

RTO 3 BU - Bolt connection terminal block



3049660
<https://www.phoenixcontact.com/us/products/3049660>

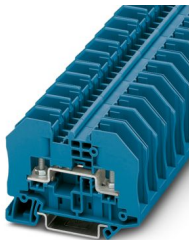
Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.


2,5 mm²


BOLT


24 A
IEC


1000 V
IEC



Feed-through terminal block with bolt connection, cross section: 0.1 - 2.5 mm², AWG: 26 - 14, width 12.3 mm, color: Gray

Your advantages

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

Commercial data

Item number	3049660
Packing unit	50 pc
Minimum order quantity	50 pc
Product key	BE4312
GTIN	4046356283557
Weight per piece (including packing)	20.27 g
Weight per piece (excluding packing)	20.27 g
Country of origin	CN

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Technical data

Notes

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

Product properties

Product type	Bolt connection terminal block
Product family	RTO
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

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	2.5 mm ²
Nominal current	24 A
Maximum load current	24 A (with a 2.5 mm ² 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	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

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Cross section	1 mm² ... 2.5 mm²
Cross section range AWG	18 ... 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
Identification color of ring cable lugs : red	1 mm²
Identification color of ring cable lugs : blue	2.5 mm²

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
	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 mm²)
Ex temperature increase	40 K (24 A / 2.5 mm²)
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 voltage	550 V
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 mm²
Rated cross section AWG	14

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Connection capacity rigid	0.1 mm² ... 2.5 mm²
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	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

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

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Mechanical properties

Mechanical data

Open side panel	Yes
-----------------	-----

Mechanical tests

Mechanical strength

Result	Test passed
--------	-------------

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	Long 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 (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

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
----------------------------------	---------------

Mounting

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

RTO 3 BU - Bolt connection terminal block

3049660

<https://www.phoenixcontact.com/us/products/3049660>



Drawings

Circuit diagram



RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3049660>



IECEE CB Scheme

Approval ID: DE1-62814



VDE approval of drawings

Approval ID: 40022553

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



EAC Ex

Approval ID: KZ 7500525010101950



IECEx

Approval ID: IECExPTB08.0063U

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



CCC

Approval ID: 2020322313000627

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>



UKCA-EX

Approval ID: CSAE 22UKEX1085U

RTO 3 BU - Bolt connection terminal block



3049660

<https://www.phoenixcontact.com/us/products/3049660>

Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 10.0	EC000897
-----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

RTO 3 BU - Bolt connection terminal block



3049660
<https://www.phoenixcontact.com/us/products/3049660>

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%

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

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