

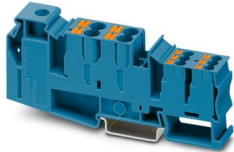
PTU 35/4X6/6X2,5 BU - Potential collective terminal



3214081

<https://www.phoenixcontact.com/us/products/3214081>

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Potential collective terminal, nom. voltage: 1000 V, nominal current: 105 A, 1st level connection left, connection method: Screw connection, cross section: 1.5 mm² - 50 mm², First level connection, interior, connection method: Push-in connection, Rated cross section: 6 mm², cross section: 0.5 mm² - 10 mm², mounting: NS 35/7,5, NS 35/15, color: blue

Your advantages

- The terminal block base is ideal for use in building installation and machine building applications
- The compact design and front connection enable wiring in a confined space
- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3214081 |
| Packing unit | 20 pc |
| Minimum order quantity | 20 pc |
| Sales key | BE22 |
| Product key | BE2219 |
| GTIN | 4055626170565 |
| Weight per piece (including packing) | 76.1 g |
| Weight per piece (excluding packing) | 76.1 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

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Technical data

Notes

| | |
|--------------------|---|
| Notes on operation | In the end application, the applicable safety regulations for overload and short-circuit protection on the connected conductors must be considered. |
|--------------------|---|

General

| | |
|------|--|
| Note | The max. load current must not be exceeded by the total current of all connected conductors. |
|------|--|

Product properties

| | |
|-----------------------|-----------------------|
| Product type | Potential distributor |
| Product family | PTU |
| Number of connections | 11 |
| Number of rows | 1 |
| Potentials | 1 |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution | 2 |

Electrical properties

| | |
|---|--------|
| Maximum power dissipation for nominal condition | 4.06 W |
|---|--------|

Connection data

| | |
|---------------------------------|-----|
| Service Entrance | yes |
| Number of connections per level | 11 |

1st level connection left

| | |
|---|--|
| Connection method | Screw connection |
| Screw thread | M6 |
| Number of connections | 1 |
| Tightening torque | 3.2 ... 3.7 Nm |
| Stripping length | 18 mm |
| Internal cylindrical gage | B9 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 1.5 mm ² ... 50 mm ² |
| Cross section AWG | 14 ... 2 (converted acc. to IEC) |
| Conductor cross-section flexible | 1.5 mm ² ... 50 mm ² |
| Conductor cross-section, flexible [AWG] | 14 ... 2 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 1.5 mm ² ... 35 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 1.5 mm ² ... 35 mm ² |
| 2 conductors with same cross section, rigid | 1.5 mm ² ... 16 mm ² |
| 2 conductors with the same cross-section AWG rigid | 16 ... 6 (converted acc. to IEC) |
| 2 conductors with same cross section, flexible | 1.5 mm ² ... 10 mm ² |

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| | |
|---|---|
| 2 conductors with the same cross-section AWG flexible | 16 ... 8 (converted acc. to IEC) |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 1.5 mm ² ... 10 mm ² |
| Nominal current | 105 A |
| Maximum load current | 105 A (The maximum load current must not be exceeded by the total current of all connected conductors.) |
| Nominal voltage | 1000 V |

First level connection, interior

| | |
|---|---|
| Connection method | Push-in connection |
| Number of connections | 4 |
| Stripping length | 12 mm |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 0.5 mm ² ... 10 mm ² |
| Cross section AWG | 20 ... 8 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.5 mm ² ... 6 mm ² |
| Conductor cross-section, flexible [AWG] | 20 ... 10 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.5 mm ² ... 6 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.5 mm ² ... 6 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 1.5 mm ² |
| Nominal cross section | 6 mm ² |
| Nominal current | 41 A |
| Maximum load current | 41 A |
| Nominal voltage | 1000 V |

1st level connection right

| | |
|---|--|
| Connection method | Push-in connection |
| Number of connections | 6 |
| Stripping length | 8 mm ... 10 mm |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 0.14 mm ² ... 4 mm ² |
| Cross section AWG | 26 ... 12 (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 ... 2.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm ² ... 2.5 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 1.5 mm ² |
| Nominal cross section | 2.5 mm ² |
| Nominal current | 24 A |
| Maximum load current | 24 A |
| Nominal voltage | 1000 V |

First level connection, interior Connection cross sections directly pluggable

| | |
|-------------------------------|--|
| Conductor cross-section rigid | 1 mm ² ... 10 mm ² |
|-------------------------------|--|

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| | |
|---|---|
| Conductor cross-section, rigid [AWG] | 18 ... 8 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 1 mm ² ... 6 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 1 mm ² ... 6 mm ² |

1st level connection right Connection cross sections directly pluggable

| | |
|---|--|
| Conductor cross-section rigid | 0.34 mm ² ... 4 mm ² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm ² ... 2.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm ² ... 2.5 mm ² |

Dimensions

| | |
|--------------------|----------|
| Width | 16.3 mm |
| Height | 110.4 mm |
| Depth on NS 35/7,5 | 48.8 mm |
| Depth on NS 35/15 | 56.3 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 |
| 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 |

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 |
| | Test passed |
| Short-time withstand current 35 mm ² | 3 kA |
| Short-time withstand current 50 mm ² | 4.8 kA |
| Result | Test passed |

Power-frequency withstand voltage

| | |
|-----------------------|--------|
| Test voltage setpoint | 2.2 kV |
|-----------------------|--------|

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| | |
|--------|-------------|
| 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 | 10 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 1.5 mm ² / 0.4 kg |
| | 35 mm ² / 6.8 kg |
| | 50 mm ² / 9.5 kg |
| Result | Test passed |

Test for conductor damage and slackening

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

Test for conductor damage and slackening

| | |
|--------------------------------|-------------------------------|
| Rotation speed | 10 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 0.14 mm ² / 0.2 kg |
| | 2.5 mm ² / 0.7 kg |
| | 4 mm ² / 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 |
|------------------|------|

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| | |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

Oscillation/broadband noise

| | |
|------------------------|--|
| Specification | EN 50155:2021-07 |
| 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/s 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):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.) |
| 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 |
| | IEC 60947-7-1 |

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/3214081>



CSA

Approval ID: 158887



EAC

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



cULus Recognized

Approval ID: E60425



EAC

Approval ID: KZ7500651131219505



CSA

Approval ID: 13631

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27250119 |
| ECLASS-15.0 | 27250119 |

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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.618 kg CO2e |
|---------|---------------|

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