

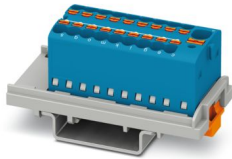
PTFIX 4/18X1,5-NS35 BU - Distribution block



1047455

<https://www.phoenixcontact.com/us/products/1047455>

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Distribution block, Block with vertical alignment and integrated supply, nom. voltage: 500 V, nominal current: 17.5 A, number of connections: 19, connection method: Push-in connection, Load contact, cross section: 0.14 mm² - 2.5 mm², Line contact, Rated cross section: 4 mm², cross section: 0.2 mm² - 6 mm², mounting type: NS 35/7,5, NS 35/15, color: blue

Your advantages

- Flexible use, thanks to DIN rail and direct mounting
- Space-saving, thanks to the compact design
- Convenient test options, thanks to test openings at every terminal point
- Space-saving potential distribution, thanks to compact micro potential distributors
- Clear arrangement thanks to marking of all terminal points

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1047455 |
| Packing unit | 20 pc |
| Minimum order quantity | 20 pc |
| Sales key | BE09 |
| Product key | BEA124 |
| GTIN | 4055626665603 |
| Weight per piece (including packing) | 23.275 g |
| Weight per piece (excluding packing) | 22.85 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

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 |
| Number of connections | 19 |
| Number of rows | 1 |

Insulation characteristics

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

Electrical properties

| | |
|---|--------|
| Rated surge voltage | 6 kV |
| Maximum power dissipation for nominal condition | 0.56 W |

Connection data

| | |
|---------------------------------|---------------------|
| Service Entrance | yes |
| Number of connections per level | 19 |
| Nominal cross section | 1.5 mm ² |
| Rated cross section AWG | 14 |

Load contact

| | |
|---|---|
| Connection method | Push-in connection |
| 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 ² ... 2.5 mm ² |
| Cross section AWG | 26 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section, flexible [AWG] | 26 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm ² ... 1.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm ² ... 1.5 mm ² |
| Nominal current | 17.5 A |
| Maximum load current | 22 A (with a 2.5 mm ² conductor cross-section) |
| Maximum total current | 32 A |
| Nominal voltage | 500 V |

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Line contact

| | |
|---|---|
| Stripping length | 10 mm ... 12 mm |
| Connection in acc. with standard | IEC 60998-2-2 |
| Conductor cross-section rigid | 0.2 mm ² ... 6 mm ² |
| Cross section AWG | 24 ... 10 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.2 mm ² ... 6 mm ² |
| Conductor cross-section, flexible [AWG] | 24 ... 10 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.2 mm ² ... 4 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.2 mm ² ... 4 mm ² |
| Nominal cross section | 4 mm ² |
| Nominal current | 41 A |
| Maximum load current | 41 A (with 6 mm ² conductor cross-section) |
| Maximum total current | 41 A |

Load contact Connection cross sections directly pluggable

| | |
|---|--|
| Conductor cross-section rigid | 0.34 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm ² ... 1.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm ² ... 1.5 mm ² |

Line contact Connection cross sections directly pluggable

| | |
|---|--|
| Conductor cross-section rigid | 0.34 mm ² ... 6 mm ² |
| Conductor cross-section, rigid [AWG] | 24 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.34 mm ² ... 4 mm ² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.2 mm ² ... 4 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.2 mm ² ... 4 mm ² |

Dimensions

| | |
|--------------------|---------|
| Width | 21.6 mm |
| Height | 58.1 mm |
| Depth on NS 15 | 26.4 mm |
| Depth on NS 35/7,5 | 28.4 mm |

Material specifications

| | |
|---|-----------------|
| Color | blue (RAL 5015) |
| 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)) | 125 °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 |

| | |
|---|------------|
| Calorimetric heat release NFPA 130 (ASTM E 1354) | 27,5 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 | 7.3 kV |
| Result | Test passed |

Temperature-rise test

| | |
|-----------------------------------|-------------------------------------|
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |
| Result | Test passed |
| 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/NS 15 |
| Test force setpoint | 5 N |
| 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):2018-05 |
| Spectrum | Long life test category 2, bogie-mounted |
| Frequency | $f_1 = 5$ Hz to $f_2 = 250$ Hz |

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| | |
|------------------------|---|
| ASD level | 6.12 (m/s ²) ² /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):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 % |

Standards and regulations

| | |
|----------------------------------|---------------|
| Connection in acc. with standard | IEC 60947-7-1 |
| | IEC 60998-2-2 |

Mounting

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

Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1047455>

| DNV Approval ID: TAE00002TT-05 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 500 V | 24 A | - | - |

| CSA Approval ID: 13631 | | | | |
|----------------------------------|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | | | | |
| Output | 300 V | 20 A | 26 - 12 | - |
| Input | 300 V | 30 A | 24 - 10 | - |
| C | | | | |
| Output | 150 V | 20 A | 26 - 12 | - |
| Input | 150 V | 30 A | 24 - 10 | - |

| IECEE CB Scheme Approval ID: DE1-62701 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 500 V | 32 A | - | - 4 |

| EAC Approval ID: RU C-DE.BL08.B.00644 | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

| VDE Zeichengenehmigung Approval ID: 40047797 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

| cULus Recognized Approval ID: E60425 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | | | | |
| Output | 300 V | 20 A | 26 - 12 | - |
| Input | 300 V | 30 A | 24 - 10 | - |
| C | | | | |
| Output | 150 V | 20 A | 26 - 12 | - |
| Input | 150 V | 30 A | 24 - 10 | - |

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EAC

Approval ID: KZ7500651131219505

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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, 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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