

Printed-circuit board connector - MCC 0,5/ 9-ST-2,54 - 1012273

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PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.75 mm², number of positions: 9, pitch: 2.54 mm, connection method: Crimp connection, color: black



The figure shows a 10-position version of the product

Your advantages

- Cost-effective connection of crimped conductors in large quantities
- Gold-plated contacts ensure transfer quality remains stable over the long term
- Small component size for applications where space is at a premium
- Tools for manual and automatic crimping available as an option



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 100 pc |
| GTIN | |
| GTIN | 4055626488561 |

Technical data

Item properties

| | |
|---------------------------|--------------------------|
| Brief article description | PCB connector |
| Plug-in system | MICRO COMBICON - FMC 0,5 |
| Type of contact | Female connector |
| Range of articles | MCC 0,5/...-ST |
| Pitch | 2.54 mm |
| Number of positions | 9 |
| Connection method | Crimp connection |
| Number of levels | 1 |
| Number of connections | 9 |
| Number of potentials | 9 |

Electrical parameters

Printed-circuit board connector - MCC 0,5/ 9-ST-2,54 - 1012273

Technical data

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 6 A |
| Nom. voltage | 160 V |
| Rated voltage | 160 V |
| Rated voltage (III/2) | 160 V |
| Rated voltage (II/2) | 320 V |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated surge voltage (II/2) | 2.5 kV |

Connection capacity

| | |
|-------------------------------------|--|
| Connection method | Crimp connection |
| Conductor cross section flexible | 0.14 mm ² ... 0.75 mm ² (Maximum external diameter of the insulation 1.9 mm) |
| Conductor cross section AWG / kcmil | 26 ... 18 (Maximum external diameter of the insulation 1.9 mm) |
| Stripping length | 4.1 mm ... 4.5 mm |

Material data - housing

| | |
|---|--------------|
| Housing color | black (9005) |
| 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

| | |
|-----------------------------|----------|
| Length [l] | 16 mm |
| Width [w] | 36.36 mm |
| Height [h] | 3.95 mm |
| Pitch | 2.54 mm |
| Height (without solder pin) | 3.95 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 100 |
| 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

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Technical data

Mechanical tests according to standard

| | |
|-------------------------------------|------------------------|
| Test specification | IEC 61984 |
| Visual inspection | IEC 60512-1-1:2002-02 |
| 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 | 100 |
| Insertion strength per pos. approx. | 2 N |
| Withdraw strength per pos. approx. | 3 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) | 1.5 mm |
| Minimum clearance - inhomogeneous field (III/2) | 1.5 mm |
| Minimum clearance - inhomogeneous field (II/2) | 1.5 mm |
| Minimum creepage distance value (III/3) | 2 mm |
| Minimum creepage distance value (III/2) | 0.8 mm |
| Minimum creepage distance value (II/2) | 1.6 mm |

Current carrying capacity / derating curves

| | |
|------------------|---|
| Caption | Type: MCC 0,5/...-ST-2,54 with MC 0,5/...-G-2,54 P20 THR R... |
| 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. | 2 N |
| Withdraw strength per pos. approx. | 3 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 ₁ | 2.1 mΩ |
| Insertion/withdrawal cycles | 100 |
| Contact resistance R ₂ | 2.1 mΩ |
| Impulse withstand voltage at sea level | 2.95 kV |
| Power-frequency withstand voltage | 1.39 kV |

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Technical data

Durability tests (B)

| | |
|--|---------|
| Insulation resistance, neighboring positions | > 12 TΩ |
|--|---------|

Thermal tests (C)

| | |
|---|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Number of positions | 16 |
| Conductor cross section | 0.75 mm ² |
| Test current | 6 A |
| Upper limiting temperature requirements <100 °C | Test passed |

Climatic tests (D)

| | |
|--|---|
| Specification | DIN 50018:2013-05 |
| Cold stress | -55 °C/2 h |
| Thermal stress | 105 °C/168 h |
| Corrosive stress | 1.0 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Impulse withstand voltage at sea level | 2.95 kV |
| Power-frequency withstand voltage | 1.39 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 |

