

LPCH 6/ 5+4-ST-7,62 - PCB hybrid connector



1716957

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PCB hybrid connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, 8 A, rated voltage (III/2): 1000 V, contact surface: Sn, contact connection type: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: LPCH 6/..+4-ST, pitch: 7.62 mm, connection method: Lever Push-in connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 6 hybrid, locking: without, mounting: without, type of packaging: packed in cardboard

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

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1716957 |
| Packing unit | 25 pc |
| Minimum order quantity | 25 pc |
| Note | Made to order (non-returnable) |
| Sales key | AAD |
| Product key | AADBAE |
| GTIN | 4055626522579 |
| Weight per piece (including packing) | 39.94 g |
| Weight per piece (excluding packing) | 37.68 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|-----------------------|-----------------------|
| Product type | PCB hybrid connector |
| Product family | LPCH 6/..+4-ST |
| Product line | COMBICON Connectors L |
| Number of positions | 9 |
| Pitch | 7.62 mm |
| Number of connections | 9 |
| Number of rows | 1 |
| Number of potentials | 9 |

Data management status

| | |
|------------------|----|
| Article revision | 05 |
|------------------|----|

Electrical properties

| | |
|-----------------------------|---------|
| Nominal current I_N | 41 A |
| Nominal voltage U_N | 1000 V |
| Contact resistance | 0.42 mΩ |
| Rated voltage (III/3) | 800 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Connection data

Connection technology

| | |
|-------------------------|----------------------|
| Connector system | COMBICON PC 6 hybrid |
| Nominal cross section | 6 mm ² |
| Contact connection type | Socket |

Interlock

| | |
|-----------------|---------|
| Locking type | without |
| Mounting flange | without |

Conductor connection Power

| | |
|---|---|
| Connection method | Lever Push-in connection |
| Connection direction of the conductor to plug-in direction | 0 ° |
| Conductor cross section rigid | 0.75 mm ² ... 10 mm ² |
| Conductor cross section flexible | 0.75 mm ² ... 6 mm ² |
| Conductor cross section AWG | 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 |

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| | |
|------------------------------------|--------------------------|
| Cylindrical gauge a x b / diameter | 4.3 mm x 4.0 mm / 4.0 mm |
| Stripping length | 18 mm |

Conductor connection Signal

| | |
|---|--|
| Connection method | Push-in spring connection |
| Connection direction of the conductor to plug-in direction | 0 ° |
| Conductor cross section rigid | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 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 specifications

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

| | |
|--|--------------|
| Color (Housing) | green (6021) |
| 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

| | |
|--|---------------|
| Color (Actuating element) | orange (2003) |
| Insulating material | PA GF |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |

Notes

| | |
|--------------------|--|
| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load. |
|--------------------|--|

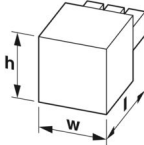
Dimensions

LPCH 6/ 5+4-ST-7,62 - PCB hybrid connector



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| | | |
|---------------------|----------|--|
| Dimensional drawing | |  |
| Pitch | 7.62 mm | |
| Width [w] | 47.92 mm | |
| Height [h] | 35.65 mm | |
| Length [l] | 48 mm | |

Mechanical tests

Conductor connection

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Repeated connection and disconnection

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Pull-out test

| | |
|---|--|
| Specification | IEC 60999-1:1999-11 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 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 |

Pull-out test

| | |
|---|---|
| Specification | IEC 60999-1:1999-11 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.2 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 1.5 mm ² / solid / > 40 N |
| | 1.5 mm ² / flexible / > 40 N |

Insertion and withdrawal forces

| | |
|-------------------------------------|-------------|
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 7 N |
| Withdraw strength per pos. approx. | 4 N |

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Contact holder in insert

| | |
|--|------------------------|
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert Requirements >20 N | Test passed |

Resistance of inscriptions

| | |
|---------------|------------------------|
| Specification | IEC 60068-2-70:1995-12 |
| Result | Test passed |

Polarization and coding

| | |
|---------------|------------------------|
| Specification | IEC 60512-13-5:2006-02 |
| Result | Test passed |

Visual inspection

| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |

Dimension check

| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 4 |

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Temperature cycles

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Air clearances and creepage distances | Power

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 800 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 10 mm |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| minimum clearance value - non-homogenous field (III/2) | 8 mm |
| minimum creepage distance (III/2) | 8 mm |
| Rated insulation voltage (II/2) | 1000 V |

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| | |
|---|--------|
| Rated surge voltage (II/2) | 6 kV |
| minimum clearance value - non-homogenous field (II/2) | 5.5 mm |
| minimum creepage distance (II/2) | 5.5 mm |

Air clearances and creepage distances | Signal

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 160 V |
| Rated surge voltage (III/3) | 2.5 kV |
| minimum clearance value - non-homogenous field (III/3) | 1.5 mm |
| minimum creepage distance (III/3) | 2 mm |
| Rated insulation voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (III/2) | 1.5 mm |
| minimum creepage distance (III/2) | 1.5 mm |
| Rated insulation voltage (II/2) | 320 V |
| Rated surge voltage (II/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (II/2) | 1.5 mm |
| minimum creepage distance (II/2) | 1.6 mm |

