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Notified Body 2549

EN ISO/IEC 17065
S1-499

(1) EU-TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **ICQC 23 ATEX 0497 X** **Issue: 1**

(4) Equipment: **Enclosure with terminal Blocks Series KPEXXENTB**

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

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

(7) This equipment and any acceptable variations, also documents which are specified in the schedule to this certificate.

(8) The certification body ICQC, Notified Body No. 2549 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in confidential report No. **497-1/2025/04/ATEX**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC60079-0:2018, EN 60079-7:2015+A1:2018, EN 60079-11:2012, EN 60079-31:2024

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture and supply of this equipment. These are not covered by the certificate

(12) The marking of the equipment or protective system shall include the following:

II 2G Ex eb IIC T6...T3 Gb
II 3G Ex ec IIC T6...T3 Gc
II 2D Ex tb IIIC T85°C...T200°C Db IP66
-35 °C ≤ Ta ≤ +°C – see Schedule to Certificate**
In case of connecting intrinsically safe circuits - see Schedule to Certificate

Head of Certification Body: Sergey Kovalev

Date of issue: 30 July 2025
Jurmala, Latvia

(13) **SCHEDULE**

(14) **to EU-TYPE EXAMINATION CERTIFICATE: ICQC 23 ATEX 0497 X** **Issue: 1**

(15) **Description of Equipment:**

The Enclosure with terminal Blocks Series KPEXXENTB based on component empty enclosures certified under ICQC 23 ATEX 496 U which are made from painted mild steel or stainless steel SS304/SS304L/SS316/SS316L. The enclosures provide an ingress protection rating of IP 66.

The junction boxes 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 separately certified terminals, 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.

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)

Table1 - The maximum permitted power dissipation within each type of the enclosure is as follows:

	Maximum Dissipated Power (Watts)								Max box diagonal, m
Temperature class	T6	T5	T4	T6	T5	T4	T4	T3	
Maximal Tamb, °C / Terminal box type	+60	+70	+90	+40	+50	+70	+45	+50	
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
KPEXXYYY200012001000	19.6			46.2			142		2.577

Table 1 represents 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 (ICQC 23 ATEX 496 U), 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.

Technical characteristics:

Parameter	Value
Maximal rated voltage	Up to 630V depending on the terminals used
Ingress protection	IP66

Ex Marking

For Group IIG

II 2G Ex eb IIC T6...T3 Gb - When Ex eb terminal blocks are used.

II 3G Ex ec IIC T6...T3 Gc - When following terminal blocks are used:
- Terminal Blocks with Optional Fuse Holders types UK 10-DREHSI-EX (5 x 20), UK 10-DREHSI-EX (6.3 x 32), DT 6/2.5-DREHSI-EX (5 x 20) produced by PHOENIX CONTACT GmbH & Co. (KEMA ATEX 0096U) and/or
- Fuse and knife disconnect terminals types WMF, WSI, WTR produced by PHOENIX Weidmüller Interface GmbH & Co. KG (DEMKO 14 ATEX 1389) and/or
- Spring type disconnecting Terminals/Spring type fuse Terminals/Screw type fuse Terminals produced by Connectwell Industries Pvt. Ltd. (CSANe 21ATEX3070U)

For Group IID

II 2D Ex tb IIIC T85°C...T200°C Db IP66

When intrinsically safe circuits are connected in the terminal box

When only intrinsically safe (i.s.) circuits are connected in the terminal box, the resulting EPL and Sub-Group of the terminal box shall be determined according to the Table 2 and Table 3.

Table 2 - resulting EPL and Sub-Group of the terminal box for IIG installation:

EPL and Sub-Groub of the i.s. circuit / Marking of the terminal box	Ex ia Ga			Ex ib Gb			Ex ic Gc		
	IIA	IIB	IIC	IIA	IIB	IIC	IIA	IIB	IIC
II 2G Ex eb IIC T6...T3 Gb	1G IIA	1G IIB	1G IIC	2G IIC	2G IIC	2G IIC	2G IIC	2G IIC	2G IIC
II 3G Ex ec IIC T6...T3 Gc	1G IIA	1G IIB	1G IIC	2G IIA	2G IIB	2G IIC	3G IIC	3G IIC	3G IIC

Table 3 - resulting EPL and Sub-Group of the terminal box for IID installation:

EPL and Sub-Groub of the i.s. circuit / Marking of the terminal box	Ex ia Ga / Ex ia Da	Ex ib Gb / Ex ib Db	Ex ic Gc / Ex ic Db
	IIB/IIIC	IIB/IIIC	IIB/IIIC
II 2D Ex tb IIIC T85°C...T200°C Db	1D IIIC	2D IIIC	2D IIIC

When both non-intrinsically safe and intrinsically safe circuits are connected in the terminal box, the Ex-Marking not depend on the intrinsically safe characteristics

Variation 1 - This variation introduced the following changes:

1) Model/size KPEXXYYY200012001000 has been added.

