



**Instytut
Energetyki**

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– NATIONAL RESEARCH INSTITUTE**
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AC 117

CERTIFICATE OF CONFORMITY

No. DZC.522.62.2024
Issue No. 01 of 2024.07.23

*Name and address of
the certificate holder:*

Zakład Aparatury Elektrycznej ERGOM Sp. z o.o.
10 Nowe Sady Str.,
94-102 Łódź, Poland

Name of the product:

Terminal lugs / Through connectors

Type:

KDR 10-240 / KLD 10-240

Manufacturer:

Zakład Aparatury Elektrycznej ERGOM Sp. z o.o.
10 Nowe Sady Str.,
94-102 Łódź, Poland

Parameters:

According to the appendix

Application of the product:

**Connection and termination of copper cables with class 2
conductors with parameters according to appendix**

*The product meets
requirements of:*

EN IEC 61238-1-1:2019, EN IEC 61238-1-3:2019

*According to the
reports made by:*

SEP-BBJ; Instytut Energetyki; ZAE ERGOM

*Number of the
type test report:*

**LA-18.042/2, LA-18.042/1; EWP/35/E/2017-11, EWP/35/E/2018-15,
EWP/35/E/2016-6, EWP/35/E/2016-7, EWP/57/E/2018-3;
ERGOM/08/01/2018, ERGOM/09/04/2018, ERGOM/06/12/2017,
ERGOM/07/12/2017**

Period of validity:

from 23rd of July 2024 until 22nd of July 2027

The right to use the certificate of conformity within its validity period applies only to:

- these copies that meet the requirements specified above and have the same characteristics (parameters) as the model / product samples submitted for testing
- certificate holder or his authorized representative

The list of evidenced parameters is included in the appendices to the certificate of conformity.

Number of appendices: 1

THE SYSTEM OF PRODUCT CERTIFICATION PC_1a (Program 1a acc. to PN-EN ISO/IEC 17067:2014-01)
(product parameters confirmed by type test)



pp of the DIRECTOR OF
INSTITUTE OF POWER ENGINEERING
– NATIONAL RESEARCH INSTITUTE

Hercog
Dr. Jarosław Hercog, PhD

Warsaw, 2024.07.23



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APPENDIX TO THE CERTIFICATE OF CONFORMITY
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LIST OF EVIDENCED PARAMETERS

Name / Cu connector type	Terminal lug ¹⁾ / KDR 10-240	Through connector ¹⁾ / KLD 10-240
Class		
- electrical	A	A
- mechanical	1	1
Construction / cross-section of Cu cables / conductors [mm ²]	RMC ²⁾ , RM, SM / 10 ÷ 240	RMC ²⁾ , RM, SM / 10 ÷ 240
Initial scatter $\delta^3)$	$\leq 0,30$	$\leq 0,30$
Mean scatter $\beta^4)$	$\leq 0,30$	$\leq 0,30$
Resistance factor ratio $\lambda^5)$	$\leq 2,0$	$\leq 2,0$
Change in resistance factor $D^6)$	$\leq 0,15$	$\leq 0,15$
Maximum temperature $\theta_{\max}^7)$	$\leq \theta_{\text{ref}}$	$\leq \theta_{\text{ref}}$
Permissible tensile force [N]	$\leq 60 \times A^8) \text{ Cu}$	$\leq 60 \times A^8) \text{ Cu}$

NOTES:

- 1) ¹⁾ Terminal lugs of type KDR 10-240 has common name of "Tubular terminals, KDR 10-240 type". Through connectors KLD 10-240 has common name of "Connectors, KLD 10-240 type"
- 2) ²⁾ In the technical documentation of cable and wire manufacturers, the RMC designation is also known as RMV
- 3) ³⁾ The average value of the resistance factors of six connectors (lugs) before the first heating cycle.
- 4) ⁴⁾ The average value of the resistance factors of six connectors (lugs) calculated from last 11 measurements readings. It specifies if all connectors (lugs) of given type are characterized by similar changes in resistance during the heat cycles.
- 5) ⁵⁾ Resistance factor ratio of tested connector (lug) during the heat cycle test in relation to the initial resistance factor.
- 6) ⁶⁾ The value specifies the size of the resistance factor change based on last 11 measurements readings.
- 7) ⁷⁾ Temperature of the connector (lug) referenced to the temperature of the reference section.
- 8) ⁸⁾ Nominal cross-sectional area

