

# Printed-circuit board connector - IPCV 5/ 7-G-7,62 - 1708873

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PCB header, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 7, Number of rows: 1, Number of positions per row: 7, number of connections: 7, product range: IPCV 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, plug-in system: POWER COMBICON 5, Locking: without, type of packaging: packed in cardboard

The figure shows a 5-pos. version of the product

## Your advantages

- ✓ Well-known mounting principle allows worldwide use
- ✓ Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- ✓ Inverted header with socket contacts for touch-proof device outputs or PCB/PCB connections
- ✓ Integrated double steel spring provides additional safety in the event of temperature and power fluctuations



## Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 50 pc         |
| GTIN         |               |
| GTIN         | 4046356089845 |

## Technical data

### Item properties

|                           |                     |
|---------------------------|---------------------|
| Brief article description | Feed-through header |
| Plug-in system            | POWER COMBICON 5    |
| Type of contact           | Female connector    |
| Range of articles         | IPCV 5/..-G         |
| Pitch                     | 7.62 mm             |
| Number of positions       | 7                   |
| Mounting type             | Wave soldering      |
| Pin layout                | Linear pinning      |
| Locking                   | without             |
| Number of levels          | 1                   |
| Number of connections     | 7                   |

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## Technical data

### Item properties

|                                 |          |
|---------------------------------|----------|
| Number of potentials            | 7        |
| Pin connector pattern alignment | Standard |

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Nominal current             | 41 A   |
| Nom. voltage                | 630 V  |
| Rated voltage (III/3)       | 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                  | hot-dip tin-plated  |
| Metal surface contact area (top layer)   | Tin (4 - 8 µm Sn)   |
| Metal surface soldering area (top layer) | Tin (4 - 8 µm Sn)   |

### Material data - housing

|   |              |
|---|--------------|
| Housing color   | green (6021) |
| Insulating material   | PA           |
| Insulating material group   | I            |
| CTI according to IEC 60112  | 600          |
| Flammability rating according to UL 94                            | V0           |
| Glow wire flammability index GWFI according to EN 60695-2-12      | 850          |
| Glow wire ignition temperature GWIT according to EN 60695-2-13    | 775          |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C       |

### Dimensions for the product

|                             |  |
|-----------------------------|--|
| Caption                     | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [ l ]                | 12.8 mm  |
| Width [ w ]                 | 53.34 mm   |
| Height [ h ]                | 35.1 mm  |
| Pitch                       | 7.62 mm  |
| Height (without solder pin) | 30.1 mm  |
| Solder pin [P]              | 5 mm   |
| Pin spacing                 | 7.62 mm  |
| Pin dimensions              | 1.2 x 0.8 mm   |

### Dimensions for PCB design

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## Technical data

### Dimensions for PCB design

|               |         |
|---------------|---------|
| Hole diameter | 1.3 mm  |
| Pin spacing   | 7.62 mm |

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 50                  |
| Denomination packing units | Pcs.                |

### General product information

|              |  |
|--------------|--|
| Type of note | Notes on operation   |
| Note         | 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. |

### Ambient conditions

|   |  |
|---|--|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C                                   |
| Ambient temperature (assembly)          | -5 °C ... 100 °C                                   |
| Ambient temperature (operation)         | -40 °C ... 100 °C (depending on power dissipation) |

### 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)         | 5.5 mm              |
| Minimum creepage distance value (II/2)          | 5.5 mm              |

### Mechanical tests (A)

|  |             |
|--|-------------|
| Test specification                           | IEC 61984   |
| Insertion strength per pos. approx.          | 8 N         |
| Withdraw strength per pos. approx.           | 6 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>      | 0.4 mΩ                |
| Insertion/withdrawal cycles            | 25                    |
| Contact resistance R <sub>2</sub>      | 0.5 mΩ                |
| Impulse withstand voltage at sea level | 7.3 kV                |

### Thermal tests (C)

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
|---------------|-----------------------|

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## Technical data

### Thermal tests (C)

|   |             |
|---|-------------|
| Number of positions                             | 12          |
| 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 | Finger safety with IP20 test finger |

### Vibration test

|                        |                        |
|------------------------|------------------------|
| Specification          | IEC 60068-2-6:2007-12  |
| 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                  |

### Standards and Regulations

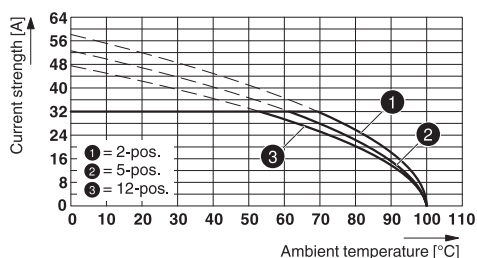
|  |        |
|--|--------|
| Connection in acc. with standard       | EN-VDE |
|  | CUL    |
| Flammability rating according to UL 94 | V0     |

