2017

(2) The Ex component is not impacted by the major technical changes of IEC 60079-0:2017, IEC 60079-7:2015 and IEC 60079-7:2017

(3) The Ex component is not impacted by the major technical changes of IEC 60079-0:2007-10, IEC 60079-0:2011, IEC 60079-0:2017, IEC 60079-7:2006-07, IEC 60079-7:2015 and IEC 60079-7:2017