

Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

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The figure shows a 10-position version of the product

PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MC 1,5/...-STF, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Stecksystem: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Screwable flange for superior mechanical stability



Key Commercial Data

Packing unit	50 pc
GTIN	 4 017918 050269
GTIN	4017918050269

Technical data

Item properties

Brief article description	PCB connector
Plug-in system	MINI COMBICON
Type of contact	Female connector
Range of articles	MC 1,5/...-STF
Pitch	3.81 mm
Number of positions	12
Drive form screw head	Slotted (L)
Screw thread	M2
Locking	Screw flange
Number of levels	1
Number of connections	12

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Technical data

Item properties

Number of potentials	12
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Electrical parameters

Nominal current	8 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	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG / kcmil	28 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.5 mm ²
2 conductors with same cross section, solid	0.08 mm ² ... 0.5 mm ²
2 conductors with same cross section, flexible	0.08 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.34 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 0.5 mm ²
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / 1.6 mm
Stripping length	7 mm
Torque	0.22 Nm ... 0.25 Nm

Flange specifications

Type of locking	Screw locking
Mounting flange	Screw flange
Torque	0.3 Nm

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 terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

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Technical data

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]	16.1 mm
Width [w]	56.11 mm
Height [h]	11.1 mm
Pitch	3.81 mm
Height (without solder pin)	11.1 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 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm
Note on connection cross section	With connected conductor 1.5 mm² (solid).

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years

Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

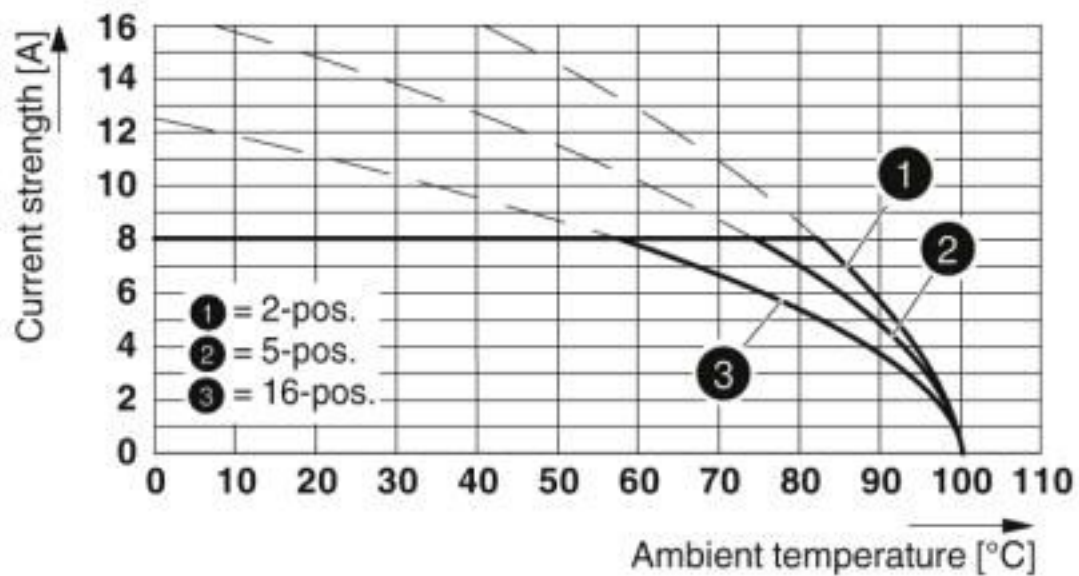
Technical data

Environmental Product Compliance

	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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Drawings

