

# MCC 1/12-STZF-3,81 - PCB connector



1852464

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PCB connector, nominal cross section: 1 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact connection type: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: MCC 1/..-STZF, pitch: 3.81 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: Screw locking mechanism, mounting method: Screw flange, type of packaging: packed in cardboard, Corresponding female crimp contacts with current [A] and conductor cross-section range [mm<sup>2</sup>] data: 5A/MCC-MT 0,2-0,35 (1859988); 8A/MCC-MT 0,5-1,0 (1859991)

## Your advantages

- Inexpensive connection of large quantities of preassembled conductors
- Screwable flange for superior mechanical stability
- Pull-out aid facilitates handling and allows the tensile force to be reduced at the contact point

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1852464                        |
| Packing unit                         | 50 pc                          |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AA02                           |
| Product key                          | AABCAB                         |
| GTIN                                 | 4017918143978                  |
| Weight per piece (including packing) | 4.312 g                        |
| Weight per piece (excluding packing) | 3.821 g                        |
| Customs tariff number                | 85366990                       |
| Country of origin                    | PL                             |

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## Technical data

### Product properties

|                       |                       |
|-----------------------|-----------------------|
| Product type          | PCB connector         |
| Product family        | MCC 1/...-STZF        |
| Product line          | COMBICON Connectors S |
| Type                  | Standard              |
| Number of positions   | 12                    |
| Pitch                 | 3.81 mm               |
| Number of connections | 12                    |
| Number of rows        | 1                     |
| Number of potentials  | 12                    |
| Mounting type         | Screw flange          |

### Electrical properties

#### Properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 8 A    |
| Nominal voltage $U_N$       | 160 V  |
| Rated voltage (III/3)       | 160 V  |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated voltage (III/2)       | 160 V  |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated voltage (II/2)        | 320 V  |
| Rated surge voltage (II/2)  | 2.5 kV |

### Connection data

#### Connection technology

|                         |                   |
|-------------------------|-------------------|
| Type                    | Standard          |
| Connector system        | COMBICON MC 1,5   |
| Nominal cross section   | 1 mm <sup>2</sup> |
| Contact connection type | Socket            |

#### Interlock

|               |                         |
|---------------|-------------------------|
| Locking type  | Screw locking mechanism |
| Mounting type | Screw flange            |

#### Conductor connection

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| Connection method                  | Crimp connection                          |
| Conductor/PCB connection direction | 0 °                                       |
| Conductor cross-section flexible   | 0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup> |
| Conductor cross-section AWG        | 24 ... 18                                 |

### Material specifications

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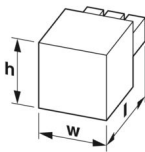
## Material data - contact

|                                        |          |
|----------------------------------------|----------|
| Metal surface contact area (top layer) | Tin (Sn) |
|----------------------------------------|----------|

## Material data - housing

|                                                                   |              |
|-------------------------------------------------------------------|--------------|
| Color (Housing)                                                   | 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

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Pitch               | 3.81 mm                                                                              |
| Width [w]           | 56.11 mm                                                                             |
| Height [h]          | 8.7 mm                                                                               |
| Length [l]          | 23.1 mm                                                                              |

## Notes

|                     |                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note on the contact | The information on the basic material and the finish properties of the crimp contacts is to be found in the E-Shop in the technical data for the respective crimp contact.                   |
| Note on application | All laboratory tests are performed in combination with the crimp contacts specified as accessories.                                                                                          |
| Note on application | The current depends on the crimp contact and conductor cross-section used.                                                                                                                   |
| Note on application | The corresponding crimp contacts are to be found in the "Accessories" tab.                                                                                                                   |
| Note on application | The crimp contacts may only be processed with approved crimping tools.                                                                                                                       |
| Note on the contact | These connectors conform to DIN EN 61984, connectors without switching capacity (COC). When used for their intended purpose, they must not be plugged in or disconnected live or under load. |

## Environmental and real-life conditions

### Ambient conditions

|                                         |                                                     |
|-----------------------------------------|-----------------------------------------------------|
| Ambient temperature (operation)         | -40 °C ... 100 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C                                    |

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|                                       |                  |
|---------------------------------------|------------------|
| Relative humidity (storage/transport) | 30 % ... 70 %    |
| Ambient temperature (assembly)        | -5 °C ... 100 °C |

