

Data sheet

Order No.: 1717027

Type: PC 6/ 3-GL2-7,62

PCB headers

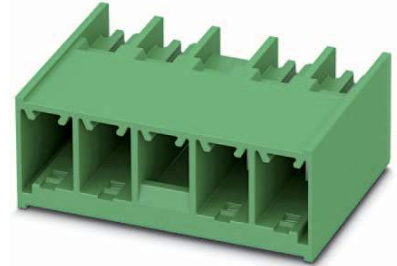
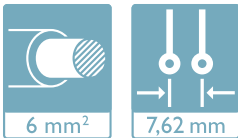


Figure shows a 4-pos. version with locking flange at position 3

1 Main features



- | | | | |
|-------------------------|-------------------|------------------------|-------|
| • No. of pos. | 3 | • Nominal current | 41 A |
| • Nominal cross section | 6 mm ² | • Nominal voltage | 630 V |
| • Color | black (9005) | • Connection direction | 0 ° |
| • Pitch | 7.62 mm | • Type of packaging | |
| • Mounting type | Wave soldering | | |

2 Your advantages

- ✓ Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- ✓ Easy PCB replacement thanks to plug-in modules
- ✓ Well-known mounting principle allows worldwide use



Make sure you always use the latest documentation.

It can be downloaded at: phoenixcontact.net/product/1717027

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



1717027 PC 6/ 3-GL2-7,62**5 General Technical Data****5.1 item properties**

Order No.	1717027
Type	PC 6/ 3-GL2-7,62
Plug-in system	POWER COMBICON 6
Product type	PCB headers
Range of articles	PC 6/..-GL
Pitch	7.62 mm
Range of positions	2...6
Number of positions	3
Number of levels	1
Number of connections	3
Number of potentials	3
Type of locking	Snap-in locking Self-locking flange
Mounting type	Wave soldering
Solder pins per potential	3

6 Material properties**6.1 Material of metal parts**

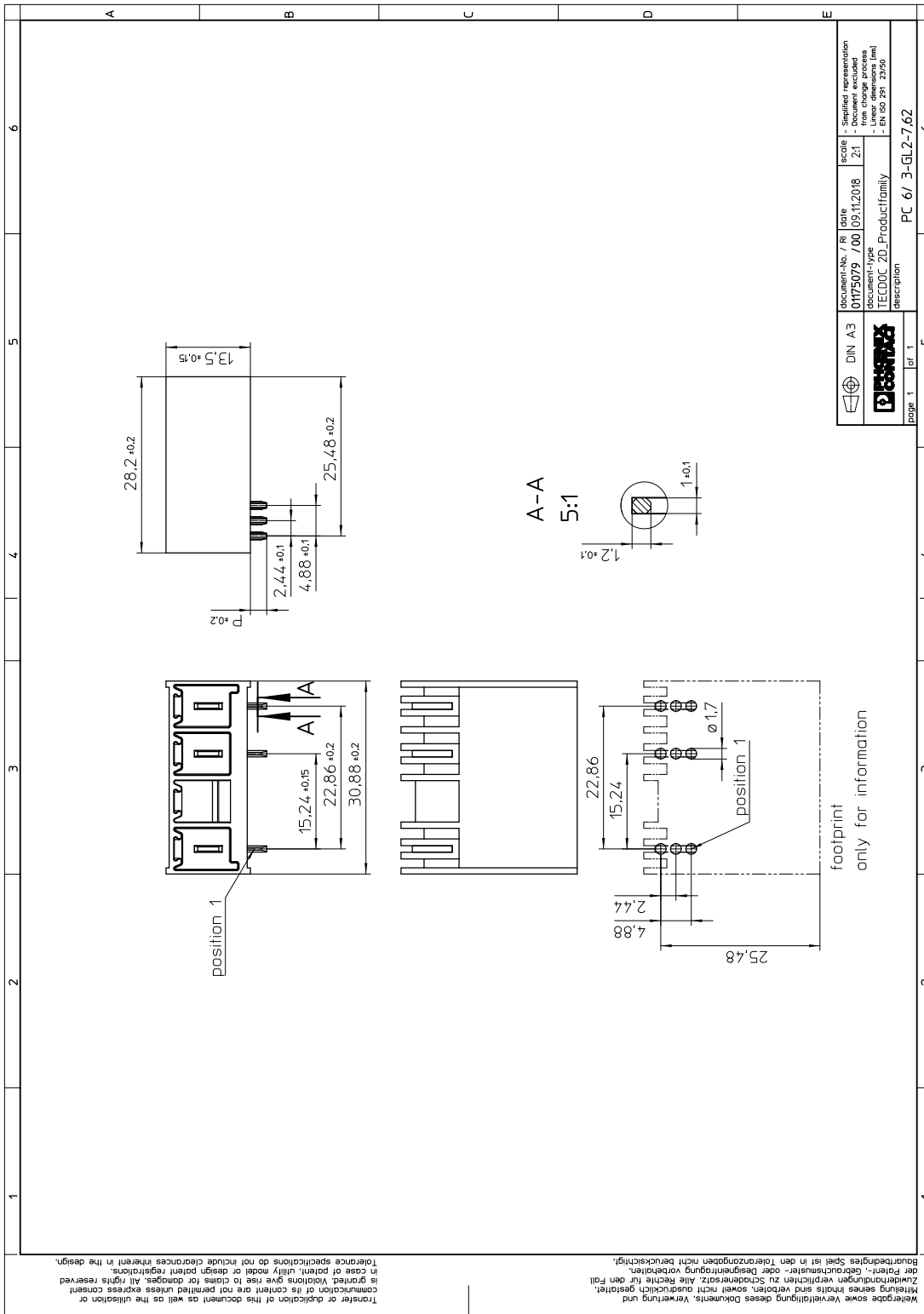
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface contact area	Nickel (1.3 - 3 µm Ni) , Tin (2 - 4 µm Sn)
Soldering area surface	Nickel (1.3 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Surface characteristics	Tin-plated
Insulating material data	Housing
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Color	black (9005)

