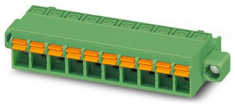
PCB connector - FKCN 2,5/ 2-STF-5,08

1754791

https://www.phoenixcontact.com/us/products/1754791

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PCB connector, nominal cross section: 2.5 mm^2, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCN 2,5/..-STF, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Your advantages

- Time saving push-in connection, tools not required
- Intuitive use through colour coded actuation lever
- Extremely small design for the respective conductor cross section
- Quick and convenient testing using integrated test option
- Screwable flange for superior mechanical stability

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Commercial Data

Item number	1754791
Packing unit	1 pc
Minimum order quantity	50 pc
Sales Key	A01
Product Key	AACFFB
Catalog Page	Page 279 (C-1-2013)
GTIN	4046356330459
Weight per Piece (including packing)	3.62 g
Weight per Piece (excluding packing)	3.346 g
Customs tariff number	85366990
Country of origin	BG

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Technical Data

Product properties

Type	Standard
Product line	COMBICON Connectors M
Product type	PCB plug
Number of positions	2
Pitch	5.08 mm
Number of connections	2
Number of rows	1
Mounting flange	Screw flange
Number of potentials	2

Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	320 V
Pollution degree	3
Contact resistance	1.1 mΩ
Rated voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm²
Type of contact	Female connector

Interlock

Locking type	Screw locking
Mounting flange	Screw flange
Torque	0.3 Nm

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section solid	0.2 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²

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Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.0 mm
Stripping length	10 mm

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	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)

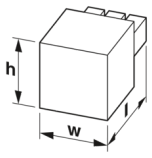
Material data - housing

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

Material data – actuating element

Color of the actuating lever	orange (2003)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	20.16 mm
Height [h]	10.9 mm
Length [l]	27.1 mm
Installed height	10.9 mm

Mounting

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Flange

Tightening torque	0.3 Nm

Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

Mechanical tests

Test for conductor damage and slackening

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

Repeated connection and disconnection

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	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N
	2.5 mm² / flexible / > 50 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	11 N
Withdraw strength per pos. approx.	10 N

Contact holder in insert

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

Visual inspection

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

Dimension check

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Specification	IEC 60512-1-2:2002-02
Result	Test passed

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 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R_1	1.1 mΩ
Contact resistance R_2	1.2 mΩ
Contact resistance R_2 2nd level	1.5 mΩ
Insertion/withdrawal cycles	25

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

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	18

Insulation resistance

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

Temperature cycles

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

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)	320 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

