

High-current terminal block - UKH 70 BU



3244601

<https://www.phoenixcontact.com/de/produkte/3244601>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 192 A, connection method: Screw connection, Rated cross section: 70 mm², cross section: 16 mm² - 95 mm², mounting type: NS 35/7,5, NS 35/15, NS 35/15-2,3, NS 32, color: blue

Your advantages

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base
- Tested for railway applications
- Low contact resistance of the contact surface due to ribbing
- Screw locking by means of spring-loaded elements in the clamping part

Commercial Data

Item number	3244601
Packing unit	10 pc
Minimum order quantity	1 pc
Sales Key	A1 - Reihenklemmen
Product Key	BE1311
Catalog Page	Page 191 (C-1-2019)
GTIN	4046356561853
Weight per Piece (including packing)	153,9 g
Weight per Piece (excluding packing)	145,4 g
Customs tariff number	85369010
Country of origin	CN

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Technical Data

Notes

General

Note	For a reliable contact of multi stranded conductors it is recommended to untwist multi stranded conductors.
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Product properties

Product type	High current terminal block
Number of positions	1
Area of application	Railway industry
	Machine building
	Plant engineering
Number of connections	2
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	6.27 W

Connection data

Number of connections per level	2
Nominal cross section	70 mm ²

Level 1 above 1 below 1

Screw thread	M8
Tightening torque	8 ... 10 Nm
Stripping length	24 mm
Internal cylindrical gage	A11
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid	16 mm ² ... 95 mm ²
Cross section AWG	4 ... 3/0 (converted acc. to IEC)
Conductor cross section flexible	25 mm ² ... 70 mm ²
Conductor cross section, flexible [AWG]	3 ... 2/0 (converted acc. to IEC)
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	16 mm ² ... 70 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	16 mm ² ... 70 mm ²
2 conductors with same cross section, solid	16 mm ² ... 25 mm ²
2 conductors with same cross section, flexible	16 mm ² ... 25 mm ²

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2 conductors with same cross section, flexible, with ferrule without plastic sleeve	16 mm ² ... 25 mm ²
Nominal current	192 A
Maximum load current	192 A (with 70 mm ² conductor cross section)
Nominal voltage	1000 V
Note	Note: Product releases, connection cross sections and notes on connecting aluminum cables can be found in the download area.
Nominal cross section	70 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	□ II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	1201934 VDE-ISS 6 1201659 E/AL-NS 32 1201662 E/AL-NS 35
List of bridges	/ FBI 2-20 N EX / 3213210 / FBI 3-20 N EX / 3213211
Bridge data	180 A / 70 mm ²
Ex temperature increase	40 K (180 A / 70 mm ²)
Rated voltage	880 V (NS 35)
Rated insulation voltage	800 V (NS 35) 630 V (NS 32)
output	(Permanent)

Ex level General

Rated current	180 A
Maximum load current	180 A
Contact resistance	0.08 mΩ

Ex connection data General

Torque range	8 Nm ... 10 Nm
Nominal cross section	70 mm ²
Rated cross section AWG	2/0
Connection capacity rigid	16 mm ² ... 95 mm ²
Connection capacity AWG	4 ... 3/0
Connection capacity flexible	25 mm ² ... 70 mm ²
Connection capacity AWG	3 ... 2/0
2 conductors with same cross section, solid	16 mm ² ... 25 mm ²
2 conductors with the same cross-section AWG rigid	4 ... 3
2 conductors with same cross section, stranded	16 mm ² ... 25 mm ²
2 conductors with the same cross-section AWG flexible	4 ... 3

Dimensions

Width	20.3 mm
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Height	78.3 mm
Height NS 35/15	87.5 mm
Height NS 35/7,5	80 mm
Height NS 32	85 mm
Length	70.5 mm

Material specifications

Color	blue
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

Electrical tests

Surge voltage test

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature \leq 45 K
Result	Test passed
Short-time withstand current 70 mm ²	8.4 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	No
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Mechanical tests

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Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	10 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	25 mm ² / 4.5 kg
	70 mm ² /10.4 kg
	95 mm ² /14 kg
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	1.857 (m/s ²) ² /Hz
Acceleration	0.8g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C