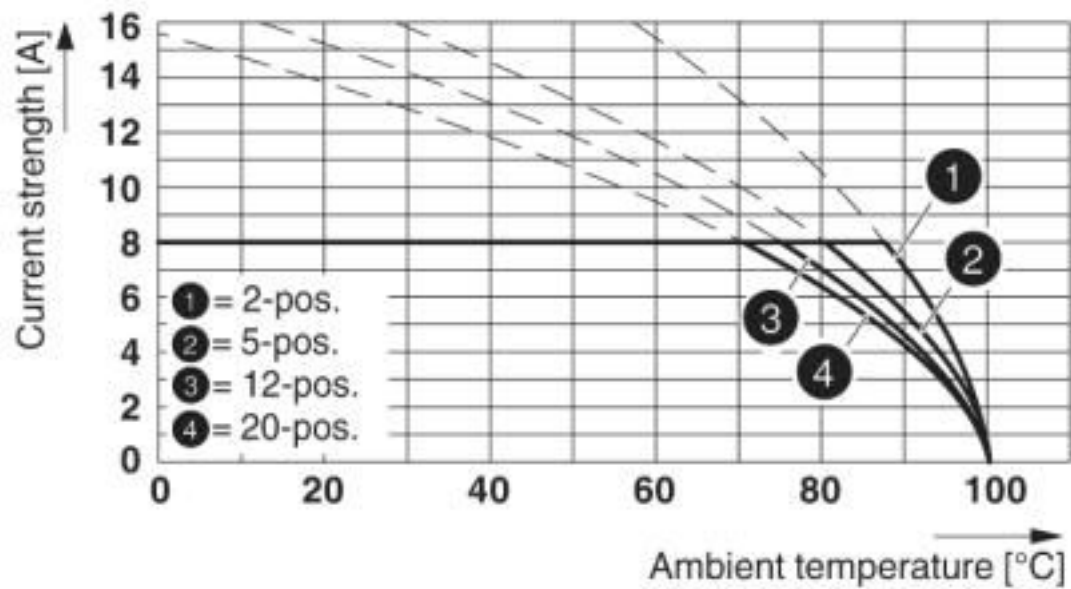
Diagram



Type: MC 1,5/...-STF-3,81 with MCD 1,5/...-G1F-3,81

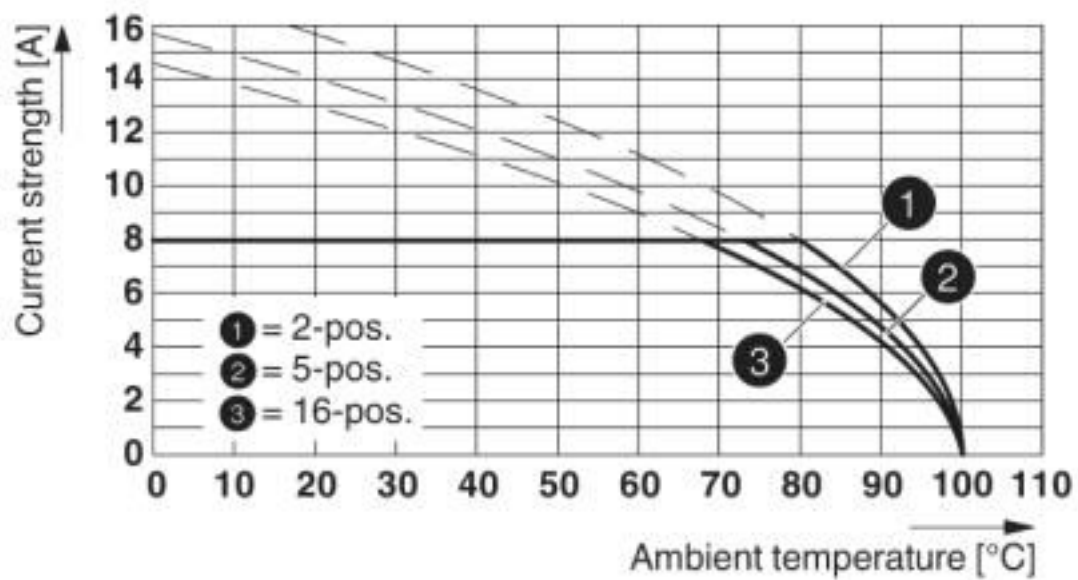
Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

