2019-03-15
Product version 01
Document revision 00

Data sheet

Order No.: 1717153

Type: PCH 6/ 5+6-GL5-7,62

PCB hybrid header

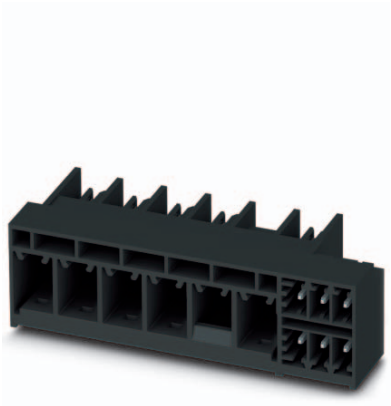


Figure shows a 5+6-pos. version with locking flange at position 5

1 Main features



- No. of pos. 11
- Nominal cross section 6 mm²
- Color green (6021)
- Pitch 7.62 mm
- Mounting type Wave soldering
- Nominal current 41 A
- Nominal voltage 630 V
- Connection direction 0 °
- Type of packaging packed in cardboard

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/1717153

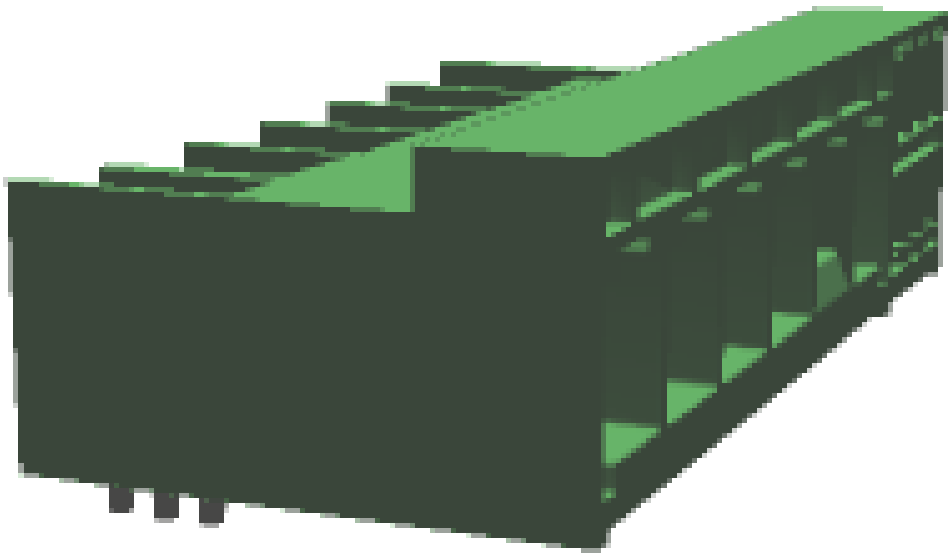
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3 Table of contents

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

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



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5 General Technical Data

5.1 item properties

Order No.	1717153
Type	PCH 6/ 5+6-GL5-7,62
Plug-in system	POWER COMBICON 6 Hybrid
Product type	PCB hybrid header
Type of contact	Male connector
Range of articles	PCH 6/..-GL
Number of positions	11
Number of connections	11
Number of potentials	11
Type of locking	Snap-in locking
	Self-locking flange
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	5	6
Number of connections	5	6
Number of potentials	5	6

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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	green (6021)	green (6021)

