

Potential collective terminal - PTU 35/4X6/6X2,5 - 3214080

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Potential collective terminal, nom. voltage: 1000 V, nominal current: 105 A, connection method: Screw connection, Push-in connection, number of connections: 11, cross section: 1.5 mm² - 50 mm², AWG: 16 - 1/0, width: 16.3 mm, color: gray, mounting type: NS 35/7,5, NS 35/15

Why buy this product

- ✓ The terminal block base is ideal for use in building installation and machine building applications
- ✓ 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
- ✓ The compact design and front connection enable wiring in a confined space
- ✓ In addition to the testing facility in the double function shaft, all terminal blocks provide an additional test connection

Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 20 STK |
| GTIN | |
| GTIN | 4055626167619 |

Technical data

General

| | |
|--|---|
| Note | In the end application, the applicable safety regulations for overload and short-circuit protection on the connected conductors must be considered. |
| Number of levels | 1 |
| Number of connections | 11 |
| Color | gray |
| Insulating material | PA |
| Flammability rating according to UL 94 | V0 |
| Rated surge voltage | 8 kV |
| Degree of pollution | 2 |
| Overvoltage category | III |
| Insulating material group | I |

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Technical data

General

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|---|---|
| Maximum power dissipation for nominal condition | 4.06 W (the value is multiplied when connecting multiple levels) |
| Connection method | Screw connection |
| Connection in acc. with standard | IEC 60947-7-1 |
| Maximum load current | 105 A (The maximum load current must not be exceeded by the total current of all connected conductors.) |
| Nominal current I_N | 105 A |
| Nominal voltage U_N | 1000 V |
| Connection method | Push-in connection |
| Connection in acc. with standard | IEC 60947-7-1 |
| Maximum load current | 41 A |
| Nominal current I_N | 41 A |
| Nominal voltage U_N | 1000 V |
| Open side panel | No |
| Shock protection test specification | DIN EN 50274 (VDE 0660-514):2002-11 |
| Back of the hand protection | guaranteed |
| Finger protection | guaranteed |
| Result of surge voltage test | Test passed |
| Surge voltage test setpoint | 9.8 kV |
| Result of power-frequency withstand voltage test | Test passed |
| Power frequency withstand voltage setpoint | 2.2 kV |
| Result of the test for mechanical stability of terminal points (5 x conductor connection) | Test passed |
| Result of bending test | Test passed |
| Bending test rotation speed | 10 rpm |
| Bending test turns | 135 |
| Bending test conductor cross section/weight | 1.5 mm ² / 0.4 kg |
| | 35 mm ² / 6.8 kg |
| | 50 mm ² / 9.5 kg |
| | 0.5 mm ² / 0.3 kg |
| | 6 mm ² / 1.4 kg |
| | 10 mm ² / 2 kg |
| | 0.14 mm ² / 0.2 kg |
| | 2.5 mm ² / 0.7 kg |
| | 4 mm ² / 0.9 kg |
| Tensile test result | Test passed |
| Conductor cross section tensile test | 1.5 mm ² |
| Tractive force setpoint | 40 N |
| Conductor cross section tensile test | 35 mm ² |
| Tractive force setpoint | 190 N |
| Conductor cross section tensile test | 50 mm ² |
| Tractive force setpoint | 236 N |

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Technical data

General

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|---|--|
| Conductor cross section tensile test | 0.5 mm ² |
| Tractive force setpoint | 20 N |
| Result of tight fit on support | Test passed |
| Tight fit on carrier | NS 35 |
| Setpoint | 10 N |
| Result of voltage-drop test | Test passed |
| Requirements, voltage drop | ≤ 1.6 mV |
| Result of temperature-rise test | Test passed |
| Short circuit stability result | Test passed |
| Conductor cross section short circuit testing | 35 mm ² |
| Short-time current | 3 kA |
| Conductor cross section short circuit testing | 50 mm ² |
| Short-time current | 4.8 kA |
| Result of aging test | Test passed |
| Ageing test for screwless modular terminal block temperature cycles | 192 |
| Result of thermal test | Test passed |
| Proof of thermal characteristics (needle flame) effective duration | 30 s |
| Oscillation, broadband noise test result | Test passed |
| Test specification, oscillation, broadband noise | DIN EN 50155 (VDE 0115-200):2008-03 |
| Test spectrum | Service life test category 2, bogie-mounted |
| Test frequency | f ₁ = 5 Hz to f ₂ = 250 Hz |
| ASD level | 6.12 (m/s ²) ² /Hz |
| Acceleration | 3.12 g |
| Test duration per axis | 5 h |
| Test directions | X-, Y- and Z-axis |
| Shock test result | Test passed |
| Test specification, shock test | DIN EN 50155 (VDE 0115-200):2008-03 |
| Shock form | Half-sine |
| Acceleration | 30g |
| Shock duration | 18 ms |
| Number of shocks per direction | 3 |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |
| Relative insulation material temperature index (Elec., UL 746 B) | 130 °C |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C |
| Static insulating material application in cold | -60 °C |
| Behavior in fire for rail vehicles (DIN 5510-2) | Test passed |
| Flame test method (DIN EN 60695-11-10) | V0 |
| Oxygen index (DIN EN ISO 4589-2) | >32 % |
| NF F16-101, NF F10-102 Class I | 2 |
| NF F16-101, NF F10-102 Class F | 2 |

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|---|-------------|
| 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 |
| Calorimetric heat release NFPA 130 (ASTM E 1354) | 28 MJ/kg |
| 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 |

