

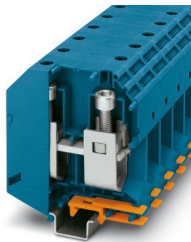
# UKH 150 BU - High-current terminal block



3010123

<https://www.phoenixcontact.com/us/products/3010123>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 309 A, number of connections: 2, number of positions: 1, connection method: Screw connection, cross section: 35 mm<sup>2</sup> - 150 mm<sup>2</sup>, 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	BE13
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

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## Technical data

### 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 <sup>2</sup>
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 rigid	35 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Cross section AWG	1/0 ... 250 kcmil (converted acc. to IEC)
Conductor cross section flexible	50 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	1/0 ... 250 kcmil (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	50 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	50 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Cross-section with insertion bridge, rigid	150 mm <sup>2</sup>
Cross-section with insertion bridge, flexible	120 mm <sup>2</sup>
2 conductors with same cross section, solid	25 mm <sup>2</sup> ... 50 mm <sup>2</sup>
2 conductors with same cross section, flexible	35 mm <sup>2</sup> ... 50 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	25 mm <sup>2</sup> ... 50 mm <sup>2</sup>
Nominal current	309 A
Maximum load current	309 A (with 150 mm <sup>2</sup> 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

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## Rated data (ATEX/IECEx)

Identification	Ex 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 <sup>2</sup>
Ex temperature increase	40 K (281.5 A / 150 mm <sup>2</sup> )
Rated voltage	1100 V
at bridging with insertion bridge	880 V
Rated insulation voltage	1000 V
output	(Permanent)

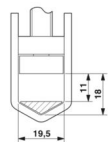
## Ex level General

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 <sup>2</sup>
Rated cross section AWG	300 kcmil
Connection capacity rigid	35 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Connection capacity AWG	2 ... 300 kcmil
Connection capacity flexible	50 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Connection capacity AWG	1/0 ... 300 kcmil
2 conductors with same cross section, solid	25 mm <sup>2</sup> ... 50 mm <sup>2</sup>
2 conductors with the same cross-section AWG rigid	4 ... 1/0
2 conductors with same cross section, stranded	35 mm <sup>2</sup> ... 50 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	2 ... 1/0

## Dimensions

Dimensional drawing	
Width	31 mm
Height	100 mm
Depth	107.3 mm
Depth on NS 32	116 mm
Depth on NS 35/15	118.5 mm

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## 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
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
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 $\leq 45$ K
Result	Test passed
Short-time withstand current 150 mm <sup>2</sup>	18 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

### 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

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Conductor cross section/weight	35 mm <sup>2</sup> / 6.8 kg
	50 mm <sup>2</sup> / 9.5 kg
	150 mm <sup>2</sup> / 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 <sup>2</sup> ) <sup>2</sup> /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 ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, no longer than 24 h, -60°C to +70°C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
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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## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

### ETIM

ETIM 9.0	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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