

PRC 3-FC-FS6 8-21 - Coupler connector



1410661

<https://www.phoenixcontact.com/us/products/1410661>

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Coupler connector, Range of articles: PRC 35, design: Can only be released with a tool, color: black, number of positions: 3, min. conductor cross-section: 1.5 mm², max. conductor cross-section: 6 mm², rated voltage: 690 V AC, rated current: 35 A, Connection method: Screw connection, min. cable diameter: 8 mm, max. cable diameter: 21 mm, Variant for release with a tool

Your advantages

- Up to 75% smaller in size than industrial connectors with the same rating
- Locking mechanism can be unlocked manually or using a tool
- Suitable for applications in atmospheres containing salt and in direct sunlight
- Ideal for indoor and outdoor use due to weatherproof materials

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1410661 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB03 |
| Product key | ABLCBA |
| GTIN | 4046356904674 |
| Weight per piece (including packing) | 92.46 g |
| Weight per piece (excluding packing) | 78.736 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

Technical data

Notes

| | |
|---------------------|--|
| Order information: | Variant for release with a tool |
| Note on application | For assembly notes, please refer to the packing slip |

Safety note

| | |
|---|---|
| Safety note | <ul style="list-style-type: none"> • WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible. |
| | <ul style="list-style-type: none"> • WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product. |
| | <p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> |
| | <ul style="list-style-type: none"> • Assembled products may not be manipulated or improperly opened. |
| | <ul style="list-style-type: none"> • Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products). |
| | <ul style="list-style-type: none"> • When using the product in direct connection with third-party manufacturers, the user is responsible. |
| | <ul style="list-style-type: none"> • For operating voltages > 50 V AC, conductive connector housings must be grounded |
| | <ul style="list-style-type: none"> • Ensure that the protective or functional ground has been properly connected. |
| | <ul style="list-style-type: none"> • VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector |
| | <ul style="list-style-type: none"> • Observe the corresponding technical data. You will find information: <ul style="list-style-type: none"> o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product |
| | <ul style="list-style-type: none"> • Only use tools recommended by Phoenix Contact |
| | <ul style="list-style-type: none"> • The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product. |
| | <ul style="list-style-type: none"> • Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products |
| | <ul style="list-style-type: none"> • Operate the connector only when it is fully plugged in. |
| <ul style="list-style-type: none"> • Operate the connector only when it is fully plugged in and interlocked. | |
| <ul style="list-style-type: none"> • Ensure that when laying the cable, the tensile load on the | |

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| | connectors does not exceed the upper limit specified in the standards. |
| | <ul style="list-style-type: none"> • Observe the minimum bending radius of the cable. Lay the cable without twisting it. |
| | <ul style="list-style-type: none"> • The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12). |

Product properties

| | |
|---------------------|----------------------------------|
| Product type | Installation connector |
| Product family | PRC 35 |
| Type | Can only be released with a tool |
| Number of positions | 3 |
| Connection profile | 2+PE |
| Coding | AD |

Insulation characteristics

| | |
|---------------------|----|
| Protection class | II |
| Degree of pollution | 2 |

Electrical properties

| | |
|-----------------------------|---|
| Rated voltage (III/2) | 690 V |
| Rated voltage | 690 V AC (III/2.00) in accordance with IEC 61984 |
| | 500 V AC (III/2.00) in accordance with IEC 61535/2 PfG 1915 |
| | 600 V AC / DC (III/2.00) In accordance with UL 2238 |
| | 500 V DC (III/2.00) in accordance with IEC 61535 |
| Rated surge voltage (III/2) | 8 kV |
| Rated current | 35 A (With 6 mm ² conductor cross-section in accordance with IEC 61984) |
| | 32 A (With 6 mm ² conductor cross-section in accordance with IEC 61535) |
| | 21.4 A (With 6 mm ² conductor cross-section and 85 °C in accordance with 2 PfG 1915) |
| | 32 A (with AWG 10, in accordance with UL 2237) |