2) Updating to current standards edition.

Warning markings:

WARNING: "DO NOT OPEN WHEN ENERGIZED"
WARNING: "CLEAN WITH DAMP CLOTH ONLY".
WARNING: "USE CABLE AND CABLE GLAND SUITABLE FOR TEMPERATURE OF XXX °C".
WARNING: "DO NOT REMOVE OR REPLACE THE FUSE/-TEST DISCONNECT SWITCH WHEN ENERGIZED".
When intrinsically safe circuits are connected in the terminal box
"WARNING – Intrinsically safe circuits"

Routine tests:
Manufacturer shall carry out dielectric strength test at 2U+1000 V for duration of 60 seconds according to Cl. 7.1 of EN IEC 60079-7:2016. No electrical breakdown shall occur.

(16) **Descriptive Documents:**

INSTRUCTION MANUAL: KL-08200-UM-QX-02
The drawings are listed in Evaluation report No: 497-1/2025/04/ATEX

Certificate History:

Issue/Date	Evaluation report	Comment
Issue 0 from 29.12.2023	497/2023/04/ATEX	The release of the prime certificate.
Issue 1 from 30.07.2025	497-1/2025/04/ATEX	The introduction of Variation 1.

(17) **Conditions of Manufacture**

17.1 As defined, the Enclosure with terminal Blocks may also be manufactured to sizes not specified in the documentation provided that any given dimension is not larger than the respective dimension of the largest enclosure or smaller than the respective dimension of the smallest enclosure as detailed in associated enclosure component certification (ICQC 23 ATEX 496 U). The marked power rating shall be the power rating of the next smallest size of enclosure.

17.2 The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform ICQC of any modifications of the devices that may impinge upon the explosion safety design of their products.

17.3 Suitably certified cable entry, blanking and breather devices may be fitted into the enclosure via through holes provided they meet the minimum IP requirements marked on the enclosure and the applicable schedule of limitation/specific condition of use are suitably met.

17.4 The maximum dissipated power in watts, for each junction box, shall be calculated in accordance with EN IEC 60079-7:2016/A1:2018+A1:2018, Annex E, E.2 and shall not exceed the value given in the Table 1 detailed in the product description

17.5 Cable and cable gland temperature rating must be marked on the equipment:

T-Class	T6	T5	T4	T6	T5	T4	T4	T3
Tamb maximal	+60°C	+70°C	+90°C	+40°C	+50°C	+70°C	+40°C	+50°C
Cable and cable gland temperature	80°C	90°C	110°C	80°C	90°C	110°C	100°C	110°C

(18) **Specific conditions of use:**

18.1 The Installation of intrinsically safe circuits in the junction boxes must fully comply with the requirements of the Cl. 16.5 EN 60079-14 current edition.

18.2 The field of application of the junction boxes for intrinsically safe circuit connection (EPL and the Sub-Group) is determined by the parameters of the electrical intrinsically safe circuits connected in them – when only i.s circuits are connected in the terminal box, see Table 2 and Table 3.

18.3 Terminal boxes which contain both intrinsically and non-intrinsically safe circuits shall provide the clearance distance between bare conducting parts of intrinsically safe circuits and non-intrinsically safe circuits shall be at least 50 mm or as defined in EN 60079-11.

18.4 The terminal boxes with intrinsically safe circuits should be marked with "WARNING – Intrinsically safe circuits" or technically equivalent text.

18.5 All terminal screws, used and unused, shall be fully tightened down by the end user.

18.6 Insulation of conductors must extend to within 1mm of the metal of the terminal throat unless specified otherwise on the terminal certificate.

18.7 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.

18.8 All terminals, and accessories such as cross-connectors, shall be installed in accordance with the terminal manufactures instructions.

18.9 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.

18.10 Live maintenance is not permitted.

18.11 Cable and cable gland temperature rating

T-Class	T6	T5	T4	T6	T5	T4	T4	T3
Tamb maximal	+60°C	+70°C	+90°C	+40°C	+50°C	+70°C	+40°C	+50°C
Cable and cable gland temperature	80°C	90°C	110°C	80°C	90°C	110°C	100°C	110°C

18.12 Unused terminals shall be tightened.

18.13 For pre-certified Fuse terminal blocks types UK 10-DREHSI-EX (5 x 20), UK 10-DREHSI-EX (6.3 x 32), DT 6/2.5-DREHSI-EX (5 x 20), produced by PHOENIX CONTACT GmbH & Co (KEMA ATEX 0096U):

a. When assembling with other certified series and sizes and using the associated accessories, the required creepage distances and clearances have to be observed.

18.14 For pre-certified Spring type disconnecting Terminals, Spring and Screw types fuse Terminals, produced by Connectwell Industries Pvt. Ltd. (CSANe 21ATEX3070U):

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

18.15 For Group IID application:

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

(19) **Essential Health and Safety Requirements:**

Met by compliance with the standards mentioned in clause (9).