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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: Female connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, 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: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

The figure shows a 10-position version of the product

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
- Screwable flange for superior mechanical stability
- ☑ Can be combined with the MSTB 2,5 range



Key Commercial Data

Packing unit	50 pc
GTIN	4 046356 330466
GTIN	4046356330466

Technical data

Item properties

Brief article description	PCB connector
Connector system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	FKCN 2,5/STF
Pitch	5.08 mm
Number of positions	3
Locking	Screw flange
Number of levels	1
Number of connections	3
Number of potentials	3



Technical data

Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage (III/3)	320 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

Connection capacity

Connection method	Push-in spring connection
pluggable	Yes
Conductor cross section solid	0.2 mm ² 1.5 mm ²
Conductor cross section flexible	0.2 mm ² 2.5 mm ²
Conductor cross section AWG / kcmil	24 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 1.5 mm ²
Stripping length	10 mm

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

Housing color	green (6021)
Insulating material	РА
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 of the actuating lever	orange (2003)
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Technical data

Material data - actuating element

Insulating material	РА
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [1]	27.1 mm
Width [w]	25.24 mm
Height [h]	10.9 mm
Pitch	5.08 mm
Height (without solder pin)	10.9 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

General product information

Type of note	Notes on operation
Note	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.

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)

Termination and connection method

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N
	2.5 mm² / flexible / > 50 N



Technical data

Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	11 N
Withdraw strength per pos. approx.	10 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	38 N

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)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	4 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

Electrical tests - Function

Specification	IEC 60999-1:1999-11

Temperature cycles

3	Specification	IEC 60999-1:1999-11

Current carrying capacity / derating curves

Caption Type: FKCN 2,5/	-STF-5,08 with CCDN 2,5/G1F-5,08 P26 THR
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Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	11 N
Withdraw strength per pos. approx.	10 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	1.1 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	1.2 mΩ
Contact resistance R ₂ 2nd level	1.5 mΩ



Technical data

Durability tests (B)

Impulse withstand voltage at sea level 4.8 kV

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	18
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02	
Cold stress	-40 °C/2 h	
Thermal stress	100 °C/168 h	
Corrosive stress	$0.2 \text{ dm}^3 \text{SO}_2 \text{ on } 300 \text{ dm}^3/40 \text{ °C/1 cycle}$	
Impulse withstand voltage at sea level	4.8 kV	
Power-frequency withstand voltage	2.21 kV	

Environmental and durability tests (E)

Specification	IEC 61984:2008-10	
Result, degree of protection, IP code	Finger safety with IP20 test finger	
Environmental Product Compliance		
China RoHS	Environmentally friendly use period: unlimited = EFUP-e	
	No hazardous substances above threshold values	

Drawings



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

Diagram



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





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



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



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



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

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 11.0	27460202

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Diagram



Classifications

eCl@ss

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
eCl@ss 7.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	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

EAC / cULus Recognized

Ex Approvals

Approval details

EAC B.01687



Approvals

Γ

cULus Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-199310	
	В	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm²/AWG/kcmil	24-14	24-14

Accessories

Accessories

Cable end sleeve

Ferrule - AI 0,5 -10 WH - 3201275

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

Ferrule - AI 0,75-10 GY - 3201288



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

Ferrule - AI 1 -10 RD - 3200182



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

Ferrule - AI 1,5 -10 BK - 3200195



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



Accessories

Ferrule - A 0,5 -10 - 3202494



Ferrule, length: 10 mm, color: silver

Ferrule - A 0,75-10 - 3200234



Ferrule, length: 10 mm, color: silver

Ferrule - A 1 -10 - 3200250



Ferrule, length: 10 mm, color: silver

Ferrule - A 1,5 -10 - 3200276



Ferrule, length: 10 mm, color: silver

Coding element

Coding profile - CP-MSTB - 1734634



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

Crimping tool



Accessories

Crimping pliers - CRIMPFOX 6 - 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 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 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

Additional products

Printed-circuit board connector - CCDN 2,5/ 3-G1F-5,08 P26 THR - 1753310



PCB header, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, Number of rows: 2, Number of positions per row: 3, number of connections: 6, product range: CCDN 2,5/..-G1F-THR, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

PCB header - MSTB 2,5/ 3-GF-5,08 - 1776511



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: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: MSTB 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBV 2,5/ 3-GF-5,08 - 1777086



PCB header, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: MSTBV 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard



Accessories

PCB header - MDSTBV 2,5/ 3-GF-5,08 - 1845646



PCB header, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, Number of rows: 2, Number of positions per row: 3, number of connections: 6, product range: MDSTBV 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

PCB header - MDSTB 2,5/ 3-GFL-5,08 - 1874633



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, Number of rows: 2, Number of positions per row: 3, number of connections: 6, product range: MDSTB 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, Can be aligned! Mounting flange: Order 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 - MDSTB 2,5/ 3-GFR-5,08 - 1874646



PCB header, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, Number of rows: 2, Number of positions per row: 3, number of connections: 6, product range: MDSTB 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, Can be aligned! Mounting flange: Order 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 - MDSTBV 2,5/ 3-GFL-5,08 - 1874675



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, Number of rows: 2, Number of positions per row: 3, number of connections: 6, product range: MDSTBV 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!



Accessories

PCB header - MDSTBV 2,5/ 3-GFR-5,08 - 1874688



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, Number of rows: 2, Number of positions per row: 3, number of connections: 6, product range: MDSTBV 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

Feed-through header - EMSTBV 2,5/ 3-GF-5,08 - 1898648



Printed-circuit board connector - DFK-MSTBA 2,5/ 3-GF-5,08 - 1898994



Feed-through header, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: DFK-MSTBA 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

Printed-circuit board connector - DFK-MSTBVA 2,5/ 3-GF-5,08 - 1899294



Feed-through header, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: DFK-MSTBVA 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

Feed-through header - MSTB 2,5/ 3-GF-5,08 THT - 1927577



PCB header, color: black, contact surface: Tin, Number of positions per row: 3, product range: MSTB 2,5/..-GF-THT, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.5 mm, type of packaging: packed in cardboard, User information and design recommendations for through hole reflow technology can be found under: Downloads



Accessories

Feed-through header - MSTBV 2,5/ 3-GF-5,08 THT - 1940907



PCB header, color: black, contact surface: Tin, Number of positions per row: 3, product range: MSTBV 2,5/..-GF-THT, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.9 mm, 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 - CC 2,5/ 3-GF-5,08 P26THR - 1954702



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: CC 2,5/..-GF, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, 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

Printed-circuit board connector - CC 2,5/ 3-GF-5,08 P26THRR56 - 1954812



PCB header, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: CC 2,5/..-GF, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: 56 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

Printed-circuit board connector - CCV 2,5/ 3-GF-5,08 P26THR - 1955646



PCB header, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: CCV 2,5/..-GF, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, 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

Printed-circuit board connector - CCV 2,5/ 3-GF-5,08 P26THRR56 - 1955756



PCB header, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: CCV 2,5/..-GF, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: 56 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads



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