

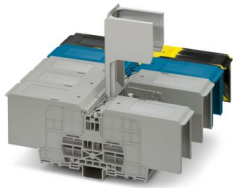
# RBO 10-3L/N/FE-HC - Bolt connection terminal block



3076170

<https://www.phoenixcontact.com/us/products/3076170>

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Bolt connection terminal block, nom. voltage: 1500 V, nominal current: 309 A, number of connections: 10, connection method: Bolt connection, Rated cross section: 150 mm<sup>2</sup>, 1 level, mounting type: NS 35/7,5, NS 35/15, direct screw connection, color: gray/blue/black-yellow

## Commercial data

Item number	3076170
Packing unit	2 pc
Minimum order quantity	1 pc
Product key	BE4412
GTIN	4046356653411
Weight per piece (including packing)	1,659.5 g
Weight per piece (excluding packing)	1,659.5 g
Country of origin	CN

## Technical data

### Notes

#### General

Note	The rated insulation voltage applies to insulated cable lugs acc. DIN 46237:1970-07 and for uninsulated cable lugs acc. DIN 46234:1980-03 with shrink sleeve.
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### Product properties

Product type	Bolt connection terminal block
Pitch	41 mm
Number of connections	10
Number of rows	1
Potentials	5

#### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	8 kV
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### Connection data

Number of connections per level	10
Nominal cross section	150 mm <sup>2</sup>

#### 1 level

Connection method	Bolt connection
Screw thread	M10
Stripping length	The stripping length depends on the specification provided by the cable lug manufacturer.
Connection in acc. with standard	IEC 60947-7-1
Nominal cross section	150 mm <sup>2</sup>
Nominal current	309 A
Maximum load current	309 A (with 150 mm <sup>2</sup> conductor cross-section)
Nominal voltage	1500 V

#### Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	6 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Cross section range AWG	(converted acc. to IEC)
Hole diameter	10.5 mm
Width	30 mm
Bolt diameter	10 mm
Screw thread	M10

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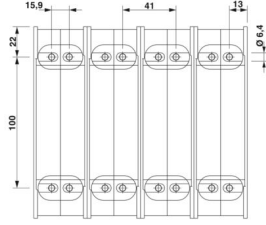


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Tightening torque	10 ... 20 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm <sup>2</sup> ... 150 mm <sup>2</sup>
Cross section range AWG	(converted acc. to IEC)
Hole diameter	10.5 mm
Width	34 mm
Bolt diameter	10 mm
Screw thread	M10
Tightening torque	10 ... 20 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	6 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Cross section range AWG	(converted acc. to IEC)
Hole diameter	10.5 mm
Width	18 mm
Bolt diameter	10 mm
Screw thread	M10
Tightening torque	10 ... 20 Nm
Identification color of ring cable lugs : yellow	6 mm <sup>2</sup>

## Dimensions

Dimensional drawing	
Width	205 mm
Pitch	41 mm

## Material specifications

Color	gray/blue/black-yellow
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
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## 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 35
Result	Test passed

### Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross-section/weight	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):2022-06
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5$ Hz to $f_2 = 250$ Hz
ASD level	6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Acceleration	3.12g

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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 (pos. and neg.)
Result	Test passed

## 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
	direct screw connection

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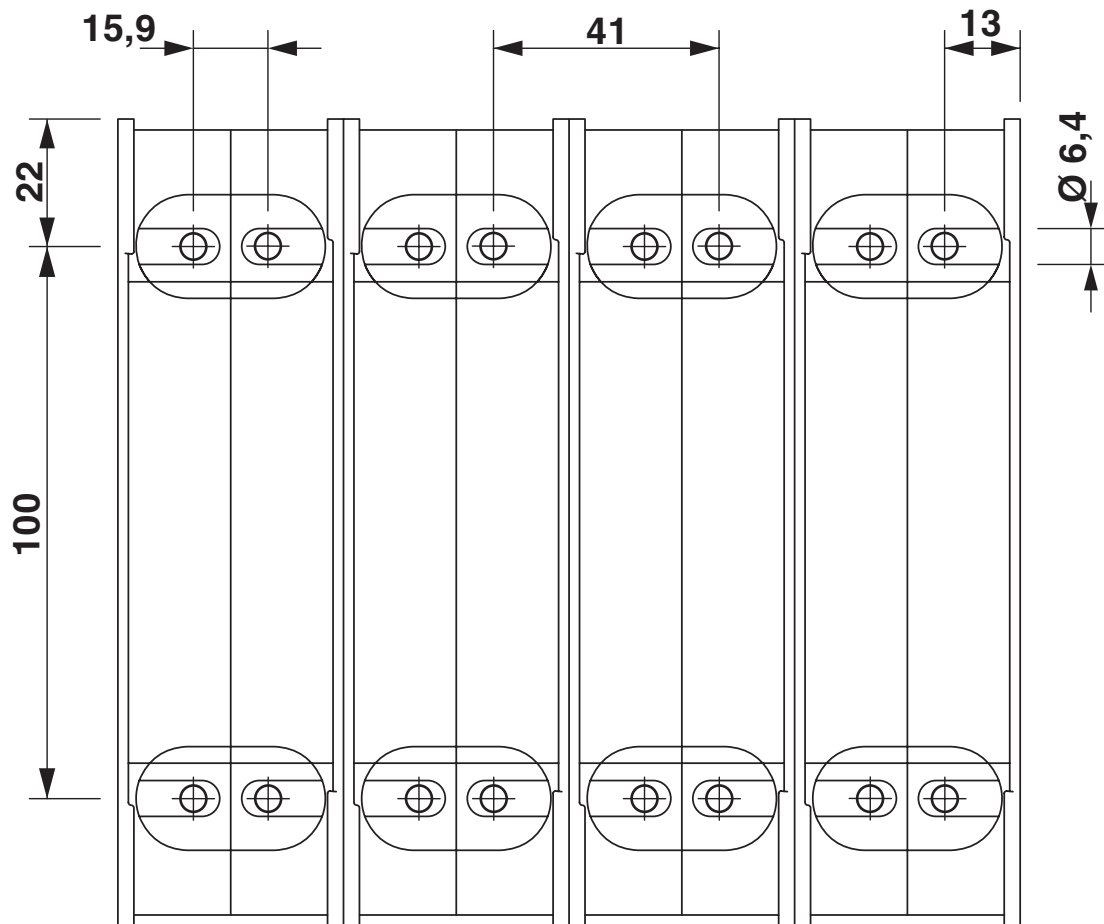


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## Drawings

Dimensional drawing



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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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