

https://www.phoenixcontact.com/in/products/1753550



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PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTBV 2,5/..-G, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies
- · Well-known mounting principle allows worldwide use
- · Vertical connection enables multi-row arrangement on the PCB
- · Items that can be aligned in various pitches support flexible and space-saving PCB assembly
- · Easy PCB replacement thanks to plug-in modules

Commercial Data

Item number	1753550
Packing unit	100 pc
Minimum order quantity	100 pc
Sales Key	AAC
Product Key	AACSLB
Catalog Page	Page 315 (C-1-2013)
GTIN	4017918028435
Weight per Piece (including packing)	2.86 g
Weight per Piece (excluding packing)	2.86 g
Customs tariff number	85366930
Country of origin	DE



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Technical Data

Product properties

Туре	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	MSTBV 2,5/G
Number of positions	8
Pitch	5 mm
Number of connections	8
Number of rows	1
Mounting flange	without
Number of potentials	8
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Degree of pollution	3
Contact resistance	2.1 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
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 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 (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



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Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	1
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 ()	0

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.

Dimensions

Dimensional drawing	h h
Pitch	5 mm
Width [w]	40 mm
Height [h]	15.9 mm
Length [I]	8.6 mm
Installed height	12 mm
Solder pin length [P]	3.9 mm

Mechanical tests

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
	$2.5 \text{ mm}^2 / \text{ solid } / > 50 \text{ N}$



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Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
ontact holder in insert	
Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed
esistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed
olarization and coding	
Specification	IEC 60512-13-5:2006-02
Result	Test passed
isual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02
Result	Test passed
ectrical tests	
curcar tests	
hermal test Test group C	
Specification	IEC 60512-5-1:2002-02
Tested number of positions	18
nsulation 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)	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

 2.5 mm^2 / flexible / > 50 N



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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

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	4.8 kV	
Contact resistance R ₁	2.1 mΩ	
Contact resistance R ₂	$2.3~\text{m}\Omega$	
Insertion/withdrawal cycles	25	
Insulation resistance, neighboring positions	> 5 MΩ	

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	

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

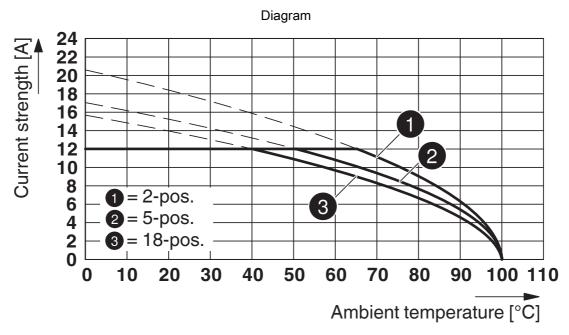
Type of packaging	packed in cardboard

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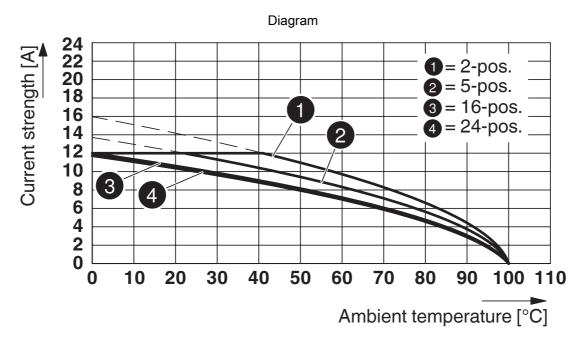
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Drawings



