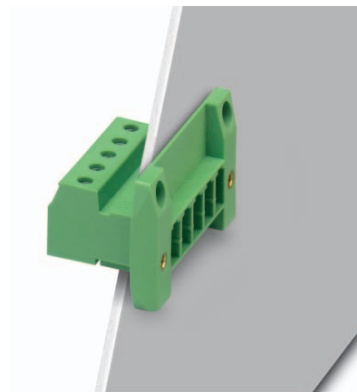


# Data sheet

Order No.: 1840560

Type: DFK-PC 4/ 3-GF-7,62

Plug component, Screw connection with tension sleeve



The figure shows a 5-pos. version of the product

## 1 Main features



• No. of pos.	3	• Nominal current	20 A
• Conductor cross section	4 mm <sup>2</sup>	• Nominal voltage	630 V
• Color	green	• Connection direction	0°
• Pitch	7.62 mm	• Type of packaging	packed in cardboard
• Connection method	Screw connection with tension sleeve		

## 2 Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Screwable flange for superior mechanical stability
- ✓ Flexible side panels enable convenient wall mounting prewired from the inside



Make sure you always use the latest documentation.

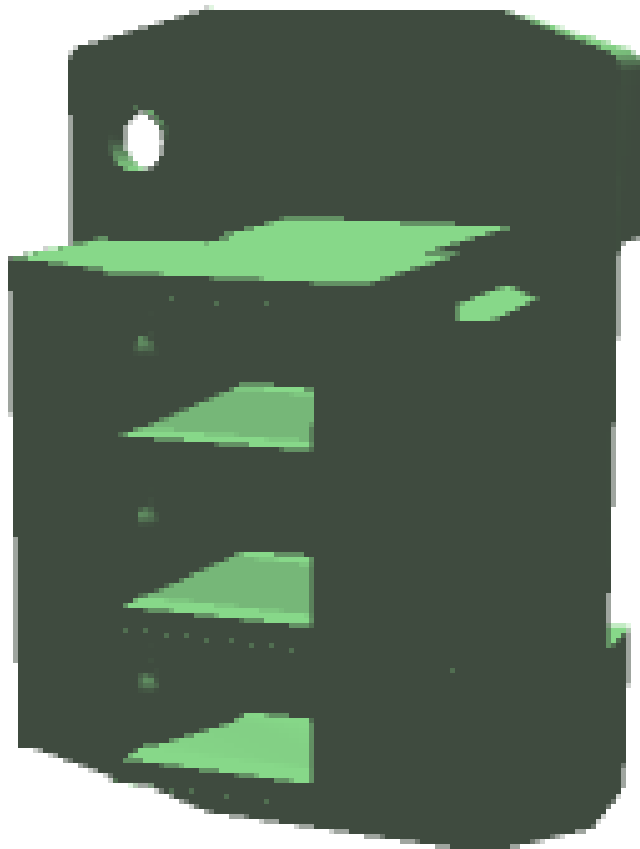
It can be downloaded at: [phoenixcontact.net/product/1840560](http://phoenixcontact.net/product/1840560)

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1840560 DFK-PC 4/ 3-GF-7,62

**4 3D model in PDF can be activated (Acrobat Reader only)**



**1840560 DFK-PC 4/ 3-GF-7,62****5 item properties**

Order No.	1840560
Type	DFK-PC 4/ 3-GF-7,62
Type of contact	Male connector
Range of articles	DFK-PC 4/...GF
Pitch	7.62 mm
Number of positions	3
Connection method	Screw connection with tension sleeve
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Locking	Threaded flange
Mounting type	Direct mounting

**5.1 Connection capacity**

Conductor cross section, solid	0.2 mm <sup>2</sup> to 4 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> to 4 mm <sup>2</sup>
Conductor cross section AWG/kcmil	24 to 10
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded	0.2 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> to 4 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm <sup>2</sup> to 4 mm <sup>2</sup>
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.2 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.0 mm
Stripping length	7 mm