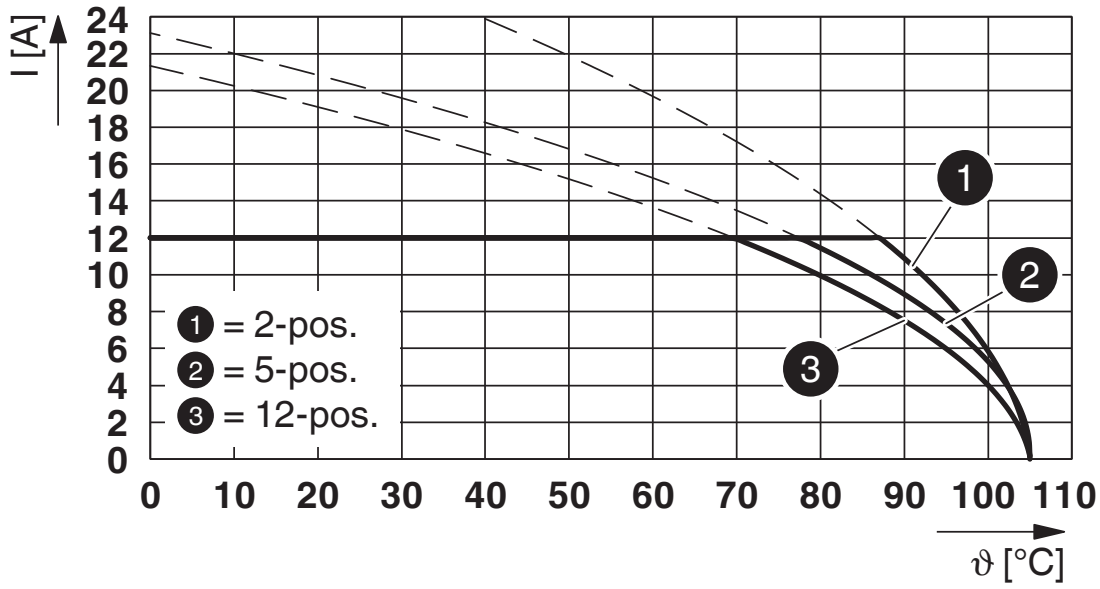
Packaging specifications

Type of packaging	packed in cardboard

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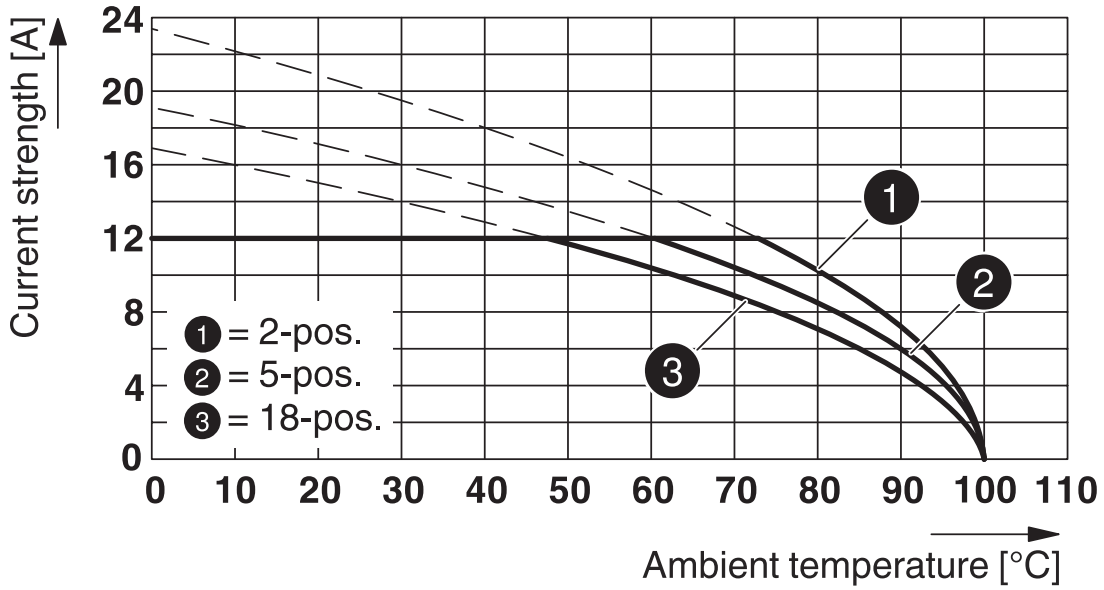
Drawings