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7 Dimensions

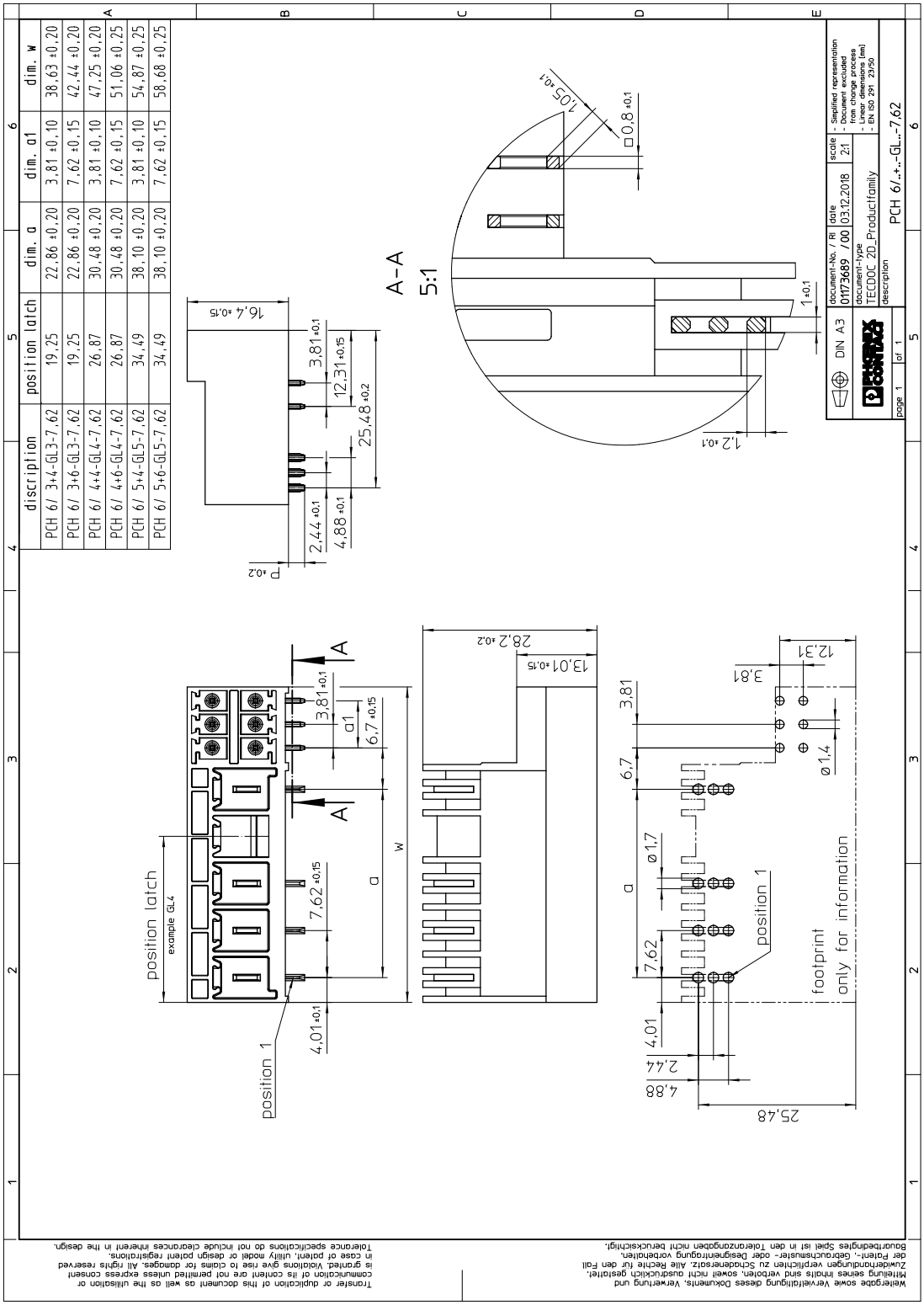
7.1 Dimensions for the product

Length	28.2 mm
Width	58.68 mm
Height (without solder pin)	16.4 mm
Total height	19 mm
Solder pin [P]	2.6 mm
Dimension a	38.1 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	38.1 mm	38.1 mm

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8 Series drawing



discription	position latch	dim. a	dim. a1	dim. w
PCH 6/ 3+4-GL3-7,62	19,25	22,86 ±0,20	3,81 ±0,10	38,63 ±0,20
PCH 6/ 3+6-GL3-7,62	19,25	22,86 ±0,20	7,62 ±0,15	42,44 ±0,20
PCH 6/ 4+4-GL4-7,62	26,87	30,48 ±0,20	3,81 ±0,10	47,25 ±0,20
PCH 6/ 4+6-GL4-7,62	26,87	30,48 ±0,20	7,62 ±0,15	51,06 ±0,25
PCH 6/ 5+4-GL5-7,62	34,49	38,10 ±0,20	3,81 ±0,10	54,87 ±0,25
PCH 6/ 5+6-GL5-7,62	34,49	38,10 ±0,20	7,62 ±0,15	58,68 ±0,25

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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)

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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

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12 Electrical tests

12.1 Electrical data

Rated current / conductor cross section	41 A 6 mm²
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

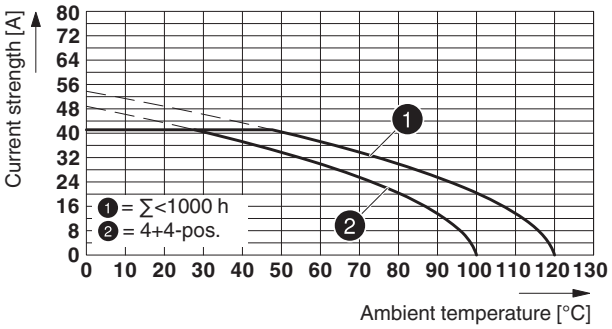
Component	Header		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	630 V	630 V	1000 V
Rated surge voltage	6 kV	6 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III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

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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 mm²

Type: LPCH 6/...+...-STL...-7,62 with PCH 6/...+...-GL...-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	
mm²/AWG/kcmil				
Voltage	300 V	600 V	160 V	
Current	6 A	35 A	6 A	

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15 Commercial Data

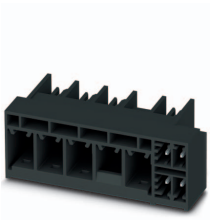
Order No.	1717153
Type	PCH 6/ 5+6-GL5-7,62
Pieces per package	50
Net weight	134 g
GTIN	4055626530505
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

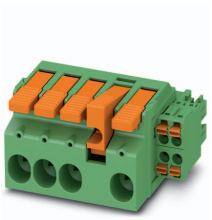
16 Accessories

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

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17 Combination tests





PCH 6/..-GL	**LPCH 6/..-STL3**			
IEC 61984	IEC 61984			
Mechanical tests (A)				
Insertion/withdrawal force per position	approx. 7 N / 4 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	0.42 mΩ			
Insertion/withdrawal cycles	25			
Contact resistance R_2	0.46 mΩ			
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 µs)	7.3 kV			
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.31 kV			
Thermal tests (C)				
Tested number of positions	4			
Tested conductor cross section	6 mm^2			
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 dm^3 SO_2 on 300 dm^3/ 40 °C/1 cycle			
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 µs)	7.3 kV			
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.31 kV			
Environmental and endurance tests (E)				
Specification	IEC 61984:2008-10			
Degree of protection	Back of hand safety with IP10 access probe			

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