Connection data

Conductor connection

| | |
|-------------------------|---|
| Conductor cross-section | 1.5 mm ² ... 6 mm ² |
|-------------------------|---|

Dimensions

| | |
|---------------------|---------|
| Dimensional drawing | |
| Width | 37.6 mm |

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| | |
|--------|----------|
| Height | 37.6 mm |
| Length | 107.5 mm |

External dimensions

| | |
|------------------|----------------|
| Outside diameter | 8 mm ... 21 mm |
|------------------|----------------|

Material specifications

| | |
|--|-----------------------------------|
| Color (Housing) | black (RAL 9005) |
| Color of the housing part | black |
| Material Seal | EPDM (Cable seal) |
| | EPDM (Housing seal) |
| Material Housing | PPE |
| Material Contact carrier | PPE |
| Material Cable gland | PPE |
| Material Contact | CuZn (Contact material, Pb < 0.1) |
| Flammability rating according to UL 94 | V0 |
| Contact surface material | silver-plated |

Connector

| | |
|----------------|-------------|
| Pull-out-force | 150 N ±50 N |
|----------------|-------------|

Cable/line

| | |
|---|---|
| External cable diameter | 8 mm ... 21 mm |
| External cable diameter | 8 mm ... 21 mm (For notes on cable clamping ranges, see packing slip) |
| Single wire, cross section | 1.5 mm ² 6 mm ² 14 AWG 10 AWG |
| Stripping length of the individual wire | Lay PE conductor 8 mm leading |
| Halogen-free | yes |

Mechanical properties

Mechanical data

| | |
|-----------------------------|---|
| Insertion/withdrawal cycles | 100 (Test specification: IEC 60512-13-2) |
| Insertion force | 30 N ±10 N (Test specification: IEC 60512-13-2) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection (when plugged in) | IP66/IP68 (2 m / 24 h) IP69K |
| Degree of protection | IP66/IP68 (2 m / 24 h) IP69K |
| | IP66/IP68 (2 m / 24 h) IP69K |
| Category of shock impact | IK08 (-25°C) |
| Ambient temperature (operation) | -40 °C ... 105 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly) | 5 °C ... 85 °C |

Standards and regulations

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| | |
|--------------------------|--------------------------------------|
| Standards/specifications | IEC 61984:2008 |
| | EN 61984:2008 |
| | DIN EN IEC 61535:2020 |
| | IEC 61535:2019 |
| | 2 PfG 1915/03.2015 |
| | UL 2237 Ed.1:2021-01-08 |
| | CSA C22.2 No. 182.3-16 Ed.2:2019-01 |
| | DIN EN 60068-2-6 |
| | DIN EN 60068-2-27 |
| | ETSI EN 300 019-1-4 V2.2.1 (2014-04) |

