

1019528

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Distribution block, nom. voltage: 690 V, nominal current: 24 A, number of connections: 6, number of positions: 1, connection method: Push-in connection, Rated cross section:  $2.5~\text{mm}^2$ , cross section:  $0.14~\text{mm}^2$  -  $4~\text{mm}^2$ , mounting type: NS 35/7,5, NS 35/15, color: red

#### Your advantages

- · Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- · Clear wiring, thanks to eleven different color variants
- · Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Time savings of up to 80 %, thanks to ready-to-mount blocks without manual bridging
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting

#### Commercial data

| Item number                          | 1019528       |
|--------------------------------------|---------------|
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | BE09          |
| Product key                          | BEA213        |
| GTIN                                 | 4055626506340 |
| Weight per piece (including packing) | 12.42 g       |
| Weight per piece (excluding packing) | 11.118 g      |
| Customs tariff number                | 85369010      |
| Country of origin                    | PL            |



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#### Technical data

#### Notes

| _  |   |   |   |    |
|----|---|---|---|----|
| rz | 0 | n | 0 | ra |

| Note | The maximum load current of a single clamping unit must not |  |
|------|---|--|
|      | exceeded.   |  |

### Product properties

| Product type               | Distributor terminal block |
|----------------------------|----------------------------|
| Number of positions        | 1                          |
| Number of connections      | 6                          |
| Number of rows             | 1                          |
| Potentials                 | 1                          |
| Insulation characteristics |                            |

#### Insulation characteristics

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

#### Electrical properties

| Rated surge voltage                             | 8 kV   |
|---|--------|
| Maximum power dissipation for nominal condition | 0.77 W |

#### Connection data

| Number of connections per level   | 6   |  |
|---|---|--|
| Nominal cross section   | 2.5 mm²   |  |
| Connection method   | Push-in connection  |  |
| Stripping length  | 8 mm 10 mm  |  |
| Internal cylindrical gage   | A3  |  |
|   | B3  |  |
| Connection in acc. with standard  | IEC 60947-7-1   |  |
| Conductor cross-section rigid   | 0.14 mm² 4 mm²  |  |
| Cross section AWG   | 26 12 (converted acc. to IEC)   |  |
| Conductor cross-section flexible  | 0.14 mm² 4 mm²  |  |
| Conductor cross-section, flexible [AWG]   | 26 12 (converted acc. to IEC)   |  |
| Conductor cross-section flexible (ferrule without plastic sleeve)   | 0.14 mm² 2.5 mm²  |  |
| Flexible conductor cross-section (ferrule with plastic sleeve)  | 0.14 mm² 2.5 mm²  |  |
| Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve) | 1.5 mm²   |  |
| Nominal current   | 24 A  |  |
| Maximum load current  | 32 A (with 4 mm² conductor cross-section)                                       |  |
| Maximum total current   | The maximum load current of the individual terminal point must not be exceeded. |  |
| Nominal voltage   | 690 V   |  |
| Note  | The IEC 60947-7-1 standard applies for the use of mounting accessories.         |  |



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Result

Result

Power-frequency withstand voltage

Test voltage setpoint

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| Nominal cross section   | 2.5 mm²                                  |
|---|--|
| Connection in acc. with standard                                  | IEC 60998-2-2                            |
| Nominal voltage   | 450 V (in accordance with IEC 60998-2-2) |
| Connection cross sections directly pluggable                      |  |
| Conductor cross-section rigid                                     | 0.5 mm² 4 mm²                            |
| Conductor cross-section, rigid [AWG]                              | 20 12 (converted acc. to IEC)            |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.75 mm² 2.5 mm²                         |
| Flexible conductor cross-section (ferrule with plastic sleeve)    | 0.5 mm² 2.5 mm²                          |
| mensions  |  |
| Width   | 15.7 mm                                  |
| Height  | 45.7 mm                                  |
| Depth   | 29.2 mm                                  |
| Depth on NS 35/7,5  | 30.9 mm                                  |
| aterial specifications  |  |
| Color   | red (RAL 3001)                           |
| 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                                   |
| 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                                   |
| ectrical tests  |  |
| Surge voltage test  |  |
| Result  | Test passed                              |
| Femperature-rise test   |  |
| Requirement temperature-rise test                                 | Increase in temperature ≤ 45 K           |
| Result  | Test passed                              |
| Short-time withstand current 2.5 mm²                              | 0.3 kA                                   |

