



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 ITS 22.0001X | Page 1 of 3 | Certificate history: |
| Status: | Current | Issue No: 0 | |
| Date of Issue: | 2022-07-25 | | |
| Applicant: | ROSE Systemtechnik GmbH Erbeweg 13 - 15 32457 Porta Westfalica Germany | | |
| Equipment: | Power Distribution, Switchgear and Control Assembly - EJS series (EJS 01 to EJS 04) | | |
| Optional accessory: | | | |
| Type of Protection: | Flameproof and Dust Ignition Protection by Enclosure | | |
| Marking: | Ex db IIC T4...T6 Gb and/or Ex tb IIIC T135°C ...T85°C Db IP66 -20°C or -60°C ≤Ta≤ +40°C...110°C IECEx ITS 22.0001X | | |

Approved for issue on behalf of the IECEx
Certification Body:

Mark Newman

Position:

Certificate Officer

Signature:
(for printed version)

Date:
(for printed version)

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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:

Intertek Testing & Certification Limited
ITS House, Cleeve Road
Leatherhead
Surrey, KT22 7SA
United Kingdom

intertek



IECEx Certificate of Conformity

Certificate No.: **IECEx ITS 22.0001X**

Page 2 of 3

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Manufacturer: **ROSE Systemtechnik GmbH**
Erbeweg 13 - 15
32457 Porta Westfalica
Germany

Manufacturing locations: **ROSE Systemtechnik GmbH**
Erbeweg 13 - 15
32457 Porta Westfalica
Germany

**See Annex 2 for additional
manufacturing locations**

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 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[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:

[GB/ITS/ExTR22.0002/00](#)

Quality Assessment Report:

[DE/EPS/QAR17.0003/42](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx ITS 22.0001X**

Page 3 of 3

Date of issue: 2022-07-25

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Power Distribution, Switchgear and Control Assembly - EJS series (EJS 01, EJS 02, EJS 03 and EJS 04) are assembled utilising empty enclosures certified under certificate number IECEx ITS 21.0031U. The assembly provides a degree of ingress protection of IP66.

See Annex No. 1

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. LED Indicating lamps if assembled are suitable for low risk of mechanical danger i.e., 2 Joules.
2. Equipment provided with Control Accessories i.e., Indicating lamps, Push button and Rotary actuators; and or powder coating or liquid painting and intended for use in Group III applications, may pose risk of electrostatic discharge, hence clean with damp cloth only.
3. Equipment must be installed in vertical position only.
4. Yield strength of lid fixing fasteners shall be $\geq 450\text{MPa}$.
5. All unused threaded entries shall be fitted with suitably certified blanking element. Each entry shall have no more than one thread adapter when an adapter is used. A blanking element shall not be used with thread adapter.
6. Use cables suitable for operating temperature referring to marking as per recommendation of IEC 60079-14.
7. No modifications must be made to the flamepaths of the unit without consultation of the drawings listed on the Ex-certificate.

Annexes:

[SFT IECEx OP 19f Annex 1 for IECEx Certificate of Conformity EJS_1.pdf](#)

[SFT IECEx OP 19f Annex 2 for IECEx CoC Add Manufacturing locations_1.pdf](#)



Annex 1 to IECEx Certificate of Conformity

| | | |
|------------------------|---------------------------|--------------------|
| Certificate No: | IECEx ITS 22.0001X | Issue No. 0 |
| Annex No. 1 | | |

| Technical Documents | | | |
|---|------------------|-------------|------------|
| Title: | Drawing No.: | Rev. Level: | Date: |
| Power Distribution, Switchgear and Control Assembly - EJS Series (3 Sheets) | Ex.PMI.EJS.201-2 | 0 | 10.05.2022 |
| Instruction Manual for Power Distribution, Switchgear and Control Assembly – EJS Series | IM.EJS.X | 0 | 10.05.2022 |

DESCRIPTION OF THE EQUIPMENT

Power Distribution, Switchgear and Control Assembly - EJS series (EJS 01, EJS 02, EJS 03 and EJS 04) are assembled utilising empty enclosures certified under certificate number IECEx ITS 21.0031U. The assembly provides a degree of ingress protection of IP66.

Enclosures are made in aluminium alloy alternatively they can be of cast stainless steel or cast iron as flameproof only and not for dust atmosphere and cannot have display window.

They can be used as control panel or terminal box for power, control, instrumentation, heat trace, battery charger and UPS etc. containing all type of electrical/electronic power components (e.g., Switch, MCB, MPCB, MCCB, contactors, transformers, rectifiers, invertors, relays, transducers, isolators, barriers, power supply, PLC, IO's, PCB etc.) busbars and/or terminals in numbers and combination as required.

Electrical/ electronic components may be placed inside enclosures 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.

