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 mm^2, max. conductor cross-section: 6 mm^2, 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	• 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.
	• 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.
	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	• Assembled products may not be manipulated or improperly opened.
	• 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).
	• When using the product in direct connection with third-party manufacturers, the user is responsible.
	• For operating voltages > 50 V AC, conductive connector housings must be grounded
	• Ensure that the protective or functional ground has been properly connected.
	• 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
	• Observe the corresponding technical data. You will find information: o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
	• Only use tools recommended by Phoenix Contact
	• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	• 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
	• Operate the connector only when it is fully plugged in.
	• Operate the connector only when it is fully plugged in and interlocked.
	• Ensure that when laying the cable, the tensile load on the

	connectors does not exceed the upper limit specified in the standards.
	• Observe the minimum bending radius of the cable. Lay the cable without twisting it.
	• 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

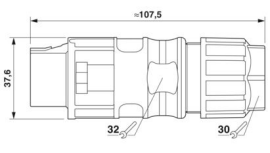
Rated voltage (III/2)	690 V
Nominal voltage ATD	690 V AC (III/2.00) in accordance with IEC 61984
	500 V AC (III/2.00) in accordance with IEC 61535/2 PfG 1915
	600 V AC / DC (III/2.00) In accordance with UL 2238
	500 V DC (III/2.00) in accordance with IEC 61535
Rated surge voltage (III/2)	8 kV
Rated current	35 A (With 6 mm² conductor cross-section in accordance with IEC 61984)
	32 A (With 6 mm² conductor cross-section in accordance with IEC 61535)
	21.4 A (With 6 mm² 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 mm² ... 6 mm²

Dimensions

Dimensional drawing	
Width	37.6 mm

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
Insulating material group	I / CTI 600
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 mm² 6 mm² 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

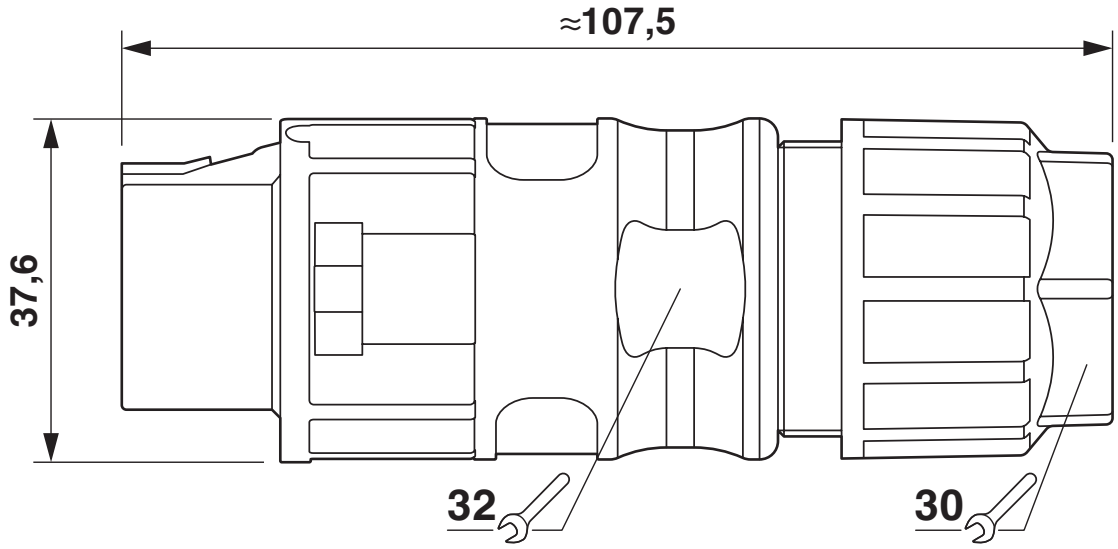
Degree of protection (when plugged in)	IP66/IP68 (2 m / 24 h) IP69K
Degree of protection	IP66/IP68 (2 m / 24 h) IP69K
	IP66/IP68 (2 m / 24 h) IP69K
Category of shock impact	IK08 (-25°C)
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)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

Standards and regulations

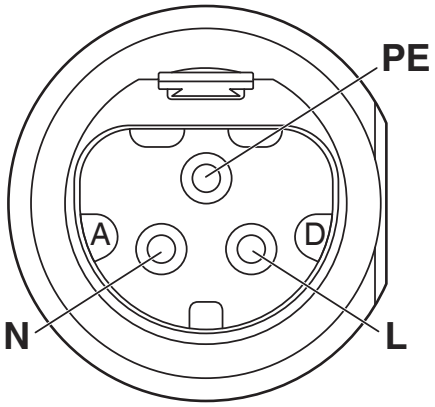
Standards/specifications	IEC 61984:2008
	EN 61984:2008
	DIN EN IEC 61535:2020
	IEC 61535:2019
	2 PfG 1915/03.2015
	UL 2237 Ed.1:2021-01-08
	CSA C22.2 No. 182.3-16 Ed.2:2019-01
	DIN EN 60068-2-6
	DIN EN 60068-2-27
	ETSI EN 300 019-1-4 V2.2.1 (2014-04)

