

Data sheet

Order No.: 1717106

Type: PCH 6/ 4+6-G-7,62

PCB hybrid header

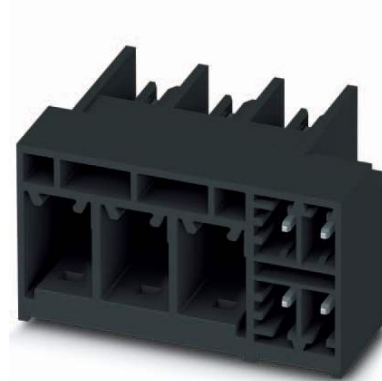
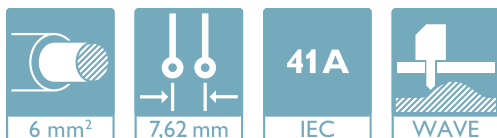


Figure shows a 3+4-pos. version

1 Main features



- | | | | |
|-------------------------|-------------------|------------------------|---------------------|
| • No. of pos. | 10 | • 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 | packed in cardboard |
| • Mounting type | Wave soldering | | |

2 Your advantages

- ✓ Combining signals and power in a single header saves time and space
- ✓ Easy PCB replacement thanks to plug-in modules
- ✓ Well-known mounting principle allows worldwide use



Make sure you always use the latest documentation.

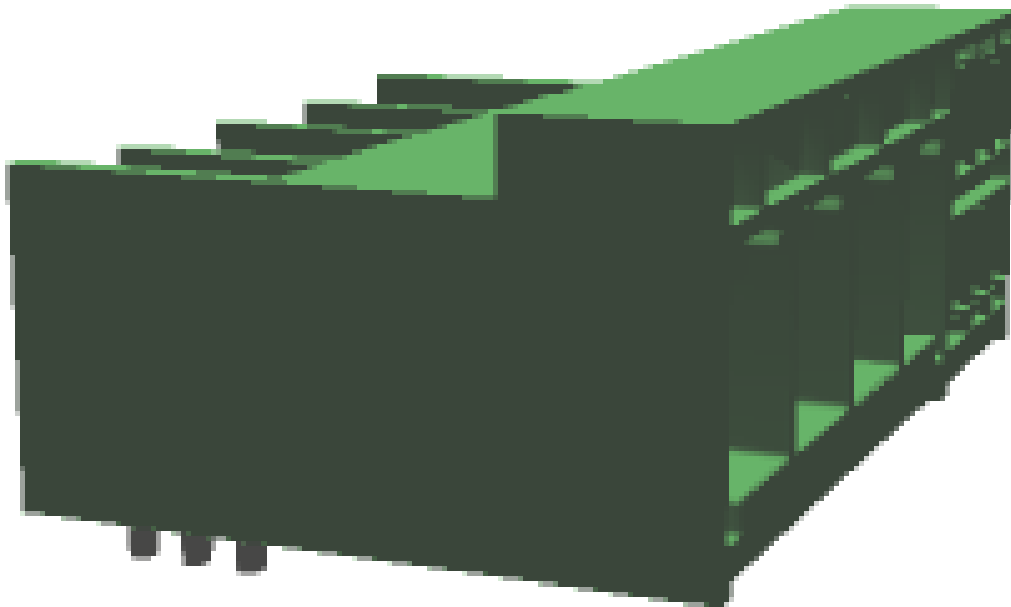
It can be downloaded at: phoenixcontact.net/product/1717106

3 Table of contents

1	Main features.....	1
2	Your advantages	1
3	Table of contents	2
4	3D model in PDF can be activated (Acrobat Reader only).....	3
5	General Technical Data	4
	5.1 item properties	4
6	Material properties.....	5
	6.1 RoHs/WEEE compliant	5
	6.2 Material of metal parts.....	5
	6.3 Material Kunststoffteile	5
7	Dimensions.....	6
	7.1 Dimensions for the product	6
8	Series drawing.....	7
9	Packaging information	8
10	Application.....	8
	10.1 Temperature limit values	8
11	Mechanical tests.....	9
12	Electrical tests	10
	12.1 Electrical data	10
	12.2 Air and creepage distances	10
13	Current carrying capacity/derating curves	11
	13.1 Vibration test	11
14	Approvals	11
15	Commercial Data.....	12
16	Accessories.....	12
17	Combination tests.....	13

