

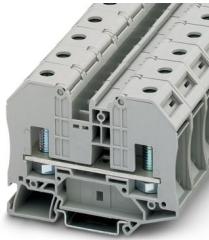
RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

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.



Bolt connection terminal block, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 2, number of positions: 1, connection method: Bolt connection, Rated cross section: 35 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Quick ring cable lug wiring due to the hinged cover
- Secure connection: The screws are secured by captive disk springs
- The hinged cover cover the live metal parts including the insulated cable lugs in the clamping area so that they are touch proof
- High conductor pull-out forces and contact force for high durability
- Space-saving multi-conductor connection possible
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories
- Vibration-resistant conductor connection

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3049042 |
| Packing unit | 25 pc |
| Minimum order quantity | 25 pc |
| Sales key | BE43 |
| Product key | BE4313 |
| GTIN | 4046356140027 |
| Weight per piece (including packing) | 95.72 g |
| Weight per piece (excluding packing) | 95.72 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

Technical data

Notes

General

| | |
|------|--|
| Note | 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 | RT |
| Area of application | Railway industry Machine building Plant engineering Process industry |
| 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 ² |

Level 1 above 1 below 1

| | |
|----------------------------------|---|
| Connection method | Bolt connection |
| Screw thread | M8 |
| 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 ² |
| Nominal current | 125 A |
| Maximum load current | 125 A (with 35 mm ² conductor cross-section) |
| Nominal voltage | 1000 V (Rated voltage for open disconnect point 500 V) |

Cable lug connection DIN 46234:1980-03

| | |
|----------------------------------|-------------------|
| Connection in acc. with standard | DIN 46234:1980-03 |
|----------------------------------|-------------------|

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

| | |
|--|--|
| Cross section | 2.5 mm ² ... 35 mm ² |
| Cross section range AWG | 14 ... 2 (converted acc. to IEC) |
| Hole diameter | 8.4 mm |
| Width | 16 mm |
| Bolt diameter | 8 mm |
| Screw thread | M8 |
| Tightening torque | 4.5 ... 5 Nm |
| Connection in acc. with standard | DIN 46235:1983-07 |
| Cross section | 16 mm ² ... 25 mm ² |
| 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 | 4.5 ... 5 Nm |
| Connection in acc. with standard | DIN 46237:1970-07 |
| Cross section | 2.5 mm ² ... 6 mm ² |
| Cross section range AWG | (converted acc. to IEC) |
| Hole diameter | 8.4 mm |
| Width | 14 mm |
| Bolt diameter | 8 mm |
| Identification color of ring cable lugs : blue | 2.5 mm ² |
| Identification color of ring cable lugs : yellow | 6 mm ² |

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 3049916 BE-RT 8 1205066 SZS 1,0X4,0 VDE 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 ²) |
| Ex temperature increase | 40 K (125 A / 35 mm ²) |
| for bridging with bridge | 690 V |
| Rated insulation voltage | 630 V |
| output | (Permanent) |

Ex level General

| | |
|---------------|-------|
| Rated voltage | 690 V |
| Rated current | 125 A |

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

| | |
|----------------------|---------|
| Maximum load current | 125 A |
| Contact resistance | 0.09 mΩ |

Ex connection data General

| | |
|------------------------------|--|
| Torque range | 4.5 Nm ... 5 Nm |
| Nominal cross section | 35 mm ² |
| Rated cross section AWG | 2 |
| Connection capacity rigid | 2.5 mm ² ... 35 mm ² |
| Connection capacity AWG | 14 ... 2 |
| Connection capacity flexible | 2.5 mm ² ... 35 mm ² |
| Connection capacity AWG | 14 ... 2 |

Dimensions

| | |
|--------------------|---------|
| Width | 20.3 mm |
| End cover width | 2.2 mm |
| Height | 84 mm |
| Depth on NS 35/7,5 | 63.8 mm |
| Depth on NS 35/15 | 71.3 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

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 35 mm ² | 4.2 kA |
| Result | Test passed |

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

Power-frequency withstand voltage

| | |
|-----------------------|-------------|
| Test voltage setpoint | 2.2 kV |
| Result | Test passed |

Mechanical properties

Mechanical data

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

Mechanical tests

Mechanical strength

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

Attachment on the carrier

| | |
|-------------------------|-------------|
| DIN rail/fixing support | NS 32/NS 35 |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|--------------------------------|-----------------------------|
| Rotation speed | 10 (+/- 2) rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 35 mm ² / 6.8 kg |
| 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):2022-06 |
| Spectrum | Long life test category 2, bogie-mounted |
| Frequency | $f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$ |
| ASD level | 6.12 (m/s ²) ² /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 |
| Acceleration | 30g |
| Shock duration | 18 ms |
| Number of shocks per direction | 3 |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

| 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 |
|----------------------------------|---------------|

Mounting

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

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

Drawings

Circuit diagram



RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3049042>



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 | 125 A | - | 2.5 - 35 |



cULus Recognized

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 | - | - |



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 | | | | |
| | 690 V | 125 A | - | 2.5 - 35 |



ATEX

Approval ID: PTB09ATEX1003U

| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine | | | | |
| | 690 V | 125 A | - | 2.5 - 35 |



CCC

Approval ID: 2020322313000627

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>



UKCA-EX

Approval ID: CSAE 22UKEX1085U

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27250101 |
| ECLASS-15.0 | 27250101 |

ETIM

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

UNSPSC

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

RT 8 - Bolt connection terminal block



3049042

<https://www.phoenixcontact.com/us/products/3049042>

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