Test passed

Test passed

1.89 kV



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#### Mechanical properties

| echanical data  Open side panel  Chanical tests  echanical strength  Result | No Test passed   |
|---|--|
| chanical tests echanical strength   |  |
| echanical strength  | Test passed  |
|   | Test passed  |
| Result  | Test passed  |
|   |  |
| tachment on the carrier   |  |
| DIN rail/fixing support   | NS 35  |
| Result  | Test passed  |
| Note  | When aligning several blocks, it is recommended to either place a DIN rail adapter underneath the connection point or a flange element between the blocks. |
|   | For versions with 6 or 7 connections, it is enough to place one DIN rail adapter centrally per block and place flange elements after every other block.    |
|   | Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.                                    |
|   | When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.  |
| est for conductor damage and slackening                                     |  |
| Rotation speed  | 10 rpm   |
| Revolutions   | 135  |
| Conductor cross-section/weight  | 0.14 mm² / 0.2 kg  |

#### Environmental and real-life conditions

#### Aging

Result

| Temperature cycles          | 192   |
|-----------------------------|---|
| Result                      | Test passed                                   |
| Needle-flame test           |   |
| Time of exposure            | 30 s  |
| Result                      | Test passed                                   |
| Oscillation/broadband noise |   |
| Specification               | DIN EN 50155 (VDE 0115-200):2018-05           |
| Spectrum                    | Long life test category 2, bogie-mounted      |
| Frequency                   | $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ |
| ASD level                   | 6.12 (m/s²)²/Hz                               |
| Acceleration                | 3.12g   |

 $2.5~\textrm{mm}^2 \, / \, 0.7~\textrm{kg}$   $4~\textrm{mm}^2 \, / \, 0.9~\textrm{kg}$  Test passed



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| Test duration per axis                   | 5 h   |
|--|---|
| Test directions                          | X-, Y- and Z-axis   |
| Result                                   | Test passed   |
| shocks                                   |   |
| Specification                            | DIN EN 50155 (VDE 0115-200):2018-05   |
| Pulse shape                              | Half-sine   |
| Acceleration                             | 30g   |
| Shock duration                           | 18 ms   |
| Number of shocks per direction           | 3   |
| Test directions                          | X-, Y- and Z-axis (pos. and neg.)   |
| 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 %   |
| ndards and regulations                   |   |
| Connection in acc. with standard         | IEC 60947-7-1   |
|  | IEC 60998-2-2   |
| unting                                   |   |
| · · J                                    |   |
| Mounting type                            | NS 35/7,5   |

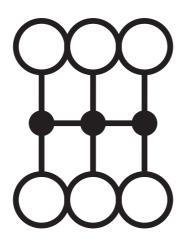


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### Drawings

Circuit diagram





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### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1019528

| CSA Approval ID: 158887 |                       |                                |                   |                               |
|-------------------------|-----------------------|--------------------------------|-------------------|-------------------------------|
|                         | Nominal voltage $U_N$ | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| В                       |                       |                                |                   |                               |
|                         | 300 V                 | 20 A                           | 26 - 12           | -                             |
| С                       |                       |                                |                   |                               |
|                         | 300 V                 | 20 A                           | 26 - 12           | -                             |
| D                       |                       |                                |                   |                               |
|                         | 600 V                 | 5 A                            | 26 - 12           | -                             |

| c <b>FL</b> vs | cULus Recognize Approval ID: E60425 | ed                             |                                |                   |                               |
|----------------|-------------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
|                |                                     | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| В              |                                     |                                |                                |                   |                               |
|                |                                     | 300 V                          | 20 A                           | 26 - 12           | -                             |
| С              |                                     |                                |                                |                   |                               |
|                |                                     | 300 V                          | 20 A                           | 26 - 12           | -                             |
| F              |                                     |                                |                                |                   |                               |
|                |                                     | 500 V                          | 20 A                           | 26 - 12           | -                             |
| D              |                                     |                                |                                |                   |                               |
|                |                                     | 600 V                          | 5 A                            | 26 - 12           | -                             |

DNV
Approval ID: TAE00004R4

EAC
Approval ID: KZ7500651131219505



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### Classifications

#### **ECLASS**

|        | ECLASS-13.0 | 27250118 |  |  |  |
|--------|-------------|----------|--|--|--|
|        | ECLASS-15.0 | 27250118 |  |  |  |
|        |             |          |  |  |  |
| ETIM   |             |          |  |  |  |
|        | ETIM 9.0    | EC000897 |  |  |  |
| UNSPSC |             |          |  |  |  |
|        |             |          |  |  |  |
|        | UNSPSC 21.0 | 39121400 |  |  |  |



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### Environmental product compliance

#### EU RoHS

| 25 1616                                 |  |  |  |  |
|---|--|--|--|--|
| 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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