The rating of components busbars and terminals will generally be up to 1.1kV AC/DC subject to max permissible watt dissipation as shown hereunder. Declared voltage rating is nominal and items having higher voltage rating as required may be populated inside enclosure subject to required creepage and clearance and within permitted watt dissipation.

| | | Max Watt Dissipation (W) | | | | |
|---------|-------------------|--------------------------|--------|--------|--------|--------|
| T Class | Dust temp Marking | Max ambient temp | EJS 01 | EJS 02 | EJS 03 | EJS 04 |
| T6 | T85°C | +40°C | 87 | 140 | 200 | 295 |
| | | +50°C | 63 | 104 | 148 | 218 |
| | | +60°C | 39 | 63 | 93 | 140 |
| T5 | T100°C | +40°C | 123 | 200 | 284 | 415 |
| | | +50°C | 100 | 160 | 228 | 327 |
| | | +55°C | 87 | 140 | 200 | 295 |
| | | +60°C | 76 | 121 | 175 | 259 |
| | | +65°C | 63 | 104 | 148 | 218 |
| | | +75°C | 39 | 63 | 93 | 140 |
| T4 | T135°C | +40°C | 209 | 331 | 470 | 684 |
| | | +50°C | 185 | 293 | 417 | 606 |
| | | +60°C | 161 | 257 | 364 | 530 |
| | | +75°C | 123 | 200 | 284 | 415 |

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| | | |
|------------------------|---------------------------|--------------------|
| Certificate No: | IECEx ITS 22.0001X | Issue No. 0 |
| Annex No. 1 | | |

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|--|--|--------|-----|-----|-----|-----|
| | | +85°C | 100 | 160 | 228 | 327 |
| | | +90°C | 87 | 140 | 200 | 295 |
| | | +95°C | 76 | 121 | 175 | 259 |
| | | +100°C | 63 | 104 | 148 | 218 |
| | | +110°C | 39 | 63 | 93 | 140 |

Note: * Without dust layer

Lid may be populated with IECEx ITS 16.0002U 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. These control accessories can be populated on sides of base of enclosure also if required. Lid may also be populated with display window, for Indicating or control instruments with display, number and size as shown hereunder.

| Type | Dimensions WxHxD (mm) | Max Rated Current (A) | Max Conductor Size (mm ²) | Max. no. of control accessories | Display window (mm) | | | |
|---|--------------------------|-----------------------------|---|---------------------------------------|---------------------|-------|---------|---------|
| | | | | | 44x44 | 92x92 | 140x140 | 186x186 |
| EJS 01 | 270x320x166 | 232 | 95 | 9 | 1 | 1 | X | X |
| EJS 02 | 330x430x291 | 269 | 120 | 20 | 1 | 1 | 1 | X |
| EJS 03 | 400x550x277 | 415 | 240 | 35 | 1 | 2 | 1 | 1 |
| EJS 04 | 530x630x311 | 850 | 500 | 56 | 1 | 2 | 1 | 1# |
| <p>#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.</p> <p>Note 2: Smaller size display window can be provided e.g., 60x90 instead of 92x92 without reducing the glass thickness.</p> | | | | | | | | |

The rated service temperature of LED indicating lamps is “-60°C to +100°C” and hence they shall be provided on equipment having T Class as T6 & T5 and or dust temperature rating as +85°C or +100°C.

Power distribution, switchgear and control assembly may be formed consisting of one or more enclosures of this EJS series and other certified enclosures using suitably rated and certified bushing and or conduit accessories referring to the enclosure marking.

These enclosures contain one internal and one external earthing. The enclosures are provided with threaded holes in the wall of the enclosure for cable glands, breather, bushings, conduit fittings, adapters and stopping plugs etc.

| Required Manufacturer Routine Testing | | |
|---------------------------------------|---|------------------------------|
| Test | Title/Description of Test | Standard and Clause |
| 1 | A routine overpressure test was carried out by the manufacturer on EJS series (EJS 01, EJS 02, EJS 03 and EJS 04) empty enclosures certified under certificate number IECEx ITS 21.0031U. | IEC 60079-1:2014 Clause 16.0 |



Annex to IECEx Certificate of Conformity

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|------------------------|---------------------------|--------------------|
| Certificate No: | IECEX ITS 22.0001X | Issue No. 0 |
| Annex No. 2 | | |

Additional Manufacturing Locations

Phoenix Mecano Kecsemet KFT
Szent István krt. 24
6000 Hungary

PM Komponenten N.V.
Karrewegstraat 124
9800 Deinze
Belgium

Phoenix Mecano B.V.
Havenstraat 100
7005 AG Doetinchem
The Netherlands

Phoenix Mecano S.E. Asia Pte. Ltd.
53 Ubi Ave 3 #04-01
Colourscan Building
Singapore 408863

Phoenix Mecano (India) Private Limited
Pirangut Industrial Area, Post Ghotawade
Plot 388, Village Bhare, Taluka Mulshi
Dist. Pune - 412115 India

Phoenix Mecano India Pvt. Ltd
Plant III, Gat No 408, 410 & 412,
Village - Urse, Taluka - Maval, Talegaon Urse Road,
Dist. Pune - 410506, India

Mecano Components Co., Ltd/012
No.1001, Jiaqian Road, Nanxiang, Jiading District
Shanghai P.R.C. 201802 China

Phoenix Mecano Inc.
7330 Executive Way Frederick
MD 21704 USA

Phoenix Mecano Saudi Arabia LLC,
Building no 3267, king Abdul Aziz Road Unit No1, Dharan 3451,
Dammam, Kingdom of Saudi Arabia

Rose Systemtechnik Middle East, P.O. Box 8993, Sharjah, U.A.E

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| Certificate issued by: | | Page 1 of 1 |
|  Total Quality. Assured. | Intertek Testing & Certification Ltd. Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SA, UK | SFT-IECEX-OP-19f (26 October 2018) |