1717106 PCH 6/ 4+6-G-7,62

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



1717106 PCH 6/ 4+6-G-7,62**5 General Technical Data****5.1 item properties**

Order No.	1717106	
Type	PCH 6/ 4+6-G-7,62	
Plug-in system	POWER COMBICON 6 Hybrid	
Product type	PCB hybrid header	
Type of contact	Male connector	
Range of articles	PCH 6/..-G	
Number of positions	10	
Number of connections	10	
Number of potentials	10	
Type of locking	without	
	without	
Mounting type	Wave soldering	
Connection direction of the connector to the PCB	0 °	
	Power	Signal
Pitch	7.62 mm	3.81 mm
Number of levels	1	2
Number of positions	4	6
Number of connections	4	6
Number of potentials	4	6

1717106 PCH 6/ 4+6-G-7,62**6 Material properties****6.1 RoHs/WEEE compliant**

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
------	--

6.2 Material of metal parts

	Power	Signal
Contact material	Cu alloy	Cu alloy
Surface contact area	Nickel (1.3 - 3 µm Ni) Tin (2 - 4 µm Sn)	Nickel (1.3 - 3 µm Ni) Tin (2 - 4 µm Sn)
Soldering area surface	Nickel (1.3 - 3 µm Ni) Tin (2 - 4 µm Sn)	Nickel (1.3 - 3 µm Ni) Tin (2 - 4 µm Sn)
Surface characteristics	Tin-plated	Tin-plated

6.3 Material Kunststoffteile

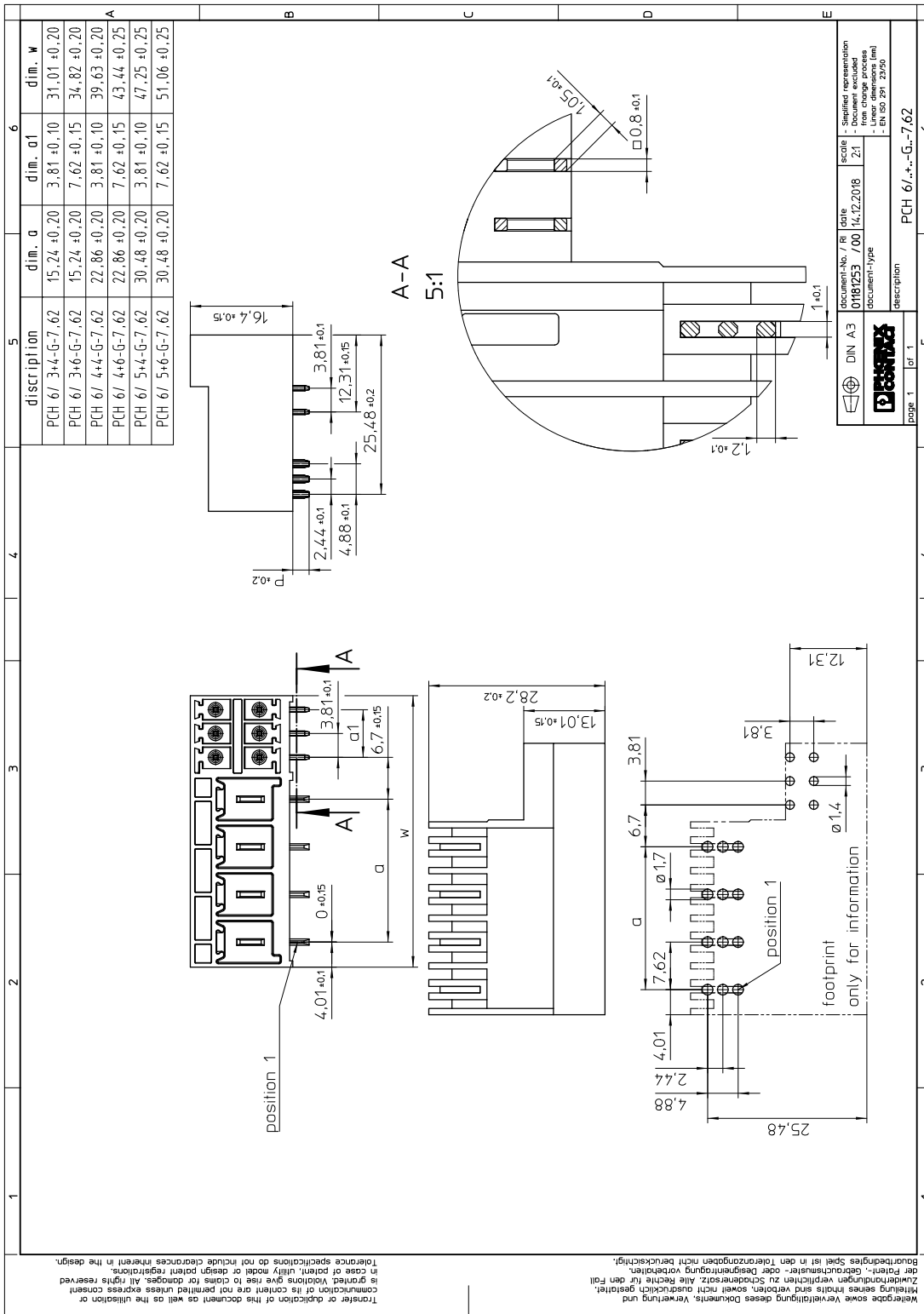
	Power	Signal
Insulating material	PA GF	PA GF
Insulating material group	I	I
CTI according to IEC 60112	600	600
Flammability rating according to UL 94	V0	V0
Color	black (9005)	black (9005)

