

KELine®

# Soubor certifikátů

z nezávislých zkušebních laboratoří  
pro strukturované kabeláže KELine®



## KELine® komponenty Cat.6<sub>A</sub>, Cat.7


- |   |                  |
|---|------------------|
| • Instalační kabel, Category 6 <sub>A</sub> , 550 MHz, (B2 <sub>ca</sub> )                  | FORCE Technology |
| • Instalační kabel, Category 6 <sub>A</sub> , 550 MHz, (D <sub>ca</sub> , E <sub>ca</sub> ) | 3P               |
| • Instalační kabel, Category 7, 1000 MHz  | FORCE Technology |
| • Keystone modul, patch panely, Category 6 <sub>A</sub>                                     | FORCE Technology |
| • Keystone modul HD, Category 6 <sub>A</sub>  | GHMT             |
| • Patch kabel, Category 6 <sub>A</sub>  | FORCE Technology |

# Postup při vyhodnocování certifikátů

Zkontrolujte na webových stránkách zkušebny\*, která certifikát vystavila

**jestli nejde o padělek nebo opravený certifikát ve softwaru.**

Na certifikátu zkontrolujte:



## Compliance Statement

**No. 2019-154**

**Data communication cable, Category 6A**

**Company**  
KRUGEL EXIM spol s r.o.  
Rybničná 38/H  
831 06 Bratislava  
Slovakia

**Product description**  
Screened cable (U/FTP) characterised up to 500 MHz  
Horizontal floor wiring cable, 100 Ω  
4 individually screened twisted pairs  
Flame retardant, halogen free

**Product identification**  
KELine 10Giga 550MHz, STP 4x2xAWG23 Cat.6A, LSOH  
Part number: KE550HS23/1E

**Generic cabling and cabling components standards - Category 6A cable requirements**

- ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)
- IEC 61156-5:2012 (Ed. 2.1)
- EN 50173-1:2018 / EN 50173-2:2018
- EN 50288-10-1:2012
- TIA-568.2-D:2018

**Standards for flammability, halogen acidity, and smoke performance**

- IEC 60332-1-1:2015 (Ed. 1.1) / IEC 60332-1-2:2015 (Ed. 1.1)
- IEC 60754-2:2011 (Ed. 2.0)
- IEC 61034-1:2013 (Ed. 3.1) / IEC 61034-2:2013 (Ed. 3.1)


**Technical report**  
T923889-01, DANAK-19/19989

**EC Cabling product ID**  
6217


**CS valid until**  
1 March 2020

This product has been tested by FORCE Technology and complies with the requirements of the above "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006 in a maintenance schedule, which implies that FORCE Technology performs a quality audit of the man and QA sites. The maintenance testing of the product is performed on a sample basis.

Hørsholm, 22 February 2019



Lars Lindskov Pedersen  
Test Manager



Dennis Andersen  
Head of Department


**jestli je váš dodavatel oficiálním distribučním kanálem, který zabezpečí podporu a záruky poskytované výrobcem**

**jestli se zakoupený produkt shoduje s produktem uvedeným v certifikátu (výrobní značení na produktu nebo jeho obalu a výrobní kód v certifikátu)**

**jestli byl produkt testovaný dle současných platných norem \*\***

**jestli je certifikát stále platný**

**jestli je kvalita sériově vyráběných produktů pod stálým dohledem zkušebny nebo jde o jednorázový test dodaného vzorku**



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certification.madebydelta.com

\* [http://www.3ptest.dk/3p\\_qualified\\_producers/3p\\_qualified\\_lan\\_producers/](http://www.3ptest.dk/3p_qualified_producers/3p_qualified_lan_producers/)  
<https://certification.madebydelta.com/lan/ec-verified-companies/>

\*\* ISO/IEC 11801-1:2017, ISO/IEC 11801-2:2017 - Mezinárodní norma definující požadavky na strukturovanou kabeláž.  
TIA-568.2-D:2018 - Americká národní norma definující požadavky na strukturovanou kabeláž.

