

EU-TYPE EXAMINATION CERTIFICATE

Component Intended for use on/in an Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

1. EU-Type Examination Certificate Number: ETL21ATEX0071U Issue 00
2. Product: EJS Series Empty Enclosures
3. Manufacturer: ROSE Systemtechnik GmbH
4. Address: Erbeweg 13-15, 32457 Porta Westfalica, Germany
5. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
6. Intertek Testing Services NA Ltd., Notified Body number 2903 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the product intended for use in potentially explosive atmospheres given in Annex II of the Directive.

The examination and tests results are recorded in confidential technical evaluation Intertek India Report No. CE-JOB-NDA-21-001786-004 (Intertek UK Certification Report Reference No. G104860407) dated 20th April 2022.
7. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-31:2014 except in respect of those requirements referred within item 14 of the Schedule.
8. The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for equipment or a protective system. This partial certification may be used as a basis for certification of equipment or a protective system.
9. 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.
10. The marking of the product shall include the following:



II 2 G D

Ex db IIC Gb

Ex tb IIIC Db IP66

Certification Officer: _____

M Newman

Date: _____

27th April 2022

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11. Description of Component

Empty enclosures EJS series (EJS 01, EJS 02, EJS 03 and EJS 04) are made of cast aluminium alloy or cast Stainless Steel SS304 or SS 316L or Cast Iron. The lid may contain display windows made of toughened, heat & impact resistant glass, permanently sealed with silicon sealant and threaded entries for Ex control accessories.

The enclosure is provided with bolted lid having conical joint. In case of flameproof enclosure ingress protection of IP 66 as per EN/IEC 60529 is achieved by application of silicone grease to flange surface of base & lid or providing O Ring of silicone in flange joint between lid & base as an option. However, in case of Ex tb enclosures ingress protection IP66 with silicon grease is not allowed and silicon O ring to achieve the same will be provided by default.

Enclosures shall be used within permissible watt dissipation as detailed below with:

| TYPE NO. | T Class | T6 | | | T5 | | | T4 | | |
|----------|--------------------------|-------|-------|-------|--------|-------|-------|--------|-------|-------|
| | Dust Temp Marking * | T85°C | | | T100°C | | | T135°C | | |
| | Max ambient temp | +40°C | +50°C | +60°C | +40°C | +50°C | +60°C | +40°C | +50°C | +60°C |
| EJS 01 | Max Watt Dissipation (W) | 87 | 63 | 39 | 123 | 100 | 76 | 209 | 185 | 161 |
| EJS 02 | | 140 | 104 | 63 | 200 | 160 | 121 | 331 | 293 | 257 |
| EJS 03 | | 200 | 148 | 93 | 284 | 228 | 175 | 470 | 417 | 364 |
| EJS 04 | | 295 | 218 | 140 | 415 | 327 | 259 | 684 | 606 | 530 |

Note: * Without dust layer

The watt dissipation values for T6 at 40°C, 50°C and 60°C can be extrapolated for T5 at higher ambient of 55°C, 65°C and 75°C and for T4 at higher ambient of 90°C, 100°C and 110°C and similarly watt dissipation values for T5 at 40°C, 50°C and 60°C can be extrapolated for T4 at higher ambient of 75°C, 85°C and 95°C.

Lid may be populated with separately certified control accessories (e.g., various type of PB actuators, rotary actuator for switching devices and LED Indicating lamp etc.) in required numbers & combination as shown hereunder. Lid may also be populated with display window, for Indicating or control instruments with display, number and size as shown hereunder. These control accessories or display window can be populated on sides of base of enclosure also if required.

| Type | Dimensions (mm) | | | Max. no. of control accessories | Display window (mm) | | | |
|--------|-----------------|--------|-------|---------------------------------|---------------------|-------|---------|---------|
| | Width | Height | Depth | | 44x44 | 92x92 | 140x140 | 186x186 |
| EJS 01 | 270 | 320 | 166 | 9 | 1 | 1 | X | X |
| EJS 02 | 330 | 430 | 291 | 20 | 1 | 1 | 1 | X |
| EJS 03 | 400 | 550 | 277 | 35 | 1 | 2 | 1 | 1 |
| EJS 04 | 530 | 630 | 311 | 56 | 1 | 2 | 1 | 1# |