Diagram



Type: MC 1,5/...-STF-3,81 with MC 1,5/...-GF-3,81

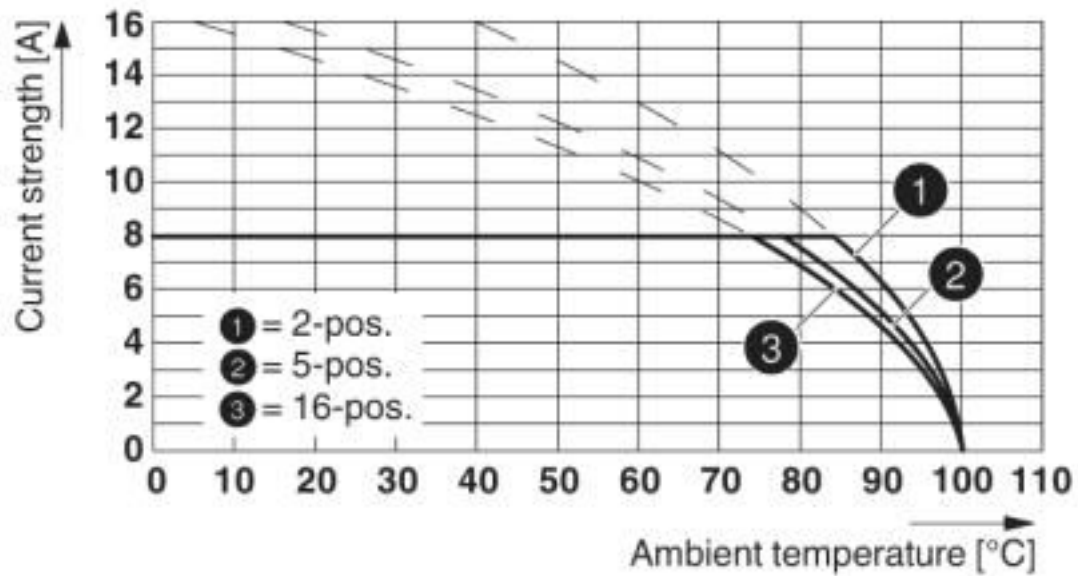
Diagram



Type: MC 1,5/...-STF-3,81 with DFK-MC 1,5/...-GF-3,81 (with flat plug)

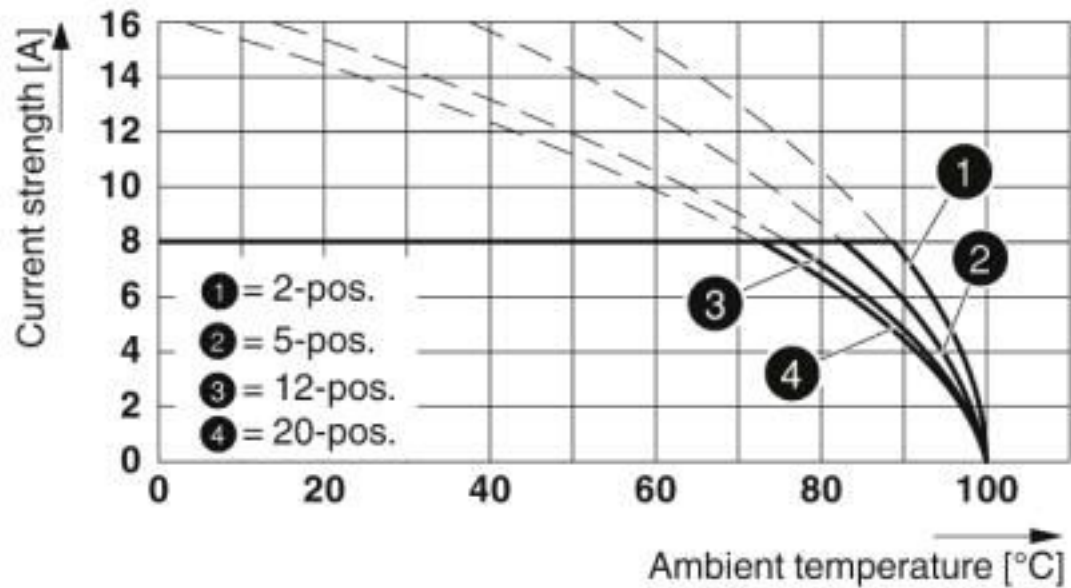
Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

Diagram



Type: MC 1,5/...-STF-3,81 with DFK-MC 1,5/...-GF-3,81 (with solder connection)