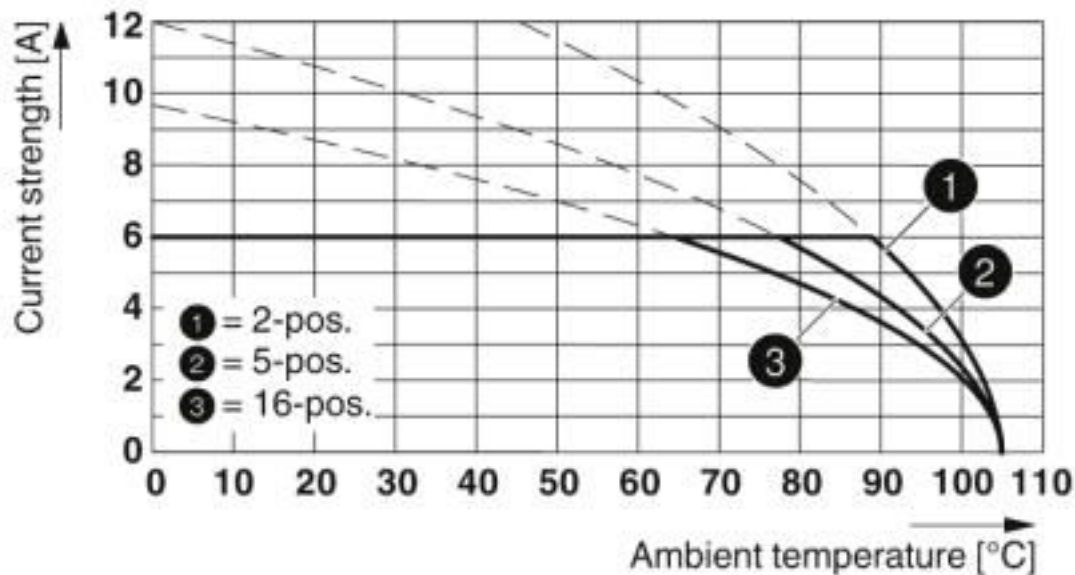
Environmental Product Compliance

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

Drawings

Printed-circuit board connector - MCC 0,5/ 9-ST-2,54 - 1012273

Diagram



Type: MCC 0,5/...-ST-2,54 with MC 0,5/...-G-2,54 P20 THR R...

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 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

Approvals

Approvals

Approvals


cULus Recognized / EAC / IECCEB Scheme / VDE Gutachten mit Fertigungsüberwachung

Printed-circuit board connector - MCC 0,5/ 9-ST-2,54 - 1012273


Approvals


Ex Approvals

Approval details

| | | | | | | | | | | | |
|----------------------------|--|--|---|--|--|---|--|--|-----------------|--|--|
| cULus Recognized | | |  | | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | | | E60425-20110128 | | |
| | | | B | | | | | | D | | |
| Nominal voltage UN | | | 150 V | | | | | | 150 V | | |
| Nominal current IN | | | 6 A | | | | | | 6 A | | |
| mm ² /AWG/kcmil | | | 26-18 | | | | | | 26-18 | | |

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

| | | | | | | | | | | | |
|----------------------------|--|--|---|--|--|---|--|--|-----------|--|--|
| IECEE CB Scheme | | |  | | | http://www.iecee.org/ | | | DE1-63595 | | |
| | | | | | | | | | | | |
| Nominal voltage UN | | | | | | 160 V | | | | | |
| Nominal current IN | | | | | | 6 A | | | | | |
| mm ² /AWG/kcmil | | | | | | 0.14-.75 | | | | | |

| | | | | | | | | | | | |
|--|--|--|---|--|--|--|--|--|----------|--|--|
| VDE Gutachten mit Fertigungsüberwachung | | |  | | | http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | | | 40042258 | | |
| | | | | | | | | | | | |
| Nominal voltage UN | | | | | | 160 V | | | | | |
| Nominal current IN | | | | | | 6 A | | | | | |
| mm ² /AWG/kcmil | | | | | | 0.14-.75 | | | | | |

Accessories

Accessories

Crimp contact

Printed-circuit board connector - MCC 0,5/ 9-ST-2,54 - 1012273

Accessories

Accessories - MCC 0,5-MP AU 0,14-0,5 - 1013425



Crimp contact, type of contact: Female connector, connection method: Crimp connection, contact surface: Gold, Conductor cross section flexible: 0.14 ...0.5 mm²

Accessories - MCC 0,5-MP AU 0,14-0,5 R - 1013420



Crimp contact, type of contact: Female connector, connection method: Crimp connection, contact surface: Gold, Conductor cross section flexible: 0.14 ...0.5 mm²

Accessories - MCC 0,5-MP AU 0,34-0,75 - 1013419



Crimp contact, type of contact: Female connector, connection method: Crimp connection, contact surface: Gold, Conductor cross section flexible: 0.34 ...0.75 mm²

Accessories - MCC 0,5-MP AU 0,34-0,75 R - 1013418



Crimp contact, type of contact: Female connector, connection method: Crimp connection, contact surface: Gold, Conductor cross section flexible: 0.34 ...0.75 mm²

Crimping tool

Crimping pliers - CRIMPFOX-P CC 0.75 L - 1064998



Crimping pliers, for COMBICON crimp connectors with cross section: 0.14 ... 0.75 mm². Unlockable pressure lock, precise parallel crimping, front entry, B crimp, incl. 2 positioning aids

Additional products

Printed-circuit board connector - MCC 0,5/ 9-ST-2,54 - 1012273

Accessories

Printed-circuit board connector - MC 0,5/ 9-G-2,54 P20 THR R44 - 1821313

PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 9, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, Sample values available under SAMPLE MC...



Printed-circuit board connector - MCV 0,5/ 9-G-2,54 P20 THR R56 - 1821465

PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 9, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, Sample values available under SAMPLE MC...



Printed-circuit board connector - MC 0,5/ 9-G-2,54 SMD R44 - 1821766

PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 9, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: SMD soldering, pin layout: Linear pad geometry, Sample values available under SAMPLE MC...



Printed-circuit board connector - MCV 0,5/ 9-G-2,54 SMD R56 - 1821614

PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 9, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: SMD soldering, pin layout: Linear pad geometry, Sample values available under SAMPLE MC...



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