



[1]

EU-TYPE EXAMINATION CERTIFICATE

[2]

**Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU ANNEX III**

[3]

Certificate Number: **EPT 18 ATEX 2977 X** issue 0

[4]

Equipment: **Explosion Proof Lighting**Series: **Ex-KFF [SAFATEX-FLR]**

[5]

Manufacturer:

[6]

Address:

[7]

This equipment and its accepted variations are specified in the annex to this Certificate.

[8]

Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council of 26th 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 of the Directive.

The examination and test results are recorded in the confidential Report N°EPT.18.REL.02/55982

[9]

Compliance with the essential health and safety is assured through the verification of them and by compliance with the standard:

EN 60079-0:2012+A11:2013; EN 60079-1:2014; EN 60079-28:2015; EN 60079-31:2014

[10]


If the sign "X" is placed after the Certificate number, it indicates that the equipment is subject to the special conditions for safe use specified in the annex to this Certificate.

[11]

This EU -TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified equipment.

Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this equipment. These requirements are not object of this Certificate.

[12]

The equipment shall include the sign  and the following string:

II 2 G Ex db op is IIC T* Gb**II 2 D Ex tb op is IIIC T* Db**

* see temperature table in the annex to the certificate

Place and date of issue:

Torino, 2018-06-29

Dionisio Bucchieri
Directive Responsible

Paolo Trisoglio
Managing Director



PRD N° 119B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

This Certificate has 5 pages and it is reproducible only in its entirety. Conditions of validity are reported below.

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[15] **Equipment description**

Explosion proof lighting Ex-KFF series include fixed and portable luminaires. Explosion proof fixed lighting models are composed of two Ex d chambers (light source compartment and terminal compartment with a bushing between them) while explosion proof portable lighting series are composed of one light source chamber.

For fixed lighting model, the light source compartment is mainly for the LEDs and LED driver; the terminal compartment is for wiring connection. The light source compartment is mainly made of light-transmitting glass, metal enclosure and wire-through bushing; the terminal compartment is mainly made of metal enclosure of one cable gland.

For portable lighting model, the light source compartment is mainly for the LEDs, LED driver, battery and charging port. The light source compartment is mainly made of light-transmitting glass, metal enclosure and charging port.

The metal enclosure material is made in Die-cast aluminium. The wire-through part between light source compartment and terminal compartment of fixed lighting model and charging port are encapsulated with IPD-1300 double component silicone glue.

The degree of protection of the enclosure is IP66, according to EN 60079-0 and EN 60529.

Catalogue Number Logic:

Ex-	KFF	X
1	2	3

Number	Description
1	EX-: Explosion Proof
2	KFF: KForestFrog
3	Rated power: 10W, 15W, 30W, 45W, 60W

Relationship between power, ambient temperature and temperature classes:

Explosion Proof fixed Lighting Ex-KFFX (X=30W, 45W, 60W)

Rated voltage (V)	Rated power (W)	Temperature class			
		-40°C ≤ Ta ≤ +40°C		-40°C ≤ Ta ≤ +55°C	
		Gas	Dust	Gas	Dust
100-277VAC or 24-48VDC/VAC or 10-30VDC	30	T6	T80°C	T5	T95°C
	45	T6	T80°C	T5	T95°C
	60	T5	T95°C	T4	T130°C

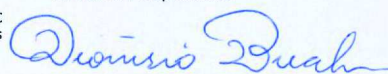
Explosion Proof portable Lighting Ex-KFFX (X=10W, 15W)

Rated voltage/current (V/A)	Battery Capacity	Rated power (W)	Tamb	Temperature class	
				Gas	Dust
26.0VDC/2.0A	25.2V/6.6Ah	10	-20°C ≤ Ta ≤ +55°C	T6	T80°C
26.0VDC/2.0A	25.2V/6.6Ah	15	-20°C ≤ Ta ≤ +55°C	T6	T80°C



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EU-TYPE EXAMINATION CERTIFICATE N. EPT 18 ATEX 2977 X issue 0**Warning label**

WARNING – DO NOT OPEN WHEN ENERGISED

WARNING – AFTER DE-ENERGISING, DELAY 10 MINUTES BEFORE OPENING

CAUTION – USE FASTENERS WITH YIELD STRESS $\geq 450\text{MPa}$

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

CAUTION – ONLY USE CABLES SUITABLE FOR 90°C (only for fixed lighting)

WARNING – DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT

Routine tests

- Overpressure test should be carried out by first method at a minimum pressure of 1.55MPa for at least 10 s to light source compartment, at a minimum pressure of 1.1 MPa for at least 10 s to terminal compartment.

[16] **Assessment Report n°EPT.18.REL.02/55982**

This EU-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this certificate performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

[17] **Special condition for a safe use**

- Potential electrostatic charging hazard – See instructions
- The flameproof joints are not intended to be repaired.
- Charge the battery in non-hazardous location only.

[18] **Essential Health and Safety Requirements**

Assured by compliance with harmonized standards.

[19] **Terms and conditions**

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- changes in the design or construction of the product;
- changes or amendments to the Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

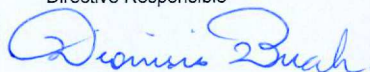
[20] **History**

This is the first that this product seeks for a certification.

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