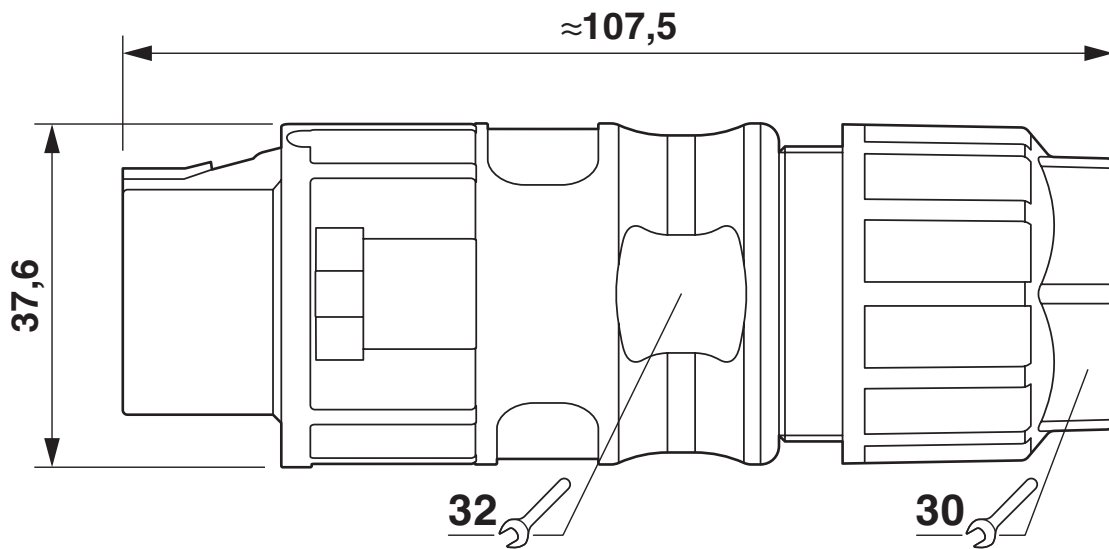
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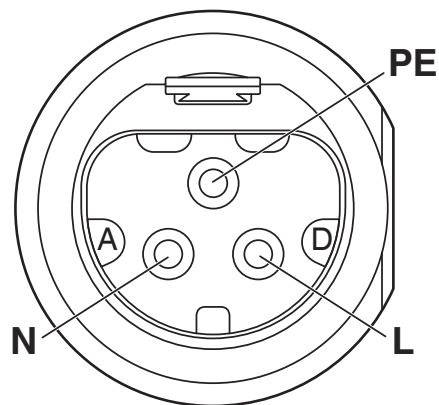
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Drawings

