[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU – Annex III**

MODULE B: EU-TYPE EXAMINATION

[3] EU-type Examination Certificate number: **IMQ 20 ATEX 001X**

[4] PRODUCT: **LED AND FLUORESCENT EX LUMINAIRE**

TYPE/SERIES: **FLB***; FLBL***; FLB-NI***; FLBL-NI***; FLB-NI***-ptc; FLBL-NI***-ptc; FLB***-SS; FLBL***-SS; FLB-NI***-SS; FLBL-NI***-SS; FLB-NI***-SS-ptc; FLBL-NI***-SS-ptc**

[5] MANUFACTURER: **SHOMAL ENG. & MANUFACTURING (PIROOZ) CO.**

[6] ADDRESS: **SALMANSHAHR INDUSTRIAL ESTATE, MAZANDARAN, IRAN**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, 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 product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in Report No.: **AT23-0095583-01**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0:2018; 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 or protective system is subject to special conditions for safe use specified in the schedule to this certificate

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2G	**Ex db op is IIC T6 Gb**	**Ex db IIC T6 Gb**
II 2D	**Ex op is tb IIIC T85°C Db**	**Ex tb IIIC T85°C Db**

THIS CERTIFICATE CANCELS AND REPLACES THE PREVIOUS ONE. IT INCLUDES 1 ANNEX.

FIRST ISSUE	2020/01/29
CURRENT ISSUE	2024/04/22
PREVIOUS ISSUE	2022/01/11
EXPIRING DATE	2034/04/21

B.U. PRODUCT
CERTIFICATION SECTOR - MANAGER

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 001X**

[15] **Description of product:**

The luminaires series FLB consist of a flameproof enclosure made of aluminium, or stainless steel (identified with letter "SS" in product code),and borosilicate glass tube, containing LED modules (FLBL type) or fluorescent lamps (FLB type).
They can be provided with self-contained batteries for emergency service on LED module (FLB-NI and FLBL-NI type). Additional versions can be fitted internal heater, and identified with letter "ptc" in product code.
The non metallic layer of coating (paint) is less than 0.2 mm, thick.

[15.1] **Models/Series Identification:**

FLBL 220, FLBL 240	LED lighting source with additional type of protection "op is", aluminium and glass body
FLBL 220-SS, FLBL 240-SS	LED lighting source with additional type of protection "op is", stainless steel and glass body
FLB 220, FLB 240	Fluorescent source type, aluminium and glass body
FLB 220-SS, FLB 240-SS	Fluorescent source type, stainless steel and glass body
FLBL-NI 220, FLBL-NI 240	LED lighting source with emergency service with additional type of protection "op is", aluminium and glass body
FLBL-NI 220-SS, FLBL-NI 240-SS	LED lighting source with emergency service with additional type of protection "op is", stainless steel and glass body
FLB-NI 220, FLB-NI 240	Fluorescent source type with emergency service, alumimium and glass body
FLB-NI 220-SS, FLB-NI 240-SS	Fluorescent source type with emergency service, stainless steel and glass body
FLB-NI 220-ptc, FLB-NI 240-ptc	Fluorescent source type with emergency service, alumimium and glass body, fitted with heater
FLB-NI 220-SS-ptc, FLB-NI 240-SS-ptc	Fluorescent source type with emergency service, stainless steel and glass body, fitted with heater
FLBL-NI 220-ptc, FLBL-NI 240-ptc	LED lighting source type with emergency service, alumimium and glass body, fitted with heater
FLBL-NI 220-SS-ptc, FLBL-NI 240-SS-ptc	LED lighting source type with emergency service, stainless steel and glass body, fitted with heater

[15.2] **Ratings:**

Rated voltage 220-240 Vac

Rated current

FLB L 220; FLB L 220-SS	Max. 0.17 A
FLB L 240; FLB L 240-SS	Max. 0.32 A
FLB 220; FLB 220-SS	Max. 0.16 A
FLB 240; FLB 240-SS	Max. 0.33 A
FLB-NI 220; FLB-NI 220-SS; FLB-NI 220-ptc; FLB-NI 220-SS-ptc FLB-NI 240; FLB-NI 240-SS; FLB-NI 240-ptc; FLB-NI 240-SS-ptc FLBL-NI 220; FLBL-NI 220-SS; FLBL-NI 220-ptc; FLBL-NI 220-SS-ptc FLBL-NI 240; FLBL-NI 240-SS; FLBL-NI 240-ptc; FLBL-NI 240-SS-ptc	Max. 0.32 A