Diagram



Type: FKCN 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08 P...THR

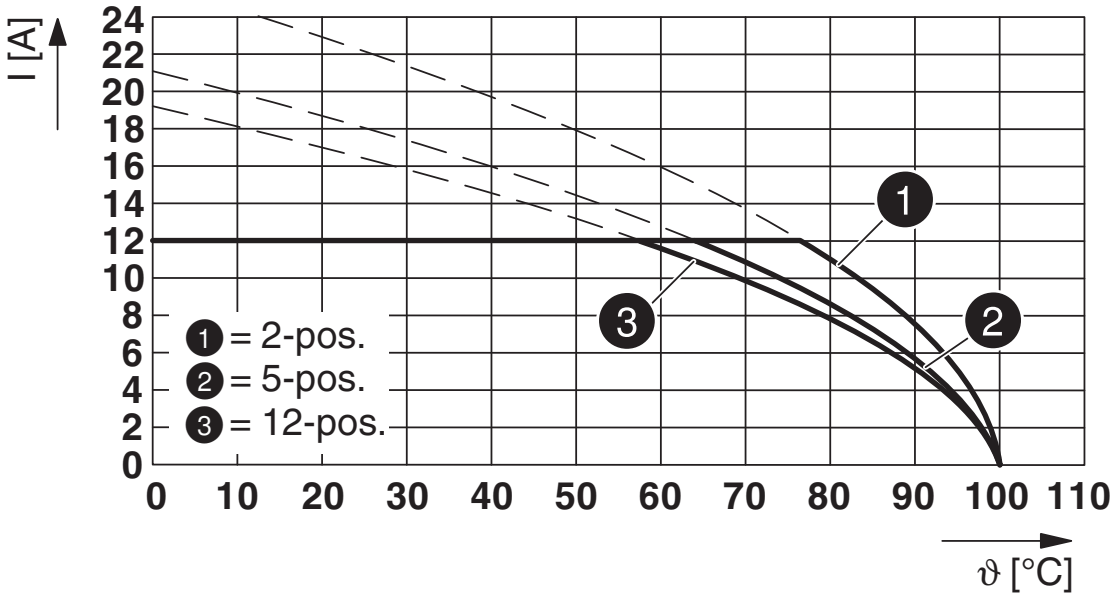
Diagram



Type: FKCN 2,5/...-STF-5,08 with CCDN 2,5/...-G1F-5,08 P26 THR

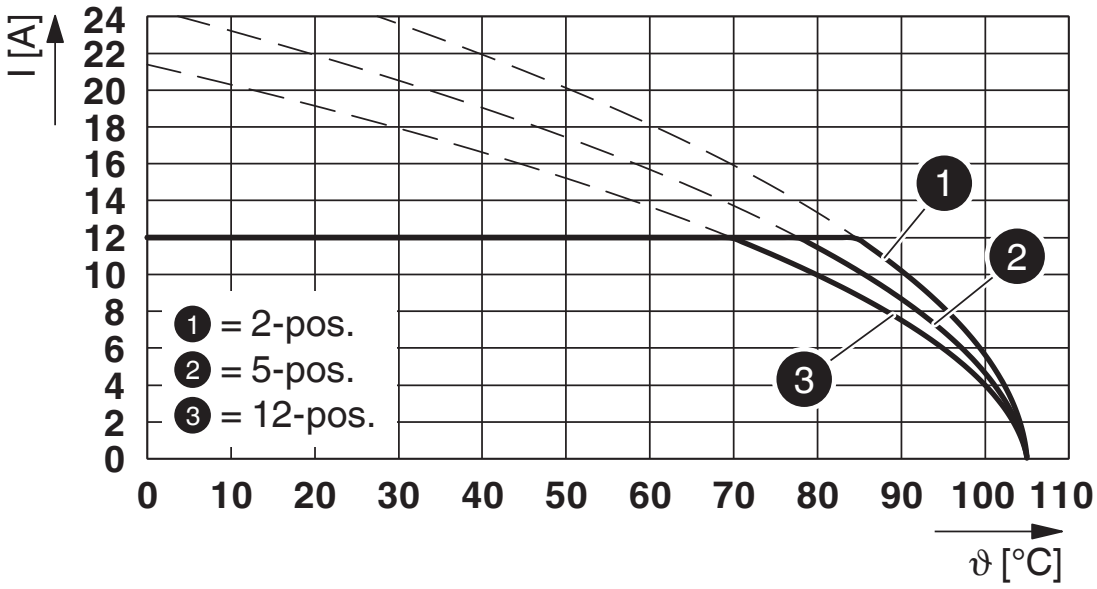
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Diagram