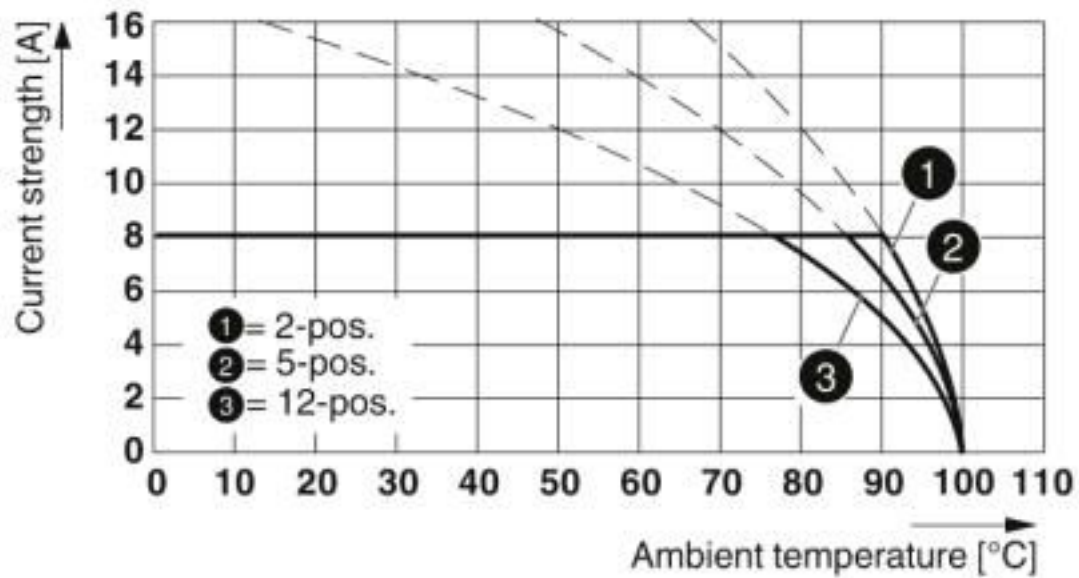
Diagram



Type: MC 1,5/...-STF-3,81 with MCV 1,5/...-GF-3,81

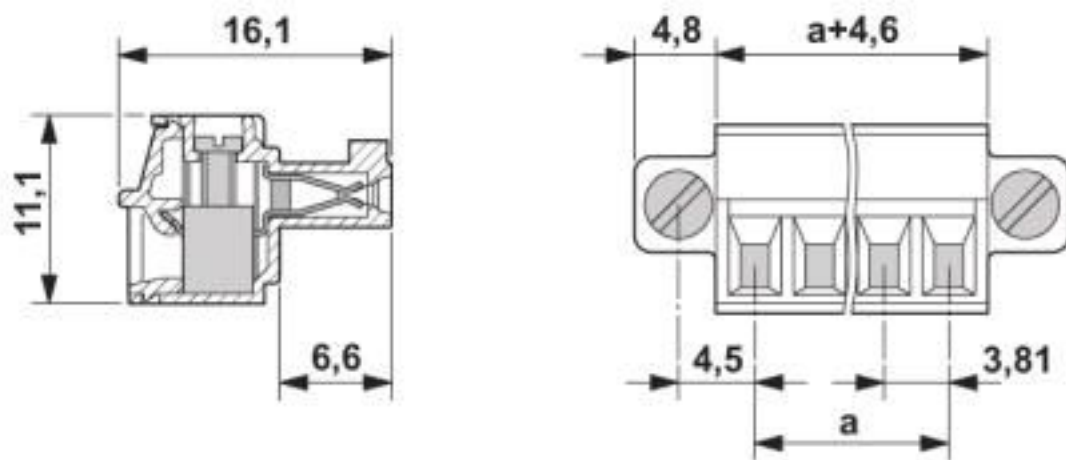
Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

Diagram



Type: MC 1,5/...-STF-3,81 with MCV 1,5/...-GF-3,81 P26 THR

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 11.0	27460202
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

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Classifications

eCl@ss

eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

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

Approvals

CSA / IEC EE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	8 A	8 A	
mm²/AWG/kcmil	28-16	28-16	

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Approvals

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-60987-B1B2
Nominal voltage UN	160 V		
Nominal current IN	8 A		
mm²/AWG/kcmil	0.2-1.5		

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40011723
Nominal voltage UN	160 V		
Nominal current IN	8 A		
mm²/AWG/kcmil	0.2-1.5		

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20110128
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	8 A	8 A	
mm²/AWG/kcmil	30-14	30-14	

