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 KLCS 23.0021X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2024-01-09)
Date of Issue:	2025-05-30		
Applicant:	**KLEEV MIDDLE EAST FZE** Plot No. MO 0767, Street No. N200, Jebel Ali Free Zone (North), Dubai, P.O. Box: 17259 **United Arab Emirates**		
Equipment:	**Enclosure with Terminal blocks - KPEXXENTB…Series**		
Optional accessory:			
Type of Protection:	**Increased Safety 'e', Dust Protection by Enclosure 't' and Intrinsic Safety 'i'**		
Marking:	See ANNEX to IECEx KLCS 23.0021X, Issue No. 1		

Approved for issue on behalf of the IECEx Certification Body: **Vikram Paranjpe**

Position: **Dy. Director (Operations)**

Signature:
(for printed version)

Date:
(for printed version)

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.
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:

Karandikar Laboratories Certification Services
Gat No. 142, Boisar Chillar Rd.,
Opp. Union Park, At Betegaon,
Boisar (E), Tal- Palghar
Maharashtra 401501
India

IECEx Certificate of Conformity

Manufacturer: **KLEEV MIDDLE EAST FZE**
Plot No. MO 0767, Street No. N200,
Jebel Ali Free Zone (North),
Dubai, P.O. Box: 17259
United Arab Emirates

Manufacturing locations: **KLEEV MIDDLE EAST FZE**
Plot No. MO 0767, Street No. N200,
Jebel Ali Free Zone (North),
Dubai, P.O. Box: 17259
United Arab Emirates

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 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 Reports:

IN/KLCS/ExTR23.0031/00 IN/KLCS/ExTR23.0031/01

Quality Assessment Report:

IN/KLCS/QAR23.0010/00

IECEx Certificate of Conformity

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

The KPEXXENTB…Series of Enclosure with Terminal blocks utilise painted mild steel or stainless steel, which may optionally also be painted component enclosures certified under IECEx KLCS 23.0020U, coded Ex eb IIC Gb and Ex eb tb III C Db IP 66 for use in gas and/or dust environments.

The Enclosure with Terminal blocks consist of a main body, a hinged lid, four wall mounting brackets and up to four gland plates may be provided in the walls of the enclosure. All enclosures have an internal and external earth facility and the gaskets utilized between the hinged lid and main body are manufactured from silicone.

The enclosures may be fitted with combinations of suitably certified terminals, as detailed in Table 2, mounted to din rails, which are then mounted to either mounting channels or a sub-panel secured to studs in the rear of the enclosure.

The maximum permitted voltage for Ex e application is 630 V and for Ex i application is 300 V

Model Designation: KPE XX ENTB XXXX XXX XXX

KPE: Kleev Product

XX : MATERIAL GRADE

- 01 = ASTM A240 Gr. 304
- 02 = ASTM A240 Gr. 304L
- 03 = ASTM A240 Gr. 316
- 04 = ASTM A240 Gr. 316L
- 05 = EN 10025-2 Gr. S275JR

ENTB : ENCLOSURE WITH TERMINAL BLOCKS

XXXX : HEIGHT (200 mm to 2000 mm)

XXX : WIDTH (150 mm to 1200 mm)

XXX : DEPTH (150 mm to 1000 mm)

For details on Ex marking, Electrical Rating & List of pre-certified devices see ANNEX to IECEx KLCS 23.0021X, Issue No. 1

SPECIFIC CONDITIONS OF USE: YES as shown below:
See ANNEX to IECEx KLCS 23.0021X, Issue No. 1

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Inclusion of below changes to pre-certified devices:

1. IECEX KLCS 23.0020U Issue 1-
    1. Addition of gasket material for enclosure with cover bolts.
    2. Addition of variant with cover bolts
2. IECEX KLCS 23.0020U Issue 2-
    1. Model/size KPEXXYYY200012001000 has been added.

Annex:

ANNEX to IECEx KLCS 23.0021X Issue 01.pdf

ANNEX to IECEx KLCS 23.0021X, Issue No. 01

Date: 30/05/2025

1. Ex Marking:

For Group II

- When Ex eb terminal blocks are used (refer table 2 Sr/No 1 to 18).
  - Ex eb IIC T6…T3 Gb (-35 ºC ≤ Ta ≤ +** ºC)
  - Ex ia IIC T6…T3 Ga (-35 ºC ≤ Ta ≤ +**ºC)
- When enclosure contain both non-intrinsically safe, Ex eb terminal blocks and intrinsically safe terminal blocks are used (refer table 2 Sr/No 1 to 18).
  - Ex eb ia IIC T6…T3 Gb (-35 ºC ≤ Ta ≤ +**ºC)