Type: FKCN 2,5/...-STF-5,08 with MDSTB 2,5/...-GF-5,08

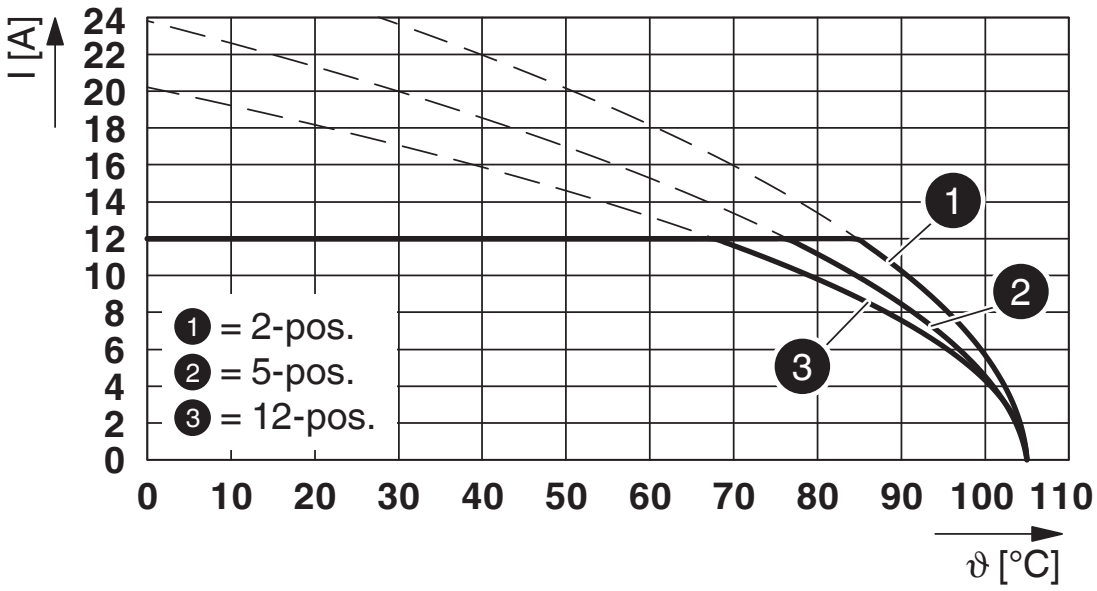
Diagram



Type: FKCN 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08-LR P... THR

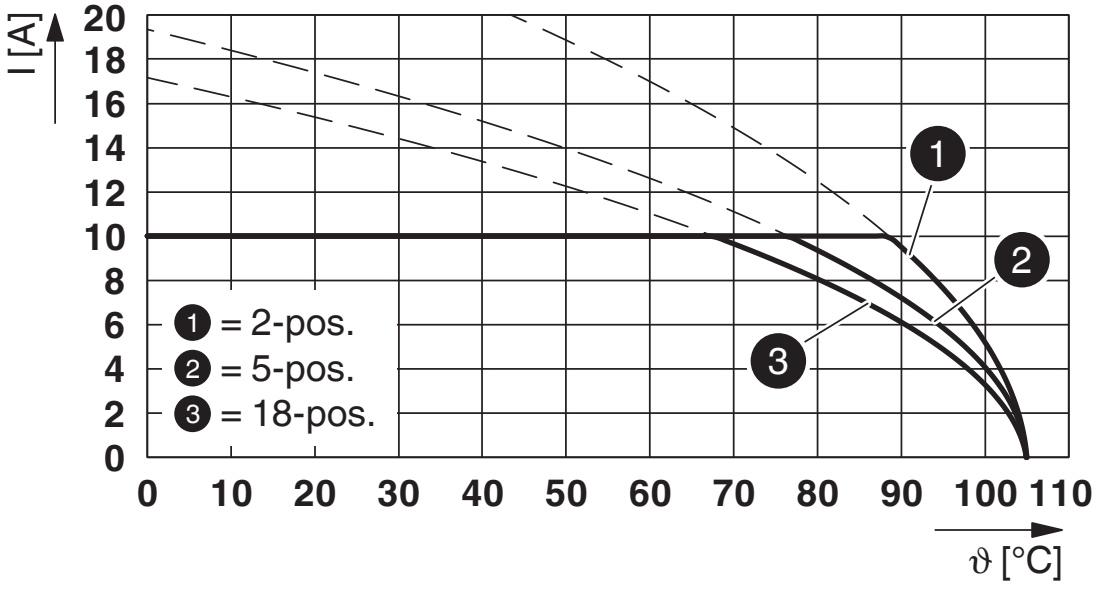
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Diagram



Type: FKCN 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR

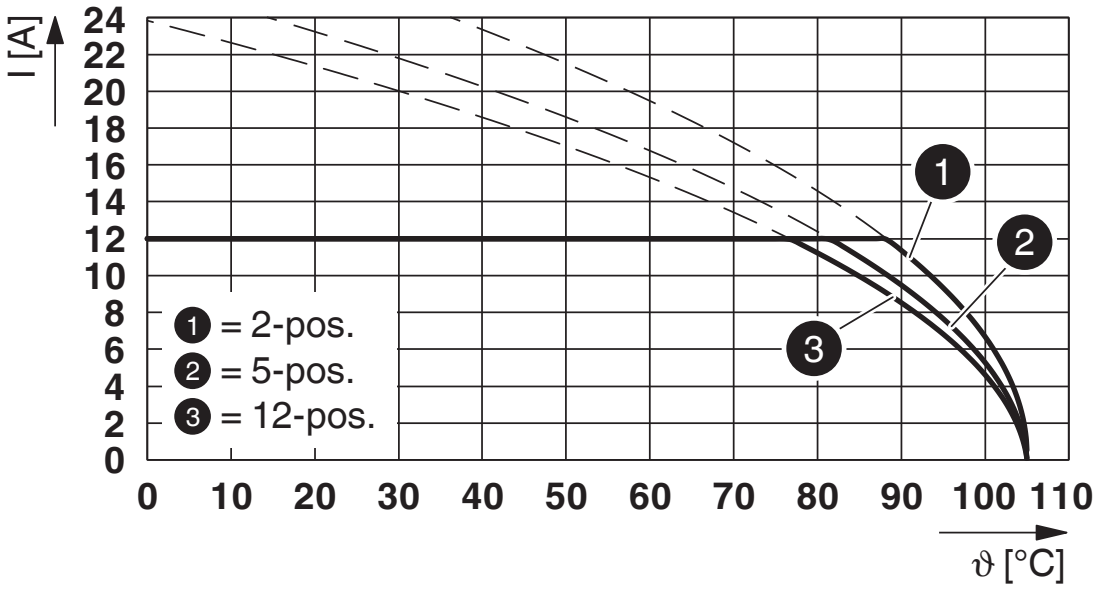
Diagram



Type: FKCN 2,5/...-STF-5,08 with MDSTBV 2,5/...-GF-5,08

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Diagram



Type: FKCN 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P...THR

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Approvals

EAC
Approval ID: B.01687

cULus Recognized
Approval ID: E60425-19931012

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	10 A	24 - 14	-
Use group D				
	300 V	10 A	24 - 14	-