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Rated power

FLB L 220; FLB L 220-SS	34 W
FLB L 240; FLB L 240-SS	69 W
FLB 220; FLB 220-SS	36 W
FLB 240; FLB 240-SS	72 W
FLB-NI 220; FLB-NI 220-SS; FLB-NI 220-ptc; FLB-NI 220-SS-ptc	36+4 W
FLB-NI 240; FLB-NI 240-SS; FLB-NI 240-ptc; FLB-NI 240-SS-ptc	72 + 4 W
FLBL-NI 220; FLBL-NI 220-SS; FLBL-NI 220-ptc; FLBL-NI 220-SS-ptc	34 + 4 W
FLBL-NI 240; FLBL-NI 240-SS; FLBL-NI 240-ptc; FLBL-NI 240-SS-ptc	69 + 4W

Battery pack
NiCd battery voltage: 1.2 Vdc
NiCd battery capacity: 3 x 1100 mAh or 6 x 1100 mAh

[15.3] **Safety Ratings**: -

[15.4] **Ambient temperature and temperature classes:**

The temperature classes are the following: **T6 / T85°C**
The ambient temperature ranges are the following :

FLB L 220 and FLB L 220-SS FLB L 240 and FLB L 240-SS FLB 220 and FLB 220-SS FLB 240 and FLB 240-SS	-30˚C ≤ Ta ≤55˚C
FLB L NI 220 and FLB L NI 220-SS FLB L NI 240 and FLB L NI 240-SS FLB NI 220 and FLB NI 220-SS FLB NI 240 and FLB NI 240-SS	0˚C ≤ Ta ≤45˚C
FLB L NI 220-ptc and FLB L NI 220-SS-ptc FLB L NI 240-ptc and FLB L NI 240-SS-ptc FLB NI 220-ptc and FLB NI 220-SS-ptc FLB NI 240-ptc and FLB NI 240-SS-ptc	-30˚C ≤ Ta ≤45˚C

[15.5] **Degree of protection (IP code):**

IP66 according to EN 60529 Category 1

[15.6] **Warnings:**

"WARNING – DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT";
"WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD "

[16] **Report:** AT23-0095583-01

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[16.1] **Routine (factory) tests:**
The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN IEC 60079-0.
The overpressure test with static method shall be performed at 12 bar. The period of application of the pressure shall be at least 10 s.

[16.2] **Conformity with the documentation:**
The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.
Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**
Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN IEC 60079-0.
Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals request special considerations and additional measures by the side of installer or user.
These should be specified to the manufacturer by the user; It is not a requirement of the applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.
Installation of equipment has to proceed according to EN 60079-14.

[17] **Special Condition of use (X):**

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS (for dust application)

[18] **Essential Health and safety Requirements:**
This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].
This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN IEC 60079-0.

ESHR 1.2.7 Protection against other hazards; according Art. 4. 13 of Directive 2014/34/EU, the procedure for the conformity assessment to cover such hazards if followed using Annex VIII of the Directive, by Manufacturer Declaration.

ESHR 1.4 Hazards arising from external effects;
manufacturer shall commissioning installation to electrician with adequate knowledge of explosion protection considering external effect; the manufacturer shall stipulate the qualifications required by personnel; covered by Manufacturer Declaration.

ESHR 1.5 Not applicable as there are no safety device nor the need to use them.

ESHR 3 Not applicable as this is an Equipment and not Protective System.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
None additional

[13] # Annex

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 001X**

[19] **Descriptive documents:** AT23-0095583-01, Issue 0, dated 2024-04-09.

[20] **Certification Validity Conditions:**
The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.
The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.
One copy of the mentioned documentation is kept in IMQ file.

[21] **Variations**

Issue 1: addition of models FLB fitted with fluorescent lamp.
Issue 2: addition of models FLB-NI and FLBL-NI fitted with battery for emergency service.
Issue 3: addition versions with stainless steel body (SS), and versions with heater (ptc)