

High-current terminal block - UKH 150 BU



3010123

<https://www.phoenixcontact.com/de/produkte/3010123>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 309 A, connection method: Screw connection, cross section: 35 mm² - 150 mm², mounting type: NS 35/15, NS 32, color: blue

Your advantages

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base
- 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	3010123
Packing unit	3 pc
Minimum order quantity	3 pc
Sales Key	A1 - Reihenklemmen
Product Key	BE1311
Catalog Page	Page 197 (C-1-2019)
GTIN	4017918091859
Weight per Piece (including packing)	380 g
Weight per Piece (excluding packing)	346,333 g
Customs tariff number	85369010
Country of origin	IN

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
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	9.55 W

Connection data

Number of connections per level	2
Nominal cross section	150 mm ²

Level 1 above 1 below 1

Screw thread	M10
Note	Screws with hexagonal socket
Tightening torque	25 ... 30 Nm
Stripping length	40 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid	35 mm ² ... 150 mm ²
Cross section AWG	2 ... 300 kcmil (converted acc. to IEC)
Conductor cross section flexible	50 mm ² ... 150 mm ²
Conductor cross section, flexible [AWG]	1/0 ... 300 kcmil (converted acc. to IEC)
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	50 mm ² ... 150 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	50 mm ² ... 150 mm ²
Cross-section with insertion bridge, rigid	150 mm ²
Cross-section with insertion bridge, flexible	120 mm ²
2 conductors with same cross section, solid	25 mm ² ... 50 mm ²
2 conductors with same cross section, flexible	35 mm ² ... 50 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	25 mm ² ... 50 mm ²

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Nominal current	309 A
Maximum load current	309 A (with 150 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.

Ex data

Rated data (ATEX/IECEx)

Identification	□ II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	1201947 VDE-ISS 8 1201659 E/AL-NS 32 1201662 E/AL-NS 35
List of bridges	Insertion bridge / EB 2-31/UKH / 0201388 Insertion bridge / EB 3-31/UKH / 0201391
Bridge data	195.5 A / 150 mm ²
Ex temperature increase	40 K (281.5 A / 150 mm ²)
Rated voltage	1100 V
at bridging with insertion bridge	880 V
Rated insulation voltage	1000 V
output	(Permanent)

Ex level General

Rated current	256 A
Maximum load current	256 A
Contact resistance	0.06 mΩ

Ex connection data General

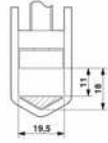
Torque range	25 Nm ... 30 Nm
Nominal cross section	150 mm ²
Rated cross section AWG	300 kcmil
Connection capacity rigid	35 mm ² ... 150 mm ²
Connection capacity AWG	2 ... 300 kcmil
Connection capacity flexible	50 mm ² ... 150 mm ²
Connection capacity AWG	1/0 ... 300 kcmil
2 conductors with same cross section, solid	25 mm ² ... 50 mm ²
2 conductors with the same cross-section AWG rigid	4 ... 1/0
2 conductors with same cross section, stranded	35 mm ² ... 50 mm ²
2 conductors with the same cross-section AWG flexible	2 ... 1/0

Dimensions

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Dimensional drawing	
Width	31 mm
Height	107.3 mm
Height NS 35/15	118.5 mm
Height	4.665 "
Height NS 32	116 mm
Length	100 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

Result	Test passed
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Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 150 mm ²	18 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

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Mechanical data

Open side panel	No
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	35 mm ² / 6.8 kg
	50 mm ² / 9.5 kg
	150 mm ² / 15 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):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI)
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	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
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 35/15
	NS 32

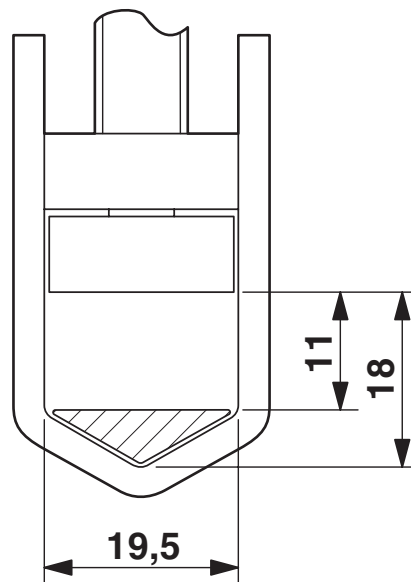
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Drawings

Dimensional drawing



Circuit diagram

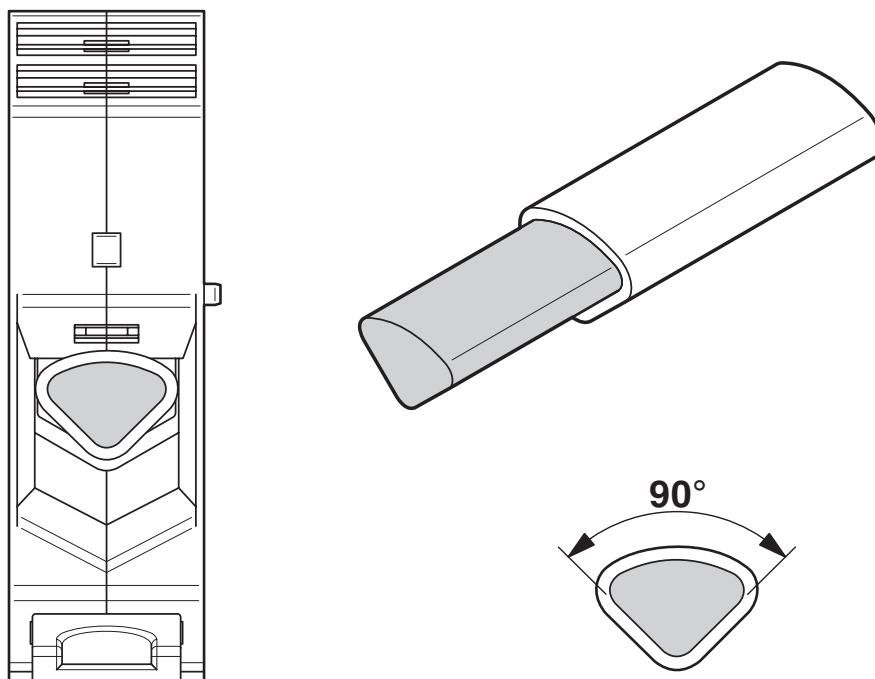


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Schematic diagram



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

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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	600 V	275 A	2 - 300	-
Use group C	600 V	275 A	2 - 300	-

EAC Approval ID: RU C-DE.AI30.B.01102				
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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 B	600 V	285 A	2 - 300	-
Multi-conductor connection	600 V	285 A	4 - 1/0	-
Use group C	600 V	285 A	2 - 300	-
Multi-conductor connection	600 V	285 A	4 - 1/0	-

RS Approval ID: 22.44.01.00083.250				
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EAC Approval ID: RU C-DE.BL08.B.00534				
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ATEX Approval ID: KEMA99ATEX8332U				
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cUL Recognized
Approval ID: E192998

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	285 A	2 - 300	-



EAC Ex
Approval ID: RU C-DE.HA91.B.00066



IECEX
Approval ID: IECEX KEM 06.0030U



UL Recognized
Approval ID: E192998

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	285 A	2 - 300	-



CCC
Approval ID: 2020322313000623



NEPSI
Approval ID: GYJ20.1195U



UKCA-EX
Approval ID: DEKRA 21UKEX0309U

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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