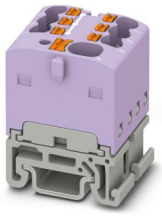
# PTFIX 4/6X1,5-NS15A VT - Distribution block

1047498

https://www.phoenixcontact.com/us/products/1047498

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Distribution block, nom. voltage: 500 V, nominal current: 17.5 A, number of connections: 7, 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 15, color: violet

## Commercial data

| | |
|---|---|
| Item number | 1047498 |
| Packing unit | 20 pc |
| Minimum order quantity | 20 pc |
| Sales key | BE09 |
| Product key | BEA122 |
| GTIN | 4055626666037 |
| Weight per piece (including packing) | 10.85 g |
| Weight per piece (excluding packing) | 10.85 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 | 7 |
| 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 | 7 |
| Nominal cross section | 1.5 mm² |
| 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 mm² ... 2.5 mm² |
| Cross section AWG | 26 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.14 mm² ... 2.5 mm² |
| Conductor cross-section, flexible [AWG] | 26 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm² ... 1.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm² ... 1.5 mm² |
| Nominal current | 17.5 A |
| Maximum load current | 22 A (with a 2.5 mm² conductor cross-section) |
| Maximum total current | 32 A |
| Nominal voltage | 500 V |

Line contact

| | |
|---|---|
| Stripping length | 10 mm ... 12 mm |
| Connection in acc. with standard | IEC 60998-2-2 |
| Conductor cross-section rigid | 0.2 mm² ... 6 mm² |
| Cross section AWG | 24 ... 10 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.2 mm² ... 6 mm² |
| Conductor cross-section, flexible [AWG] | 24 ... 10 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.2 mm² ... 4 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.2 mm² ... 4 mm² |
| Nominal cross section | 4 mm² |
| Nominal current | 41 A |
| Maximum load current | 41 A (with 6 mm² conductor cross-section) |
| Maximum total current | 41 A |

Load contact Connection cross sections directly pluggable

| | |
|---|---|
| Conductor cross-section rigid | 0.34 mm² ... 2.5 mm² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm² ... 1.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm² ... 1.5 mm² |

Line contact Connection cross sections directly pluggable

| | |
|---|---|
| Conductor cross-section rigid | 0.34 mm² ... 6 mm² |
| Conductor cross-section, rigid [AWG] | 24 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.34 mm² ... 4 mm² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.2 mm² ... 4 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.2 mm² ... 4 mm² |

## Dimensions

| | |
|---|---|
| Width | 19 mm |
| Height | 21.6 mm |
| Depth on NS 15 | 27.4 mm |

## Material specifications

| | |
|---|---|
| Color | violet (RAL 4005) |
| 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 |
| Short-time withstand current 4 mm² | 0.48 kA |
| Short-time withstand current 6 mm² | 0.72 kA |
| Short-time withstand current 1.5 mm² | 0.18 kA |
| Short-time withstand current 2.5 mm² | 0.3 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/NS 15 |
| Test force setpoint | 5 N |
| Result | Test passed |

### Test for conductor damage and slackening

| | |
|---|---|
| Rotation speed | 10 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 0.2 mm² / 0.2 kg |
| | 4 mm² / 0.9 kg |
| | 6 mm² / 1.4 kg |
| Result | Test passed |

### Test for conductor damage and slackening

| | |
|---|---|
| Rotation speed | 10 rpm |

| | |
|---|---|
| Revolutions | 135 |
| Conductor cross-section/weight | 0.14 mm² / 0.2 kg |
| | 1.5 mm² / 0.4 kg |
| | 2.5 mm² / 0.7 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):2018-05 |
| Spectrum | Long life test category 2, bogie-mounted |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 250 Hz |
| ASD level | 6.12 (m/s²)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 |

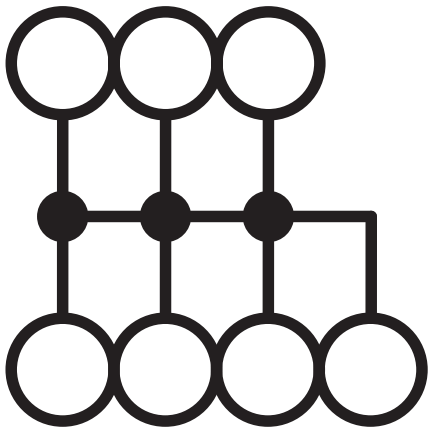
| | |
|---|---|
| | IEC 60998-2-2 |

## Mounting

| | |
|---|---|
| Mounting type | NS 15 |

## Drawings

Circuit diagram



## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

## 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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