Type: FKCS 2,5/...-ST with MSTBV 2,5/...-G

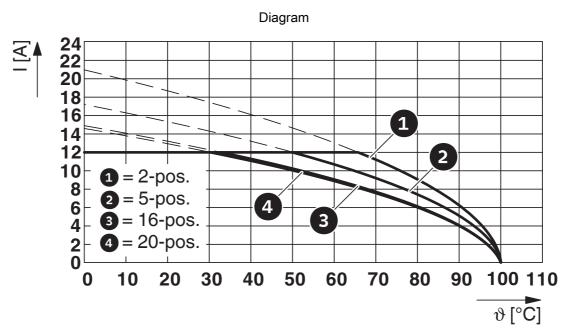


Type: MVSTB(R/W) 2,5/...-ST with MSTBV 2,5 2,5/...-G

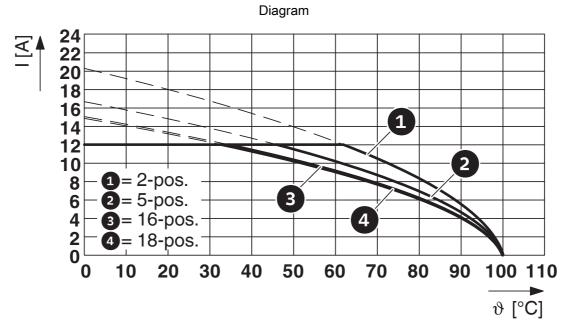
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Type: FKCT 2,5/...-ST with MSTBV 2,5/...-G

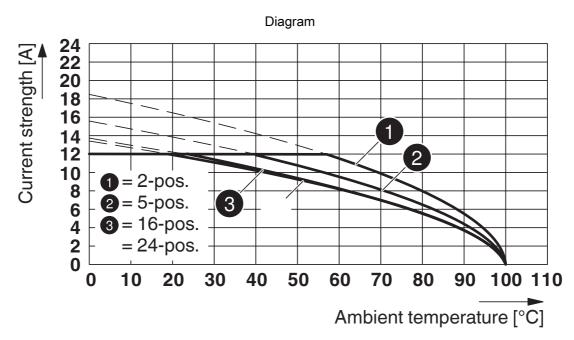


Type: FKCN 2,5/...-ST with MSTBV 2,5/...-G

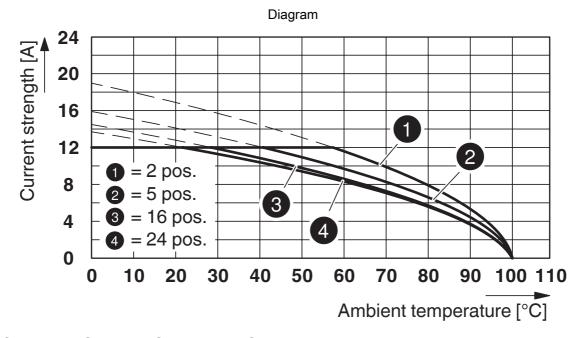
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Type: FRONT-MSTB 2,5/..-ST with MSTBV 2,5/...-G

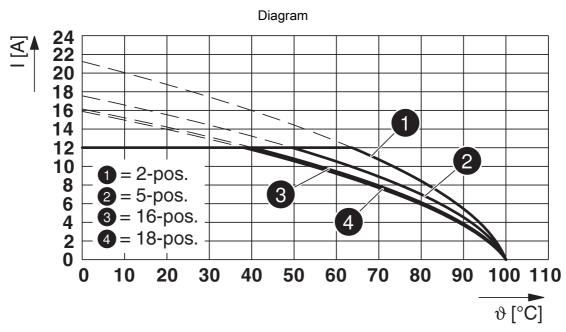


Type: MSTB 2,5/...-ST with MSTBV 2,5/...-G

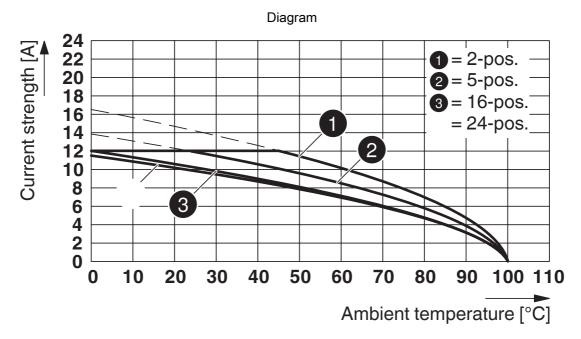
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Type: FKCV(W/R) 2,5/...-ST with MSTBV 2,5/...-G