### Environmental Product Compliance

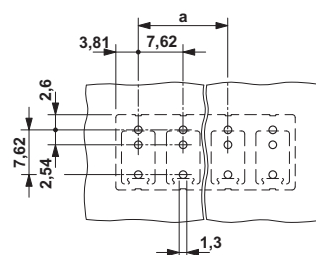
|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

Diagram



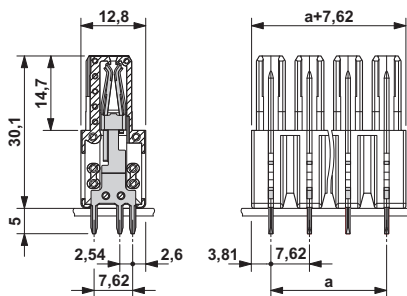
Drilling diagram



Type: IPC 5/...-ST-7,62 with IPCV 5/...-G-7,62

# Printed-circuit board connector - IPCV 5/ 7-G-7,62 - 1708873

Dimensional drawing



## Classifications

### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440402 |
| eCl@ss 11.0   | 27460201 |
| 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 9.0    | 27440402 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002637 |
| ETIM 6.0 | EC002637 |
| ETIM 7.0 | EC002637 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11     | 39121409 |
| UNSPSC 12.01  | 39121409 |
| UNSPSC 13.2   | 39121409 |
| UNSPSC 18.0   | 39121409 |
| UNSPSC 19.0   | 39121409 |
| UNSPSC 20.0   | 39121409 |
| UNSPSC 21.0   | 39121409 |

## Approvals

### Approvals

# Printed-circuit board connector - IPCV 5/ 7-G-7,62 - 1708873

## Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

## Approval details

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

|                    |       |   |                 |
|--------------------|-------|---|-----------------|
| 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> | E60425-19920722 |
|                    | B     | C   | D               |
| Nominal voltage UN | 300 V | 300 V   | 600 V           |
| Nominal current IN | 41 A  | 41 A  | 5 A             |

## Accessories

Accessories

Labeled terminal marker

Marker card - SK 7,62/3,8:FORTL.ZAHLEN - 0804549

Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm



Marker card - SK 3,8 REEL P7,62 WH CUS - 0825128

Marker card, Card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous x 3.8 mm



## Terminal marking

## Printed-circuit board connector - IPCV 5/ 7-G-7,62 - 1708873

### Accessories

#### Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

#### Marker strip - SK 3,8 WH:REEL - 0805218



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 90000 mm, lettering field size: continuous x 3.8 mm, Number of individual labels: 210000

### Additional products

#### Printed-circuit board connector - PCV 5/ 7-G-7,62 - 1720628



PCB header, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 7, Number of rows: 1, Number of positions per row: 7, number of connections: 7, product range: PCV 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, plug-in system: POWER COMBICON 5, Locking: without, type of packaging: packed in cardboard

#### Printed-circuit board connector - PC 5/ 7-GU-7,62 - 1720738



PCB header, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 7, Number of rows: 1, Number of positions per row: 7, number of connections: 7, product range: PC 5/..-GU, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.2 mm, plug-in system: POWER COMBICON 5, Locking: without, type of packaging: packed in cardboard

#### Printed-circuit board connector - PC 5/ 7-G-7,62 - 1720518



PCB header, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 7, Number of rows: 1, Number of positions per row: 7, number of connections: 7, product range: PC 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, plug-in system: POWER COMBICON 5, Locking: without, type of packaging: packed in cardboard

## Printed-circuit board connector - IPCV 5/ 7-G-7,62 - 1708873

### Accessories

#### Printed-circuit board connector - ISPC 5/ 7-STGCL-7,62 - 1748914



PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 7, Number of rows: 1, Number of positions per row: 7, number of connections: 7, product range: ISPC 5/..-STGCL, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - without locking clip, plug-in system: POWER COMBICON 5, Locking: Clip locking, type of packaging: packed in cardboard

#### Printed-circuit board connector - IPC 5/ 7-ST-7,62 - 1709092



PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 7, Number of rows: 1, Number of positions per row: 7, number of connections: 7, product range: IPC 5/..-ST, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Locking clip: - without locking clip, plug-in system: POWER COMBICON 5, Locking: without, type of packaging: packed in cardboard

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