

## PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



PCB hybrid connector, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm<sup>2</sup>, number of positions: 9, pitch: 7.62 mm, connection method: Push-in spring connection, color: green, contact surface: Tin


Figure shows a 3+4-pos. version

### 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                   | <br>4 055626 522548 |
| GTIN                   | 4055626522548   |

### Technical data

#### Item properties

|                           |                                 |
|---------------------------|---------------------------------|
| Brief article description | Printed-circuit board connector |
| Plug-in system            | POWER COMBICON 6 Hybrid         |
| Type of contact           | Female connector                |
| Range of articles         | LPCH 6/...-ST                   |
| Pitch                     | 7.62 mm                         |
|                           | 3.81 mm                         |
| Number of positions       | 9                               |
| Connection method         | Push-in spring connection       |
| Number of levels          | 1                               |
|                           | 2                               |
| Number of connections     | 9                               |

# PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

## Technical data

### Item properties

|                      |   |
|----------------------|---|
| Number of potentials | 9 |
|----------------------|---|

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Nominal current, power      | 41 A   |
| Nominal current, signal     | 8 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 <sup>2</sup> ... 10 mm <sup>2</sup> |
| Conductor cross section flexible                                      | 0.75 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| Conductor cross section AWG / kcmil                                   | 18 ... 8                                    |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.75 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.75 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| 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 <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section flexible                                      | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG / kcmil                                   | 24 ... 16                                    |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 1 mm <sup>2</sup>   |
| 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            |
| CTI according to IEC 60112 | 600          |

# PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

## Technical data

### Material data - housing

|  |    |
|--|----|
| 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 ]  | 36.49 mm |
| Height [ h ] | 35.65 mm |
| Pitch        | 7.62 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 <sup>2</sup> / solid / > 30 N    |
|  | 0.75 mm <sup>2</sup> / flexible / > 30 N |
|  | 10 mm <sup>2</sup> / solid / > 90 N      |
|  | 6 mm <sup>2</sup> / flexible / > 80 N    |

### Mechanical tests according to standard

|                    |                       |
|--------------------|-----------------------|
| Test specification | IEC 61984             |
| Visual inspection  | IEC 60512-1-1:2002-02 |

# PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

## Technical data

### Mechanical tests according to standard

|                                     |                        |
|-------------------------------------|------------------------|
| 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 |
|---------------|---------------------|

### 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/...+...-ST-7,62 with PCH 6/...+...-G-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 |
| Contact holder in insert requirements >20 N  | Test passed |

### Durability tests (B)

## PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

### Technical data

#### 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  |
| 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   |

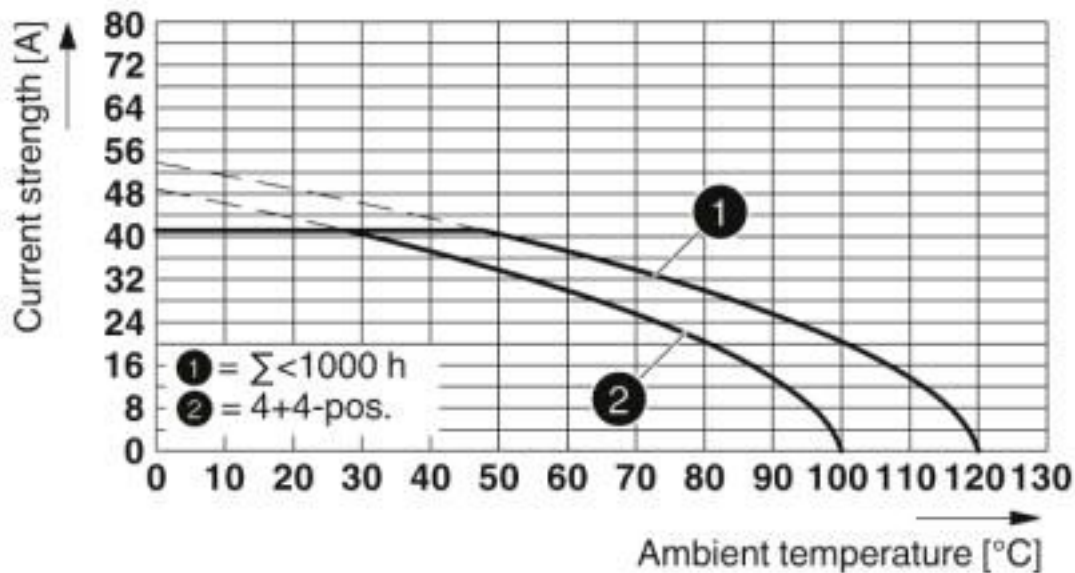
#### Environmental and durability tests (E)

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

### Drawings

# PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

Diagram



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

# PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

## Approvals

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   | 600 V | 600 V |
| Nominal current IN   | 35 A  | 35 A  |
| mm <sup>2</sup> /AWG/kcmil   | 18-8  | 18-8  |

|   |
|---|
| EAC  B.01687 |
|---|

## 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

## PCB hybrid connector - LPCH 6/ 3+6-ST-7,62 - 1716954

### Accessories

Crimping pliers - CRIMPFOX CENTRUS 6S - 1213144



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm<sup>2</sup> ... 6 mm<sup>2</sup>, also for TWIN ferrules up to 2 x 4 mm<sup>2</sup>, 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 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

---

### Additional products

PCB hybrid header - PCH 6/ 3+6-G-7,62 - 1717104



PCB hybrid header, nominal current: 41 A, rated voltage (III/2): 630 V, nominal cross section: 6 mm<sup>2</sup>, number of positions: 9, pitch: 7.62 mm, color: black, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm

---

Phoenix Contact 2020 © - all rights reserved  
<http://www.phoenixcontact.com>

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



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Pluggable Terminal Blocks](#) category:*

*Click to view products by [Phoenix Contact](#) manufacturer:*

Other Similar products are found below :

[57.510.0053](#) [MC 1.5/ 6-ST-3.5 GY AU](#) [ET02015000J0G](#) [734-104](#) [734-302](#) [8-141-P](#) [8426620000](#) [860505](#) [860516](#) [860810](#) [GBPACX-12](#)  
[93.731.4953.0](#) [PV05-5,08-K](#) [PVP02-5,00](#) [PVP03-3,50](#) [PVP04-3,50](#) [PVS02-5,00](#) [1-1986160-3](#) [1377680000](#) [1531000000](#) [1546228-5](#)  
[ELFH16150](#) [ELFP03110](#) [ELFP10210](#) [ELFT06250](#) [ELVP03100](#) [1700101](#) [1700410](#) [1700425](#) [1702246](#) [1705229](#) [1710175](#) [1714537](#) [1717806](#)  
[1719600](#) [1728941](#) [1734692](#) [1734795](#) [1736036](#) [1740194](#) [1740291](#) [1740628](#) [1740990](#) [1746952](#) [1750207](#) [1752441](#) [1752865](#) [1754115](#)  
[1754144](#) [1756913](#)