- When Ex ec Fuse terminal blocks are used (refer table 2 Sr/No 19, 20 and 21).
  - Ex ec IIC T6…T3 Gc (-35 ºC ≤ Ta ≤ +** ºC)

- When enclosure contain both non-intrinsically safe, Ex eb terminal blocks and intrinsically safe terminal blocks are used (refer table 2 Sr/No 1 to 18).
  - Ex ec ia IIC T6…T3 Gc (-35 ºC ≤ Ta ≤ +**ºC)

For Group III

Ex tb IIIC T85ºC…T200ºC Db IP66 (-35 ºC ≤ Ta ≤ +**ºC)

** Upper Ambient temperature and temperature class are depending upon the application, see Table 1 in the Certificate Schedule.

2. Electrical Rating, Ambient Temperature and Temperature class:

Table 1 – The maximum permitted power dissipation within each type of the enclosure is as follows

Type/Model	Maximum Dissipated Power (Watts)								Cable length per terminal (Max box diagonal) (m)
	T6	T5	T4	T6	T5	T4	T4	T3	
	Amb -35°C +60°C	Amb -35°C +70°C	Amb -35°C +90°C	Amb -35°C +40°C	Amb -35°C +50°C	Amb -35°C +70°C	Amb -35°C +45°C	Amb -35°C +50°C	
KPEXXENTB0200150150	3.4			8.1			20.6		0.292
KPEXXENTB0260260150	6.8			14.5			31.5		0.397
KPEXXENTB0260260200	7.1			15.8			34.5		0.419
KPEXXENTB0300200150	7.2			17.0			37.5		0.380
KPEXXENTB0300200200	7.7			18.1			41.8		0.412
KPEXXENTB0380380150	8.6			20.1			49.4		0.558
KPEXXENTB0380380200	9.5			22.1			57.0		0.573
KPEXXENTB0400500150	10.4			24.6			64.2		0.658
KPEXXENTB0400500200	11.5			27.3			74.3		0.671
KPEXXENTB0500600200	12.7			30.0			84.3		0.806
KPEXXENTB0600450200	13.8			32.8			94.35		0.776
KPEXXENTB0760500200	15.0			35.5			104.4		0.931
KPEXXENTB0900600300	16.1			38.2			112.8		1.122
KPEXXENTB1000500300	17.3			40.9			121.2		1.158
KPEXXENTB1500800500	18.4			43.6			131.6		1.772
KPEXXENTB2000800800	19.6			46.2			142		2.298
KPEXXENTB200012001000	19.6			46.2			142		2.577

Table 1 represent the standard sizes of Enclosure with Terminal blocks and the maximum power dissipation for each size. If non-standard size enclosures are produced that fall between the sizes listed in table 1, the maximum power dissipation of the next smaller standard size is to be applied. If non-standard size enclosures are produced that are larger than the largest size in the tables, up to the maximum size of enclosure allowed by the associated enclosure component certification (IECEx KLCS 23.0020U Issue 2), the maximum power dissipation of the largest standard size in the table will be applied. Non-standard size enclosures smaller than the smallest standard size in the table are not covered by this certification