Dimensions

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| Width | 16.3 mm |
| Length | 110.4 mm |
| Height NS 35/7,5 | 48.8 mm |
| Height NS 35/15 | 56.3 mm |

Connection data

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|--|---------------------|
| Connection method | Screw connection |
| Connection in acc. with standard | IEC 60947-7-1 |
| Screw thread | M6 |
| Tightening torque, min | 3.2 Nm |
| Tightening torque max | 3.7 Nm |
| Stripping length | 18 mm |
| Conductor cross section solid min. | 1.5 mm ² |
| Conductor cross section solid max. | 50 mm ² |
| Conductor cross section AWG min. | 16 |
| Conductor cross section AWG max. | 1/0 |
| Conductor cross section flexible min. | 1.5 mm ² |
| Conductor cross section flexible max. | 50 mm ² |
| Min. AWG conductor cross section, flexible | 16 |
| Max. AWG conductor cross section, flexible | 1/0 |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 1.5 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 35 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve min. | 1.5 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve max. | 35 mm ² |
| 2 conductors with same cross section, solid min. | 1.5 mm ² |
| 2 conductors with same cross section, solid max. | 16 mm ² |
| Two conductors with the same cross section, AWG solid min. | 16 |
| Two conductors with the same cross section, AWG solid max. | 6 |
| 2 conductors with same cross section, stranded min. | 1.5 mm ² |
| 2 conductors with same cross section, stranded max. | 10 mm ² |
| Two conductors with the same cross section, AWG stranded, min. | 16 |
| Two conductors with the same cross section, AWG stranded, max. | 8 |

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Connection data

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|---|----------------------|
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve, min. | 1.5 mm ² |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve, max. | 10 mm ² |
| Internal cylindrical gage | B9 |
| Connection method | Push-in connection |
| Connection in acc. with standard | IEC 60947-7-1 |
| Stripping length | 12 mm |
| Conductor cross section solid min. | 0.5 mm ² |
| Conductor cross section solid max. | 10 mm ² |
| Conductor cross section AWG min. | 20 |
| Conductor cross section AWG max. | 8 |
| Conductor cross section flexible min. | 0.5 mm ² |
| Conductor cross section flexible max. | 6 mm ² |
| Min. AWG conductor cross section, flexible | 20 |
| Max. AWG conductor cross section, flexible | 10 |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.5 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 6 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve min. | 0.5 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve max. | 6 mm ² |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min. | 0.5 mm ² |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max. | 1.5 mm ² |
| Conductor cross section solid min. | 1 mm ² |
| Conductor cross section solid max. | 10 mm ² |
| Conductor cross section AWG min. | 18 |
| Conductor cross section AWG max. | 8 |
| Conductor cross section flexible, with ferrule with plastic sleeve min. | 1 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve max. | 6 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 1 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 6 mm ² |
| Connection method | Push-in connection |
| Connection in acc. with standard | IEC 60947-7-1 |
| Stripping length | 8 mm ... 10 mm |
| Conductor cross section solid min. | 0.14 mm ² |
| Conductor cross section solid max. | 4 mm ² |
| Conductor cross section AWG min. | 26 |
| Conductor cross section AWG max. | 12 |
| Conductor cross section flexible min. | 0.14 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Min. AWG conductor cross section, flexible | 26 |

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Connection data

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|---|----------------------|
| Max. AWG conductor cross section, flexible | 14 |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.14 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 2.5 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve min. | 0.14 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve max. | 2.5 mm ² |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min. | 0.5 mm ² |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max. | 1.5 mm ² |
| Conductor cross section solid min. | 0.34 mm ² |
| Conductor cross section solid max. | 4 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve min. | 0.34 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve max. | 2.5 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.34 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 2.5 mm ² |

Standards and Regulations

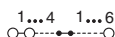
| | |
|--|---|
| Connection in acc. with standard | IEC 60947-7-1 |
| | IEC 60947-7-1 |
| Flammability rating according to UL 94 | V0 |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
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Environmental Product Compliance

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|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Circuit diagram



Approvals

Approvals

Approvals

CSA / UL Recognized / cUL Recognized / cULus Recognized

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Approvals

Ex Approvals

Approval details

| | | | |
|----------------------------|--|---|-------|
| CSA | | http://www.csagroup.org/services-industries/product-listing/ | 13631 |
| | | B | C |
| Nominal voltage UN | | 600 V | 600 V |
| Nominal current IN | | 102 A | 102 A |
| mm ² /AWG/kcmil | | 14-2 | 14-2 |

| | | | |
|----------------------------|--|---|--------------|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 60425 |
| | | B | C |
| Nominal voltage UN | | 600 V | 600 V |
| Nominal current IN | | 102 A | 102 A |
| mm ² /AWG/kcmil | | 14-2 | 14-2 |

| | | | |
|----------------------------|--|---|--------------|
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 60425 |
| | | B | C |
| Nominal voltage UN | | 600 V | 600 V |
| Nominal current IN | | 102 A | 102 A |
| mm ² /AWG/kcmil | | 14-2 | 14-2 |

| | | |
|------------------|--|---|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm |
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PHOENIX CONTACT GmbH & Co. KG
 Flachsmarktstr. 8
 32825 Blomberg
 Germany
 Tel. +49 5235 300
 Fax +49 5235 3 41200
<http://www.phoenixcontact.com>