



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx TUR 25.0015X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2025-06-05

Applicant: **VYRTYCH a.s.**
Židněves 116
Březno 294 06
Czech Republic

Equipment: **Explosion-proof LED Luminaire, Model TOSA-Ex2/21-F-B01 Series**

Optional accessory:

Type of Protection: **Equipment protection by type of protection "nR" and Equipment dust ignition protection by enclosure "tb"**

Marking: **Ex nR IIC T6/T5 Gc**
Ex tb IIIC T80°C/T95°C Db IP66
(Ta range: refer to attachment)

Approved for issue on behalf of the IECEx
Certification Body:

Dipl.-Ing. Yang Wang

Position:

Assigned Certifier

Signature:
(for printed version)

Date:
(for printed version)

2025-06-05

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 www.iecex.com or use of this QR Code.



Certificate issued by:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





IECEx Certificate of Conformity

Certificate No.: **IECEx TUR 25.0015X**

Page 2 of 3

Date of issue: 2025-06-05

Issue No: 0

Manufacturer: **VYRTYCH a.s.**
Židněves 116
Březno 294 06
Czech Republic

Manufacturing
locations: **VYRTYCH a.s.**
Židněves 116
Březno 294 06
Czech Republic

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 equipment 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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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:

DE/TUR/ExTR25.0015/00

Quality Assessment Report:

CZ/FTZU/QAR22.0001/03



IECEX Certificate of Conformity

Certificate No.: **IECEX TUR 25.0015X**

Page 3 of 3

Date of issue: 2025-06-05

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The TOSA-Ex2/21-F-B01 Series Explosion-proof LED Luminaire is designed to be used in an explosive atmospheres. The rated voltage is 100-277VAC and frequency is 50/60Hz , the rated power are 150W, 200W and 240W, and the enclosure is made of ENAC-44300 cast aluminum.

All models of the TOSA-EX2/21-F-B01 Series have the same enclosure and same rated power LED. The type of protection of the equipment are "nR" and "tb". The lighting is intended to be used in Zone 2, Zone 21 and Zone 22.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. End user shall use certified cable glands with suitable type of protection for installation purpose. Cable gland with minimum IP66 rating, and has a minimum service temperature of 100°C to be used.
2. Clearances and creepage distances should be considered when installing the power cables in accordance with the applicable safety requirements of the relevant industrial standards.
3. Electrostatic charging hazard – clean only with a damp cloth.
4. End user are not allowed to open the light source chamber.
5. Restricted breathing enclosures with provision for routine checking shall be subjected to periodic pressure test measurement (see IECEx CoC and ExTR) at intervals of six months or more, as experience dictates.
6. To ensure that the "nR" properties will not be defeated by the opening and closing operation, the mounting and replacement of gasket or any seal must be observed in accordance with the requirements as specified in the Ex instruction of manufacturer.
7. Different ambient temperature range should be observed for different models as below.

Models	Tamb	T Class	Dust(°C)
TOSA-Ex2/21-F-B01-γγγ-23400- εεεε-ζζ-λλ	-40°C to +65°C	T5	95°C
	-40°C to +55°C	T6	80°C
TOSA-Ex2/21-F-B01-γγγ-29700- εεεε-ζζ-λλ	-40°C to +60°C	T5	95°C
	-40°C to +50°C	T6	80°C
TOSA-Ex2/21-F-B01-γγγ-35100- εεεε-ζζ-λλ	-40°C to +50°C	T5	95°C

Annex:

[DE-IECEX_TUR_25.0015X_00_Attachment_2025-06-05.pdf](#)



Attachment to Certificate
IECEX TUR 25.0015 X
Revision 0

Attachment to Certificate IECEX TUR 25.0015 X

Device: Explosion-proof LED Luminaire
Model name: TOSA-Ex2/21-F-B01 Series

Manufacturer: VYRTYCH a.s.

Address: Židněves 116, 294 06 Březno, Czech Republic

General product information:

Subject and type

Explosion-proof LED Luminaire, Model name: TOSA-Ex2/21-F-B01 Series

General product information:

The TOSA-Ex2/21-F-B01 Series Explosion-proof LED Luminaire is designed to be used in an explosive atmosphere. The rated voltage is 100-277VAC and frequency is 50/60Hz, the rated power is 150W, 200W and 240W, and the enclosure is made of ENAC-44300 cast aluminum.

All models of the TOSA-EX2/21-F-B01 Series have the same enclosure and same rated power LED. The type of protection of the equipment are "nR" and "tb". The lighting is intended to be used in Zone 2, Zone 21 and Zone 22. The differences of each model of TOSA-EX2/21-F-B01 Series are as below:

- 1) These equipment are powered by two models power supply: EUM Series and X6 Series.
- 2) These equipment use one Series surge protection device: LYSPD Series.
- 3) The Cable Entry of the equipment are 3/4" NPT, M25x1.5-6H shall be certified by IECEx and ATEX.

Model Designation:

TOSA-EX2/21-F-B01-YYY-00000-EE-ZZ-LL	LB:125°-165° (F01612);LM:51°-75° (F01605);LS:25°-51° (F01604); LW:76°-100° (F01606);LT:1°-15° (F01603);AA:TYPE I very short (F01601); AB:T4 I (F01602);AC:TYPE II very short 1 (F01608);AD:TYPE II medium (F01609); AE:TYPE II very short 2 (F01610);AF:TYPE IV short (F01611);AG:T4 II (F01613) ZZ:12 = Wire Guard;13 = Glare Shield;14 = 1pcs Cable Gland; 15 = 2pcs Cable Gland;16 = Wire Guard + Glare Shield; 17 = Wire Guard + 1pcs Cable Gland;18 = Wire Guard + 2pcs Cable Gland;19 = Glare Shield + 1pcs Cable Gland; 20 = Glare Shield + 2pcs Cable Gland; 21 = Wire Guard + Glare Shield + 1pcs Cable Gland; 22 = Wire Guard + Glare Shield + 2pcs Cable Gland Type of connection:0ND-Standard On/Off 23400:150W;29700:200W;35100:240W CCT:827=2700K;...;970=6500K Approximate dimensions of the luminaire 420x440mm Internal designation of the type of enclosure "nR" Certified luminaire for Zone 2,21 Luminaire name
--------------------------------------	--

Technical data:

Electrical data

Rated voltage: 100~277VAC(50Hz&60Hz)

Rated power: 150W, 200W, 240W



Attachment to Certificate
IECEx TUR 25.0015 X
Revision 0

Environmental data

Models	Tamb	T Class	Dust(°C)
TOSA-Ex2/21-F-B01-γγγ-23400-εεεε-ζζ-λλ	-40°C to +65°C	T5	95°C
	-40°C to +55°C	T6	80°C
TOSA-Ex2/21-F-B01-γγγ-29700-εεεε-ζζ-λλ	-40°C to +60°C	T5	95°C
	-40°C to +50°C	T6	80°C
TOSA-Ex2/21-F-B01-γγγ-35100-εεεε-ζζ-λλ	-40°C to +50°C	T5	95°C

IP Rating: IP66

Routine test at the manufacturer:

The manufacturer must perform the routine test according to the IEC 60079-15:2017 to ensure that the manufactured equipment is in accordance with the documentation.

For the enclosure of lamp, the routine test for restricted-breathing enclosure is necessary. The testing shall be conducted as below: Under constant temperature conditions, the time interval required for an internal pressure of (0.3 to 0.33)kPa(30mm water gauge) below atmospheric to change to half the initial value shall be not less than 180s.

Please refer to the Routine test procedure for restricted-breathing enclosure (AGC-QW-ED-001).