

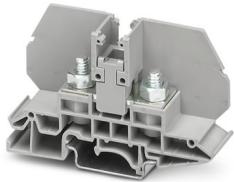
# RBO 6 - Bolt connection terminal block



3075896

<https://www.phoenixcontact.com/us/products/3075896>

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Bolt connection terminal block, nom. voltage: 800 V, nominal current: 125 A, number of connections: 2, number of positions: 1, connection method: Bolt connection, Rated cross section: 35 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, NS 32, color: gray

## Your advantages

- Compact connection with ring and fork-type cable lugs
- Mounting on standard DIN rails
- Bridge shaft for potential distribution using standard screw bridges
- Isolator bridge bar for switchable cross connections

## Commercial data

Item number	3075896
Packing unit	40 pc
Minimum order quantity	40 pc
Sales key	BE44
Product key	BE4412
GTIN	4046356532853
Weight per piece (including packing)	36.4 g
Weight per piece (excluding packing)	36.4 g
Customs tariff number	85369010
Country of origin	IN

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## 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.
	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. When using uninsulated cable lugs with shrink sleeve the min. required air clearances and creepage distances have to be ensured by the enduser.
	The rated insulation voltage applies to insulated cable lugs acc. to DIN 46237:1970-07 and for uninsulated cable lugs acc. to DIN 46234:1980-03 with path extension.

### Product properties

Product type	Bolt connection terminal block
Product family	RBO
Number of positions	1
Pitch	17 mm
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	4.06 W

### Connection data

Number of connections per level	2
Nominal cross section	35 mm <sup>2</sup>
Connection method	Bolt connection
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	35 mm <sup>2</sup>
Nominal current	125 A
Maximum load current	125 A (with 35 mm <sup>2</sup> conductor cross-section)
Nominal voltage	800 V

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

Connection in acc. with standard	DIN 46234:1980-03
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Cross section	6 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Additional text	only use with shrink sleeve
Cross section range AWG	10 ... 2 (converted acc. to IEC)
Hole diameter	6.5 mm
Width	15 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque	3.2 ... 3.7 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Cross section range AWG	14 ... 10 (converted acc. to IEC)
Hole diameter	6.5 mm
Width	11 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque	3.2 ... 3.7 Nm
Identification color of ring cable lugs : blue	2.5 mm <sup>2</sup>
Identification color of ring cable lugs : yellow	6 mm <sup>2</sup>

## Dimensions

Width	17 mm
End cover width	2.2 mm
Height	80.8 mm
Depth on NS 32	54.8 mm
Depth on NS 35/7,5	49.8 mm
Depth on NS 35/15	57.3 mm
Pitch	17 mm

## Material specifications

Color	gray (RAL 7042)
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

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## 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 35 mm <sup>2</sup>	4.2 kA
Result	Test passed

## Power-frequency withstand voltage

Test voltage setpoint	2 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	Yes
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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
Test force setpoint	10 N
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	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> )/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):2008-03
Pulse shape	Half-sine

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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

## 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, 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 60947-7-1
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## Mounting

Mounting type	NS 35/7,5
	NS 35/15
	NS 32

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## Drawings

Circuit diagram



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## Approvals


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 <b>CSA</b> Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
B	600 V	115 A	12 - 2	-
C	600 V	115 A	12 - 2	-

 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00540				
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<b>DNV</b> Approval ID: TAE00004G1				
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 <b>EAC</b> Approval ID: KZ7500651131219505				
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 <b>cULus Recognized</b> Approval ID: E60425				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
B	600 V	115 A	-	-
C	600 V	115 A	-	-

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## Classifications

### ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

### ETIM

ETIM 10.0	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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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)