

## PCB hybrid connector - LPCH 6/ 5+4-STL5-7,62 - 1717003

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PCB hybrid connector, nominal current: 41 A, number of positions: 9, pitch: 7.62 mm, connection method: Push-in spring connection, color: green

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                                 |  |
| GTIN                                 | 4055626532585                                                                        |
| Weight per Piece (excluding packing) | 43.620 g                                                                             |
| Custom tariff number                 | 85366990                                                                             |
| Note                                 | Made to Order (non-returnable)                                                       |

### 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       | 9                       |

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## Technical data

### Item properties

|                       |                                        |
|-----------------------|----------------------------------------|
| Connection method     | Push-in spring connection              |
| Locking               | Latch mechanism/latching at position 5 |
| Number of levels      | 1                                      |
|                       | 2                                      |
| Number of connections | 9                                      |
| Number of potentials  | 9                                      |

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Rated current               | 41 A   |
| Rated voltage (III/2)       | 1000 V |
| Rated surge voltage (III/2) | 8 kV   |

### 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                                       |

### 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

|                                        |       |
|----------------------------------------|-------|
| Insulating material                    | PA GF |
| Insulating material group              | I     |
| CTI according to IEC 60112             | 600   |
| Flammability rating according to UL 94 | V0    |

### Material data – actuating element

|                                        |       |
|----------------------------------------|-------|
| 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 ]  | 55.54 mm |
| Height [ h ] | 35.65 mm |

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## Technical data

### Dimensions for the product

|             |         |
|-------------|---------|
| Pitch       | 7.62 mm |
| Dimension a | 38.1 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

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Visual examination                  | Test passed IEC 60512-1-1:2002-02  |
| Dimensional test                    | Test passed IEC 60512-1-2:2002-02  |
| Resistance of marking               | Test passed IEC 60068-2-70:1995-12 |
| Result                              | 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 IEC 60512-13-5:2006-02 |
| Result                              | Test passed                        |
| Specification                       | IEC 60512-15-1:2008-05             |
| Test force per pos.                 | 20 N                               |

# PCB hybrid connector - LPCH 6/ 5+4-STL5-7,62 - 1717003

## Technical data

### Air clearances and creepage distances

|                                                 |                     |
|-------------------------------------------------|---------------------|
| Specification                                   | IEC 60664-1:2007-04 |
| Rated insulation voltage (III/3)                | 800 V               |
| Rated insulation voltage (III/2)                | 1000 V              |
| Rated insulation 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                |
| 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                 |

### Mechanical tests (A)

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

### 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                                                                    |

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### Technical data

#### Climatic tests (D)

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

### Classifications

#### eCl@ss

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

#### 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  |
| mm²/AWG/kcmil                                                                                                                                                                                                                                                              | 18-8  | 18-8  |

## PCB hybrid connector - LPCH 6/ 5+4-STL5-7,62 - 1717003

### Accessories

#### Accessories

##### Cable end sleeve

Ferrule - AI 6 -18 YE - 3200603



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

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#### 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

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#### Crimping tool

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

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#### 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

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#### Additional products

## PCB hybrid connector - LPCH 6/ 5+4-STL5-7,62 - 1717003

### Accessories

PCB hybrid header - PCH 6/ 5+4-GL5-7,62 - 1717151



PCB hybrid header, nominal current: 41 A, number of positions: 9, pitch: 7.62 mm, color: green, contact surface: Tin, mounting: Wave soldering