

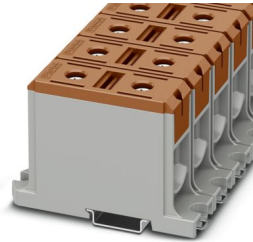
# UBAL 150 BN - High-current terminal block



1086503

<https://www.phoenixcontact.com/sg/products/1086503>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 290 A, number of connections: 2, number of positions: 1, connection method: Screw connection, Rated cross section: 150 mm<sup>2</sup>, cross section: 35 mm<sup>2</sup> - 150 mm<sup>2</sup>, Rated cross section: 150 mm<sup>2</sup>, cross section: 35 mm<sup>2</sup> - 150 mm<sup>2</sup>, mounting type: NS 35/15, NS 35/7,5, color: brown

## Your advantages

- Maintenance-free terminal points that are greased beforehand simplify the connection of aluminum conductors
- Tailor-made screw connection for multi-stranded aluminum conductors and copper wires
- Extremely robust housing made from fiberglass-reinforced polyamide with V0 approval
- The special design of the UBAL enables the simultaneous connection of aluminum and copper conductors in various connections

## Commercial data

Item number	1086503
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	*****
Product key	BE1311
Catalog page	Page 585 (C-1-2019)
GTIN	4055626879420
Weight per piece (including packing)	153.31 g
Weight per piece (excluding packing)	153.31 g
Customs tariff number	85369010
Country of origin	EE

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## Technical data

### Notes

General	Terminal block for aluminum and copper conductors (AL-CU)
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### General

Note	We recommend using ferrules when using flexible conductor.
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### Product properties

Product type	Feed-through 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

Nominal cross section	150 mm <sup>2</sup>
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### Aluminum conductor

Screw thread	M18
Note	Screws with hexagonal socket The following values apply to aluminum conductors The values for aluminum conductors relate to rigid and multi-stranded conductors in accordance with EN 60228. Application notes on connecting aluminum conductors can be found in the download area.
Tightening torque	20 ... 3 Nm
Stripping length	30 mm
Connection in acc. with standard	IEC 61238-1
Conductor cross section rigid	35 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Cross section AWG	2 ... 300 (converted acc. to IEC)
Nominal current	290 A
Maximum load current	290 A (with 150 mm <sup>2</sup> conductor cross section – test current in accordance with IEC 61238-1)
Nominal voltage	1000 V
Nominal cross section	150 mm <sup>2</sup>

### Copper conductor

Note	The following values apply to copper wires
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	Flexible conductors, class 5, in accordance with EN 60228.
Tightening torque	20 ... 30 Nm
Stripping length	30 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	2 ... 300 (converted acc. to IEC)
Conductor cross section flexible	95 mm <sup>2</sup> ... 120 mm <sup>2</sup>
Conductor cross-section flexible (ferrule without plastic sleeve)	35 mm <sup>2</sup> ... 120 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	35 mm <sup>2</sup> ... 120 mm <sup>2</sup>
2 conductors with same cross section, flexible	35 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
Nominal cross section	150 mm <sup>2</sup>

## Dimensions

Width	30.5 mm
Height	105.5 mm
Depth	67 mm
Depth on NS 35/7,5	67 mm
Depth on NS 35/15	74.5 mm
Hole diameter	2.75 mm

## Material specifications

Color	brown (RAL 8028)
Flammability rating according to UL 94	V0
Insulating material group	II
Insulating material	PA
Relative insulation material temperature index (Elec., UL 746 B)	400 °C

## Electrical tests

### Surge voltage test

Test voltage setpoint	8 kV
Result	Test passed

### Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 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

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## 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 35
Test force setpoint	15 N
Result	Test passed

### Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	35 mm <sup>2</sup> / 6.8 kg 150 mm <sup>2</sup> / 15 kg
Result	Test passed

## Environmental and real-life conditions

### Needle-flame test

Time of exposure	10 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

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

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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, 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 (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

## Standards and regulations

Connection in acc. with standard	IEC 61238-1
	IEC 60947-7-1

## Mounting

Mounting type	NS 35/15
	NS 35/7,5

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## Drawings

### Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/1086503>



**EAC**

Approval ID: EACKZ 08593

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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

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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