

UW 50-POT/S - Panel feed-through terminal block



1713843

<https://www.phoenixcontact.com/us/products/1713843>

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The figure shows the standard item

Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Cable lug connection, number of positions: 1, load current: 150 A, connection direction of the conductor to plug-in direction: 0 °, width: 18.8 mm, color: gray

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Tool-free snap-in principle enables easy mounting on the device panel
- Automatic panel thickness compensation enables universal use
- Reliable seal even with low-viscosity molding compounds

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1713843 |
| Packing unit | 25 pc |
| Minimum order quantity | 25 pc |
| Sales key | AA28 |
| Product key | AA1FDB |
| GTIN | 4055626326016 |
| Weight per piece (including packing) | 68.384 g |
| Weight per piece (excluding packing) | 68.384 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

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Technical data

Product properties

| | |
|-----------------------|-----------------------------------|
| Product type | Panel feed-through terminal block |
| Product family | UW 50-POT |
| Number of positions | 1 |
| Pitch | 18.8 mm |
| Number of connections | 2 |
| Number of potentials | 1 |

Electrical properties

Properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 150 A |
| Nominal voltage U_N | 800 V |
| Rated voltage (III/3) | 800 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Connection data

Connection technology

| | |
|-----------------------|--------------------|
| Connector system | UW 50 |
| Nominal cross section | 50 mm ² |

Conductor connection exterior

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| Connection direction of the conductor to plug-in direction | 0 ° |
| Single-conductor/terminal point multi-stranded | 16 mm ² ... 50 mm ² |
| Conductor cross-section flexible | 16 mm ² ... 50 mm ² |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 10 mm ² ... 50 mm ² |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 10 mm ² ... 50 mm ² |
| 2 conductors with same cross section, rigid | 6 mm ² ... 16 mm ² |
| 2 conductors with same cross section, flexible | 10 mm ² ... 16 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 6 mm ² ... 16 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 6 mm ² ... 10 mm ² |
| Internal cylindrical gage | A10 / B10 |
| Stripping length | 24 mm |
| Tightening torque | 6 Nm ... 8 Nm |

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Conductor connection interior

| | |
|--|----------------------|
| Connection method | Cable lug connection |
| Connection direction of the conductor to plug-in direction | 0 ° |

Mounting

| | |
|-----------------|-------------|
| Panel thickness | 1 mm...4 mm |
|-----------------|-------------|

Material specifications

Material data - contact

| | |
|-------------------------|--|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material | Al alloy |
| Surface characteristics | tin-plated |

Material data - housing

| | |
|---|-------------|
| Color (Housing) | gray (7042) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

Notes

| | |
|-----------------|---|
| Notes on safety | The cable entry funnel is not touch-proof. Never connect or disconnect the terminal when it is energized. Take appropriate steps to ensure touch proofness. |
|-----------------|---|

Safety note

| | |
|-------------|--|
| Safety note | <ul style="list-style-type: none">• Only electrically qualified personnel may install and operate the product. To recognize and prevent danger, the qualified personnel must be familiar with the basics of electrical engineering.• Observe the technical data provided here and refer to the documents listed under "Downloads". The download area contains important information, such as installation notes, technical drawings, and 3D data.• The cable entry funnel is not safe to touch. Never connect or disconnect the terminal when it is energized. Take appropriate steps to ensure touch protection.• To maintain the nominal voltage, align the cable lugs straight and centered, and cast the terminals on the inside. |
|-------------|--|

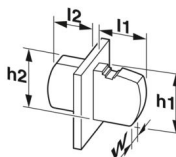
Dimensions

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| | |
|---------------------|--|
| Dimensional drawing |  |
| Pitch | 18.8 mm |
| | 18.8 mm |
| Width [w] | 18.8 mm |
| External dimensions | |
| Height [h1] | 32 mm |
| Length [l1] | 30 mm |
| Internal dimensions | |
| Height [h2] | 54 mm |
| Length [l2] | 45.3 mm |

Mechanical tests

Test for conductor damage and slackening

| | |
|---------------|-----------------------|
| Specification | IEC 60947-7-1:2009-04 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60947-7-1:2009-04 |
| Conductor cross-section/conductor type/tractive force setpoint/actual value | 16 mm ² / stranded / > 100 N |
| | 16 mm ² / flexible / > 100 N |
| | 50 mm ² / stranded / > 236 N |
| | 50 mm ² / flexible / > 236 N |

