

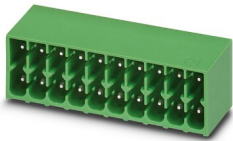
DMC 1,5/18-G1-3,5 P35 - PCB header



1053835

<https://www.phoenixcontact.com/us/products/1053835>

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PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 36, number of rows: 2, number of positions: 18, number of connections: 36, product range: DMC 1,5/...-G1, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Conductor connection on several levels enables higher contact density
- Small component size for applications where space is at a premium
- Well-known mounting principle allows worldwide use

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1053835 |
| Packing unit | 1 pc |
| Minimum order quantity | 50 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA02 |
| Product key | AABSJA |
| GTIN | 4055626687544 |
| Weight per piece (including packing) | 7.9 g |
| Weight per piece (excluding packing) | 7.9 g |
| Customs tariff number | 85366930 |
| Country of origin | CN |

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Technical data

Product properties

| | |
|---------------------------|-----------------------|
| Product line | COMBICON Connectors S |
| Product type | PCB headers |
| Product family | DMC 1,5/...-G1 |
| Number of positions | 18 |
| Pitch | 3.5 mm |
| Number of connections | 36 |
| Number of rows | 2 |
| Number of potentials | 36 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 8 A |
| Nominal voltage U_N | 160 V |
| Degree of pollution | 3 |
| Contact resistance | 3 mΩ |
| 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) | 250 V |
| Rated surge voltage (II/2) | 2.5 kV |

Mounting

| | |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

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 contact area (top layer) | Tin (4 - 8 μm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.5 - 4 μm Ni) |
| Metal surface soldering area (top layer) | Tin (4 - 8 μm Sn) |
| Metal surface soldering area (middle layer) | Nickel (1.5 - 4 μm Ni) |

Material data - housing

| | |
|---------------------|--------------|
| Color (Housing) | green (6021) |
| Insulating material | PBT |

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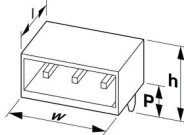


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| | |
|--|------|
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 225 |
| Flammability rating according to UL 94 | V0 |

Dimensions

| | |
|-----------------------|--|
| Dimensional drawing |  |
| Pitch | 3.5 mm |
| Width [w] | 63.8 mm |
| Height [h] | 14.3 mm |
| Length [l] | 11.6 mm |
| Installed height | 10.8 mm |
| Solder pin length [P] | 3.5 mm |
| Pin dimensions | 0.8 x 0.8 mm |

PCB design

| | |
|---------------|---------|
| Pin spacing | 2.50 mm |
| Hole diameter | 1.2 mm |

Mechanical tests

Visual inspection

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

Dimension check

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

Contact holder in insert

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

Insertion and withdrawal forces

| | |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

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| | |
|-------------------------------------|-----|
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 3 N |
| Withdraw strength per pos. approx. | 2 N |

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 20 |

Air clearances and creepage distances |

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | IIIa |
| Comparative tracking index (IEC 60112) | CTI 225 |
| 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) | 2.5 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) | 1.6 mm |
| Rated insulation voltage (II/2) | 250 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) | 2.5 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) |
| Sweep speed | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |

Durability test

| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 2.95 kV |
| Contact resistance R_1 | 3 mΩ |
| Contact resistance R_2 | 3.5 mΩ |
| Insertion/withdrawal cycles | 25 |

Climatic test

| | |
|---------------|------------------|
| Specification | ISO 6988:1985-02 |
|---------------|------------------|

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| | |
|-----------------------------------|---|
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Thermal stress | 105 °C/168 h |
| Power-frequency withstand voltage | 1.39 kV |

Ambient conditions

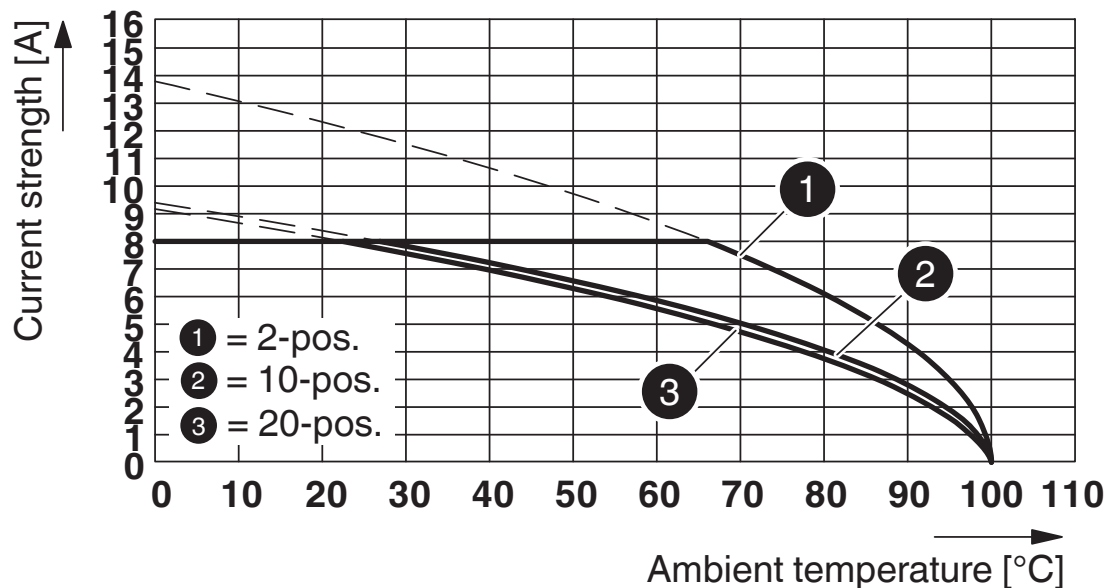
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