1717027 PC 6/ 3-GL2-7,62**7 Dimensions****7.1 Dimensions for the product**

Length	28.2 mm
Width	30.88 mm
Height (without solder pin)	13.5 mm
Total height	16.1 mm
Solder pin [P]	2.6 mm
Dimension a	

1717027 PC 6/ 3-GL2-7,62

8 Series drawing



9 Application

10 Packaging information

Pieces per package	50
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10.1 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)

1717027 PC 6/ 3-GL2-7,62**11 Mechanical tests**

Mechanical test group A	
Specification	IEC 61984:2008-10
Visual examination	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 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	11 N
Withdraw strength per pos. approx.	10 N
Polarization and coding	Test passed
Specification	IEC 60512-13-5:2006-02
Test force	20 N
Contact retention in insert	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	20 N

1717027 PC 6/ 3-GL2-7,62**12 Electrical tests****12.1 Electrical data**

Rated current / conductor cross section	41 A 6 mm ²
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Contact resistance	0.5 mΩ
Degree of pollution	2

12.2 Air and creepage distances

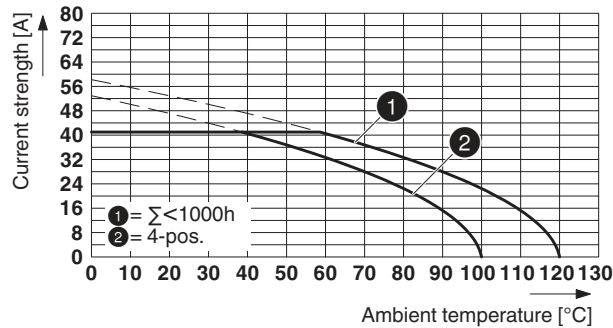
Component	Header		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	630 V	630 V	1000 V
Rated surge voltage	6 kV	6 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III	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	8 mm	3.2 mm	5 mm

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13 Current carrying capacity/derating curves

Specification	IEC 61984:2008-10
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	0.8
Number of positions	See diagram
Conductor cross section	6 mm ²

Type: LPC 6/...-STL...-7,62 with PC 6/...-GL...-7,62




Insulation resistance	
Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 4 TΩ

13.1 Vibration test

Specification	IEC 60068-2-6:2007-12
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
Note	The connected conductor loops were guided to the test sample at a distance of approx. 10 cm.

14 Approvals

cULus Recognized 			
Use group	F	B	C
mm ² /AWG/kcmil			
Voltage	600 V	300 V	300 V
Current	35 A	35 A	35 A

1717027 PC 6/ 3-GL2-7,62**15 Commercial Data**

Order No.	1717027
Type	PC 6/ 3-GL2-7,62
Pieces per package	50
Net weight	88 g
GTIN	4055626536316
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

16 corresponding plugs

Order No.	Type
1716931	LPC 6/ 3-STL2-7,62

17 Accessories

Description	Order No.	Type
Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red	1701967	CP-PC RD

1717027 PC 6/ 3-GL2-7,62

18 Combination tests

**PC 6/..-GL**

IEC 61984

LPC 6/..-STL2

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

approx. 11 N / 10 N

Polarization when inserted
Requirement >20 N

Test passed

Contact holder in insert
Requirements >20 N

Test passed

Durability tests (B)Contact resistance R_1 0.5 m Ω

Insertion/withdrawal cycles

25

Contact resistance R_2 0.5 m Ω Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu\text{s})$

7.3 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

3.31 kV

Thermal tests (C)

Tested number of positions

4

Tested conductor cross section

6 mm²

Test current

41 A

Upper limiting temperature
Requirements < 100°C

Test passed

Climatic tests (D)

Test sequence 1: low temperature storage

-40 °C/2 h

Test sequence 2: heat storage

100 °C/168 h

Test sequence 3: noxious gas storage
(ISO 6988)0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycleRated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu\text{s})$

7.3 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

3.31 kV

Environmental and endurance tests (E)

Specification

IEC 61984:2008-10

Degree of protection

Finger safety with IP20
test finger