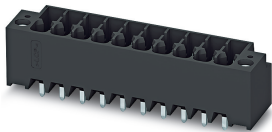


Printed-circuit board connector - DMCV 1,5/ 6-G1F-3,5-LR P20THR - 1787438

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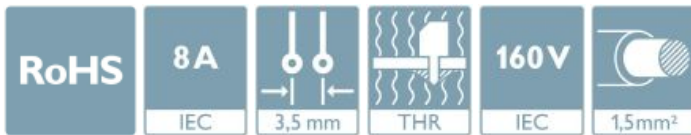
PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 12, Number of rows: 2, Number of positions per row: 6, number of connections: 12, product range: DMCV 1,5/...-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, plug-in system: MINI COMBICON - DFMC 1,5, Locking: Snap-in locking, type of packaging: packed in cardboard




The figure shows a 10-pos. version with 20 contacts

Your advantages

- Designed for integration into the SMT soldering process
- Vertical connection enables multi-row arrangement on the PCB
- Screwable flange for superior mechanical stability
- Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- Small component size for applications where space is at a premium



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| Minimum order quantity | 50 pc |
| GTIN |  4 046356 597050 |
| GTIN | 4046356597050 |
| Weight per Piece (excluding packing) | 3.200 g |
| Custom tariff number | 85366930 |
| Country of origin | Germany |

Technical data

Item properties

| | |
|---------------------------|---------------------|
| Brief article description | Feed-through header |
|---------------------------|---------------------|

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Technical data

Item properties

| | |
|---------------------------------|--------------------------------|
| Plug-in system | MINI COMBICON - DFMC 1,5 |
| Type of contact | Male connector |
| Range of articles | DMCV 1,5/...-G1F-THR |
| Pitch | 3.5 mm |
| Number of positions | 6 |
| Mounting type | THR soldering |
| Pin layout | Linear pinning |
| Locking | Lock & release threaded flange |
| Number of levels | 2 |
| Number of connections | 12 |
| Number of potentials | 12 |
| Pin connector pattern alignment | Standard |

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 8 A |
| Nom. voltage | 160 V |
| Rated voltage (III/3) | 160 V |
| Rated voltage (III/2) | 160 V |
| Rated voltage (II/2) | 250 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 |

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 (3 - 5 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 µm Ni) |
| Metal surface soldering area (top layer) | Tin (3 - 5 µm Sn) |
| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 µm Ni) |

Material data - housing

| | |
|----------------------------|--------------|
| Housing color | black (9005) |
| Insulating material | LCP |
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 175 |

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Technical data

Material data - housing

| | |
|--|----|
| Flammability rating according to UL 94 | V0 |
|--|----|

Dimensions for the product

| | |
|-----------------------------|--|
| Caption | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [l] | 10.6 mm |
| Width [w] | 28 mm |
| Height [h] | 12 mm |
| Pitch | 3.5 mm |
| Height (without solder pin) | 10 mm |
| Solder pin [P] | 2 mm |
| Pin spacing | 5.50 mm |
| Pin dimensions | 0.8 x 0.8 mm |

Dimensions for PCB design

| | |
|---------------|---------|
| Hole diameter | 1.4 mm |
| Pin spacing | 5.50 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| 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) |

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) | 2.5 mm |
| Minimum creepage distance value (III/2) | 1.6 mm |
| Minimum creepage distance value (II/2) | 2.5 mm |

Mechanical tests (A)

| | |
|--------------------|-----------|
| Test specification | IEC 61984 |
|--------------------|-----------|

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Technical data

Mechanical tests (A)

| | |
|--|-------------|
| Insertion strength per pos. approx. | 3 N |
| Withdraw strength per pos. approx. | 2 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 | 25 |
| Contact resistance R ₂ | 2.4 mΩ |
| Impulse withstand voltage at sea level | 2.95 kV |

Thermal tests (C)