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Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
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Mounting

Mounting type	NS 35/7,5
	NS 35/15
	NS 35/15-2,3
	NS 32

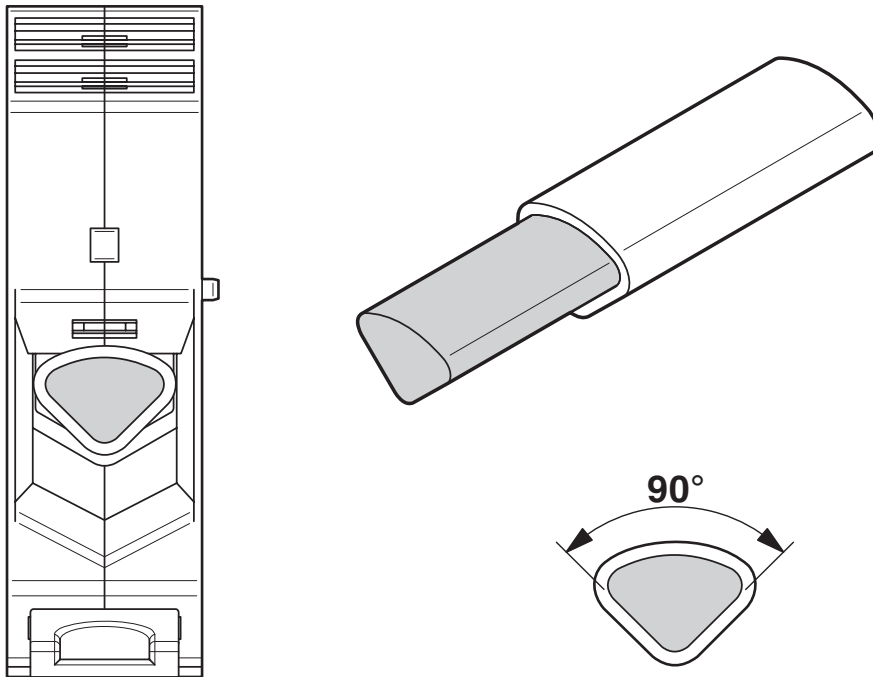
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Drawings

Schematic diagram



Connecting aluminum cables. Further notes can be found in the download area

Circuit diagram



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Approvals

DNV Approval ID: TAE00001CT				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
			-	-

CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B	1000 V	192 A	6 - 3/0	-
Use group C	600 V	192 A	6 - 3/0	-

CB IECEE CB Scheme Approval ID: DE1-62936				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	192 A	-	- 70

EAC Approval ID: RU C-DE.BL08.B.00534				
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cULus Recognized Approval ID: E60425				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group C	1000 V	192 A	6 - 3/0	-
Use group E	1000 V	192 A	6 - 3/0	-

LR Approval ID: LR2004271TA				
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VDE Zeichengenehmigung Approval ID: 40036368				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	192 A	-	- 70


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 cUL Recognized Approval ID: E192998				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	880 V	192 A	6 - 3/0	-

 EAC Ex Approval ID: RU C-DE.HA91.B.00066				
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 IECEX Approval ID: IECEX SEV12.0008U				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Mounting on NS 32	690 V	180 A	-	25 - 70
Mounting on NS 35	880 V	180 A	-	25 - 70

 UL Recognized Approval ID: E192998				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	880 V	192 A	6 - 3/0	-

 ATEX Approval ID: SEV12ATEX0168U				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Mounting on NS 32	690 V	180 A	-	25 - 70
Mounting on NS 35	880 V	180 A	-	25 - 70

 CCC Approval ID: 2020322313000623				
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 NEPSI Approval ID: GYJ20.1195U				
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 UKCA-EX Approval ID: CML 22UKEX1225U				
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cULus Recognized				
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Classifications

ECLASS

ECLASS-9.0	27141120
ECLASS-10.0.1	27141120
ECLASS-11.0	27141120

ETIM

ETIM 8.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e No hazardous substances above threshold values
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