ANNEX to IECEx KLCS 23.0021X, Issue No. 01

Date: 30/05/2025

3. List of the pre-certified devices used:

Table 2: IECEx certified devices

No.	Component	Make	IECEx Certificate No.	Type	Ex Code	IECEx Standards	Temp. Range
1	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0027U Issue 10	Terminal Blocks: UT 2.5, UT 4, UT 4-MTD, UT 6, UT10, UT 10 SL, UT 16, UT 35, UT 35 IB, Protective Conductor terminal blocks UT 2.5-PE, UT 4-PE, UT 4 MTD-PE, UT 4-MTD-PE/S, UT 6-PE, UT 10-PE, UT 16-PE, UT 35-PE, UT 35-PE IB and Pick-off Terminal Blocks AGK 4 -UT 10, AGK 4-UT 16, AGK 4-UT 35	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
2	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0030U Issue 06	Terminal Blocks: UKH 150, UKH 240	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
3	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0034U Issue 7	Terminal Blocks: UK 1.5 N, UK 3 N, UK 5 N , UK 6 N	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
4	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0029U Issue 8	Terminal Blocks: UK 10 N, UK 16 N, UK 35, UK 35-IB, UKH 50, UKH 50-IB and UKH 95 and Pick-of Terminal Blocks Types AGK 10-UKH 50, AGK 10-UKH 95 and AGK 10-UKH 150/240	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
5	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx SEV 12.0008U Issue 4	Terminal Blocks: UKH 70	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
6	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx SEV 13.0012U Issue 4	Terminal Blocks: MUT2.5, MUT2.5PE, MUT 2.5 BU,MUT4, MUT4-PE, MUT 4 BU	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2015	-60°C to +110°C
7	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0051U Issue 10	Terminal Blocks: ST 2.5, ST 2.5-TWIN, ST 2.5-QUATTRO and STTB 2.5(-PV) and Protective Conductor Terminal Blocks: ST 2.5-PE, ST 2.5-TWIN-PE, ST 2.5-QUATTRO-PE and STTB 2.5PE	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
8	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0050U Issue 8	Terminal Blocks ST 4, ST 4-TWIN, ST 4-QUATTRO, STTB 4(-PV), ST 6 and ST 6-TWIN and Protective Conductor Terminal Blocks ST 4-PE, ST 4-TWIN-PE, ST 4-QUATTRO-PE, STTB 4-PE, ST 6-PE and ST 6-TWIN-PE	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
9	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0033U Issue 9	Terminal Blocks and Protective Conductor Terminal Blocks Series ST 10, ST 16 and ST 35	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
10	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx PTB 10.0021U Issue 7	Terminal Blocks: PT 2.5, PT 2.5-TWIN, PT 2.5-QUATTRO, PTTB 2.5 and PTTB 2.5(-PV) and Protective Conductor Terminal Blocks: PT 2.5-PE, PT 2.5-TWIN-PE, PT 2.5-QUATTRO-PE and PTTB 2.5PE	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
11	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx PTB 10.0046U Issue 5	Terminal Blocks: PT 4, PT 4-TWIN, PT 4-QUATTRO, PTTB 4 and PTTB 4(-PV) and Protective Conductor Terminal Blocks: PT 4-PE, PT 4-TWIN-PE, PT 4-QUATTRO-PE and PTTB 4PE	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
12	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx SEV 13.0005U Issue 8	Terminal Blocks: PT 6, PT 6-TWIN, PT 6-QUATTRO and Protective Conductor Terminal Blocks: PT 6-PE, PT 6-TWIN-PE, PT 6-QUATTRO-PE.	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
13	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx SEV 13.0003U Issue 5	Terminal Blocks: RBO 8, RBO 10, RBO 12, RBO 16	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
14	Terminal Blocks	Weidmuller Interface GmbH & Co. KG	IECEx ULD 14.0005U Issue 8	Feed through and protective conductor terminals with accessories - WDU*, WPE* and accessories ZQV*, WQV*, WAP*, WEW*, WTW*, LS 2.8	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C

ANNEX to IECEx KLCS 23.0021X, Issue No. 01

Date: 30/05/2025

No.	Component	Make	IECEx Certificate No.	Type	Ex Code	IECEx Standards	Temp. Range
15	Terminal Blocks	Weidmuller Interface GmbH & Co. KG	IECEx ULD 15.0008U Issue 4	Feed through and protective conductor terminals with accessories - ZDU*, ZPE* and accessories ZQV*, ZAP*, WEW*, ZEW*	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
16	Terminal Blocks	Weidmuller Interface GmbH & Co. KG	IECEx ULD 13.0005U Issue 1	Earthing and Neutral Busbar assembly, Types SH* and WEW*/* with ZB*	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
17	Terminal Blocks	PHOENIX CONTACT GmbH & Co.	IECEx KEM 06.0013U Issue 8	Terminal Blocks; UT 2,5-QUATTRO; UT 2,5-TWIN; UT 4-QUATTRO; UT 4 TWIN; UTTB 2,5; UTTB 2,5-PV; UTTB 4 and UTTB 4-PV and Protective Conductor Terminal Blocks; UT 2,5-QUATTRO-PE; UT 2,5-TWIN-PE; UT 4-QUATTRO-PE; UT 4-TWIN-PE; UTTB 2,5-PE and UTTB 4-PE	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
18	Terminal Blocks	Connectwell Industries Pvt. Ltd.	IECEx SIR 20.0046U Issue 4	Screw type Feedthrough, Spring type feedthrough models, Terminal blocks having I/P Screw Type Feed through and O/P Spring type Feed through, Screw Type Ground Terminals, Spring Type Ground Terminals, Screw Type Disconnecting Terminals,	Ex eb IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
19	Terminal Blocks	Connectwell Industries Pvt. Ltd.	IECEx SIR 20.0046U Issue 4	Spring type disconnecting Terminals, Spring type fuse Terminals, Screw type fuse Terminals	Ex ec IIC Gb	IEC 60079-0:2017 IEC 60079-7:2017	-60°C to +110°C
20	Terminal Blocks with Optional Fuse Holders	PHOENIX CONTACT GmbH & Co.	IECEx KEM 10.0054U Issue 3	UK 10-DREHSI-EX (5 x 20), UK 10-DREHSI-EX (6.3 x 32), DT 6/2.5-DREHSI-EX (5 x 20)	Ex nA IIC Gc	IEC 60079-0:2017 IEC 60079-15:2010	-50 °C to +125 °C
21	Terminal Blocks	Weidmüller Interface GmbH & Co. KG	IECEx UL 14.0097U Issue 3	WMF, WSI, WTR- Fuse and knife disconnect terminals and accessories	Ex nA IIC Gc	IEC 60079-0:2011 IEC 60079-15:2010	-60°C. to 120 °C
22	Enclosure	KLEEV	IECEx KLCS 23.0020U Issue 2	KPE XX YYY...Series	Ex eb IIC Gb Ex tb IIIC Db IP 66	IEC 60079-0:2017 IEC 60079-7:2017 IEC 60079-31:2022	-35°C to +160°C

