

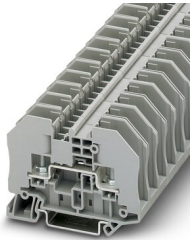
RTO 3 - Bolt connection terminal block



3049518

<https://www.phoenixcontact.com/us/products/3049518>

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Bolt connection terminal block, nom. voltage: 1000 V, nominal current: 24 A, number of connections: 2, connection method: Bolt connection, 1 level, Rated cross section: 2.5 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

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

Commercial data

Item number	3049518
Packing unit	1 pc
Minimum order quantity	50 pc
Sales key	BE43
Product key	BE4312
Catalog page	Page 379 (C-1-2019)
GTIN	4046356140775
Weight per piece (including packing)	18.79 g
Weight per piece (excluding packing)	18 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Notes

General	Note: the BE-RT... path extension is to be used for non-insulated cable lugs (see accessories).
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Product properties

Product type	Bolt connection terminal block
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	0.77 W

Connection data

Number of connections per level	2
Nominal cross section	2.5 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	24 A
Maximum load current	24 A (with a 2.5 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	2.5 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	0.5 mm ² ... 2.5 mm ²
Cross section range AWG	20 ... 14 (converted acc. to IEC)
Hole diameter	3.2 mm
Width	6 mm
Bolt diameter	3 mm
Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	1 mm ² ... 2.5 mm ²
Cross section range AWG	18 ... 14 (converted acc. to IEC)

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Hole diameter	3.2 mm
Width	6 mm
Bolt diameter	3 mm
Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Identification color of ring cable lugs : red	1 mm ²
Identification color of ring cable lugs : blue	2.5 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3049097 D-RT 3/5
	0706647 TPNS-UK
	3049819 BE-RT 3/5
	1209855 SHN 5.5
	3022276 CLIPFIX 35-5
List of bridges	Plug-in bridge / FBS 2-6 / 3030336
	Plug-in bridge / FBS 3-6 / 3030242
	Plug-in bridge / FBS 4-6 / 3030255
	Plug-in bridge / FBS 5-6 / 3030349
	Plug-in bridge / FBS 10-6 / 3030271
	Plug-in bridge / FBS 20-6 / 3030365
	Plug-in bridge / FBS 50-6 / 3032224
Bridge data	24 A / 2.5 mm ²
Ex temperature increase	40 K (24 A / 2.5 mm ²)
Rated voltage	550 V
for bridging with bridge	550 V
- At bridging between non-adjacent terminal blocks	352 V
- At cut-to-length bridging with cover	275 V
- At cut-to-length bridging with partition plate	550 V
Rated insulation voltage	500 V
output	(Permanent)

Ex level General

Rated current	24 A
Maximum load current	24 A
Contact resistance	0.62 mΩ

Ex connection data General

Torque range	0.6 Nm ... 0.8 Nm
Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.1 mm ² ... 2.5 mm ²

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Connection capacity AWG	26 ... 14
Connection capacity flexible	0.1 mm² ... 2.5 mm²
Connection capacity AWG	26 ... 14

Dimensions

Width	12.3 mm
End cover width	2.2 mm
Height	66 mm
Depth on NS 35/7,5	49.9 mm
Depth on NS 35/15	57.4 mm

Material specifications

Color	gray
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
Short-time withstand current 2.5 mm²	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

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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 35
Test force setpoint	1 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	$1.857 \text{ (m/s}^2\text{)}^2\text{/Hz}$
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

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 (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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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3049518>



IECEE CB Scheme
Approval ID: DE1-62814



VDE Zeichengenehmigung
Approval ID: 40022553

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1000 V	24 A	-	0.14 - 2.5



cULus Recognized
Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	30 A	-	-
Use group C				
	600 V	30 A	-	-



EAC Ex
Approval ID: RU C-DE.HA91.B.00066



IECEx
Approval ID: IECExPTB08.0063U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	550 V	24 A	-	0.1 - 2.5



ATEX
Approval ID: PTB09ATEX1003U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	550 V	24 A	-	0.1 - 2.5



CCC
Approval ID: 2020322313000627



UKCA-EX
Approval ID: CSAE 22UKEX1085U

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 8.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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