

# CERTIFICATE

## (1) EU-Type Examination

(2) **Component intended for use on/in equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 98ATEX1651U** Issue Number: **6**

(4) Product: **Terminal Blocks UK 1,5 N; UK 3 N; UK 5 N and UK 6 N**

(5) Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**

(6) Address: **Flachmarktstraße 8, 32825 Blomberg, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/KEM/ExTR06.0035/04.

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

**EN IEC 60079-0 : 2018**

**EN 60079-7 : 2015 + A1 : 2018**

(10) The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



**II 2 GD Ex eb IIC Gb**

Date of certification: 23 June 2021

DEKRA Certification B.V.

L.G. van Schie  
Certification Manager

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 98ATEX1651U**

Issue No. 6

(15) **Description**

Terminal Blocks (all colors) UK 1,5 N; UK 3 N; UK 5 N and UK 6 N and accessories are intended for the connection of copper conductors in enclosures fulfilling the degree of protection which is required by the applied type of protection for the end-application. The Terminal Blocks are intended for installation on mounting rails type NS 32 or type NS 35 according to EN IEC 60715 respectively Section G 32 and Section TH 35-TH 35.

Operating temperature range -60 °C to +110 °C.

**Electrical data**

For electrical data and nomenclature see Annex 1 to NL/KEM/ExTR06.0035/04.

**Installation instructions**

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

NL/KEM/ExTR06.0035/04.

(17) **Schedule of Limitations**

1. The Terminal Blocks shall be mounted in a certified enclosure that meets the requirements of an approved type of protection as specified in EN 60079-0 clause 1, with a degree of protection at least as required for Ex e. For combustible dust these enclosures must satisfy the requirements according to EN 60079-0 and EN 60079-31.
2. When assembling with other certified series and sizes and using the associated accessories, the required creepage distances and clearances have to be observed.
3. The installation instruction of the manufacturer shall be followed e.g. for the use of cover, jumpers, end brackets. The data regarding current and associated temperature rise shall be used as guideline for the given conductor cross sections. The cross section has influence on the temperature rise which shall be assessed in the end application.
4. If the Terminal Blocks are used in electrical apparatus of temperature classes T1 up to T5, the highest temperature of the insulating material shall not exceed the maximum value of the operating temperature range.
5. If the Terminal Blocks are used in electrical apparatus of temperature classes T6 the permissible ambient temperature range is  $-60\text{ °C} < T_{amb} < +40\text{ °C}$ .
6. The electrical data per Annex 1 applies.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/KEM/ExTR06.0035/04.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 98ATEX1651U**

Issue No. **6**

(20) **Certificate history**

- Issue 1 - 8165100 Initial certificate.
- Issue 2 - 209404700 Assessment to recent editions of standards, change operating temperature.
- Issue 3 - 213746700 Assessment to recent edition of standards, change operating temperature.
- Issue 4 - 216663200 Small mechanical changes.
- Issue 5 - 219710400 Assessment to recent editions of the standards, small mechanical changes.
- Issue 6 - 225498500 Introduction of an alternative insulation material for the Insulation body.

## Electrical data

Note 1: in this document [,] is used as decimal separator.

All values are values of terminal blocks without bridges, unless indicated otherwise.

Type	UK 1,5 N		UK 3 N
	NS 35 and NS 32		NS 35 and NS 32
Assembled on mounting rail	NS 35 and NS 32		NS 35 and NS 32
Rated insulation voltage [V]	320		630
Rated voltage [V]	352		690
- with bridge [V]	69		176
Rated current [A]	15,5		21,5
- rated cross-section with bridge FBRN [A]	15,5		-
- rated cross-section with bridge FBR [A]	-		18,5
- rated cross-section with bridge EBL [A]	-		20
Maximum load current [A]	15,5		27,5
Temperature rise [K]	40 (17,5 A; 1,5 mm <sup>2</sup> )		40 (24 A; 2,5 mm <sup>2</sup> )
Contact resistance [mΩ]	0,45		0,5
Rated cross-section [mm <sup>2</sup> ] (AWG)	1,5 (16)		2,5 (14)
Connectable conductor cross-section			
- rigid [mm <sup>2</sup> ] (AWG)	0,14 - 1,5 (26-16)		0,2 - 4 (24-12)
- flexible [mm <sup>2</sup> ] (AWG)	0,14 - 1,5 (26-16)		0,2 - 2,5 (24-14)
Multi-conductor connection (2 conductor with the same cross-section)			
- rigid [mm <sup>2</sup> ] (AWG)	0,14 - 0,75 (26-18)		0,2 - 1,5 (24-16)
- flexible [mm <sup>2</sup> ] (AWG)	0,14 - 0,75 (26-18)		0,2 - 1,5 (24-16)
Type	UK 5 N		UK 6 N
	NS 35	NS 32	NS 35 and NS 32
Assembled on mounting rail	NS 35	NS 32	NS 35 and NS 32
Rated insulation voltage [V]	630	500	630
Rated voltage [V]	690	550	690
- with bridge [V]		176	690
Rated current [A]		27	41
- rated cross-section with bridge FB [A]		27,5	37,5
- rated cross-section with bridge FBI [A]		28,5	39,5
- rated cross-section with bridge FB 150 [A]		26	-
- rated cross-section with bridge KB(I) [A]		28	-
Maximum load current [A]		35	51
Temperature rise [K]	40 (30 A; 4 mm <sup>2</sup> )		40 (47 A; 6 mm <sup>2</sup> )
Contact resistance [mΩ]		0,37	0,16
Rated cross-section [mm <sup>2</sup> ] (AWG)		4 (12)	6 (10)
Connectable conductor cross-section			
- rigid [mm <sup>2</sup> ] (AWG)		0,2 - 6 (24-10)	0,2 - 10 (24-8)
- flexible [mm <sup>2</sup> ] (AWG)		0,2 - 4 (24-12)	0,2 - 6 (24-10)
Multi-conductor connection (2 conductor with the same cross-section)			
- rigid [mm <sup>2</sup> ] (AWG)		0,2 - 1,5 (24-16)	0,2 - 1,5 (24-16)
- flexible [mm <sup>2</sup> ] (AWG)		0,2 - 1,5 (24-16)	0,2 - 1,5 (24-16)

## Nomenclature

UK      1,5      N  
I          II          III

Designation	Explanation	Value	Explanation
I	Type indicator	UK	Feed through terminal block with screw connection
II	Rated cross section	1,5 3 5 6	1,5 mm <sup>2</sup> , 16 AWG 2,5 mm <sup>2</sup> , 14 AWG 4 mm <sup>2</sup> , 12 AWG 6 mm <sup>2</sup> , 10 AWG
III	Options	N	New