4. Specific Conditions of Use:

1. All terminal screws, used and unused, shall be fully tightened down by the end user.
2. Insulation of conductors must extend to within 1mm of the metal of the terminal throat unless specified otherwise on the terminal certificate.
3. No more than one single or multi-stranded lead shall be connected to either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.
4. All terminals, and accessories such as cross-connectors, shall be installed in accordance with the terminal manufactures instructions.
5. For Enclosure with Terminal blocks with Ex ia marking shall only be considered as suitable for EPL Ga if the incoming supply is intrinsically safe and suitable for EPL Ga. In case the intrinsically safe supply is for a lower EPL then the installation of Enclosure with Terminal blocks will also be limited to the same EPL.
6. Some enclosures are painted with non-conducting paint and may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure

steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.

7. Live maintenance is not permitted.
8. Cable and cable gland temperature rating

	T6	T5	T4	T6	T5	T4	T4	T3
	Amb -35°C +60°C	Amb -35°C +70°C	Amb -35°C +90°C	Amb -35°C +40°C	Amb -35°C +50°C	Amb -35°C +70°C	Amb -35°C +40°C	Amb -35°C +50°C
Cable and cable gland temperature	80°C	90°C	110°C	80°C	90°C	110°C	100°C	110°C

9. Unused terminals shall be tightened.
10. For pre-certified Fuse terminal block, certified vide IECEx KEM 10.0054U Issue 3
    a. When assembling with other certified series and sizes and using the associated accessories, the required creepage distances and clearances have to be observed.
11. For pre-certified Terminal blocks, certified vide IECEx SIR 20.0046U Issue 4
    a. The terminal blocks shall be mounted on either DIN 15, DIN 32 or DIN 35 Rails.
    b. All terminal screws and nuts as applicable used shall be tightened down as per the torque values specified in the certificate.
    c. For screw clamp / spring clamp / ground terminal blocks: When the device is mounted in a hazardous area, connection and disconnection of the device from the rail while live is only permitted if the potentially explosive atmosphere is shown to be absent. This restriction does not apply if the circuit is intrinsically safe.
    d. For screw and spring disconnecting terminal blocks with hinge operated disconnecting knife: Disconnect terminals shall only be operated when the circuit is electrically isolated. This restriction does not apply if the circuit is intrinsically safe.
    e. When used in intrinsically safe circuits, the terminals shall not be used for voltages above 60 V peak.
    f. To avoid the risk of short-circuits between adjacent conductors in terminal blocks, the insulation of each conductor shall be maintained up to the metal of the terminal.
    g. Proper care shall be taken for stranded wire type of connection in terminal blocks, so that conductors do not get damaged during installation
    h. For screw clamp / spring clamp / ground terminal blocks: When the device is mounted in a hazardous area, connection and disconnection of the device from the rail while live is only permitted if the potentially explosive atmosphere is shown to be absent. This restriction does not apply if the circuit is intrinsically safe.
    i. For screw and spring disconnecting terminal blocks with hinge operated disconnecting knife: Disconnect terminals shall only be operated when the circuit is electrically isolated. This restriction does not apply if the circuit is intrinsically safe.
    j. Installation Instruction document shall be reviewed for additional conditions of use and warnings
    k. When these terminal blocks are mounted, the minimum creepage and clearance distances with neighbouring terminal blocks and between the current bar & DIN-Rail shall be maintained as per the table below: -

Voltage (V)	Creepage (mm)	Clearance (mm)
630	12	10
500	10	8
400	8	6
320	6.3	6

12. **For Group III application:**

Dust layers shall be prevented from building up on the outside surface of the enclosure and the enclosure shall be routinely cleaned.

END OF DOCUMENT