# Compliance Statement

No. 2019-154

## Data communication cable, Category 6A

### Company

KRUGEL EXIM spol s r.o.  
Rybničná 38/H  
831 06 Bratislava  
Slovakia

### Product description

Screened cable (U/FTP) characterised up to 500 MHz  
Horizontal floor wiring cable, 100  $\Omega$   
4 individually screened twisted pairs  
Flame retardant, halogen free

### Product identification

KELine 10Giga 550MHz, STP 4x2xAWG23 Cat.6A, LSOH  
Part number: KE550HS23/1E

### Generic cabling and cabling components standards - Category 6A cable requirements

- ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)
- IEC 61156-5:2012 (Ed. 2.1)
- EN 50173-1:2018 / EN 50173-2:2018
- EN 50288-10-1:2012
- TIA-568.2-D:2018

### Standards for flammability, halogen acidity, and smoke performance

- IEC 60332-1-1:2015 (Ed. 1.1) / IEC 60332-1-2:2015 (Ed. 1.1)
- IEC 60754-2:2011 (Ed. 2.0)
- IEC 61034-1:2013 (Ed. 3.1) / IEC 61034-2:2013 (Ed. 3.1)

### Technical report

T923889-01, DANAK-19/19989

### EC Cabling product ID


6217

### CS valid until

1 March 2020

This product has been tested by FORCE Technology and complies with the requirements of the above specified standards and "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006. The product takes part in a maintenance schedule, which implies that FORCE Technology performs a quality audit of the manufacturer's production and QA sites. The maintenance testing of the product is performed on a sample basis.

Hørsholm, 22 February 2019

  
Lars Lindskov Pedersen  
Test Manager



Dennis Andersen  
Head of Department





# Compliance Statement

## Screened Category 6<sub>A</sub> ISO/IEC, EN & ANSI/TIA Communication Cable

**Krugel Exim Identification P/N KE550HS23/1E**  
Category 6<sub>A</sub> Individual Foil without Overall Screen  
100 Ω, 4 Twisted Pairs, 23 AWG, Flame Retardant, LSHF, Copper Cable

**KRUGEL EXIM s.r.o.**  
**Rybnicna 38/H**  
**831 06 Bratislava, Slovak Republic**

***Compliance Statement No. 113788K***

*This Screened ISO/IEC, EN & ANSI/TIA Communication Cable has been tested by 3P Third Party Testing and complies with the Category 6<sub>A</sub> performance requirements of edition 1.0 of ISO/IEC Generic Cabling Standard 11801-1:2017, CENELEC Generic Cabling Standard EN 50173-1:2018, ANSI/TIA Generic Cabling Standard 568.2-D:2018, edition 2.1 of IEC Cable Standard 61156-5:2012 and requirements of CENELEC Cable Standard EN 50288-10-1:2012. Flame safety is verified according to IEC 60332-1-2, IEC 61034-1, IEC 61034-2, incl. amendment 1 and IEC 60754-2 The cable has EMC Performance Rating 8. The Compliance Statement may be suspended or withdrawn if cable fails to pass a Maintenance Testing performed at 6 or 12 month intervals.*

Hoersholm, 21<sup>st</sup> February 2019

A handwritten signature in blue ink, appearing to read "Ole Lambertsen".

Ole Lambertsen  
Test Responsible

Hoersholm, 21<sup>st</sup> February 2019

A handwritten signature in blue ink, appearing to read "Jens Rytter Petersen".

Jens Rytter Petersen  
General Manager

# Compliance Statement

No. 2019-155

## Data communication cable, Category 7

### Company

KRUGEL EXIM spol s r.o.  
Rybničná 38/H  
831 06 Bratislava  
Slovakia

### Product description

Screened cable (S/FTP) characterised up to 1000 MHz\*  
Horizontal floor wiring cable, 100 Ω  
4 individually foil screened twisted pairs with overall braid screen  
Flame retardant, halogen free

### Product identification

KELine 10Giga 1000MHz, S/FTP 4x2xAWG23 Cat.7, LSOH  
Part number: KE1000HS23

### Generic cabling and cabling components standards - Category 7 cable requirements

- ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)
- IEC 61156-5:2012 (Ed. 2.1)
- EN 50173-1:2018 / EN 50173-2:2018
- EN 50288-4-1:2013

### Standards for flammability, halogen acidity, and smoke performance

- IEC 60332-1-1:2015 (Ed. 1.1) / IEC 60332-1-2:2015 (Ed. 1.1)
- IEC 60754-2:2011 (Ed. 2.0)
- IEC 61034-1:2013 (Ed. 3.1) / IEC 61034-2:2013 (Ed. 3.1)

### Technical report

T923889-02, DANAK-19/19990

### EC Cabling product ID

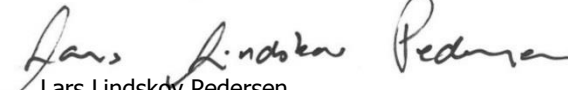
6218

### CS valid until

1 March 2020

This product has been tested by FORCE Technology and complies with the requirements of the above specified standards and "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006. The product takes part in a maintenance schedule, which implies that FORCE Technology performs a quality audit of the manufacturer's production and QA sites. The maintenance testing of the product is performed on a sample basis.

