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 DEK 18.0073X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2019-12-20		
Applicant:	**ROSE Systemtechnik GmbH** Erbeweg 13 - 15 32457 Porta Westfalica **Germany**		
Equipment:	**Power distribution, switchgear and control assembly Series IJB**		
Optional accessory:			
Type of Protection:	**Ex db, Ex tb**		
Marking:	Ex db ... IIB + H_2 T4, T5 or T6 Gb Ex db ... IIB T4, T5 or T6 Gb Ex tb ... IIIC T85 °C, T100 °C or T135 °C Db		

Approved for issue on behalf of the IECEx Certification Body: **R. Schuller**

Position: **Certification Manager**

Signature: (for printed version)

Date: (for printed version) 2019-12-20

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.
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Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands

IECEx Certificate of Conformity

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

Manufacturing locations:

Phoenix Mecano (India) Pvt. Ltd.
Plant - I & II:
Pirangut Industrial Area, Post Ghotowade, Plot 388/389, Village Bhare, Taluka Mulshi
Disit, Pune - 412 115
India

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

See Annex 2 for all 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 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:

NL/DEK/ExTR19.0096/00

Quality Assessment Report:

DE/EPS/QAR17.0003/53

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Power distribution, switchgear and control assembly Series IJB, made of aluminium, stainless steel or cast iron with a flanged cover, with or without display window(s), are intended to be used in potentially explosive atmospheres. Inside and in the walls or cover of the enclosure electrical apparatus such as terminals, switching-, control-, regulating-, measuring- and indicating devices can be mounted.

Maximum ambient temperature range -60 °C to +110 °C, for details see Annex 1.

Degree of protection IP66 according to IEC 60529 and IEC 60079-0.

For more detailed information see Annex 1.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. For enclosures provided with a powder coating, liquid painting or provided with a non-metallic nameplate and/or tagplate and intended for use in Group III applications, the user shall minimize the risk from electrostatic discharge by suitable selection and installation.
2. The flamepath of the cover differs from the values stated in IEC 60079-1. Contact the manufacturer for information on the dimensions of the flameproof joints.
3. The M8 or M10 fasteners are of grade A2-70 with a yield stress of at least 450 MPa and shall be applied with a minimum torque value of 28 Nm (M8) or 58 Nm (M10).

Annexes:

222966700 Annex 1.pdf
222966700 Annex 2.pdf

Annex 1 to IECEx DEK 18.0073X
Annex 1 to NL/DEK/ExTR19.0096/00

Description

Power distribution, switchgear and control assembly Series IJB, made of aluminium, stainless steel or cast iron with a flanged cover, with or without display window(s), are intended to be used in potentially explosive atmospheres. Inside and in the walls or cover of the enclosure electrical apparatus such as terminals, switching-, control-, regulating-, measuring- and indicating devices can be mounted.

Marking

Where applicable, the equipment marking is completed by the types / levels of protection “i”, “[i]” and/or “m”.
The equipment is marked with Group IIB if at least 20% of each internal cross-sectional area remains free; it may be marked with Group IIB + H2 if at least 40% of each internal cross-sectional area remains free.

Ambient temperature range

Maximum ambient temperature range (for details see table below):

- IJB 01 … IJB 03: -20 °C or -60 °C to +110 °C
- IJB 04 … IJB 06: -20 °C to +110 °C

Degree of protection

Degree of protection IP66 according to IEC 60529 and IEC 60079-0.

Electrical ratings

The electrical ratings are dependent on the built-in components and equipment, but do not exceed 1.1 kV ac/dc nominal, 850 A and 500 mm^2. Actual ratings are stated on the nameplate.

Options

The flanged flamepaths may be provided with a max. 0.008 mm thick electro-plating.

The enclosures may be provided in natural finish, electro-plated, powder coated or liquid painted. The painting thickness does not exceed 0.18 mm.

Thermal data

The relation between enclosure type, temperature class, maximum surface temperature, maximum ambient temperature and maximum allowed power dissipation is given in the table below.

Temperature class	T6			T5					T4				
Max. surface temperature*	T85 °C			T100 °C					T135 °C				
Maximum ambient temperature (°C)	40	50	60	40	50	55	60	75	40	50	60	90	110
IJB Type:	Maximum allowed power dissipation (W):												
IJB 01	108	-	56	-	-	108	-	56	-	-	-	108	56
IJB 02	120	-	72	-	-	120	-	72	-	-	-	120	72
IJB 03	145	-	76	-	-	145	-	76	-	-	-	145	76
IJB 04	198	150	95	280	220	198	160	95	480	430	360	198	95
IJB 05	300	200	136	408	309	300	241	136	659	586	491	300	136
IJB 06	332	218	155	473	400	332	282	155	894	818	636	332	155
* : values have been determined without a dust layer													

Annex 2 to Certificate of Conformity IECEx DEK 18.0073X

Manufacturing locations

Rose Systemtechnik GmbH
Erbeweg 13-15
32457 Porta Westfalica
Germany

Phoenix Mecano Kecsemet KFT
Szent Istaván krt. 24
6000 Hungary
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

JKE Co., Ltd.
34, Mieumsandan-ro, 105bone-gil, Gangseo-gu,
Busan, Korea

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