Dimensional drawing



Schematic diagram



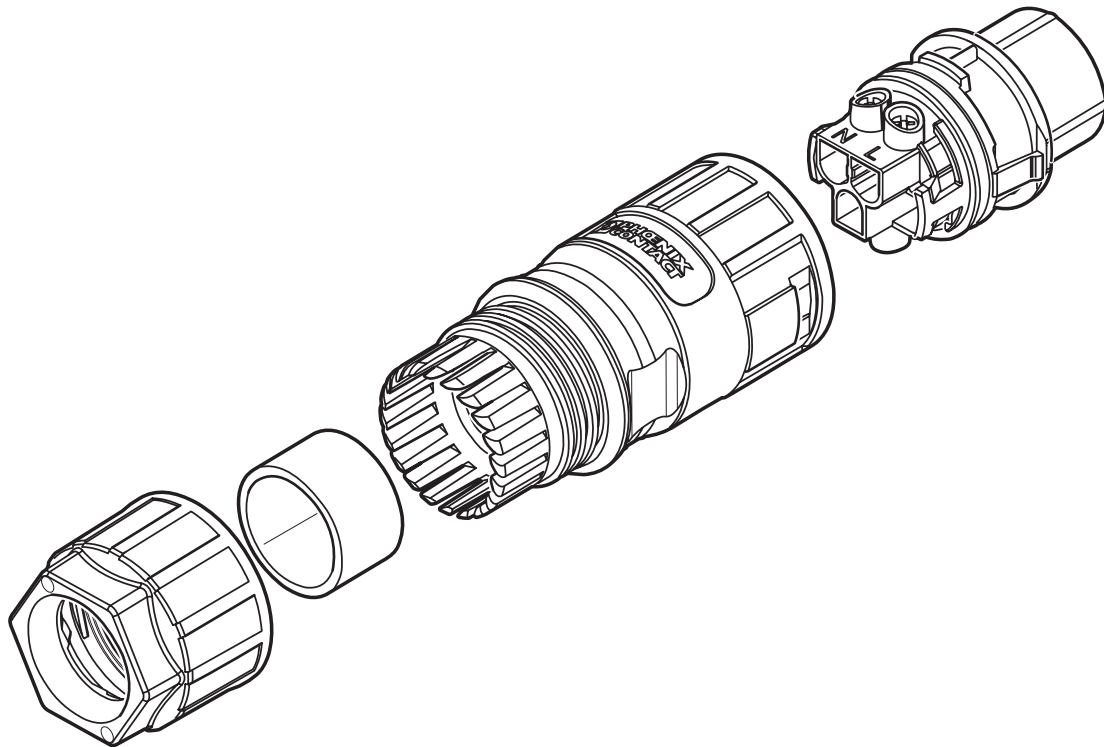
Connector pin assignment

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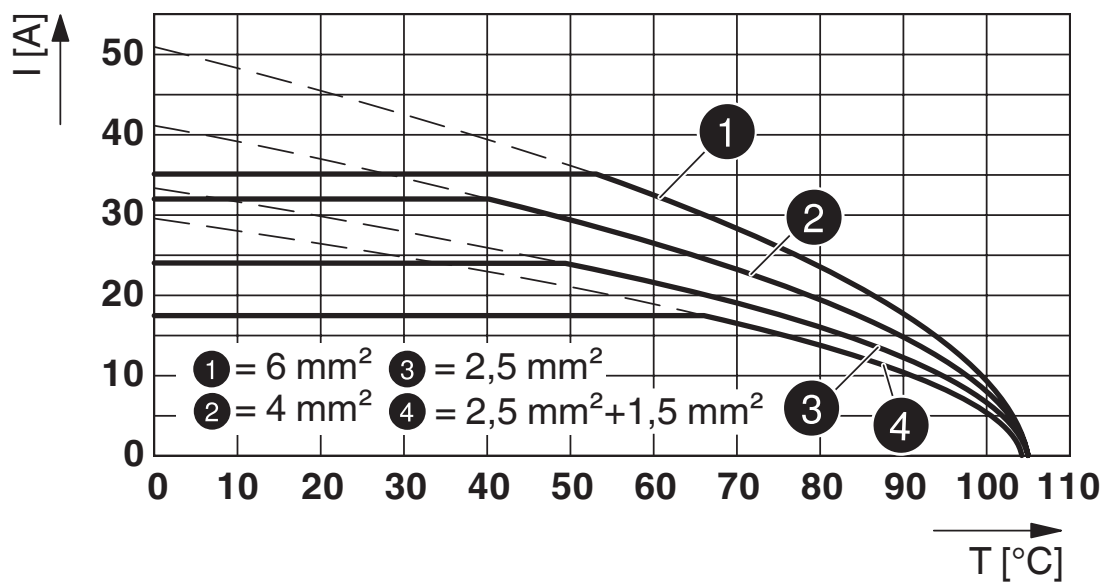
<https://www.phoenixcontact.com/us/products/1410661>

Schematic diagram



Schematic design

Diagram



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Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1410661>


|  UL Listed Approval ID: E221474-20150513 | | | | |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 600 V | 35 A | - | 14 - 10 |

|  cUL Listed Approval ID: E221474-20150513 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 600 V | 35 A | 14 - 10 | - |

|  TÜV Rheinland Approval ID: R 60168292 0001 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 690 V | 35 A | - | - |

|  TÜV Rheinland Approval ID: R 60117908 | | | | |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 500 V | 21.4 A | - | - |

|  TÜV Rheinland Approval ID: R 60168255 0001 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 500 V | 32 A | - | - |


|  cUL Listed Approval ID: E468743-20190809 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 600 V | 25 A | - | - |

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|  UL Listed Approval ID: E468743-20190809 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 600 V | 32 A | - | - |

| DNV Approval ID: TAE00002KM | | | | |
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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27440605 |
| ECLASS-15.0 | 27440605 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002560 |
|-----------|----------|

UNSPSC

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

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

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|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Triphenyl phosphate(CAS: 115-86-6) |
| SCIP | 9f5f994e-5a1f-4b8f-8d2c-0722852ef3eb |

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