Environmental and real-life conditions

Vibration test

| | |
|------------------------|-----------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

Durability test

| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 7.3 kV |
| Contact resistance R_1 | 0.42 m Ω |
| Contact resistance R_2 | 0.46 m Ω |
| Insertion/withdrawal cycles | 25 |
| Insulation resistance, neighboring positions | > 5 M Ω |

Climatic test

| | |
|-----------------------------------|---|
| Specification | ISO 6988:1985-02 |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| Power-frequency withstand voltage | 3.31 kV |

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Ambient conditions

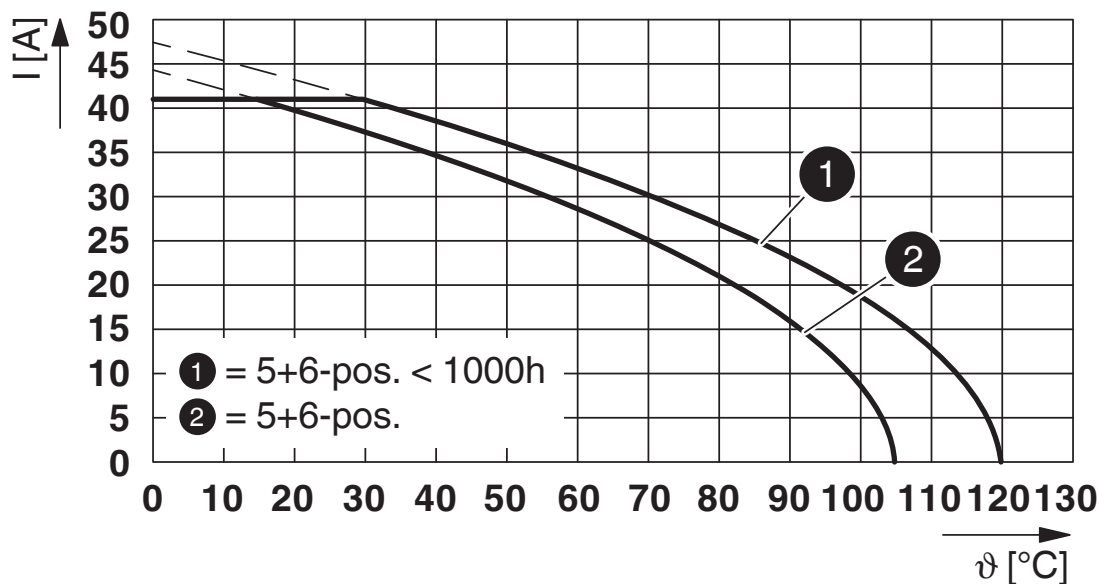
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 105 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