**5.2 Material data**

<b>Material of metal parts</b>	
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Terminal point surface	Sn 5 µm ... 7 µm
Surface contact area	Sn 5 µm ... 7 µm
Surface characteristics	hot-dip tin-plated
<b>Insulating material data</b>	
Insulating material	PA
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Color	green (6021)
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

**6 Dimensions**

**1840560 DFK-PC 4/ 3-GF-7,62**

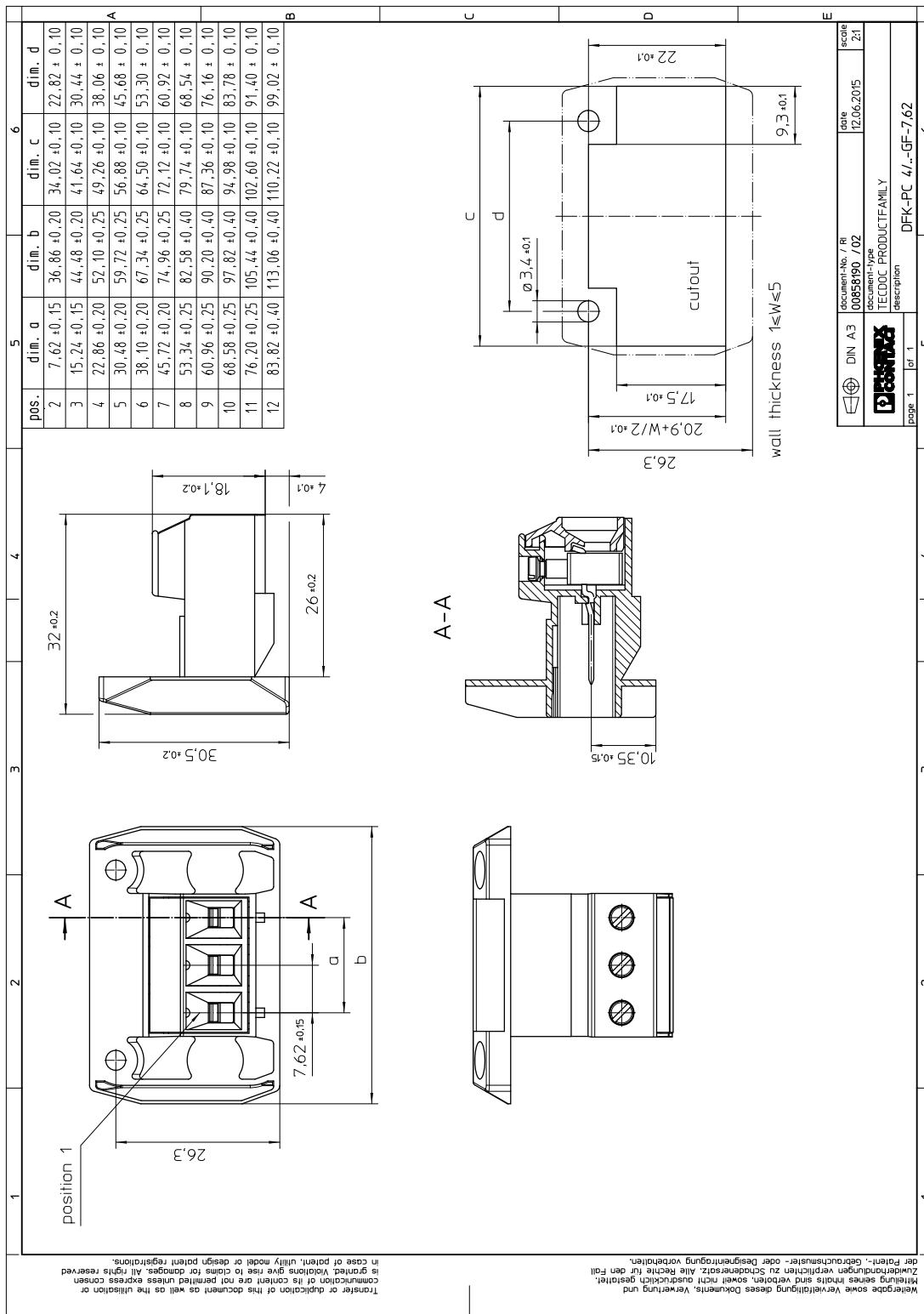
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**6.1 Dimensions for the product**