Accessories

Accessories

Bridge

Insertion bridge - EBPL 2-3,81 - 1733495



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

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Accessories

Insertion bridge - EBPL 3-3,81 - 1733505



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

Insertion bridge - EBPL 4-3,81 - 1733518



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

Cable housing

Cable housing - KGG-MC 1,5/12 - 1834440



Cable housing, pitch: 3.81 mm, number of positions: 12, dimension a: 48.11 mm, color: green

Labeled terminal marker

Marker card - SK 3,81/2,8:FORTL.ZAHLEN - 0804109



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 3.81 mm, lettering field size: 3.81 x 2.8 mm

Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Screwdriver tools

Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

Accessories

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

Additional products

Printed-circuit board connector - MCV 1,5/12-GF-3,81 P14 THR - 1707311



PCB headers, 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: 1, Number of positions per row: 12, number of connections: 12, product range: MCV 1,5/-GF-THR, pitch: 3.81 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 mm, Stecksystem: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard, User information and design recommendations for through hole reflow technology can be found under: Downloads

Printed-circuit board connector - MCV 1,5/12-GF-3,81 P26 THR - 1707735



PCB headers, 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: 1, Number of positions per row: 12, number of connections: 12, product range: MCV 1,5/-GF-THR, pitch: 3.81 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Stecksystem: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard, User information and design recommendations for through hole reflow technology can be found under: Downloads

Feed-through header - MCV 1,5/12-GF-3,81 P26 THRR72 - 1713444



PCB headers, 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: 1, Number of positions per row: 12, number of connections: 12, product range: MCV 1,5/-GF-THR, pitch: 3.81 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Stecksystem: MINI COMBICON, Locking: Screw locking, type of packaging: 72 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

Printed-circuit board connector - MC 1,5/12-GF-3,81 P20 THRR72 - 1782129



PCB headers, 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 rows: 1, Number of positions per row: 12, product range: MC 1,5/-GF-THR, pitch: 3.81 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, Stecksystem: MINI COMBICON, Locking: Screw locking, type of packaging: 72 mm wide tape

Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

Accessories

Feed-through header - SMC 1,5/12-GF-3,81 - 1827525

PCB headers, nominal cross section: 1.5 mm², color: green, 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: 1, Number of positions per row: 12, number of connections: 12, product range: SMC 1,5/..-GF, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



Printed-circuit board connector - MC 1,5/12-GF-3,81 - 1827965

PCB headers, nominal cross section: 1.5 mm², color: green, 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: 1, Number of positions per row: 12, number of connections: 12, product range: MC 1,5/..-GF, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



Feed-through header - MCD 1,5/12-GF-3,81 - 1830208

PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 24, Number of rows: 2, Number of positions per row: 12, number of connections: 24, product range: MCD 1,5/..-GF, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.



Feed-through header - MCDV 1,5/12-GF-3,81 - 1830350

PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 24, Number of rows: 2, Number of positions per row: 12, number of connections: 24, product range: MCDV 1,5/..-GF, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.



Feed-through header - MCV 1,5/12-GF-3,81 - 1830693

PCB headers, nominal cross section: 1.5 mm², color: green, 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: 1, Number of positions per row: 12, number of connections: 12, product range: MCV 1,5/..-GF, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



Printed-circuit board connector - MC 1,5/12-STF-3,81 - 1827800

Accessories

Feed-through header - MCDV 1,5/12-G1F-3,81 - 1842869



PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 24, Number of rows: 2, Number of positions per row: 12, number of connections: 24, product range: MCDV 1,5/..-G1F, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

Printed-circuit board connector - MCD 1,5/12-G1F-3,81 - 1843017



PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 24, Number of rows: 2, Number of positions per row: 12, number of connections: 24, product range: MCD 1,5/..-G1F, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

Feed-through header - EMCV 1,5/12-GF-3,81 - 1879382



PCB headers, nominal cross section: 1.5 mm², color: green, 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: 1, Number of positions per row: 12, number of connections: 12, product range: EMCV 1,5/..-GF, pitch: 3.81 mm, mounting: Press-in technology, pin layout: Linear pinning, solder pin [P]: 3.8 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

Feed-through header - EMC 1,5/12-GF-3,81 - 1897047



PCB headers, nominal cross section: 1.5 mm², color: green, 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: 1, Number of positions per row: 12, number of connections: 12, product range: EMC 1,5/..-GF, pitch: 3.81 mm, mounting: Press-in technology, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Stecksyst.: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard