

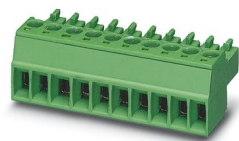
MC 1,5/12-ST-3,81 AU - PCB connector

1847343

<https://www.phoenixcontact.com/in/products/1847343>



Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: MC 1,5/..-ST, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, pin layout: Linear three-way pinning, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors

Commercial data

Item number	1847343
Packing unit	50 pc
Minimum order quantity	1 pc
Product key	AABABA
GTIN	4017918221706
Weight per piece (including packing)	8.91 g
Weight per piece (excluding packing)	8.348 g
Country of origin	DE

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

Technical data

Product properties

Type	Standard
Product line	COMBICON Connectors S
Product type	PCB connector
Product family	MC 1,5/...-ST
Number of positions	12
Pitch	3.81 mm
Number of connections	12
Number of rows	1
Mounting flange	no
Number of potentials	12
Pin layout	Linear three-way pinning

Electrical properties

Nominal current I_N	8 A
Nominal voltage U_N	160 V
Degree of pollution	3
Contact resistance	1.5 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)	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	1.5 mm ²
Contact connection type	Socket

Interlock

Locking type	without
Mounting flange	without

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

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 ... 0.75 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
Tightening torque	0.22 Nm ... 0.25 Nm

Specifications for ferrules without insulating collar

recommended crimping tool	1212034 CRIMPFOX 6
---------------------------	--------------------

Specifications for ferrules with insulating collar

recommended crimping tool	1212034 CRIMPFOX 6
---------------------------	--------------------

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	partially gold-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface contact area (top layer)	Gold (0.8 - 1 µm Au)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni)

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

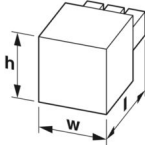
Dimensions

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

Dimensional drawing	
Pitch	3.81 mm
Width [w]	46.51 mm
Height [h]	11.1 mm
Length [l]	16.1 mm

Mounting

Pin layout	Linear three-way pinning
Drive form screw head	Slotted (L)
Drive form screw head	Slotted (L)

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm ² / solid / > 10 N
	0.14 mm ² / flexible / > 10 N
	1.5 mm ² / solid / > 40 N
	1.5 mm ² / flexible / > 40 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	100
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	3 N

Torque test

Specification	IEC 60999-1:1999-11
---------------	---------------------

Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Visual inspection

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

Dimension check

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

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

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

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 500 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Sweep speed	5g (60.1 Hz ... 500 Hz)
Test duration per axis	2 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R_1	1.5 mΩ
Contact resistance R_2	1.5 mΩ
Insertion/withdrawal cycles	100
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	DIN 50018-EN:1997-06
Corrosive stress	1.0 dm ³ SO ₂ on 300 dm ³ /40 °C/3 cycles
Thermal stress	100 °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

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	12

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

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

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

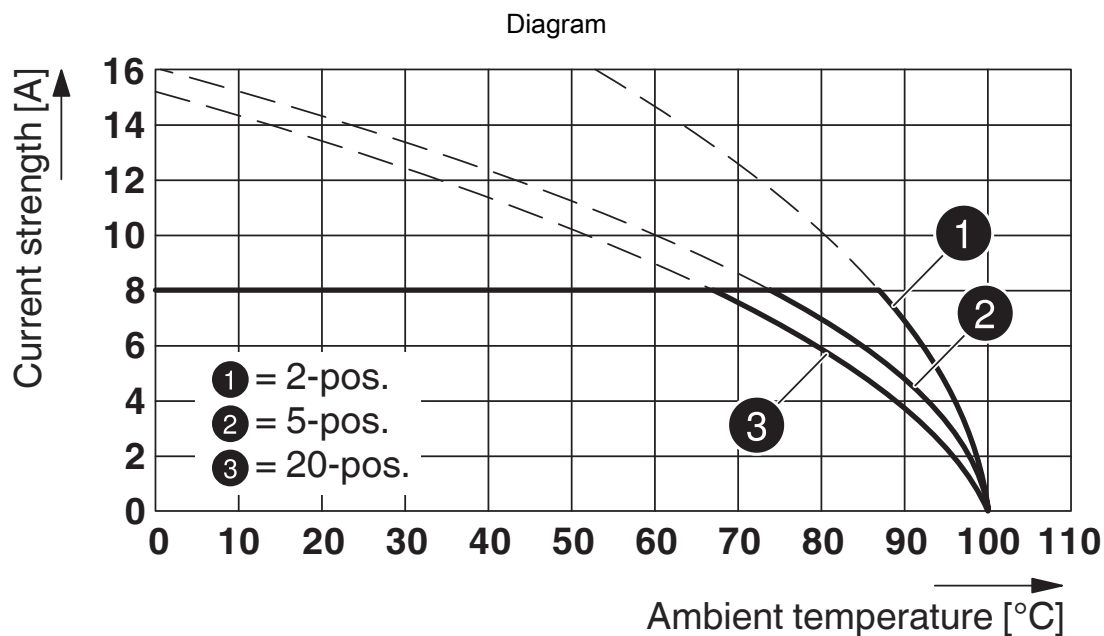
<https://www.phoenixcontact.com/in/products/1847343>

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
Note on connection cross section	With connected conductor 1.5 mm ² (solid).
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

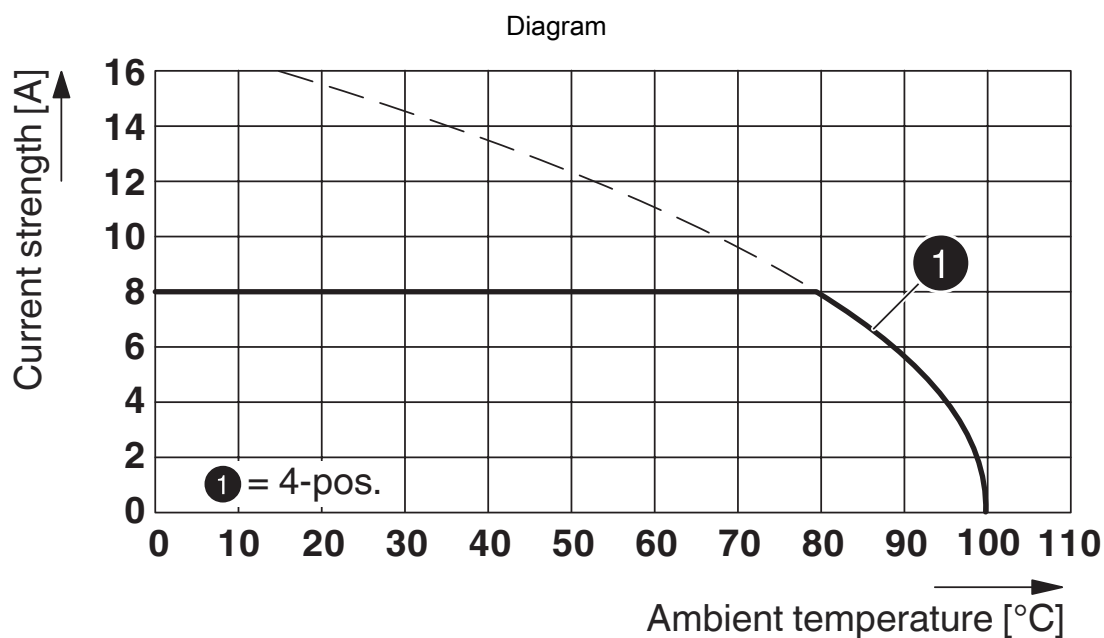
Packaging specifications

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

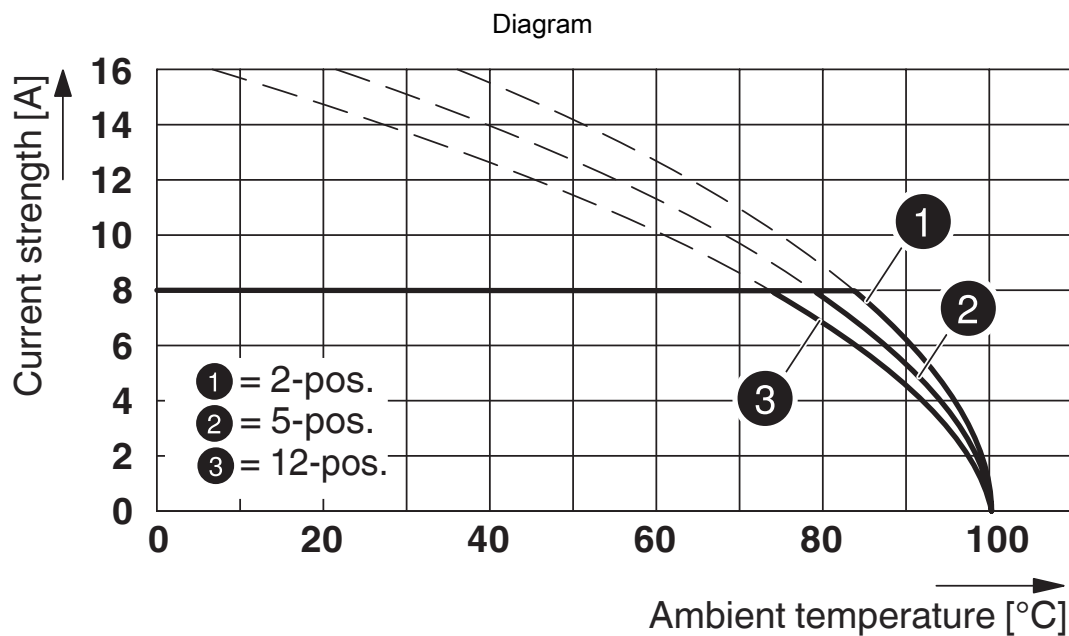
Drawings



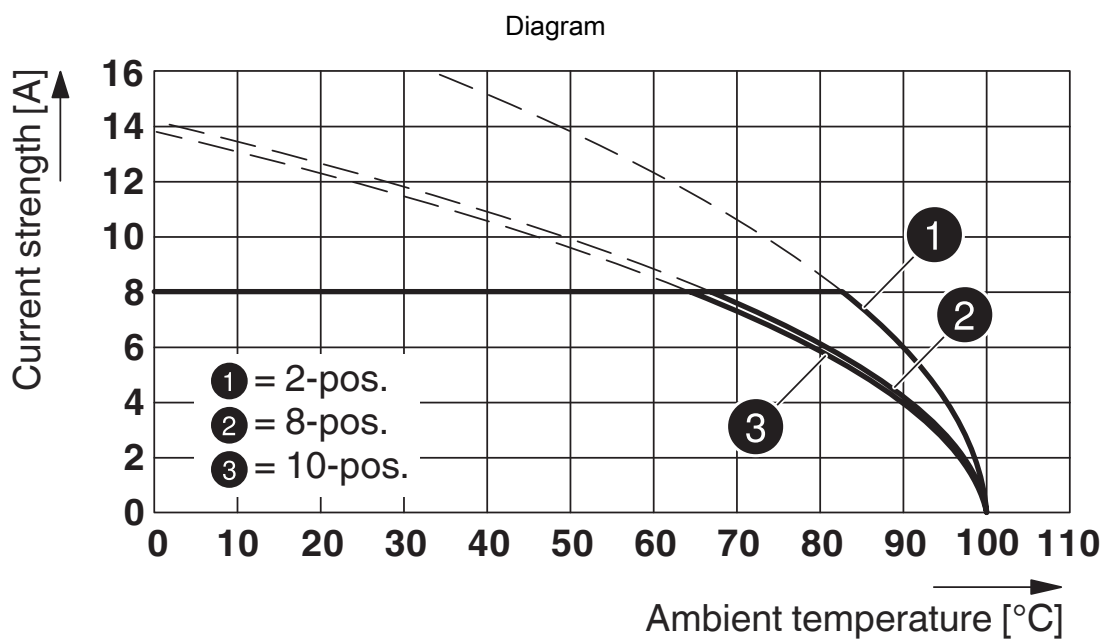
Type: MC 1,5/...ST-3,81 AU with MC 1,5/...-G-3,81 AU



Type: MC 1,5/ 4-ST-3,81 AU with SMC 1,5/ 4-G-3,81 AU



Type: MC 1,5/...-ST-3,81 AU with MC 1,5/...-G-3,81 P... AU THR



Type: MC 1,5/...-ST-3,81 AU with MCD 1,5/...-G1-3,81 AU

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1847343>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	8 A	28 - 16	-
Use group D				
	300 V	8 A	28 - 16	-

 cULus Recognized Approval ID: E60425-20110128				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	8 A	30 - 14	-
Use group D				
	300 V	8 A	30 - 14	-

 VDE Zeichengenehmigung Approval ID: 40011723				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	160 V	8 A	-	0.2 - 1.5

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 8.0	EC002638
----------	----------

UNSPSC

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

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

Environmental product compliance

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

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

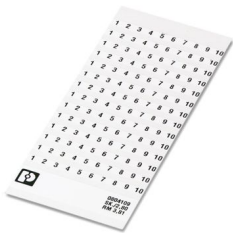
<https://www.phoenixcontact.com/in/products/1847343>

Accessories

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

0804109

<https://www.phoenixcontact.com/in/products/0804109>



Marker card, Sheet, 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, Number of individual labels: 14

SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/in/products/1205037>



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

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/in/products/1051993>



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

KGG-MC 1,5/12 - Cable housing

1834440

<https://www.phoenixcontact.com/in/products/1834440>



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

MC 1,5/12-ST-3,81 AU - PCB connector



1847343

<https://www.phoenixcontact.com/in/products/1847343>

MCDV 1,5/12-G-3,81 - PCB header

1830509

<https://www.phoenixcontact.com/in/products/1830509>

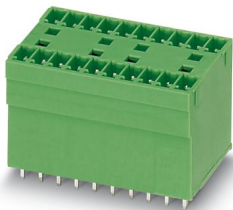


PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 24, number of rows: 2, number of positions: 12, number of connections: 24, product range: MCDV 1,5/...-G, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

MCDV 1,5/12-G1-3,81 - PCB header

1847835

<https://www.phoenixcontact.com/in/products/1847835>



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: 24, number of rows: 2, number of positions: 12, number of connections: 24, product range: MCDV 1,5/...-G1, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in