

### 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 22.0015X	Page 1 of 3	Certificate history:
Status:	Current	Issue No: 0	
Date of Issue:	2022-07-26		
Applicant:	ROSE Systemtechnik GmbH Erbeweg 13 - 15 32457 Porta Westfalica Germany		
Equipment:	Power Distribution, Switchgear and Contr	ol Assembly – ELJB Series (ELJB 01 to ELJB 04)	
Optional accessory:			
Type of Protection:	Flameproof and Dust Ignition Protection b	by Enclosure	
Marking:	Ex db IIB T4T6 Gb or		
	Ex db IIB+H <sub>2</sub> T4…T6 Gb and/or		
	Ex tb IIIC T135°C T85°C Db IP66		
	-20°C ≤ Ta ≤ +40°C …+110°C		
	IECEx ITS 22.0015X		
Approved for issue of Certification Body:	on behalf of the IECEx	Mark Newman	
Position:		Certificate Officer	
Signature: (for printed version)			
Date: (for printed version)			
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Certificate issue	d by:		
Intertek Testing	& Certification Limited	inter	hale

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

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# IECEx Certificate of Conformity

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Date of issue:	2022-07-26	Issue No: 0				
Manufacturer:	ROSE Systemtechnik GmbH Erbeweg 13-15 D-32457 Porta Westfalica Germany					
Manufacturing locations:	ROSE Systemtechnik GmbH Erbeweg 13-15 D-32457 Porta Westfalica Germany	Additional Manufacturing Locations are included in Annex 2				
This certificate is issu IEC Standard list bel found to comply with Rules, IECEx 02 and	ued as verification that a sample(s), repr ow and that the manufacturer's quality s the IECEx Quality system requirements Operational Documents as amended	resentative of production, was assessed and tested and found to comply with the system, relating to the Ex products covered by this certificate, was assessed and s.This certificate is granted subject to the conditions as set out in IECEx Scheme				
<b>STANDARDS</b> : The equipment and a to comply with the fo	any acceptable variations to it specified llowing standards	in the schedule of this certificate and the identified documents, was found				
IEC 60079-0:2017 Edition:7.0	IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements Edition:7.0					
IEC 60079-1:2014-00 Edition:7.0	6 Explosive atmospheres - Part 1: Equip	oment protection by flameproof enclosures "d"				
IEC 60079-31:2013 Edition:2	IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" Edition:2					
	This Certificate <b>does not</b> indicate other than those expre	compliance with safety and performance requirements essly included in the Standards listed above.				
<b>TEST &amp; ASSESSMENT REPORTS:</b> A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:						
Test Report:						

GB/ITS/ExTR22.0015/00

Quality Assessment Report:

DE/EPS/QAR17.0003/42



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#### EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

2022-07-26

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 IECEx ITS 22.0011U.

See Annex 1

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. 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 ≥ 450MPa.
- 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 rated T Class 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-Certificates.

#### Annexes:

SFT IECEx OP 19f Annex 1 for IECEx Certificate of Conformity.pdf SFT IECEx OP 19f Annex 2 for IECEx CoC Add Manufacturing locations.pdf



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Annex No. 1		

Technical 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 – ELIB Series.	IM.ELJB.X	0	14.01.2022				

#### DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

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 IECEx ITS 22.0011U. 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 Marking *	Max ambient temp	ELJB 01	ELJB 02	ELJB 03	ELJB 04
		+40°C	167	227	380	455
Т6	T85⁰C	+50°C	112	145	268	318
		+60°C	80	95	186	227
T5		+40°C	214	309	564	705
		+50°C	168	245	418	527
	T100 <sup>0</sup> C	+55°C	167	227	380	455
	-	+60°C	132	187	318	395
		+65°C	112	145	268	318
		+75°C	80	95	186	227



SFT-IECEx-OP-19f (26 October 2018)



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	I	L10°C	422	672	1054	1226
	T135⁰C	+40°C	422	072	1054	1330
		+50°C	376	600	923	1136
		+60°C	318	518	800	982
		+75°C	214	309	564	705
T4		+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

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 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.

	Dimensions	Max Rated	Max	Max. no. of	Disp	lay window	' (mm)
Туре	WxHxD (mm)	Current (A)	Conductor Size (mm <sup>2</sup> )	control accessories	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 glass.							

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+H<sub>2</sub> 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.





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Requ	Required Manufacturer Routine Testing					
Test	Title/Description of Test	Standard and Clause				
1	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 IECEx ITS 22.0011U as per clause 16.0 of IEC 60079-1.	IEC 60079-1:2014 Clause 16.1				





Certificate No: IECEx ITS 22.0015X Annex No. 2 Issue No. 0

#### **Additional Manufacturing Locations**

Phoenix Mecano Kecsemet KFT Szent Istaván 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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