## Electrical tests

### Air clearances and creepage distances |

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

## Packaging specifications

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

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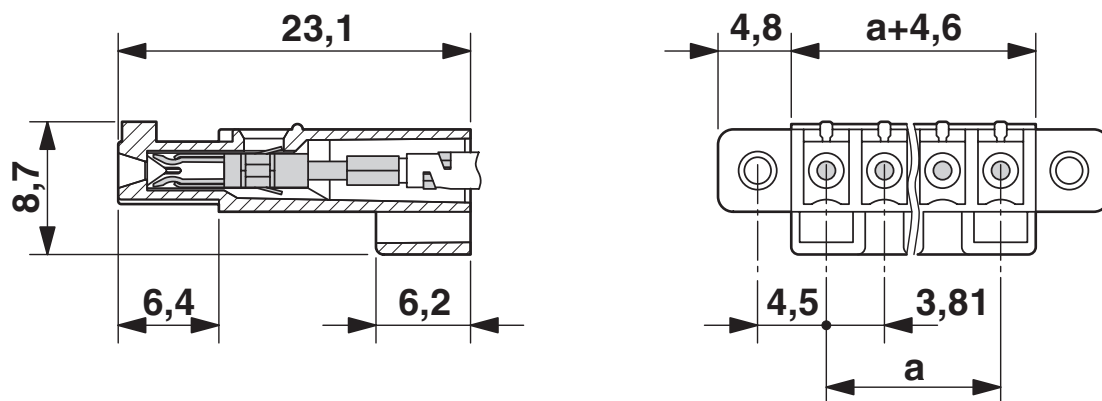
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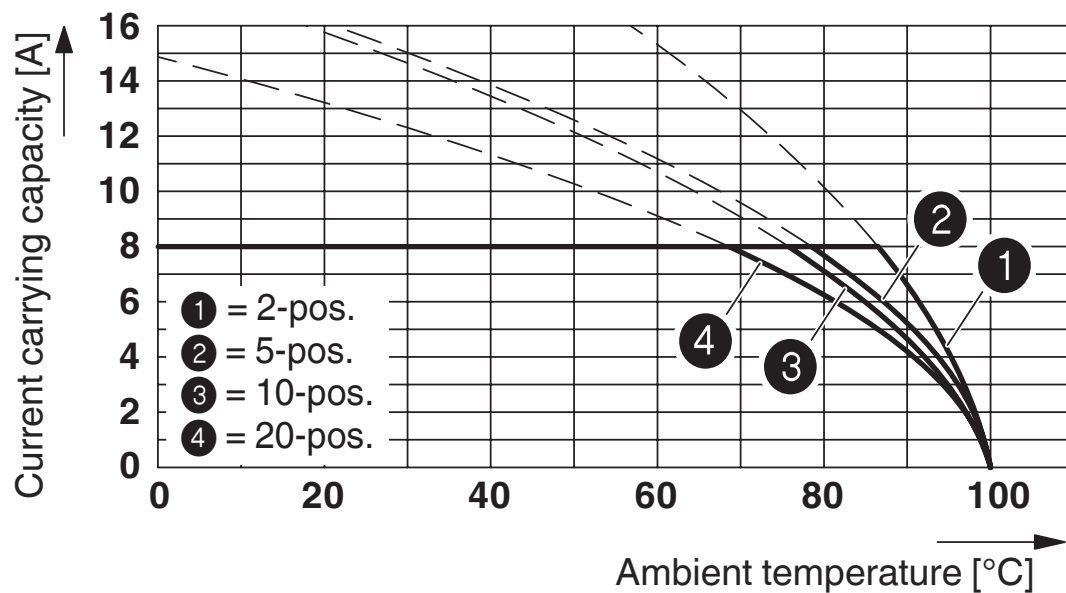


## Drawings

Dimensional drawing



Diagram



Type: MCC 1/...-ST-3,81 with MC 1,5/...-G-3,81; contact: MCC-MT 0,5 - 1,0

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1852464>

|  <b>cULus Recognized</b><br>Approval ID: E60425-20110128 |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                           | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| B                                                                                                                                         |                       |                       |                   |                             |
|                                                                                                                                           | 300 V                 | 5 A                   | 24 - 22           | -                           |
| D                                                                                                                                         |                       |                       |                   |                             |
|                                                                                                                                           | 300 V                 | 5 A                   | 24 - 22           | -                           |

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## Classifications

### ECLASS

|                     |          |
|---------------------|----------|
| ECLASS-13.0         | 27460202 |
| Filter und Facetten | 27460202 |
| Filter und Facetten | 27460202 |

### 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% |
|-------------------------------------|----------------------------|

### EF3.0 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 0.036 kg CO2e |
|---------|---------------|

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