

UKH 50 BK - High-current terminal block



3048331

<https://www.phoenixcontact.com/sg/products/3048331>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 150 A, number of connections: 2, number of positions: 1, connection method: Screw connection, Rated cross section: 50 mm², cross section: 16 mm² - 70 mm², mounting type: NS 35/7,5, NS 35/15, NS 32, NS 35/15-2,3, color: black

Your advantages

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base
- Low contact resistance of the contact surface due to ribbing
- Screw locking by means of spring-loaded elements in the clamping part

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 3048331 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Note | Made to order (non-returnable) |
| Sales key | ***** |
| Product key | BE1311 |
| GTIN | 4017918954833 |
| Weight per piece (including packing) | 121.63 g |
| Weight per piece (excluding packing) | 121.63 g |
| Customs tariff number | 85369010 |
| Country of origin | IN |

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Technical data

Notes

General

| | |
|------|---|
| Note | For a reliable contact of multi stranded conductors it is recommended to untwist multi stranded conductors. |
|------|---|

Product properties

| | |
|-----------------------|-----------------------------|
| Product type | High current terminal block |
| 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 | 4.73 W |

Connection data

| | |
|---|---|
| Number of connections per level | 2 |
| Nominal cross section | 50 mm ² |
| Screw thread | M6 |
| Tightening torque | 6 ... 8 Nm |
| Stripping length | 24 mm |
| Internal cylindrical gage | B10 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross section rigid | 16 mm ² ... 70 mm ² |
| Cross section AWG | 6 ... 2/0 (converted acc. to IEC) |
| Conductor cross section flexible | 25 mm ² ... 70 mm ² |
| Conductor cross section, flexible [AWG] | 3 ... 2/0 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 25 mm ² ... 50 mm ² |
| Flexible conductor cross section (ferrule with plastic sleeve) | 25 mm ² ... 50 mm ² |
| 2 conductors with same cross section, solid | 10 mm ² ... 16 mm ² |
| 2 conductors with same cross section, flexible | 10 mm ² ... 16 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 10 mm ² ... 16 mm ² |
| Nominal current | 150 A |
| Maximum load current | 150 A (with 50 mm ² conductor cross section) |
| Nominal voltage | 1000 V |
| Nominal cross section | 50 mm ² |

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Ex data

Rated data (ATEX/IECEX)

| | |
|-----------------------------|--------------------------------------|
| Identification | ⊕ II 2 GD Ex eb IIC Gb |
| Operating temperature range | -60 °C ... 110 °C |
| Ex-certified accessories | 1205082 SZS 1,2X8,0 VDE |
| | 1201659 E/AL-NS 32 |
| | 1201662 E/AL-NS 35 |
| List of bridges | Fixed bridge / FBI 2-20-EX / 0201113 |
| | Fixed bridge / FBI 3-20-EX / 0201812 |
| Bridge data | 130.5 A (50 mm ²) |
| Ex temperature increase | 40 K (133 A / 50 mm ²) |
| Rated voltage | 690 V |
| for bridging with bridge | 690 V |
| Rated insulation voltage | 630 V |
| output | (Permanent) |

Ex level General

| | |
|----------------------|--------|
| Rated current | 133 A |
| Maximum load current | 133 A |
| Contact resistance | 0.1 mΩ |

Ex connection data General

| | |
|---|---|
| Torque range | 6 Nm ... 8 Nm |
| Nominal cross section | 50 mm ² |
| Rated cross section AWG | 1/0 |
| Connection capacity rigid | 16 mm ² ... 50 mm ² |
| Connection capacity AWG | 6 ... 1/0 |
| Connection capacity flexible | 25 mm ² ... 50 mm ² |
| Connection capacity AWG | 4 ... 1/0 |
| 2 conductors with same cross section, solid | 10 mm ² ... 16 mm ² |
| 2 conductors with the same cross-section AWG rigid | 8 ... 6 |
| 2 conductors with same cross section, stranded | 10 mm ² ... 16 mm ² |
| 2 conductors with the same cross-section AWG flexible | 8 ... 6 |

Dimensions

| | |
|-------|-------|
| Width | 20 mm |
|-------|-------|

Material specifications

| | |
|--|--------|
| Color | black |
| 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 |

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| | |
|---|-------------|
| 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 \leq 45 K |
| Result | Test passed |
| Short-time withstand current 50 mm ² | 6 kA |
| Result | Test passed |

Power-frequency withstand voltage

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

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Mechanical tests

Mechanical strength

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

Attachment on the carrier

| | |
|-------------------------|-------------|
| DIN rail/fixing support | NS 32/NS 35 |
| Test force setpoint | 10 N |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|--------------------------------|-----------------------------|
| Rotation speed | 10 (+/- 2) rpm |
| Revolutions | 135 |
| Conductor cross section/weight | 16 mm ² / 2.9 kg |
| | 50 mm ² / 9.5 kg |
| | 70 mm ² /10.4 kg |
| Result | Test passed |

Environmental and real-life conditions

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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 | $6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$ |
| 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):2022-06 |
| 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 |
|----------------------------------|---------------|

Mounting

| | |
|---------------|--------------|
| Mounting type | NS 35/7,5 |
| | NS 35/15 |
| | NS 32 |
| | NS 35/15-2,3 |

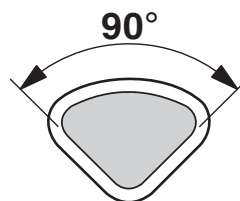
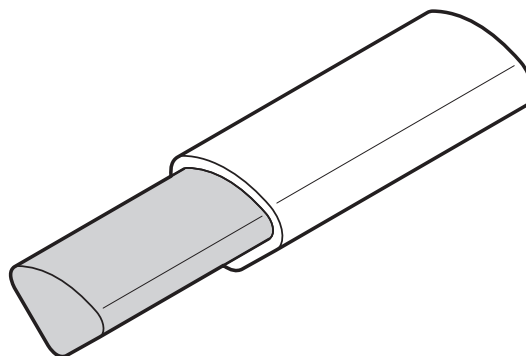
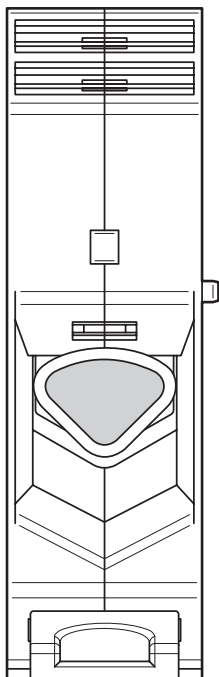
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Drawings

Schematic diagram



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Classifications

ECLASS

ECLASS-11.0

27141120

ETIM

ETIM 8.0

EC000897

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

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