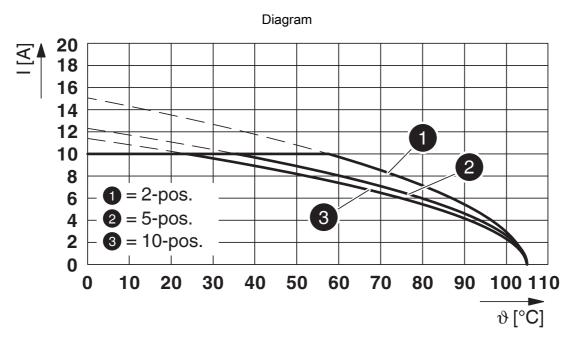


Type: SMSTB 2,5/...-ST with MSTBV 2,5/...-G



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Type: TVFKC 1,5/...-ST with MSTBV 2,5/...-G



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Approvals

•	CSA Approval ID: 13631				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		300 V	12 A	-	-
		300 V	10 A	-	-

CB scheme	IECEE CB Scheme Approval ID: DE1-60988-B1B2				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	12 A	-	-

EAC	EAC
LIIL	Approval ID: B.01687

c 911 us	CULus Recognized Approval ID: E60425-19931011				
		Nominal Voltage U_N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		300 V	12 A	-	-
		300 V	10 A	-	-

VDE Zeichengenehmigung Approval ID: 40050648				
	Nominal Voltage \mathbf{U}_{N}	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	250 V	12 A	-	-



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Classifications

UNSPSC 21.0

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201
ETIM	
ETIM 8.0	EC002637
UNSPSC	

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

CR-MSTB - Coding section

1734401

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Coding section, inserted into the recess in the header or the inverted plug, red insulating material



SK 5/3,8:FORTL.ZAHLEN - Marker card

0804183

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Marker card, white, labeled, horizontal: consecutive numbers 1 \dots 10, 11 \dots 20, etc. up to 91 \dots (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm



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MSTB-BL - Accessories

1755477

https://www.phoenixcontact.com/in/products/1755477



Keying cap, for forming sections, plugs onto header pin, green insulating material

SK 5/3,8:UNBEDRUCKT - Marker card

0805409

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Marker card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm





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TVFKC 1,5/8-ST - PCB connector

1713897

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PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 16, product range: TVFKC 1,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

TVFKCL 1,5/8-ST - PCB connector

1715989

https://www.phoenixcontact.com/in/products/1715989



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 16, product range: TVFKCL 1,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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QC 1,5/8-ST - PCB connector

1718025

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PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: QC 1,5/..-ST, pitch: 5 mm, connection method: Displacement connection, conductor/PCB connection direction: 0 °, locking clip: Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

FKCN 2,5/8-ST - PCB connector

1732807

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FKCN 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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MSTB 2,5/8-ST - PCB connector

1754562

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTB 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MSTB 2,5/8-STZ - PCB connector

1758982

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTB 2,5/..-STZ, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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MSTBP 2,5/8-ST - PCB connector

1765836

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTBP 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

SMSTB 2,5/8-ST - PCB connector

1768448

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: SMSTB 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -45 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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FRONT-MSTB 2,5/8-ST - PCB connector

1779479

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FRONT-MSTB 2,5/..-ST, pitch: 5 mm, connection method: Front screw connection, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MSTBT 2,5/8-ST - PCB connector

1779893

https://www.phoenixcontact.com/in/products/1779893



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTBT 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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MVSTBW 2,5/8-STEH - PCB connector

1784309

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MVSTBW 2,5/..-STEH, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MVSTBR 2,5/8-ST - PCB connector

1792074

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MVSTBR 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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MVSTBW 2,5/8-ST - PCB connector

1792582

https://www.phoenixcontact.com/in/products/1792582



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MVSTBW 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

FKCT 2,5/8-ST - PCB connector

1909278

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FKCT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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FKCVR 2,5/8-ST - PCB connector

1909773

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FKCVR 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

FKCVW 2,5/8-ST - PCB connector

1910092

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FKCVW 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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FKC 2,5/8-ST - PCB connector

1910416

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FKC 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

FKCS 2,5/8-ST - PCB connector

1974795

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: FKCS 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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