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Note 1. All windows as above allowed in all the enclosures for both "-20°C" and "-60°C" except 186x186 window allowed in EJS 04 for "-20°C" only.
Note 2. Smaller size display window can be provided e.g., 60x90 instead of 92x92 without reducing the glass thickness.

The EJS series empty enclosures contains one internal and one external earthing. The enclosures are provided with threaded holes in the wall of the enclosure for cable glands, bushings, conduit fittings and stopping plugs.

One or more enclosures of this EJS series and other certified enclosures may be joined using separately certified sealed wire bushing and or conduit accessories.

12. Report Number

Intertek India Report Reference No. CE-JOB-NDA-21-001786-004 (Intertek UK Certification Report Reference No. G104860407) dated 20th April 2022.

13. Conditions of Certification

(a). Schedule of Limitations

- The enclosures of cast stainless steel or cast iron can be offered as flameproof only and not for dust atmosphere and cannot have display window.
- Oil-filled circuit breakers and contactors shall not be used.
- The content of the enclosures may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5mm.
- For enclosures provided with powder coating or liquid painting and intended for use in Group III applications, the user shall minimise the risk from electrostatic discharge by suitable selection and installation.
- The rated service temperature range for the non-metallic material is -20°C or -60°C to +135°C.
- No modifications must be made to the flame paths as they differ from the values stated in EN/IEC 60079-1. Contact the manufacturer on the dimension of the flameproof joints.
- Yield strength of lid fixing fasteners shall be $\geq 450\text{Mpa}$ with tolerance class 6g.
- Only suitably certified Ex bushings to be used referring to the enclosure marking to connect to other certified enclosures.

(b). Conditions of Manufacture - Routine Tests

- A routine overpressure test shall be carried out by the manufacturer on each flameproof enclosures of EJS Series at pressure (in bar) as detailed below with for a period of at least 10 seconds and test results recorded.

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The overpressure test shall be considered satisfactory if no permanent deformation or damage invalidating the type of protection is observed, the joints in no place have been permanently enlarged and no leakage through the walls of the enclosure and cemented joints shall be observed. The enclosure shall withstand the pressure without suffering permanent deformation of the joints, which means the measurement before and after the pressure test in order to evaluate a deformation.

| Enclosure | EJS 01 | EJS 02 | EJS 03 | EJS 04 |
|--|--------|--------|--------|--------|
| | (bar) | | | |
| Test Pressure for minimum ambient of "-20°C" | 12.0 | 11.0 | 12.9 | 15.6 |
| Test Pressure for minimum ambient of "-60°C" | 19.5 | 17.8 | 20.9 | 25.3 |

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in CE-JOB-NDA-21-001786-004 (Intertek UK Certification Report Reference No. G104860407) dated 20th April 2022.

15. Drawings and Documents

| Title: | Drawing No.: | Rev. Level: | Date: |
|---|------------------|-------------|------------|
| Empty enclosures - EJS Series (Sheet 1 of 4) | Ex.PMI.EJS.201-1 | 0 | 01.11.2021 |
| Empty enclosures - EJS Series (Sheet 2 of 4) | Ex.PMI.EJS.201-1 | 0 | 01.11.2021 |
| Empty enclosures - EJS Series (Sheet 3 of 4) | Ex.PMI.EJS.201-1 | 0 | 01.11.2021 |
| Empty enclosures - EJS Series (Sheet 4 of 4) | Ex.PMI.EJS.201-1 | 0 | 01.11.2021 |
| Instruction manual for configuration of equipments from EJS series empty Enclosures | IM.EJS.U | 0 | 01.11.2021 |