

# PCB hybrid header - PCH 6/ 3+4-G-7,62 - 1717103

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PCB hybrid header, nominal current: 41 A, rated voltage (III/2): 630 V, nominal cross section: 6 mm<sup>2</sup>, number of positions: 7, pitch: 7.62 mm, color: black, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm


Figure shows a 3+4-pos. version

## 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



## Key Commercial Data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	 4 055626 530512
GTIN	4055626530512

## Technical data

### Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 6 Hybrid
Type of contact	Male connector
Range of articles	PCH 6/..-G
Pitch	7.62 mm
	3.81 mm
Number of positions	7
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1
	2
Number of connections	7

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## Technical data

### Item properties

Number of potentials	7
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### Electrical parameters

Nominal current	41 A
Nom. voltage	630 V
Rated current	8 A
Rated voltage	630 V
Rated voltage (III/2)	630 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	6 kV
Rated surge voltage (III/2)	6 kV
Rated surge voltage (II/2)	6 kV

### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface contact area (top layer)	Tin (2 - 4 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 µm Ni),
Metal surface soldering area (top layer)	Tin (2 - 4 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

### Material data - housing

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

### Dimensions for the product

Length [ l ]	28.2 mm
Width [ w ]	31.01 mm
Height [ h ]	19 mm
Pitch	7.62 mm
Height (without solder pin)	16.4 mm
Solder pin [P]	2.6 mm
Pin dimensions	1 x 1.2 mm

### Dimensions for PCB design

Hole diameter	1.7 mm
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### Packaging information

Type of packaging	packed in cardboard
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## Technical data

### Packaging information

Pieces per package	50
Denomination packing units	Pcs.

### Ambient conditions

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

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	5.5 mm
Minimum clearance - inhomogeneous field (III/2)	5.5 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	8 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	5 mm

### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	4 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

### Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R <sub>1</sub>	0.42 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	0.46 mΩ
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV

### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	4
Conductor cross section	6 mm <sup>2</sup>
Test current	41 A
Upper limiting temperature requirements <100 °C	Test passed

### Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h

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## Technical data

### Climatic tests (D)

Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV

### Environmental and durability tests (E)

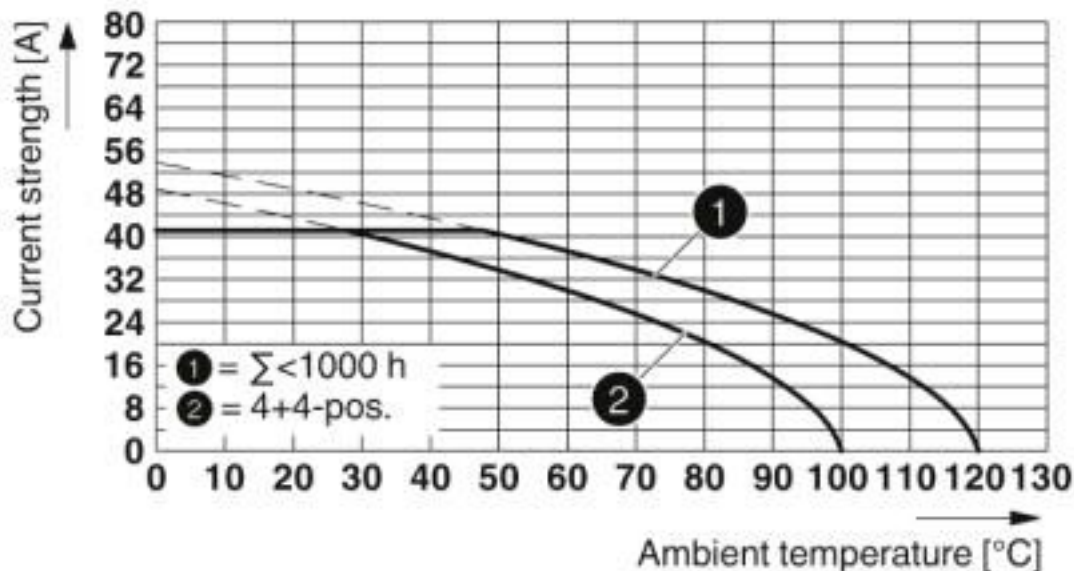
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Back of hand safety with IP10 access probe

### 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

## Drawings

Diagram



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

## Classifications

eCl@ss

eCl@ss 10.0.1	27440402
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## Classifications

### eCl@ss

eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 8.0	27440402
eCl@ss 9.0	27440402

### ETIM

ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

## Approvals


### Approvals


#### Approvals

cULus Recognized / EAC / VDE Zeichengenehmigung

#### Ex Approvals

### Approval details

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20010727
	B	C	
Nominal voltage UN	300 V	300 V	
Nominal current IN	35 A	35 A	

EAC		B.01687
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## Approvals

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40050635
Nominal voltage UN		630 V	
Nominal current IN		41 A	

## Accessories

### Accessories

### Coding element

Coding profile - CP-PC RD - 1701967

Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



## Additional products

PCB hybrid connector - LPCH 6/ 3+4-ST-7,62 - 1716952



PCB hybrid connector, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm<sup>2</sup>, number of positions: 7, pitch: 7.62 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

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