

PTPOWER 35 - High-current terminal block



3212064

<https://www.phoenixcontact.com/us/products/3212064>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 2, connection method: PowerTurn connection, Rated cross section: 35 mm², cross section: 2.5 mm² - 35 mm², mounting type: NS 35/15, color: gray

Your advantages

- Quick and easy connection is now also possible for large conductors with the high-current terminal block
- 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
- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The compact design and front connection enable wiring in a confined space

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 3212064 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | BE22 |
| Product key | BE2211 |
| Catalog page | Page 135 (C-1-2019) |
| GTIN | 4046356726016 |
| Weight per piece (including packing) | 91.1 g |
| Weight per piece (excluding packing) | 83.76 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|-----------------------|-----------------------------|
| Product type | High current terminal block |
| Number of connections | 2 |
| 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 | 4.06 W |

Connection data

| | |
|---|---|
| Number of connections per level | 2 |
| Nominal cross section | 35 mm ² |
| Rated cross section AWG | 2 |
| Stripping length | 25 mm |
| Conductor cross section rigid | 2.5 mm ² ... 35 mm ² |
| Cross section AWG | 12 ... 2 (converted acc. to IEC) |
| Conductor cross section flexible | 2.5 mm ² ... 35 mm ² |
| Conductor cross section, flexible [AWG] | 12 ... 2 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 2.5 mm ² ... 35 mm ² |
| Flexible conductor cross section (ferrule with plastic sleeve) | 2.5 mm ² ... 35 mm ² |
| Nominal current | 125 A |
| Maximum load current | 125 A (with 35 mm ² conductor cross section) |
| Nominal voltage | 1000 V |
| Nominal cross section | 35 mm ² |

Connection cross sections directly pluggable

| | |
|---|--|
| Conductor cross section rigid | 2.5 mm ² ... 35 mm ² |
| Conductor cross section, rigid [AWG] | 12 ... 2 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 2.5 mm ² ... 35 mm ² |
| Flexible conductor cross section (ferrule with plastic sleeve) | 2.5 mm ² ... 35 mm ² |

Ex data

Rated data (ATEX/IECEx)

| | |
|-----------------------------|---|
| Identification | ⊕ II 2 GD Ex eb IIC Gb |
| Operating temperature range | -60 °C ... 110 °C |
| Ex-certified accessories | 1206612 SZF 3-1,0X5,5 1201662 E/AL-NS 35 |

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| | |
|--------------------------|-------------------------------------|
| List of bridges | Plug-in bridge / FBS 2-16 / 3005963 |
| Bridge data | 89 A / 25 mm ² |
| Ex temperature increase | 40 K (120 A/35 mm ²) |
| Rated voltage | 690 V |
| for bridging with bridge | 690 V |
| Rated insulation voltage | 660 V |
| output | (Permanent) |

Ex level General

| | |
|----------------------|---------|
| Rated current | 109 A |
| Maximum load current | 109 A |
| Contact resistance | 0.16 mΩ |

Ex connection data General

| | |
|--|--|
| Ferrule length | 25 mm |
| Stripping length | 25 mm |
| Nominal cross section | 35 mm ² |
| Rated cross section AWG | 2 |
| Connection capacity rigid | 2.5 mm ² ... 35 mm ² |
| Connection capacity AWG | 12 ... 2 |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 6 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 35 mm ² |

Dimensions

| | |
|--------------------|---------|
| Width | 16 mm |
| Height | 91.6 mm |
| Depth on NS 35/7,5 | 69.8 mm |
| Depth on NS 35/15 | 77.3 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 |
| 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 |

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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 |
| Short-time withstand current 35 mm ² | 4.2 kA |
| Result | Test passed |

Power-frequency withstand voltage

| | |
|-----------------------|-------------|
| Test voltage setpoint | 2.2 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 | 10 N |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|--------------------------------|------------------------------|
| Rotation speed | 10 rpm |
| Revolutions | 135 |
| Conductor cross section/weight | 2.5 mm ² / 0.7 kg |
| | 35 mm ² / 6.8 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 |

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Oscillation/broadband noise

| | |
|------------------------|---|
| Specification | DIN EN 50155 (VDE 0115-200):2008-03 |
| | DIN EN 50155 (VDE 0115-200):2022-06 |
| | DIN EN 50155 (VDE 0115-200):2022-06 |
| Spectrum | Service life test category 2, bogie-mounted |
| | Service life test category 2, bogie-mounted |
| | Service life test category 1, class B, body mounted |
| Frequency | $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ |
| | $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ |
| | $f_1 = 5 \text{ Hz to } f_2 = 150 \text{ Hz}$ |
| ASD level | $6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$ |
| | $6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$ |
| | $0.964 \text{ (m/s}^2\text{)}^2\text{/Hz}$ |
| Acceleration | 3.12g |
| | 3.12g |
| | 5.72 m/s^2 |
| Test duration per axis | 5 h |
| | 5 h |
| | 5 h |
| Test directions | X-, Y- and Z-axis |
| | X-, Y- and Z-axis |
| | X-, Y- and Z-axis |
| Result | Test passed |
| | Test passed |

Shocks

| | |
|--------------------------------|-------------------------------------|
| Specification | DIN EN 50155 (VDE 0115-200):2008-03 |
| | DIN EN 50155 (VDE 0115-200):2022-06 |
| | DIN EN 50155 (VDE 0115-200):2022-06 |
| Pulse shape | Half-sine |
| | Half-sine |
| | Half-sine |
| Acceleration | 30g |
| | 30g |
| | 50 m/s^2 |
| Shock duration | 18 ms |
| | 18 ms |
| | 30 ms |
| Number of shocks per direction | 3 |
| | 3 |
| | 3 |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |
| | X-, Y- and Z-axis (pos. and neg.) |
| | X-, Y- and Z-axis (pos. and neg.) |

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| | |
|--------|-------------|
| Result | Test passed |
| | 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, 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 % |

Mounting

| | |
|---------------|----------|
| Mounting type | NS 35/15 |
|---------------|----------|

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27141120 |
| ECLASS-13.0 | 27250101 |

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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