

QTC 1,5-MT - Knife-disconnect terminal block

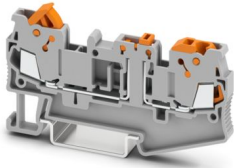


3205103

<https://www.phoenixcontact.com/us/products/3205103>

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Knife-disconnect terminal block, nom. voltage: 400 V, nominal current: 17.5 A, 1 level, connection method: Quick connection, Rated cross section: 1.5 mm², cross section: 0.25 mm² - 1.5 mm², mounting: NS 35/7,5, NS 35/15, color: gray



Your advantages

- Fast conductor connection thanks to the elimination of conductor pretreatment
- Large-area, gas-tight contact thanks to the automated cutting of the wire insulation
- Convenient separation of circuits through the implementation of knife disconnection
- High contact quality and vibration resistance thanks to the use of high-quality spring contact material
- Secure wiring thanks to lockable swivel lever

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3205103 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE03 |
| Product key | BE3131 |
| GTIN | 4017918933098 |
| Weight per piece (including packing) | 11.03 g |
| Weight per piece (excluding packing) | 9.768 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

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Technical data

Product properties

| | |
|-----------------------|---------------------------|
| Product type | Disconnect terminal block |
| Area of application | Railway industry |
| | Machine building |
| | Plant engineering |
| Number of connections | 2 |
| Number of rows | 1 |
| Potentials | 1 |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution | 3 |

Electrical properties

| | |
|---|--------|
| Rated surge voltage | 6 kV |
| Maximum power dissipation for nominal condition | 0.56 W |

Connection data

| | |
|--|---------------------|
| Number of connections per level | 2 |
| Frequency of connections with the same cross section | 100 |
| Nominal cross section | 1.5 mm ² |

1 level

| | |
|---|---|
| Connection method | Quick connection |
| Material wire insulation | PVC / PE |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 0.25 mm ² ... 1.5 mm ² |
| Cross section AWG | 24 ... 16 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.25 mm ² ... 1.5 mm ² |
| Conductor cross-section, flexible [AWG] | 24 ... 16 (converted acc. to IEC) |
| Nominal cross section | 1.5 mm ² |
| Nominal current | 17.5 A |
| Maximum load current | 17.5 A (with 1.5 mm ² conductor cross-section) |
| Nominal voltage | 400 V |

Dimensions

| | |
|--------------------|---------|
| Width | 5.2 mm |
| End cover width | 2.2 mm |
| Height | 76.4 mm |
| Depth on NS 35/7,5 | 39.3 mm |
| Depth on NS 35/15 | 46.8 mm |

Material specifications

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

Cable/line

| | |
|--------------------------------|------|
| Wire diameter incl. insulation | 3 mm |
|--------------------------------|------|

Electrical tests

Surge voltage test

| | |
|-----------------------|-------------|
| Test voltage setpoint | 7.3 kV |
| Result | Test passed |

Temperature-rise test

| | |
|--|-------------------------------------|
| Requirement temperature-rise test | Increase in temperature \leq 45 K |
| Result | Test passed |
| Short-time withstand current 1.5 mm ² | 0.18 kA |
| Result | Test passed |

Power-frequency withstand voltage

| | |
|-----------------------|-------------|
| Test voltage setpoint | 1.89 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 35 |
|-------------------------|-------|

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| | |
|---------------------|-------------|
| Test force setpoint | 1 N |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|--------------------------------|--|
| Rotation speed | 10 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 0.2 mm ² / 0.2 kg 1.5 mm ² / 0.4 kg |
| Result | Test passed |

Environmental and real-life conditions

Needle-flame test

| | |
|------------------|-------------|
| Time of exposure | 30 s |
| 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 |
|---------------|-----------------------|

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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/3205103>

|  CSA Approval ID: 158887 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 10 A | 24 - 16 | - |
| C | 300 V | 10 A | 24 - 16 | - |
| D | 600 V | 5 A | 24 - 16 | - |

|  EAC Approval ID: RU C-DE.BL08.B.00539 | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

|  cULus Recognized Approval ID: E60425 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 10 A | 24 - 16 | - |
| C | 300 V | 10 A | 24 - 16 | - |

|  ClassNK Approval ID: 09 ME 139 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

| ABS Approval ID: 22-2196825-PDA | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

| DNV Approval ID: TAE000014H | | | | |
|---------------------------------------|--|--|--|--|
|---------------------------------------|--|--|--|--|

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27250108 |
| ECLASS-15.0 | 27250108 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC000902 |
|-----------|----------|

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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.164 kg CO2e |
|---------|---------------|

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