Hørsholm, 22 February 2019

  
Lars Lindskov Pedersen  
Test Manager



Dennis Andersen  
Head of Department



# Compliance Statement

No. 2019-315

## Connecting Hardware, Category 6A

Including 4 Pair Power over Ethernet (4PPoE)

(Un-mating connectors under electrical load of up to 2 A per conductor)

### Company

KRUGEL EXIM spol. s r.o.  
Rybnicna 38/H  
831 06 Bratislava  
Slovak Republic

### Product description

Screened Category 6A RJ45 Jack and Patch Panel characterised up to 500 MHz, 100  $\Omega$

### Product identification

KELine RJ45 Jack. Part number: KEJ-C6A-S-10G  
KELine Patch Panel. Part number: KEP-C6A-S-10G  
KELine Patch Panel. Part number: KEP-C6A-S-10G-NP

### Generic cabling and cabling components standards - Category 6A connector requirements

- ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)
- IEC 60603-7-51:2010
- EN 50173-1:2018 / EN 50173-2:2018
- TIA-568.2-D:2018
- IEC 60512-99-002:2019

including all connector alien crosstalk parameters (PS ANEXT and PS AFEXT)

### Technical report

T926911, DANAK-19/20158

### EC Cabling product ID

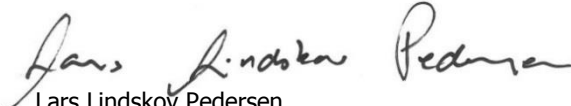
5113

### CS valid until

10 May 2020

This product has been tested by FORCE Technology and complies with the electrical requirements of the above specified standards and "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006. The testing included measurement of NEXT with a compliant test plug and calculation of all the 14 test cases in both measurement directions. The product takes part in a maintenance of certification schedule, which implies that FORCE Technology performs a quality audit of the manufacturer's production and QA sites. The maintenance testing of the product is performed on a sample basis once a year.

Hørsholm, 29 April 2019

  
Lars Lindskov Pedersen  
Test Manager

  
Dennis Andersen  
Head of Department



# Certificate

No. z5319b-18-E

**Customer:**

Krugel Exim spol. s.r.o.  
Rybnicna 38/H  
831 06 Bratislava 35, Slovakia

**Category 6A**

**Test sample(s):**

Connector:  
**KELine® RJ-45 Keystone Cat.6A**  
Part no.: KEJ-C6A-S-HD

**Applied standard(s):**

ISO/IEC 11801-1 Ed.1.0 (2017-11)  
IEC 60603-7-51 Ed. 1.0 (2010-03)

**Result(s):**

The sample meets the limits of the specified standards and regulations with respect to the parameters indicated above.


**Connector, Copper, Category 6A**

## GHMT Type Approval

The test results which were determined in the course of the measurement refer to the submitted specimen. Any future technical modifications of the verified products are subject to the responsibility of the manufacturer.

This Certificate refers to the comprehensive test report no. P5319b-18-E and shall only be applicable in conjunction with the test report. This certificate is valid 24 months after date of issue.

Bexbach, 10. January 2019



Dirk Wilhelm, engineer  
(Chairman of the Managing Board)



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**RELIABILITY IN TOTAL  
REQUIRES ACCURACY IN DETAIL.**

# Compliance Statement

No. 2018-903

## Data communication cords, Category 6A

### Company

KRUGEL EXIM spol. s r.o.  
Rybničná 38/H  
831 06 Bratislava  
Slovak Republic

### Product description

Screened Category 6A RJ45 cords (equipment, patch, and work area) characterised up to 500 MHz

### Product identification

KELine 10Giga patch cables STP Cat.6A, LS0H  
Part number: KEL-C6A-P-xxx (xxx: denotes length in dm)

### Generic cabling and cabling components standard - Category 6A balanced cord requirements

- ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)
- EN 50173-1:2018 / EN 50173-2:2018
- TIA-568.2-D:2018
- IEC 61935-2:2010 (Ed. 3.0) (transmission requirements)

### Technical report

T835751, DANAK-19/19770

### EC Cabling product ID

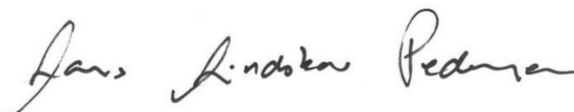
5008

### CS valid until

1 March 2020

This product has been tested by FORCE Technology and complies with the electrical requirements of the above specified standards and "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006. The product takes part in a maintenance of certification schedule, which implies that FORCE Technology performs a sample test of the product once a year. This Compliance Statement has been revised.

Hørsholm, 19 December 2018



Lars Lindskov Pedersen  
Test Manager



Dennis Andersen  
Head of Department