Electrical tests

Temperature-rise test

| | |
|-----------------------------------|--------------------------------|
| Specification | IEC 60947-7-1:2009-04 |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Short-time withstand current

| | |
|---------------|-----------------------|
| Specification | IEC 60947-7-1:2009-04 |
|---------------|-----------------------|

Air clearances and creepage distances | 1. Insulation coordination

| | |
|--|----------------------------------|
| Specification | IEC 60947-1:2007-06 + A1:2010-12 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 800 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 10 mm |

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| | |
|--|--------|
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| minimum clearance value - non-homogenous field (III/2) | 8 mm |
| minimum creepage distance (III/2) | 8 mm |
| Rated insulation voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |
| minimum clearance value - non-homogenous field (II/2) | 5.5 mm |
| minimum creepage distance (II/2) | 5.5 mm |

Environmental and real-life conditions

Vibration test

| | |
|------------------------|-----------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

Shocks

| | |
|-----------------|-----------------------------------|
| Specification | IEC 60068-2-27:2008-02 |
| Pulse shape | Semi-sinusoidal |
| Acceleration | 50g |
| Shock duration | 11 ms |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

Glow-wire test

| | |
|------------------|------------------------|
| Specification | IEC 60695-2-11:2014-02 |
| Temperature | 960 °C |
| Time of exposure | 30 s |

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |

Ambient conditions

| | |
|---|---|
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| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

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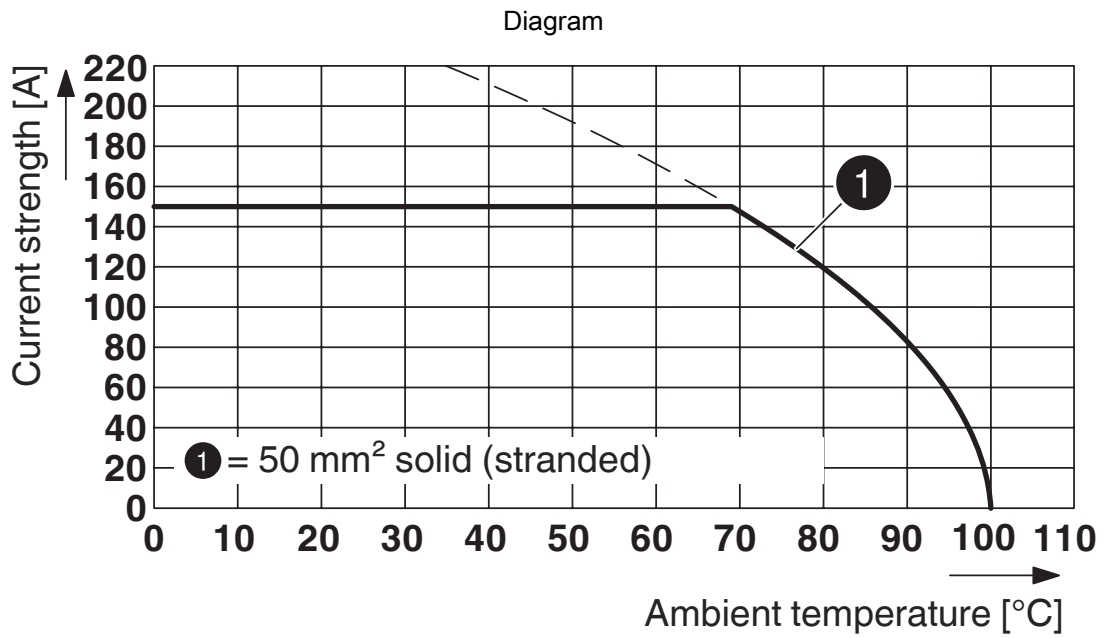


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| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

Drawings



Type: UW 50-POT/S

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1713843>

|  cULus Recognized Approval ID: E60425-20171106 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 600 V | 151 A | 6 - 2/0 | - |
| C | 600 V | 151 A | 6 - 2/0 | - |

|  VDE approval of drawings Approval ID: 40047737 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | 1000 V | 150 A | - | 16 - 50 |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27141134 |
| ECLASS-15.0 | 27141134 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001283 |
|-----------|----------|

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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