Length	32 mm
Width	44.48 mm
Total height	30.5 mm
Dimension a	15.24 mm

1840560 DFK-PC 4/ 3-GF-7,62

7 Series drawing



**1840560 DFK-PC 4/ 3-GF-7,62****8 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

**9 Application****9.1 Temperature limit values**

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C (dependent on the derating curve)

**1840560 DFK-PC 4/ 3-GF-7,62****10 Mechanical tests**

Mechanical test group A	
Specification	IEC 61984:2001-06
Visual test	Test passed
Specification	IEC 60512-1-1:2002-02
Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02
Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12
Insertion and withdrawal force	Test passed
Specification	IEC 60512-7:1993-08
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization and coding	Test passed
Specification	IEC 60512-7:1993-08 (Polarization)
Test force	96 N
Contact retention in insert	
Specification	
Test force per pos.	

**10.1 Termination and connection method**

Specification	IEC 60999-1:1999-11
Check for damage to conductor or loosening	Test passed

**10.2 Pull-out test**

Termination and connection method: pull-out test	
Specification	IEC 60999-1:1999-11
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / stranded / > 10 N
Conductor cross section/conductor type/tractive force actual value	4 mm <sup>2</sup> / solid / > 60 N
Conductor cross section/conductor type/tractive force actual value	4 mm <sup>2</sup> / stranded / > 60 N

**1840560 DFK-PC 4/ 3-GF-7,62****11 Electrical tests****11.1 Electrical data**

Rated current / conductor cross section	20 A / 4 mm <sup>2</sup>
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Contact resistance	0.4 mΩ
Degree of pollution	2

**11.2 Air and creepage distances**

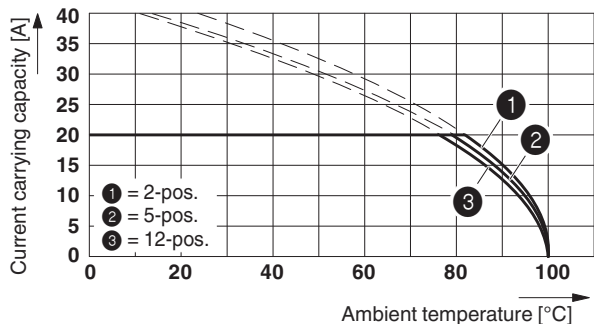
Component	Plug component		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	400 V	630 V	1000 V
Rated surge voltage	6 kV	6 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	5.5 mm	5.5 mm	5.5 mm
Minimum value of the creepage path requirement in acc. with table	5.5 mm	5.5 mm	5.5 mm

**1840560 DFK-PC 4/ 3-GF-7,62**

**12 Current carrying capacity/derating curves**

Specification	IEC 61984:2001-06
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	0.8
Number of positions	See diagram
Conductor cross section	4 mm <sup>2</sup>

**Type: PC 4/...-STF-7,62 with DFK-PC 4/...-GF-7,62**



**Type: PC 5/...-ST...-7,62 with DFK-PC 4/...-GF-7,62**


**1840560 DFK-PC 4/ 3-GF-7,62****13 Environmental and durability tests****13.1 Vibration test**


Specification	IEC 60068-2-6:1995-03
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis


**14 Classification for connectors**

Specification	IEC 61984:2001-06
Main features	Connectors without switching capacity (COC)
Construction form	Fixed connectors
Strain relief elements	without strain relief
Connection method	Can be reconnected
Protection against electric shock	Not encapsulated - touch-proof when inserted
Protective conductor	without PE
Lock	no
Connection method	Screw terminal points