Drawings

Dimensional drawing

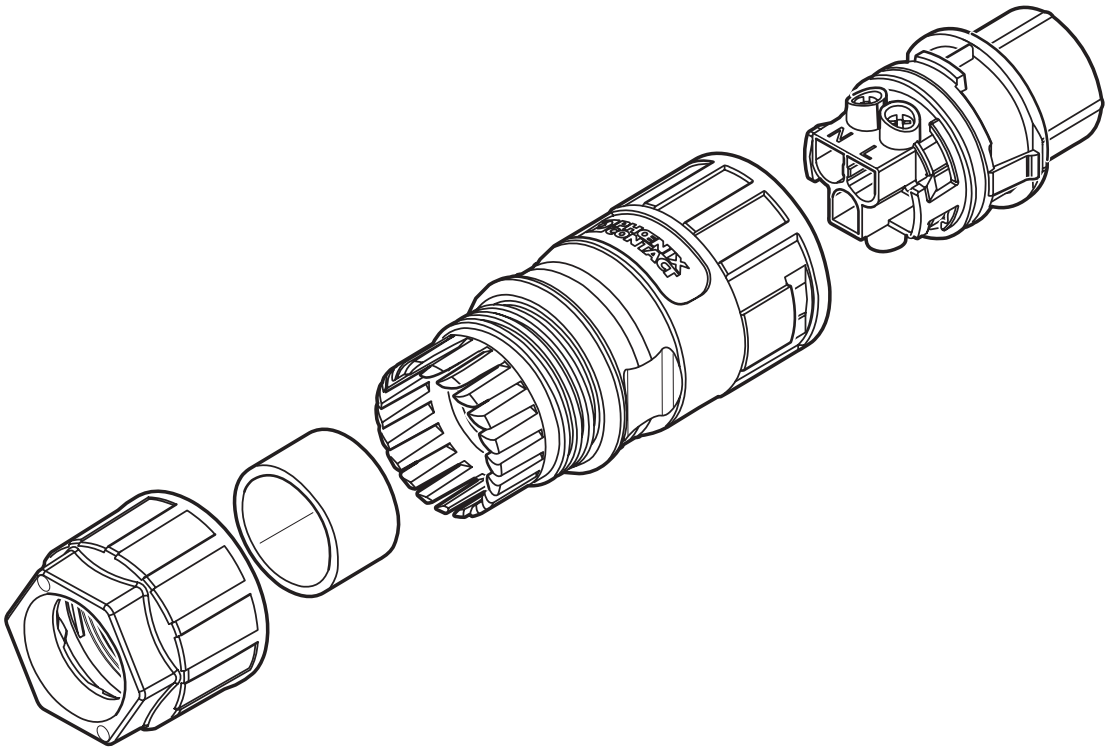


Schematic diagram



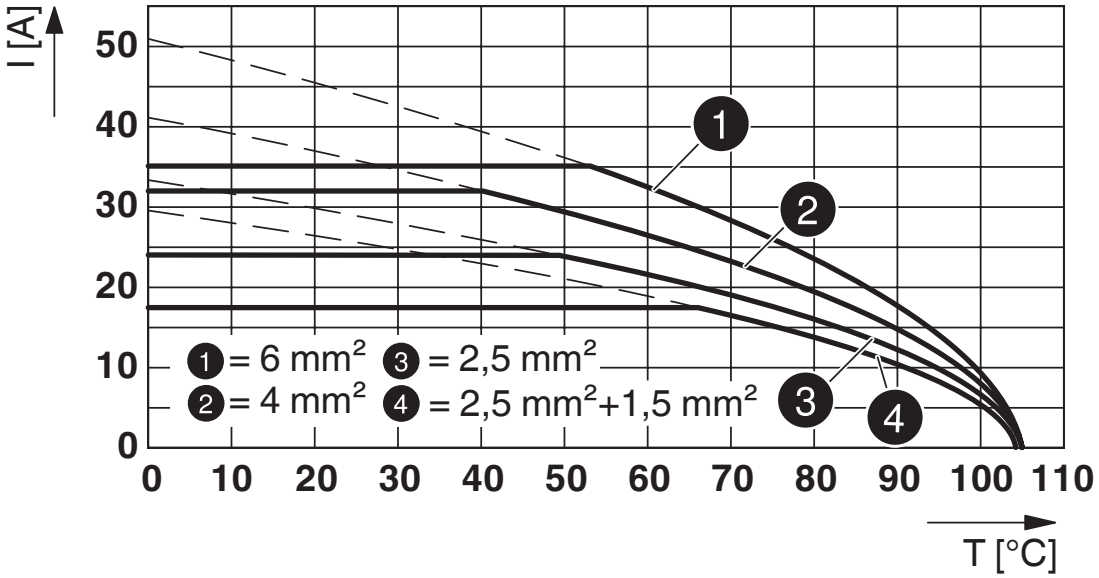
Connector pin assignment

Schematic diagram



Schematic design

Diagram



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	-	-

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

Classifications

ECLASS

ECLASS-13.0	27440605
ECLASS-15.0	27440605

ETIM

ETIM 9.0	EC002560

UNSPSC

UNSPSC 21.0	39121400

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.)	Triphenyl phosphate(CAS: 115-86-6)
SCIP	9f5f994e-5a1f-4b8f-8d2c-0722852ef3eb

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