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

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Technical data

Standards and Regulations

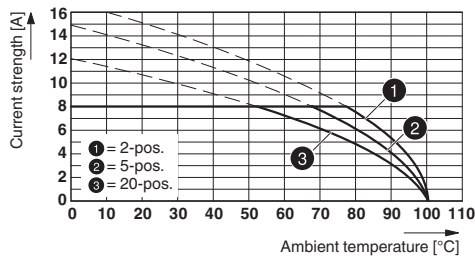
| | |
|--|-----|
| | CUL |
| Flammability rating according to UL 94 | V0 |

Environmental Product Compliance

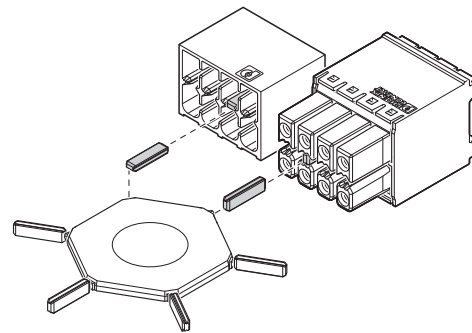
| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

Diagram



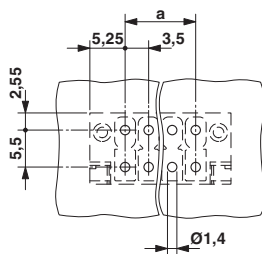
Schematic diagram



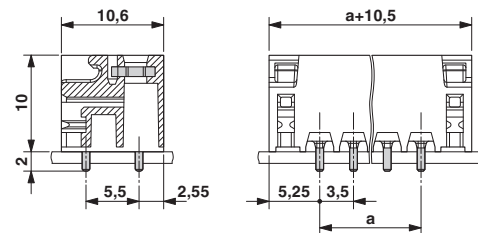
Type: DFMC 1,5/...-STF-3,5 with DMCV 1,5/...-G1F-3,5-LR P...THR

Use of the CP-DMC... coding profile

Drilling diagram

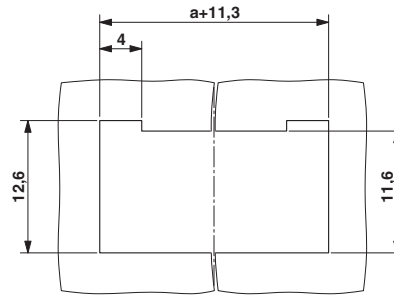


Dimensional drawing



Printed-circuit board connector - DMCV 1,5/ 6-G1F-3,5-LR P20THR - 1787438

Schematic diagram



Panel cutout

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 8.0 | 27440402 |
| eCl@ss 9.0 | 27440402 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC002637 |
| ETIM 5.0 | 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 |

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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 20.0 | 39121409 |
| UNSPSC 21.0 | 39121409 |

Approvals


Approvals


Approvals


VDE Gutachten mit Fertigungsüberwachung / IECCE CB Scheme / EAC / cULus Recognized

Ex Approvals

Approval details

| | | | |
|--|---|--|----------|
| VDE Gutachten mit Fertigungsüberwachung |  | http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40038423 |
| Nominal voltage UN | | 160 V | |
| Nominal current IN | | 8 A | |

| | | | |
|--------------------|---|---|-----------------|
| IECEE CB Scheme |  | http://www.iecee.org/ | DE1-60359_B1_B2 |
| Nominal voltage UN | | 160 V | |
| Nominal current IN | | 8 A | |

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

Printed-circuit board connector - DMCV 1,5/ 6-G1F-3,5-LR P20THR - 1787438

Approvals

| | | | |
|--------------------|-------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-20110128 |
| | B | C | D |
| Nominal voltage UN | 300 V | 50 V | 300 V |
| Nominal current IN | 8 A | 8 A | 8 A |

Accessories

Accessories

Coding element

Coding profile - CP-DMC 1,5 NAT - 1790647

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



Additional products

Printed-circuit board connector - DFMC 1,5/ 6-STF-3,5 - 1790331



Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 6 with 12 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin

Printed-circuit board connector - DFMC 1,5/ 6-ST-3,5-LR - 1790522



Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 6 with 12 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin