

TB-EE-DB 160/2+6 - Distribution block



1725166

<https://www.phoenixcontact.com/us/products/1725166>

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Distribution block, nom. voltage: 1000 V, nominal current: 150 A, Thermal continuous current I_{th} : 160 A, number of connections: 8, number of positions: 1, connection method: Screw connection, Rated cross section: 50 mm², Line contact, cross section: 16 mm² - 70 mm², Screw connection, Load contact, cross section: 2.5 mm² - 16 mm², mounting type: NS 35/7,5, NS 35/15, Direct mounting, color: dark gray

Your advantages

- Fast installation via ready-to-connect distributor and collection block
- Blocks can be snapped to each other to form function groups
- As well as saving space, the compact design enables user-friendly wiring in a small amount of space
- Flexible use, thanks to DIN rail and direct mounting
- Reversible cover for optimum readability of the technical data

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1725166 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BE03 |
| Product key | BEK823 |
| GTIN | 4067923281103 |
| Weight per piece (including packing) | 129.7 g |
| Weight per piece (excluding packing) | 129.7 g |
| Customs tariff number | 85369010 |
| Country of origin | IN |

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Technical data

Notes

General

| | |
|------|--|
| Note | The maximum load current of a single clamping unit must not be exceeded. |
| | For power distribution applications, IEC 60364-4-43:2008; modified + corrigendum Okt. 2008 (DIN VDE 0100-430:2010-10) section 433.2 ff must be observed! |

Product properties

| | |
|-----------------------|----------------------------|
| Product type | Distributor terminal block |
| Product family | TB |
| Area of application | Machine building |
| Number of positions | 1 |
| Number of connections | 8 |
| Number of rows | 1 |

Insulation characteristics

| | |
|---------------------|---|
| Degree of pollution | 3 |
|---------------------|---|

Electrical properties

| | |
|---------------------|------|
| Rated surge voltage | 8 kV |
|---------------------|------|

Connection data

| | |
|---------------------------------|--------------------|
| Number of connections per level | 8 |
| Nominal cross section | 50 mm ² |
| Rated cross section AWG | 2 |

Line contact

| | |
|--|---|
| Connection method | Screw connection |
| Screw thread | M10 |
| Number of connections | 1 |
| Note | Ferrules are mandatory when using flexible conductors |
| Tightening torque | 6 ... 10 Nm |
| Stripping length | 18 mm |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 16 mm ² ... 70 mm ² |
| Cross section AWG | 4 ... 00 (converted acc. to IEC) |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 16 mm ² ... 50 mm ² |
| Nominal cross section | 50 mm ² |
| Thermal continuous current I_{th} | 160 A |
| Nominal current | 150 A |
| Nominal voltage | 1000 V AC (suitable for 1500 V DC) |

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Load contact

| | |
|--|---|
| Connection method | Screw connection |
| Screw thread | M5 |
| Number of connections | 6 |
| Note | Ferrules are mandatory when using flexible conductors |
| Tightening torque | 2 ... 3 Nm |
| Stripping length | 11 mm |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 2.5 mm ² ... 16 mm ² |
| Cross section AWG | 12 ... 6 (converted acc. to IEC) |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 2.5 mm ² ... 16 mm ² |

Load contact

| | |
|--|---|
| Connection method | Screw connection |
| Screw thread | M6 |
| Number of connections | 1 |
| Note | Ferrules are mandatory when using flexible conductors |
| Tightening torque | 2 ... 3 Nm |
| Stripping length | 11 mm |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 6 mm ² ... 16 mm ² |
| Cross section AWG | 8 ... 6 (converted acc. to IEC) |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 2.5 mm ² ... 16 mm ² |

Dimensions

| | |
|--------------------|---------|
| Width | 29.4 mm |
| Height | 75 mm |
| Depth | 50.8 mm |
| Depth on NS 35/7,5 | 52.3 mm |
| Depth on NS 35/15 | 59.8 mm |

Material specifications

| | |
|--|------------------------|
| Color | basalt gray (RAL 7012) |
| Flammability rating according to UL 94 | V0 |
| Insulating material group | I |
| Relative insulation material temperature index (Elec., UL 746 B) | 125 °C |

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

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| | |
|---|-------------|
| Result | Test passed |
| Short-time withstand current 50 mm ² | 6 kA |
| Result | Test passed |

Power-frequency withstand voltage

| | |
|-----------------------|-------------|
| Test voltage setpoint | 3.82 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 35 |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|--------------------------------|-----------------------------|
| Rotation speed | 9 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 10 mm ² / 2 kg |
| | 16 mm ² / 2.9 kg |
| | 70 mm ² /10.4 kg |
| Result | Test passed |

Environmental and real-life conditions

Needle-flame test

| | |
|------------------|-------------|
| Time of exposure | 5 s |
| Result | Test passed |

Ambient conditions

| | |
|--|--|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °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

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

Mounting

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

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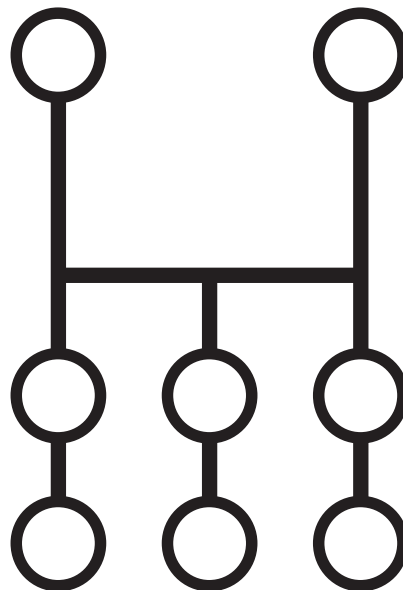
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Drawings

Circuit diagram



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Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1725166>



UL Recognized

Approval ID: E60425



CSA

Approval ID: 80247697

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27250118 |
| ECLASS-15.0 | 27250118 |

ETIM

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

UNSPSC

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

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Environmental product compliance

EU RoHS

| | |
|---|------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|----------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
|-------------------------------------|----------------------|

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