

MBK 3 - Mini feed-through terminal block



1413010

<https://www.phoenixcontact.com/us/products/1413010>

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 24 A, number of connections: 2, connection method: Screw connection, 1 level, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting type: NS 15, color: gray

Your advantages

- Clear arrangement thanks to marking of all terminal points
- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Easy potential distribution thanks to standardized plug-in bridges

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 1413010 |
| Packing unit | 1 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE12 |
| Product key | BE1261 |
| Catalog page | Page 522 (CL1-2011) |
| GTIN | 4017918021092 |
| Weight per piece (including packing) | 6.743 g |
| Weight per piece (excluding packing) | 6.718 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|-----------------------|--------------------------|
| Product type | Miniature 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 | 6 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

| | |
|---|---|
| Screw thread | M3 |
| Tightening torque | 0.6 ... 0.8 Nm |
| Stripping length | 8 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross section rigid | 0.2 mm ² ... 4 mm ² |
| Cross section AWG | 24 ... 12 (converted acc. to IEC) |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section, flexible [AWG] | 24 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.25 mm ² ... 2.5 mm ² |
| Flexible conductor cross section (ferrule with plastic sleeve) | 0.25 mm ² ... 1.5 mm ² |
| Cross-section with insertion bridge, rigid | 2.5 mm ² |
| Cross-section with insertion bridge, flexible | 2.5 mm ² |
| 2 conductors with same cross section, solid | 0.2 mm ² ... 1.5 mm ² |
| 2 conductors with same cross section, flexible | 0.2 mm ² ... 1.5 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 1 mm ² |
| Nominal current | 24 A |
| Maximum load current | 32 A (with 4 mm ² conductor cross section) |
| Nominal voltage | 500 V |
| Nominal cross section | 2.5 mm ² |

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Dimensions

| | |
|-----------------|--------|
| Width | 5.2 mm |
| End cover width | 2.5 mm |

Material specifications

| | |
|---|--------|
| Color | gray |
| Flammability rating according to UL 94 | V2 |
| Insulating material group | I |
| Insulating material | PA |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 125 °C |
| Relative insulation material temperature index (Elec., UL 746 B) | 125 °C |

Electrical tests

Surge voltage test

| | |
|-----------------------|-------------|
| Test voltage setpoint | 7.3 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 mm ² | 0.3 kA |
| Short-time withstand current 4 mm ² | 0.48 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 15 |
| Test force setpoint | 1 N |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|----------------|--------|
| Rotation speed | 10 rpm |
|----------------|--------|

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| | |
|--------------------------------|------------------------------|
| Revolutions | 135 |
| Conductor cross section/weight | 0.2 mm ² / 0.2 kg |
| | 2.5 mm ² / 0.7 kg |
| | 4 mm ² / 0.9 kg |
| Result | Test passed |

Environmental and real-life conditions

Needle-flame test

| | |
|------------------|-------------|
| Time of exposure | 30 s |
| 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 15 |
|---------------|-------|

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Approvals

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DNV

Approval ID: TAE00001CT



CSA

Approval ID: 13631

| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | 150 V | 25 A | 28 - 12 | - |



EAC

Approval ID: RU C-DE.BL08.B.00534



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 | 20 A | 28 - 12 | - |
| Use group C | | | | |
| | 600 V | 20 A | 28 - 12 | - |

ClassNK

NK

Approval ID: 09 ME 142

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27141120 |
| ECLASS-13.0 | 27250101 |

ETIM

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|----------|----------|
| ETIM 8.0 | EC000897 |
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UNSPSC

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