

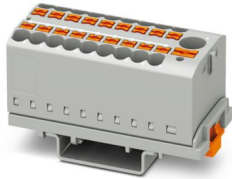
# PTFIX 6/18X2,5-NS35 GY - Distribution block



3273110

<https://www.phoenixcontact.com/us/products/3273110>

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Distribution block, Block with vertical alignment and integrated supply, nom. voltage: 690 V, nominal current: 24 A, number of connections: 19, connection method: Push-in connection, Load contact, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, Push-in connection, Line contact, Rated cross section: 6 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting
- Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- 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
- Clear wiring, thanks to eleven different color variants

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 3273110             |
| Packing unit                         | 8 pc                |
| Minimum order quantity               | 8 pc                |
| Sales key                            | BE09                |
| Product key                          | BEA124              |
| Catalog page                         | Page 445 (C-1-2019) |
| GTIN                                 | 4055626391137       |
| Weight per piece (including packing) | 44.868 g            |
| Weight per piece (excluding packing) | 44 g                |
| Customs tariff number                | 85369010            |
| Country of origin                    | PL                  |

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## Technical data

### Notes

|         |  |
|---------|--|
| General | the blocks can be bridged with one another via the conductor shaft, for corresponding plug-in bridges, see accessories |
|---------|--|

### General

|      |  |
|------|--|
| Note | The maximum load current of a single clamping unit must not be exceeded.<br>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 |
| Number of connections | 19                         |
| 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 | 0.77 W |

### Connection data

|                                 |                     |
|---------------------------------|---------------------|
| Service Entrance                | yes                 |
| Number of connections per level | 19                  |
| Nominal cross section           | 2.5 mm <sup>2</sup> |
| Rated cross section AWG         | 14                  |

### Load contact

|   |  |
|---|--|
| Stripping length  | 8 mm ... 10 mm   |
| Internal cylindrical gage   | A3   |
| Connection in acc. with standard                                  | IEC 60947-7-1  |
| Conductor cross section rigid                                     | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>             |
| Cross section AWG   | 26 ... 12 (converted acc. to IEC)                      |
| Conductor cross section flexible                                  | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>           |
| Conductor cross section, flexible [AWG]                           | 26 ... 14 (converted acc. to IEC)                      |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>           |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>           |
| Nominal current   | 24 A   |
| Maximum load current  | 32 A (with 4 mm <sup>2</sup> conductor cross section)  |
| Maximum total current   | 57 A (with 10 mm <sup>2</sup> conductor cross section) |

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|                 |       |
|-----------------|-------|
| Nominal voltage | 690 V |
|-----------------|-------|

## Line contact

|   |  |
|---|--|
| Stripping length  | 10 mm ... 12 mm  |
| Connection in acc. with standard  | IEC 60947-7-1  |
| Conductor cross section rigid   | 0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>             |
| Cross section AWG   | 20 ... 8 (converted acc. to IEC)                       |
| Conductor cross section flexible  | 0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>             |
| Conductor cross section, flexible [AWG]   | 20 ... 10 (converted acc. to IEC)                      |
| Conductor cross-section flexible (ferrule without plastic sleeve)   | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>              |
| Flexible conductor cross section (ferrule with plastic sleeve)  | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>              |
| Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve) | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>            |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve                         | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>            |
| Nominal current   | 41 A (with 6 mm <sup>2</sup> conductor cross section)  |
| Maximum load current  | 57 A (with 10 mm <sup>2</sup> conductor cross section) |
| Nominal cross section   | 6 mm <sup>2</sup>                                      |

## Load contact Connection cross sections directly pluggable

|   |  |
|---|--|
| Conductor cross section rigid                                     | 0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section, rigid [AWG]                              | 24 ... 12 (converted acc. to IEC)            |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |

## Line contact Connection cross sections directly pluggable

|   |  |
|---|--|
| Conductor cross section rigid                                     | 1 mm <sup>2</sup> ... 10 mm <sup>2</sup> |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 1 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 1 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |

## Dimensions

|                    |         |
|--------------------|---------|
| Width              | 28.6 mm |
| Height             | 58.1 mm |
| Depth on NS 15     | 30.4 mm |
| Depth on NS 35/7,5 | 32.4 mm |

## Material specifications

|   |             |
|---|-------------|
| Color   | gray        |
| Flammability rating according to UL 94                                  | V0          |
| Insulating material group   | I           |
| Insulating material   | PA          |
| Static insulating material application in cold                          | -60 °C      |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °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 |

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|   |             |
|---|-------------|
| 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 |
| Calorimetric heat release NFPA 130 (ASTM E 1354)        | 28 MJ/kg    |
| 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 6 mm <sup>2</sup>  | 0.72 kA                             |
| Short-time withstand current 10 mm <sup>2</sup> | 1.2 kA                              |
| Result  | Test passed                         |

### Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 1.89 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   |
| Test force setpoint     | 5 N   |
| Result                  | Test passed   |
| Note                    | <p>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.</p> <p>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.</p> <p>When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.</p> |

### Test for conductor damage and slackening

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|                                |                              |
|--------------------------------|------------------------------|
| Rotation speed                 | 10 rpm                       |
| Revolutions                    | 135                          |
| Conductor cross section/weight | 0.5 mm <sup>2</sup> / 0.3 kg |
|                                | 6 mm <sup>2</sup> / 1.4 kg   |
|                                | 10 mm <sup>2</sup> / 2 kg    |
| Result                         | Test passed                  |

## Test for conductor damage and slackening

|                                |                               |
|--------------------------------|-------------------------------|
| Rotation speed                 | 10 rpm                        |
| Revolutions                    | 135                           |
| Conductor cross section/weight | 0.14 mm <sup>2</sup> / 0.2 kg |
|                                | 2.5 mm <sup>2</sup> / 0.7 kg  |
|                                | 4 mm <sup>2</sup> / 0.9 kg    |
| Result                         | Test passed                   |

## Environmental and real-life conditions

### Aging

|                    |             |
|--------------------|-------------|
| 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):2008-03            |
| Spectrum               | Service life test category 2, bogie-mounted    |
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$ |
| ASD level              | 6.12 (m/s <sup>2</sup> ) <sup>2</sup> /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):2008-03 |
| 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.) |
|---------------------------------|--|

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|  |  |
|--|--|
| Ambient temperature (storage/transport)  | -25 °C ... 60 °C (for a short time, no longer than 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  |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141120 |
| ECLASS-13.0 | 27250118 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000897 |
|----------|----------|

### UNSPSC

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