1717106 PCH 6/ 4+6-G-7,62**7 Dimensions****7.1 Dimensions for the product**

Length	28.2 mm	
Width	43.44 mm	
Height (without solder pin)	16.4 mm	
Total height	19 mm	
Solder pin [P]	2.6 mm	
Dimension a	22.86 mm	
	Power	Signal
Solder pin [P]	2.6 mm	2.6 mm
Pin dimensions	1 x 1.2 mm	0.8 x 0.8 mm
Dimension a	22.86 mm	22.86 mm

1717106 PCH 6/ 4+6-G-7,62

8 Series drawing



Wertegebenisse sowie Verfertigung dieses Dokuments, Verwertung und
 die Patent-, Gebrauchsmuster- oder Designrechte vorbehalten.
 Mitteilung seines Inhalts sind verboten, soweit nicht ausdrücklich gestattet.
 Zulieferern und sonstigen Dritten die Weitergabe dieses Dokuments, Verwertung und
 die Patent-, Gebrauchsmuster- oder Designrechte vorbehalten.
 Baurückgabefähigkeit ist in den Toleranzangaben nicht berücksichtigt.
 Tolerances specifications do not include clearances inherent in the design.
 In case of patent, utility, model or design patent registrations,
 is granted. Violations give rise to claims for damages. All rights reserved.
 communication of its content are not permitted unless express consent

document-No. / R / date	scale	Supplied representation
0181253 / 00 / 12.12.2018	Z1	from change process
document-type		Linear dimensions (mm)
		EN ISO 297, 2950
page 1	of 1	
description		
PCH 6/ 4+6-G-7,62		

1717106 PCH 6/ 4+6-G-7,62**9 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

10 Application**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)

1717106 PCH 6/ 4+6-G-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.	7 N
Withdraw strength per pos. approx.	4 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

1717106 PCH 6/ 4+6-G-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	0.42 mΩ
Degree of pollution	2

12.2 Air and creepage distances

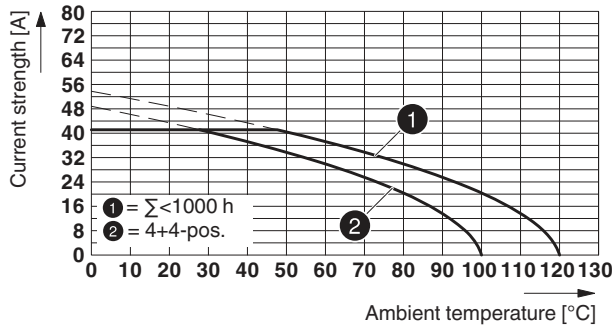
Component	Header		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	630 V	630 V	1000 V
Rated surge voltage	6 kV	6 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III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

1717106 PCH 6/ 4+6-G-7,62

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: LPCH 6/...+...-ST-7,62 with PCH 6/...+...-G-7,62



Insulation resistance	
Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 5 MΩ

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	B1	F	F1
mm ² /AWG/kcmil			
Voltage	300 V	600 V	160 V
Current	6 A	35 A	6 A

1717106 PCH 6/ 4+6-G-7,62**15 Commercial Data**

Order No.	1717106
Type	PCH 6/ 4+6-G-7,62
Pieces per package	50
Net weight	102 g
GTIN	4055626530543
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

16 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

1717106 PCH 6/ 4+6-G-7,62

17 Combination tests

**PCH 6/..-G**

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R_1

Insertion/withdrawal cycles

Contact resistance R_2 Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ **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 $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ **Environmental and endurance tests (E)**

Specification

Degree of protection

LPCH 6/..-ST

IEC 61984

approx. 7 N / 4 N

Test passed

Test passed

0.42 m Ω

25

0.46 m Ω

7.3 kV

3.31 kV

4

6 mm²

41 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Back of hand safety with
IP10 access probe