

EU-TYPE EXAMINATION

CERTIFICATE

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

1. EU-Type Examination Certificate Number: ETL22ATEX0179X Issue 00
2. Product: Power Distribution, Switchgear and Control Assembly - ELJB Series (ELJB 01 to ELJB 04)
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.
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. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
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 IIB T4...T6 Gb or
Ex db IIB+H2 T4...T6 Gb and/or
Ex tb IIIC T135°C ...T85°C Db IP66
-20°C ≤ Ta ≤ +40°C ...+110°C

Certification Officer: _____ Date: 26th July 2022
M Newman

SCHEDULE:

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11. Description of Component

Power Distribution, Switchgear and Control Assembly - ELJB series (ELJB 01, ELJB 02, ELJB 03 and ELJB 04) are assembled utilising empty enclosures certified under certificate number ETL22ATEX0158U. The assembly provides a degree of ingress protection of IP66. Enclosures are fabricated from stainless steel SS304 or SS316L or mild steel plates.

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.), bus bars 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 20% for IIB and 40% for IIB+H₂ 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, bus bars 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	Max ambient	ELJB 01	ELJB 02	ELJB 03	ELJB 04
T6	T85°C	+40°C	167	227	380	455
		+50°C	112	145	268	318
		+60°C	80	95	186	227
T5	T100°C	+40°C	214	309	564	705
		+50°C	168	245	418	527
		+55°C	167	227	380	455
		+60°C	132	187	318	395
		+65°C	112	145	268	318
		+75°C	80	95	186	227
T4	T135°C	+40°C	422	672	1054	1336
		+50°C	376	600	923	1136
		+60°C	318	518	800	982
		+75°C	214	309	564	705
		+85°C	168	245	418	527
		+90°C	167	227	380	455
		+95°C	132	187	318	395
		+100°C	112	145	268	318
		+110°C	80	95	186	227

Note: * Without dust layer

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Lid may be populated with ITS16ATEX18397U 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. 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
ELJB 01	390x540x264	850	500	35	1	2	1
ELJB 02	510x660x297	935	630	63	1	2	1
ELJB 03	620x870x313	1055	1000	96	1	2	1
ELJB 04	730x930x325	1055	1000	130	1	2	1

Note: Smaller size display window can be provided e.g., 60x90 instead of 92x92 without reducing the thickness of

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 ELJB series and other certified enclosures using suitably rated and certified bushing and or conduit accessories referring to the enclosure marking. A minimum distance of 30mm in case of IIB and 40mm in case of IIB+H₂ shall be maintained from flange joint.

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.

12. Report Number

Intertek India Report Reference No. CE-JOB-NDA-22-000818-008 (Intertek UK Certification Report Reference No. G105036955) dated 17th June 2022.

13. Special Conditions of Certification

(a). Special Conditions of Use

- LED Indicating lamps. If assembled, are suitable for low risk of mechanical danger.
- 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.
- Equipment must be installed in vertical position only.
- Yield strength of lid fixing fasteners shall be $\geq 450\text{MPa}$.
- 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.
- Use cables suitable for rated T Class operating temperature referring to marking as per recommendation of EN 60079-14.
- No modifications must be made to the flamepaths of the unit without consultation of the drawings listed on the Ex-Certificates.

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(b). Conditions of Manufacture - Routine Tests

A routine overpressure test was carried out by the manufacturer on ELJB series (ELJB 01, ELJB 02, ELJB 03 and ELJB 04) empty enclosures certified under ETL22ATEX0158U as per clause 16.0 of EN 60079-1.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek India Report Reference No. CE-JOB-NDA-22-000818-008 (Intertek UK Certification Report Reference No. G105036955) dated 17th June 2022.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Power Distribution, Switchgear and Control Assembly - ELJB series (3 Sheets)	Ex.PMI.ELJB.201-2	0	14.01.2022
Instruction Manual for Power Distribution, Switchgear and Control Assembly - ELJB Series.	IM.ELJB.X	0	14.01.2022