# TB-EE-DB 175/2+10 - Distribution block

1725168

https://www.phoenixcontact.com/gb/products/1725168

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.






Distribution block, nom. voltage: 1000 V, nominal current: 150 A, Thermal continuous current $I_{th}$: 175 A, number of connections: 12, number of positions: 1, connection method: Screw connection, Rated cross section: 50 $mm^2$, Line contact, cross section: 10 $mm^2$ - 70 $mm^2$, Screw connection, Load contact, cross section: 2.5 $mm^2$ - 16 $mm^2$, 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 | 1725168 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BEK824 |
| Product key | BEK824 |
| GTIN | 4067923280649 |
| Weight per piece (including packing) | 224 g |
| Weight per piece (excluding packing) | 229.9 g |
| Customs tariff number | 85369010 |
| Country of origin | MA |

# 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 | 12 |
| Number of rows | 1 |

### Insulation characteristics

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

## Electrical properties

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

## Connection data

| | |
|---|---|
| Number of connections per level | 12 |
| Nominal cross section | 50 mm² |
| Rated cross section AWG | 0 |

### Line contact

| | |
|---|---|
| Connection method | Screw connection |
| Screw thread | M10 |
| Number of connections | 2 |
| 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 | 10 mm² ... 70 mm² |
| Cross section AWG | 6 ... 00 (converted acc. to IEC) |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 10 mm² ... 50 mm² |
| Nominal cross section | 50 mm² |
| Thermal continuous current $I_{th}$ | 175 A |
| Nominal current | 150 A (300 A when connecting two conductors with a conductor cross-section of 50 mm²) |

| | |
|---|---|
| Nominal voltage | 1000 V AC (suitable for 1500 V DC) |

Load contact

| | |
|---|---|
| Connection method | Screw connection |
| Screw thread | M5 |
| Number of connections | 10 |
| 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 mm² ... 16 mm² |
| Cross section AWG | 12 ... 6 (converted acc. to IEC) |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 2.5 mm² ... 16 mm² |

## Dimensions

| | |
|---|---|
| Width | 46.2 mm |
| Height | 72.5 mm |
| Depth | 52.3 mm |
| Depth on NS 35/7,5 | 53.8 mm |
| Depth on NS 35/15 | 61.3 mm |

## Material specifications

| | |
|---|---|
| Color | basalt gray (RAL 7012) |
| Flammability rating according to UL 94 | V0 |
| Insulating material group | I |
| Insulating material | PA |
| 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 |
| Result | Test passed |
| Short-time withstand current 50 mm² | 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 | 2.5 mm² / 0.7 kg |
| | 16 mm² / 2.9 kg |
| | 70 mm²/10.4 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 | IP10 |
| 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

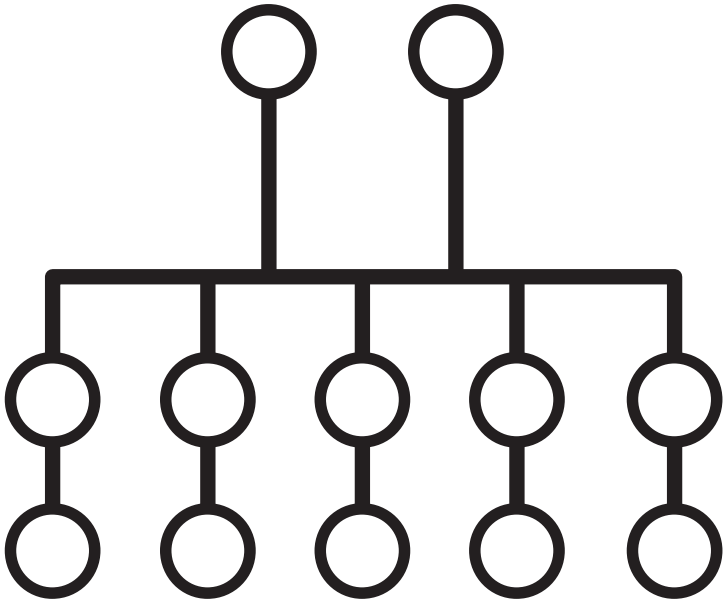
| | |
|---|---|
| Connection in acc. with standard | IEC 60947-7-1 |
| | IEC 60947-7-1 |

## Mounting

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

## Drawings

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/1725168

**UL Recognized**
Approval ID: E60425

**CSA**
Approval ID: 610003

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| Output | 600 V | 175 A | 14 - 6 | - |
| Input | 600 V | 175 A | 6 - 2/0 | - |
| C | | | | |
| Output | 600 V | 175 A | 14 - 6 | - |
| Input | 600 V | 175 A | 6 - 2/0 | - |
| E | | | | |
| Output | 1000 V | 350 A | 14 - 6 | - |
| Input | 1000 V | 350 A | 6 - 2/0 | - |

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

## 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) |

Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk