

1786239

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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: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: IC 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- · Well-known connection principle allows worldwide use
- Easy PCB replacement thanks to plug-in modules
- · Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- · Can be combined with the MSTB 2,5 range
- · Low temperature rise, thanks to maximum contact force

Commercial Data

Item number	1786239
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	AAC
Product Key	AACADA
Catalog Page	Page 272 (C-1-2013)
GTIN	4017918042387
Weight per Piece (including packing)	13.74 g
Weight per Piece (excluding packing)	13.074 g
Customs tariff number	85366990
Country of origin	DE



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Technical Data

Product properties

Туре	Inverted
Product line	COMBICON Connectors M
Product type	PCB plug
Product family	IC 2,5/ST
Number of positions	8
Pitch	5.08 mm
Number of connections	8
Number of rows	1
Mounting flange	without
Number of potentials	8

Electrical properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Degree of pollution	3
Contact resistance	2.9 mΩ
Rated voltage (III/3)	250 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

Connection data

Connection technology

Туре	Inverted
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm²
Type of contact	Pin

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	0.2 mm² 2.5 mm²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 12
Conductor cross section flexible, with ferrule without plastic	0.25 mm² 2.5 mm²



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sleeve	
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² 2.5 mm²
2 conductors with same cross section, solid	0.2 mm² 1 mm²
2 conductors with same cross section, flexible	0.2 mm² 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² 1 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² 1.5 mm ²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	7 mm
Tightening torque	0.5 Nm 0.6 Nm

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 terminal point (top layer)	Tin (5 - 7 μm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface contact area (top layer)	Tin (5 - 7 μm Sn)
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

Material data – actuating element

Color ()	()	
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Dimensions

Dimensional drawing	h
Pitch	5.08 mm



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Width [w]	42.14 mm
Height [h]	15 mm
Length [I]	19.2 mm
Mounting	
Drive form screw head	Slotted (L)
Drive form screw head	Slotted (L)
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
Pull-out test	
Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force	0.2 mm² / solid / > 10 N
setpoint/actual value	0.2 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / flexible / > 50 N
Insertion and withdrawal forces	
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	7 N
Torque test	
Specification	IEC 60999-1:1999-11
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	IEC 60542 4 4:2002 02
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02



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Result	Test nassed
Result	Test passed
nvironmental 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	2.9 mΩ
Contact resistance R ₂	3 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ
Climatic test	100,0000,4005,00
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 2.21 kV
Power-frequency withstand voltage	2.21 NV
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
lectrical tests	
Thermal test Test group C	IEC 00540 5 4:0000 00
Specification Tested number of positions	IEC 60512-5-1:2002-02
rested number of positions	10
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)	250 V



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Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 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

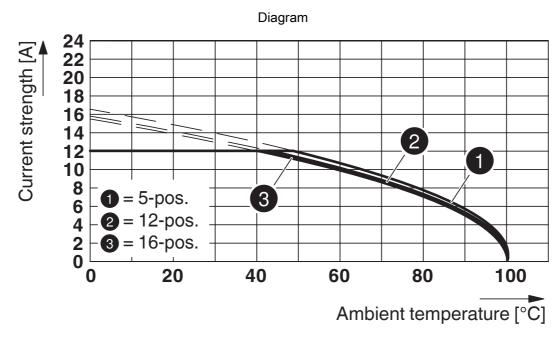
Type of packaging	packed in cardboard
.)	



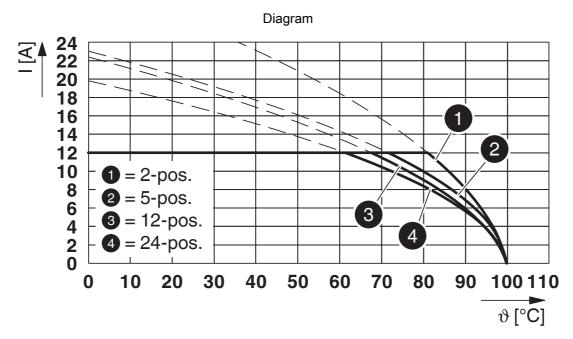
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Drawings



Type: (U)MSTBVK 2,5/...-ST-5,08 with IC 2,5/...-ST-5,08



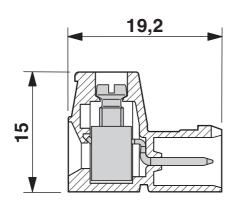
Type: IC 2,5/...-ST-5,08 with ICV 2,5/...-G-5,08

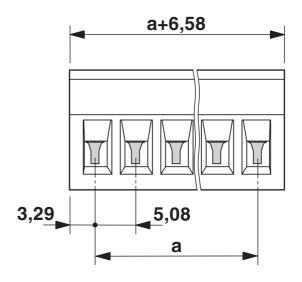


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Dimensional drawing







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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	10 A	28 - 12	-
		300 V	10 A	28 - 12	-

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	-	0.2 - 2.5

ERC	EAC
LIIL	Approval ID: B.01687

c 911 us	cULus Recognized Approval ID: E60425-19931014				
		Nominal Voltage \mathbf{U}_{N}	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	12 A	30 - 12	-
		300 V	10 A	30 - 12	-

VDE Zeichengeneh Approval ID: 40050694	VDE Zeichengenehmigung Approval ID: 40050694				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²	
	250 V	12 A	-	0.2 - 2.5	



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Classifications

ECLASS

	ECLASS-11.0	27460202		
	ECLASS-12.0	27460202		
	ECLASS-13.0	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

MSTB-BL - Accessories

1755477

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

EBP 2-5 - Insertion bridge

1733169

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Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch





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SZS 0,6X3,5 - Screwdriver

1205053

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

CR-MSTB - Coding section

1734401

https://www.phoenixcontact.com/in/products/1734401

Coding section, inserted into the recess in the header or the inverted plug, red insulating material $% \left(1\right) =\left(1\right) \left(1\right) \left$





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SK 5,08/3,8:FORTL.ZAHLEN - Marker card

0804293

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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: 5.08 mm, lettering field size: 5.08 x 3.8 mm

KGG-MSTB 2,5/8 - Cable housing

1803921

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Cable housing, pitch: 0 mm, number of positions: 8, color: green



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KGS-MSTB 2,5/8 - Cable housing

1783779

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Cable housing, pitch: 0 mm, number of positions: 8, dimension a: 40 mm, color: green

MSTB 2,5/8-ST-5,08 - PCB connector

1757077

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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: 5.08 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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MSTBT 2,5/8-ST-5,08 - PCB connector

1781043

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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: MSTBT 2,5/..-ST, pitch: 5.08 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

MSTBU 2,5/8-STD-5,08 - Printed-circuit board connector

1824188

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Direct plug-in block, 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: MSTBU 2,5/..-STD, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Direct mounting, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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MSTBC 2,5/8-STZ-5,08 - PCB connector

1809569

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTBC 2,5/..-STZ, pitch: 5.08 mm, connection method: Crimp 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

MSTBC 2,5/8-ST-5,08 - PCB connector

1808874

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTBC 2,5/..-ST, pitch: 5.08 mm, connection method: Crimp 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte



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MVSTBW 2,5/8-ST-5,08 - PCB connector

1792812

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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/..-ST, pitch: 5.08 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

IC 2,5/8-G-5,08 - PCB header

1786462

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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: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: IC 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard



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QC 1/8-ST-5,08 - PCB connector

1883310

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PCB connector, nominal cross section: 1 mm², color: green, nominal current: 10 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/..-ST, pitch: 5.08 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

FKCVR 2,5/8-ST-5,08 - PCB connector

1874015

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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: 5.08 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-5,08 - PCB connector

1873113

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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: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MSTBVK 2,5/8-ST-5,08 - DIN rail connector

1831375

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DIN rail 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: MSTBVK 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: DIN rail, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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FKCVW 2,5/8-ST-5,08 - PCB connector

1873715

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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: 5.08 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

UMSTBVK 2,5/8-ST-5,08 - DIN rail connector

1833878

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DIN rail 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: UMSTBVK 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: DIN rail, conductor/PCB connection direction: 0 °, 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-5,08 - PCB connector

1777345

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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: 5.08 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

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