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Classifications

ECLASS

ECLASS-9.0	27440309
ECLASS-10.0.1	27440309
ECLASS-11.0	27460202

ETIM

ETIM 8.0	EC002638

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

Coding profile

Coding profile - CP-MSTB - 1734634

https://www.phoenixcontact.com/us/products/1734634



Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

Crimping pliers

Crimping pliers - CRIMPFOX 6 - 1212034

https://www.phoenixcontact.com/us/products/1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm^2 ... 6.0 mm^2, lateral entry, trapezoidal crimp

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Ferrule

Ferrule - AI 0,5 -10 WH - 3201275

https://www.phoenixcontact.com/us/products/3201275



Ferrule, sleeve length: 10 mm, length: 16 mm, color: white

Ferrule

Ferrule - AI 0,75-10 GY - 3201288

https://www.phoenixcontact.com/us/products/3201288



Ferrule, sleeve length: 10 mm, length: 16 mm, color: gray

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Ferrule

Ferrule - AI 1 -10 RD - 3200182

https://www.phoenixcontact.com/us/products/3200182



Ferrule, sleeve length: 10 mm, length: 16 mm, color: red

Ferrule

Ferrule - AI 1,5 -10 BK - 3200195

https://www.phoenixcontact.com/us/products/3200195



Ferrule, sleeve length: 10 mm, length: 16 mm, color: black

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Ferrule

Ferrule - A 0,5 -10 - 3202494

https://www.phoenixcontact.com/us/products/3202494



Ferrule, length: 10 mm, color: silver

Ferrule

Ferrule - A 0,75-10 - 3200234

https://www.phoenixcontact.com/us/products/3200234



Ferrule, length: 10 mm, color: silver

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Ferrule

Ferrule - A 1 -10 - 3200250

https://www.phoenixcontact.com/us/products/3200250



Ferrule, length: 10 mm, color: silver

Ferrule

Ferrule - A 1,5 -10 - 3200276

https://www.phoenixcontact.com/us/products/3200276



Ferrule, length: 10 mm, color: silver

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Screwdriver

Screwdriver - SZS 0,6X3,5 - 1205053

https://www.phoenixcontact.com/us/products/1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

PCB header

PCB header - MDSTB 2,5/ 2-GFR-5,08 - 1736768

https://www.phoenixcontact.com/us/products/1736768



PCB headers, nominal cross section: 2.5 mm^2, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 4, number of rows: 2, number of positions: 2, number of connections: 4, product range: MDSTB 2,5/..-GF, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.2 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, Can be aligned! Mounting flange: Item No. 1736771, 1736768. In combination with MVSTB or FKCV plugs, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plugs is not possible!

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PCB header

PCB header - MDSTB 2,5/ 2-GFL-5,08 - 1736771

https://www.phoenixcontact.com/us/products/1736771



PCB headers, nominal cross section: 2.5 mm^2, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 4, number of rows: 2, number of positions: 2, number of connections: 4, product range: MDSTB 2,5/..-GF, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.2 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, Can be aligned! Mounting flange: Item No. 1736771, 1736768. In combination with MVSTB or FKCV plugs, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plugs is not possible!

PCB header

PCB header - CCV 2,5/ 2-GF-5,08 P26THR - 1955633

https://www.phoenixcontact.com/us/products/1955633



PCB headers, nominal cross section: 2.5 mm^2, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: CCV 2,5/..-GF, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, User information and design recommendations for through hole reflow technology can be found under: Downloads

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PCB connector - FKCN 2,5/ 2-STF-5,08

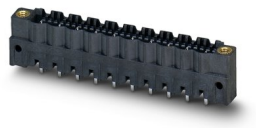
1754791

https://www.phoenixcontact.com/us/products/1754791

PCB header

PCB header - CCV 2,5/ 2-GF-5,08 P26THRR32 - 1955743

https://www.phoenixcontact.com/us/products/1955743



PCB headers, nominal cross section: 2.5 mm^2, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: CCV 2,5/..-GF, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

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