

PCB hybrid connector - LPCH 6/ 3+4-STL3-7,62 - 1716970

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PCB hybrid connector, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm², number of positions: 7, pitch: 7.62 mm, connection method: Push-in spring connection, color: green, contact surface: Tin


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

Your advantages

- ✓ Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- ✓ Clear lever positions provide reliable feedback on opened or closed clamping spaces
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Time-saving push-in connection when lever is closed



Key Commercial Data

Packing unit	25 pc
Minimum order quantity	25 pc
GTIN	 4 055626 513324
GTIN	4055626513324

Technical data

Item properties

Brief article description	PCB hybrid connector
Plug-in system	POWER COMBICON 6 Hybrid
Type of contact	Female connector
Range of articles	LPCH 6/..-STL
Pitch	7.62 mm
	3.81 mm
Number of positions	7
Connection method	Push-in spring connection
Locking	Latch mechanism/latching at position 3
Number of levels	1

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Technical data

Item properties

	2
Number of connections	7
Number of potentials	7

Electrical parameters

Nominal current	41 A
Nom. voltage	1000 V
Rated voltage	800 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

Power connection capacity

Conductor cross section solid	0.75 mm ² ... 10 mm ²
Conductor cross section flexible	0.75 mm ² ... 6 mm ²
Conductor cross section AWG / kcmil	18 ... 8
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm ² ... 6 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm ² ... 6 mm ²
Cylindrical gauge a x b / diameter	4.3 mm x 4.0 mm / 4.0 mm
Stripping length	18 mm

Connection capacity signal

Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG / kcmil	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1 mm ²
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / 1.5 mm
Stripping length	10 mm

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 terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

Housing color	green (6021)
Insulating material	PA GF
Insulating material group	I

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Technical data

Material data - housing

CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Material data – actuating element

Color of the actuating lever	orange (2003)
Insulating material	PA GF
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	48 mm
Width [w]	40.3 mm
Height [h]	27.5 mm
Pitch	7.62 mm
Height (without solder pin)	27.5 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	25
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)

Termination and connection method

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.75 mm ² / solid / > 30 N
	0.75 mm ² / flexible / > 30 N
	10 mm ² / solid / > 90 N
	6 mm ² / flexible / > 80 N

Mechanical tests according to standard

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Technical data

Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	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	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	20 N

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)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	10 mm
Minimum creepage distance value (III/2)	5 mm
Minimum creepage distance value (II/2)	5 mm

Electrical tests - Function

Specification	IEC 60999-1:1999-11
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Temperature cycles

Specification	IEC 60999-1:1999-11
Test current (minimum cross section)	9 A DC
Test current (maximum cross section)	41 A DC
Temperature cycles	192

Current carrying capacity / derating curves

Caption	Type: LPCH 6/...+...-STL...-7,62 with PCH 6/...+...-GL...-7,62
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

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

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Technical data

Mechanical tests (A)

Contact holder in insert requirements >20 N	Test passed
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Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	0.42 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	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 ²
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
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV

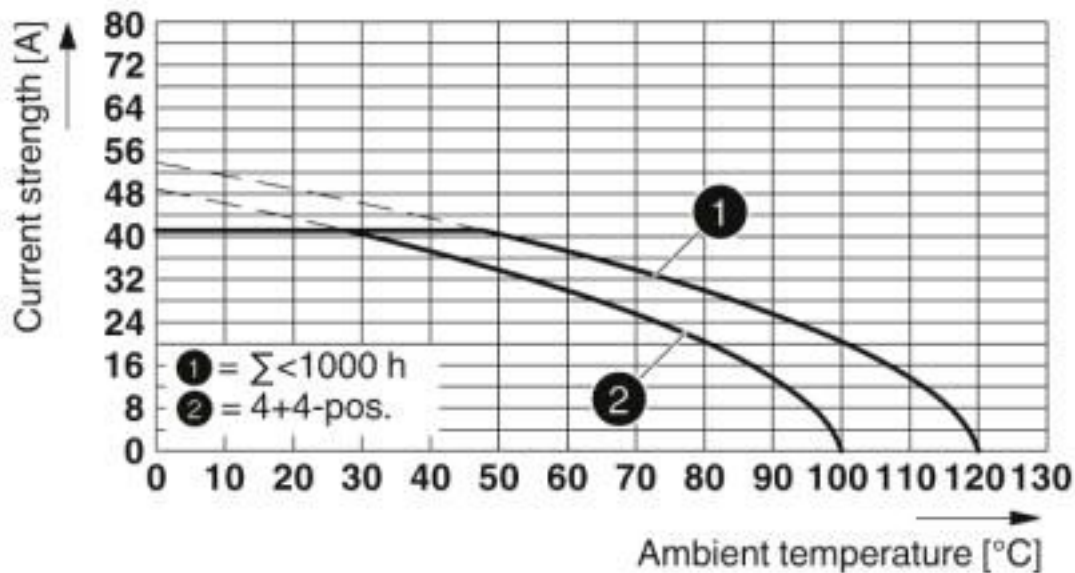
Environmental and durability tests (E)

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

Drawings

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Diagram



Type: LPCH 6/...+...-STL...-7,62 with PCH 6/...+...-GL...-7,62

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
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	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

Approvals

Approvals

Approvals

cULus Recognized / EAC

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Approvals

Ex Approvals

Approval details

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20010727
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	35 A	35 A	
mm ² /AWG/kcmil	18-8	18-8	

EAC		B.01687
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Accessories

Accessories

Cable end sleeve

Ferrule - AI 6 -18 YE - 3200603



Ferrule, sleeve length: 18 mm, length: 26 mm, color: yellow

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

Crimping tool

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Accessories

Crimping pliers - CRIMPFOX CENTRUS 6S - 1213144



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm² ... 6 mm², also for TWIN ferrules up to 2 x 4 mm², automatic cross section adjustment, lateral insertion, equipped with fall protection

Stripping tool

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

Additional products

PCB hybrid header - PCH 6/ 3+4-GL3-7,62 - 1717119



PCB hybrid header, nominal current: 41 A, rated voltage (III/2): 630 V, nominal cross section: 6 mm², number of positions: 7, pitch: 7.62 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

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