**15 Approvals**

CSA 				
Use group	B	C		
mm <sup>2</sup> /AWG/kcmil	28-10	28-10		
Voltage	300 V	300 V		
Current	20 A	20 A		

UL Recognized 				
Use group	B	C	D	
mm <sup>2</sup> /AWG/kcmil	30-10	30-10	30-10	
Voltage	300 V	300 V	600 V	
Current	35 A	35 A	5 A	

cUL Recognized 				
Use group	B	C	D	
mm <sup>2</sup> /AWG/kcmil	30-10	30-10	30-10	
Voltage	300 V	300 V	600 V	
Current	35 A	35 A	5 A	

LR 				
Use group	B	C	D	
mm <sup>2</sup> /AWG/kcmil	30-10	30-10	30-10	
Voltage	300 V	300 V	600 V	
Current	35 A	35 A	5 A	

EAC 				
Use group	B	C	D	
mm <sup>2</sup> /AWG/kcmil	30-10	30-10	30-10	
Voltage	300 V	300 V	600 V	
Current	35 A	35 A	5 A	


2017-10-11

Product version 02  
Document revision 0

**1840560 DFK-PC 4/ 3-GF-7,62**

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DNV GL

cULus Recognized 

**1840560 DFK-PC 4/ 3-GF-7,62****16 Commercial Data**

Order No.	1840560
Type	DFK-PC 4/ 3-GF-7,62
Pieces per package	50
Net weight	13.694 g
GTIN	4017918111717
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

**17 corresponding headers**

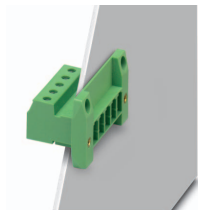
Order No.	Type
1828252	PC 4/ 3-STF-7,62
1777846	PC 5/ 3-STF1-7,62
1996139	SPC 5/ 3-STF-7,62
1728219	TSPC 5/ 3-STF-7,62

**18 Accessories**

Description	Order No.	Type
Screw set, for securing the header to the device wall, consists of an M3 x 10 screw, with a spring washer and a nut	0708263	DFK-MSTB-SS
Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red	1701967	CP-PC RD
	0804549	SK 7,62/3,8:FORTL.ZAHLEN
Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip	1205053	SZS 0,6X3,5

1840560 DFK-PC 4/ 3-GF-7,62

19 Combination tests



**DFK-PC 4/...-GF**

Specification

**Mechanical tests (A)**

Insertion/withdrawal force per position

Polarization when inserted  
Requirement >20 N

**Durability tests (B)**

Contact resistance R<sub>1</sub>

Insertion/withdrawal cycles

Contact resistance R<sub>2</sub>

Rated impulse voltage at sea level  
Voltage waveform ≥ (1.2/50 μs)

Power-frequency withstand voltage  
Voltage waveform ≥ (50/60 Hz)

Insulation resistance  
Requirements > 5 MΩ

**Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature  
Requirements < 100°C

**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage  
(ISO 6988)

Rated impulse voltage at sea level  
Voltage waveform ≥ (1.2/50 μs)

Power-frequency withstand voltage  
Voltage waveform ≥ (50/60 Hz)

**Environmental and endurance tests (E)**

Specification

Degree of protection

**PC 4/...-STF**

IEC 61984

approx. 8 N / 6 N

Test passed

0.4 mΩ

25

0.6 mΩ

7.3 kV

3.31 kV

10<sup>12</sup> Ω

12

4 mm<sup>2</sup>

20 A

Test passed

-40 °C/2 h

100 °C/168 h

KFW 0.2 S/1 cycle

7.3 kV

3.31 kV

IEC 61984:2001-06

Finger safety with IP20  
test finger

**PC 5/...-STF1**

IEC 61984

approx. 28 N / 11 N

Test passed

0.5 mΩ

25

0.5 mΩ

7.3 kV

3.31 kV

> 1 TΩ

12

6 mm<sup>2</sup>

20 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Finger safety with IP20  
test finger



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