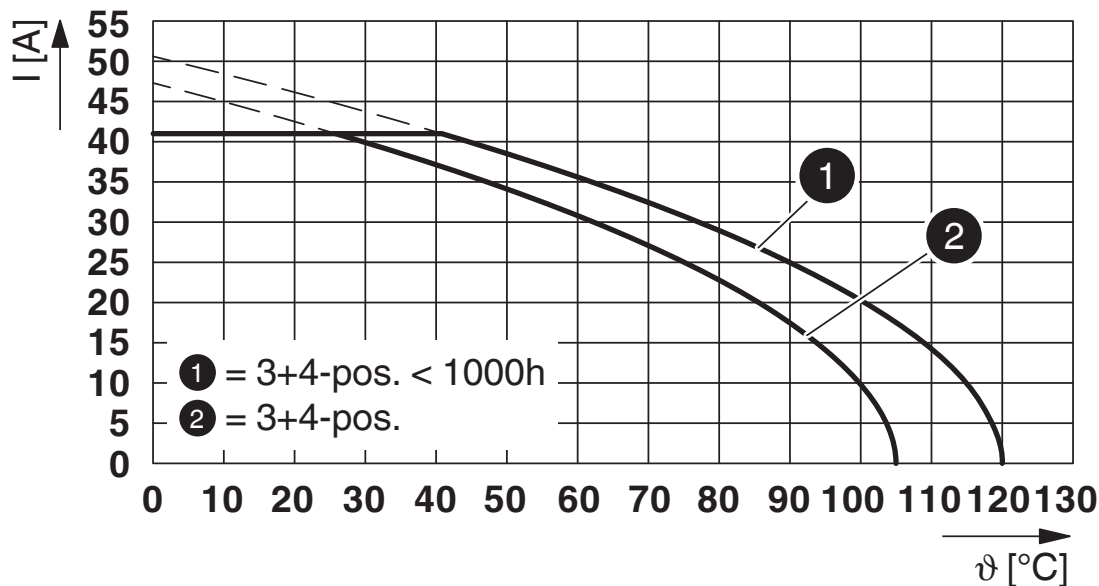
Drawings

Diagram



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

Diagram



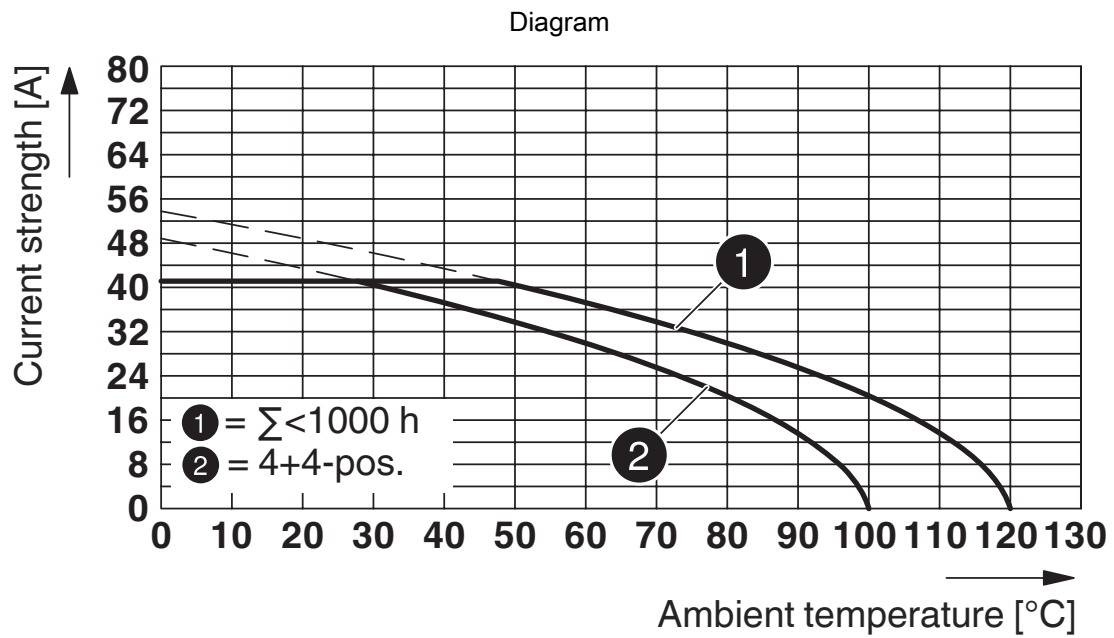
Type: LPCH 6/...+...-ST-7,62 with PCH 6/...+...-G-7,62 P...THR

LPCH 6/ 5+4-ST-7,62 - PCB hybrid connector



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

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sk/products/1716957>

|  cULus Recognized Approval ID: E60425-20010727 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | | | | |
| Power | 600 V | 35 A | 18 - 8 | - |
| Signal | 150 V | 8 A | 24 - 16 | - |
| Use group C | | | | |
| Power | 600 V | 35 A | 18 - 8 | - |
| Signal | 50 V | 8 A | 24 - 16 | - |

|  VDE Zeichengenehmigung Approval ID: 40050635 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Power | 630 V | 41 A | - | 0.75 - 6 |
| Signal | 160 V | 8 A | - | 0.2 - 1.5 |

|  UL Recognized Approval ID: E60425-20010727 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group F | | | | |
| Power | 600 V | 35 A | 18 - 8 | - |
| Signal | 160 V | 8 A | 24 - 16 | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460302 |
| ECLASS-12.0 | 27460302 |
| ECLASS-13.0 | 27460302 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002638 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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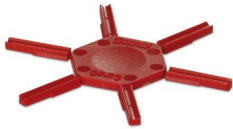
Accessories

CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/sk/products/1701967>

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



AI 6 -18 YE - Ferrule

3200603

<https://www.phoenixcontact.com/sk/products/3200603>

Ferrule, Length contact range: 18 mm, sleeve length: 26 mm, color: yellow



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CRIMPFOX CENTRUS 6S - Crimping pliers

1213144

<https://www.phoenixcontact.com/sk/products/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

WIREFOX 10 - Stripping tool

1212150

<https://www.phoenixcontact.com/sk/products/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

LPCH 6/ 5+4-ST-7,62 - PCB hybrid connector



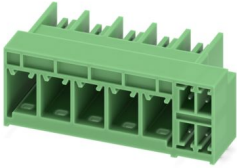
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PCH 6/ 5+4-G-7,62 - PCB hybrid header

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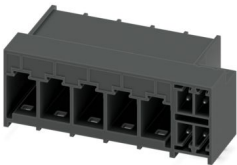


PCB hybrid header, nominal cross section: 6 mm², color: black, nominal current: 41 A, 8 A, rated voltage (III/2): 630 V, contact surface: Sn, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: PCH 6/..+4-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: COMBICON PC 6 hybrid, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

PCH 6/ 5+4-G-7,62 P26THR - PCB hybrid header

1192661

<https://www.phoenixcontact.com/sk/products/1192661>



PCB hybrid header, nominal cross section: 6 mm², color: black, nominal current: 41 A, 8 A, rated voltage (III/2): 630 V, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 9, product range: PCH 6/..+4-G-THR, pitch: 7.62 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 6 hybrid, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: without, type of packaging: packed in cardboard

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