

RBO 5 - Bolt connection terminal block



3058059

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Feed-through terminal block with bolt connection method, cross section: 0.1 - 6 mm², AWG: 26 - 10, width 13 mm, color: gray

Your advantages

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

Commercial data

Item number	3058059
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE44
Product key	BE4412
Catalog page	Page 387 (C-1-2019)
GTIN	4046356500319
Weight per piece (including packing)	20.282 g
Weight per piece (excluding packing)	19.134 g
Customs tariff number	85369010
Country of origin	IN

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Technical data

Product properties

Product type	Bolt connection terminal block
Product family	RBO
Pitch	13 mm
Number of connections	2
Number of rows	1
Potentials	1

Data management status

Article revision	03
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	1.82 W

Connection data

Number of connections per level	2
Nominal cross section	10 mm ²

1 level

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 current	57 A
Maximum load current	57 A (with 10 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	10 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	0.1 mm ² ... 10 mm ²
Cross section range AWG	26 ... 8 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	10 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque	2 ... 2.2 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	0.5 mm ² ... 6 mm ²

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Cross section range AWG	20 ... 10 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	10 mm
Bolt diameter	5 mm
Tightening torque	2 ... 2.2 Nm
Identification color of ring cable lugs : red	1 mm ²
Identification color of ring cable lugs : blue	2.5 mm ²
Identification color of ring cable lugs : yellow	6 mm ²

Dimensions

Width	13 mm
End cover width	2.2 mm
Height	53.3 mm
Depth on NS 32	52 mm
Depth on NS 35/7,5	47 mm
Depth on NS 35/15	54.5 mm
Pitch	13 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
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

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed

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Short-time withstand current 10 mm ²	1.2 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	5 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):2008-03
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	1.857 (m/s ²)/Hz
Acceleration	0.8g
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

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, 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 35/7,5
	NS 35/15

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3058059>

 cUL Recognized Approval ID: FILE E 60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	45 A	-	-
Use group C				
	600 V	45 A	-	-

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	600 V	45 A	-	-

 EAC Approval ID: RU C-DE.BL08.B.00540				
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cULus Recognized				
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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
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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