

# RTO 8 BU - Bolt connection terminal block



3049864

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Feed-through terminal block with bolt connection method, cross section: 2.5 - 35 mm<sup>2</sup>, AWG: 14 - 2, width 20.2 mm, color: blue

## Your advantages

- Four bridge shafts per terminal block
- Terminal point always freely accessible

## Commercial data

Item number	3049864
Packing unit	25 pc
Minimum order quantity	25 pc
Sales key	BE43
Product key	BE4312
GTIN	4046356284684
Weight per piece (including packing)	80.468 g
Weight per piece (excluding packing)	80.468 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Product properties

Product type	Bolt connection terminal block
Product family	RTO
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	4.06 W

### Connection data

Number of connections per level	2
Nominal cross section	35 mm <sup>2</sup>

#### 1 level

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	1000 V

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

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	16 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 10 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm

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Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 10 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	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 10 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>

## Ex data

### Rated data (ATEX/IECEx)

Identification	⊕ II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3049194 D-RT 8 3003062 TPN-UK 1209923 SHN 13 3022276 CLIPFIX 35-5
List of bridges	Plug-in bridge / FBS 2-10 / 3005947 Plug-in bridge / FBS 5-10 / 3005948
Bridge data	57 A (10 mm <sup>2</sup> )
Ex temperature increase for bridging with bridge	40 K (123 A / 35 mm <sup>2</sup> ) 690 V
Rated insulation voltage output	630 V (Permanent)

### Ex level General

Rated voltage	690 V
Rated current	123 A
Maximum load current	123 A
Contact resistance	0.09 mΩ

### Ex connection data General

Torque range	6 Nm ... 10 Nm
Nominal cross section	35 mm <sup>2</sup>
Rated cross section AWG	2
Connection capacity rigid	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Connection capacity AWG	14 ... 2
Connection capacity flexible	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Connection capacity AWG	14 ... 2

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## Dimensions

Width	20.2 mm
End cover width	2.2 mm
Height	84 mm
Depth	63.2 mm
Depth on NS 35/7,5	63.8 mm
Depth on NS 35/15	71.3 mm

## Material specifications

Color	blue (RAL 5015)
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

## Mechanical properties

### Mechanical data

Open side panel	Yes
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## Environmental and real-life conditions

### 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

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## Drawings

### Circuit diagram



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## Approvals


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	<b>IECEE CB Scheme</b> Approval ID: DE1-62814
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	<b>VDE approval of drawings</b> Approval ID: 40022553			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine				
	1000 V	125 A	-	2.5 - 35

	<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	130 A	-	-
C				
	600 V	130 A	-	-

	<b>EAC Ex</b> Approval ID: KZ 7500525010101950
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	<b>IECEX</b> Approval ID: IECEXPTB08.0063U			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine				
	690 V	123 A	-	2.5 - 35

	<b>ATEX</b> Approval ID: PTB09ATEX1003U			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine				
	690 V	123 A	-	2.5 - 35

	<b>CCC</b> Approval ID: 2020322313000627
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**UKCA-EX**

Approval ID: CSAE 22UKEX1085U

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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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