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

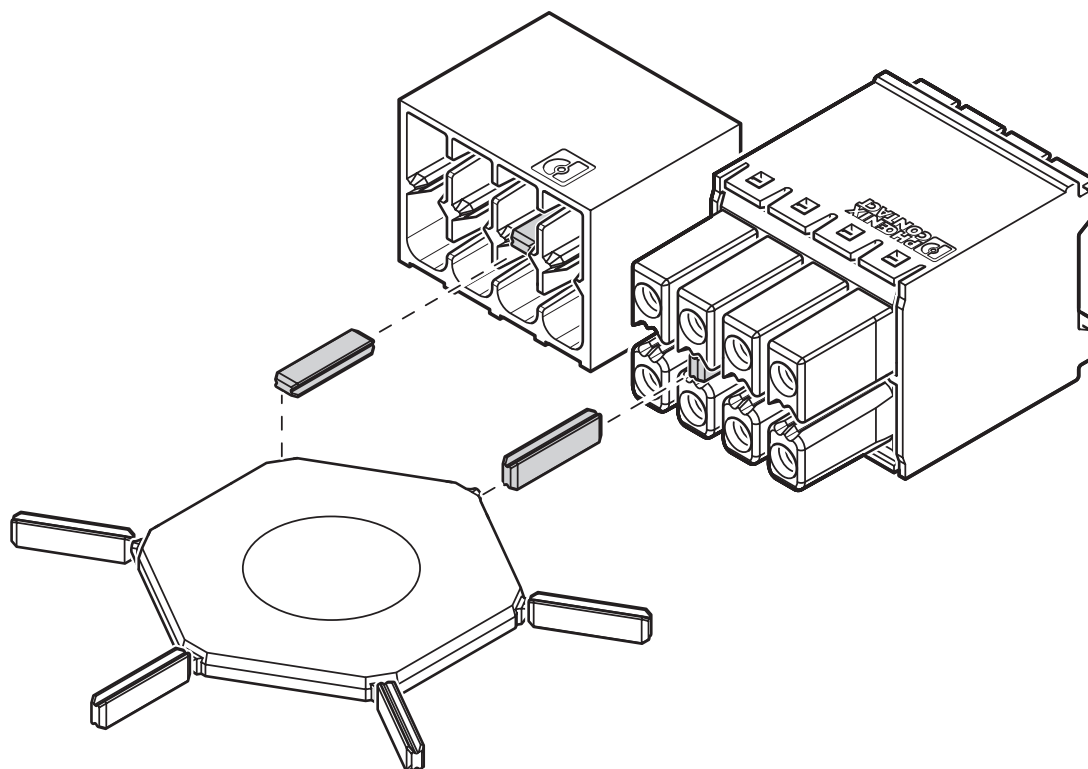
Drawings

Diagram



Type: DFMC 1.5/...-ST-3.5 with DMC 1.5/...-G1-3.5 P35

Schematic diagram



Use of the CP-DMC... coding profile

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1053835>



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20110128

| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
|-------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Use group B | | | | |
| | 150 V | 8 A | - | - |
| Use group D | | | | |
| | 300 V | 8 A | - | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 27460201 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002637 |
|----------|----------|

UNSPSC

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

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Environmental product compliance

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

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Accessories

CP-DMC 1,5 NAT - Coding profile

1790647

<https://www.phoenixcontact.com/us/products/1790647>

Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural

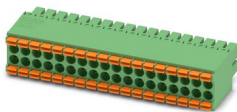


DFMC 1,5/18-ST-3,5 - PCB connector

1790263

<https://www.phoenixcontact.com/us/products/1790263>

PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 36, number of rows: 2, number of positions: 18, number of connections: 36, product range: DFMC 1,5/..-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON DFMC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard



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