Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

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PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

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
- Quick and convenient testing using integrated test option
- Can be combined with the MSTB 2,5 range

Key Commercial Data

Packing unit	50 pc
GTIN	4 046356 163798
GTIN	4046356163798

Technical data

Item properties

Brief article description	PCB connector
Plug-in system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	FKCN 2,5/..-ST
Pitch	5 mm
Number of positions	8
Connection method	Push-in spring connection
Locking	without
Number of levels	1
Number of connections	8

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Technical data

Item properties

Number of potentials	8

Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage	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 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG / kcmil	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
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / 1.6 mm
Stripping length	10 mm

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	PBT
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	27.1 mm
Width [w]	40 mm
Height [h]	10.9 mm
Pitch	5 mm
Height (without solder pin)	10.9 mm

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Technical data

Packaging information

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

General product information

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

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
	Test passed
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

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.	8 N
Withdraw strength per pos. approx.	6 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	46 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

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Air clearances and creepage distances

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

Current carrying capacity / derating curves

Caption	Type: FKCN 2,5/...-ST with MSTB 2,5/...-G
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 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	1.1 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 10 GΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	18
Conductor cross section	2.5 mm²
Test current	12 A
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 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV

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Technical data

Environmental and durability tests (E)

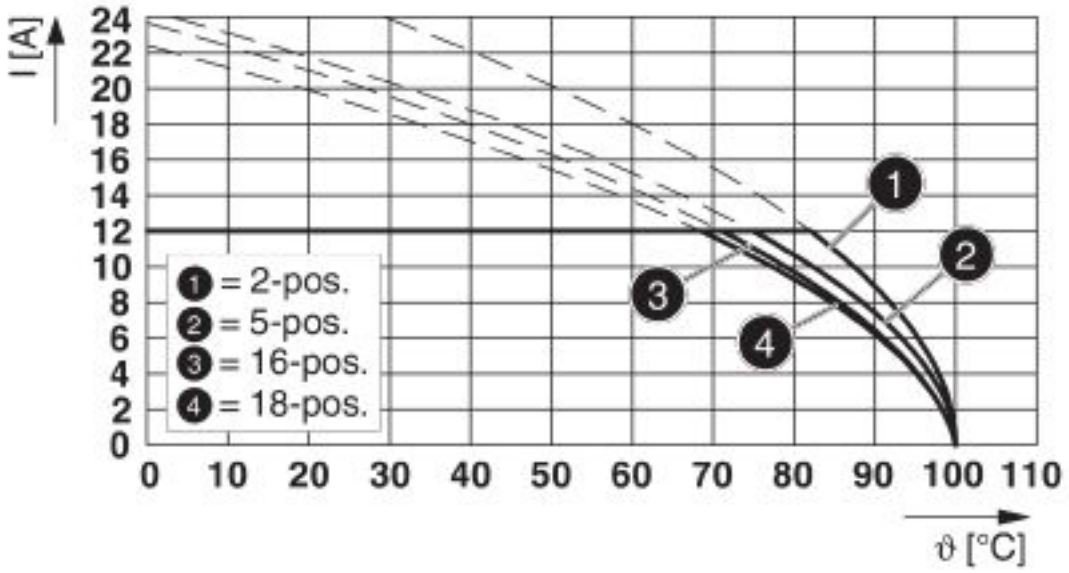
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

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

Drawings

Diagram



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

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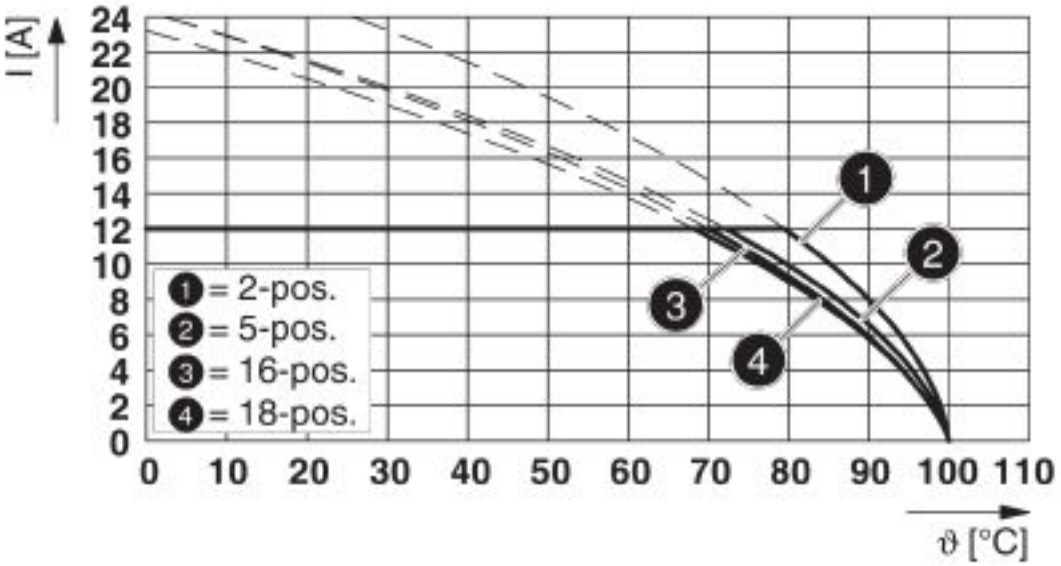
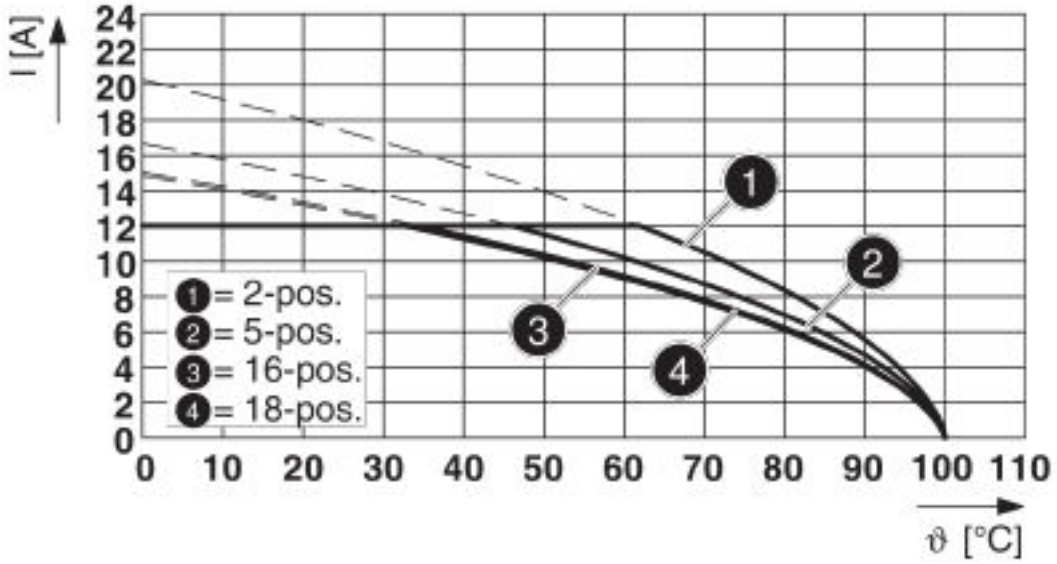
Diagram



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

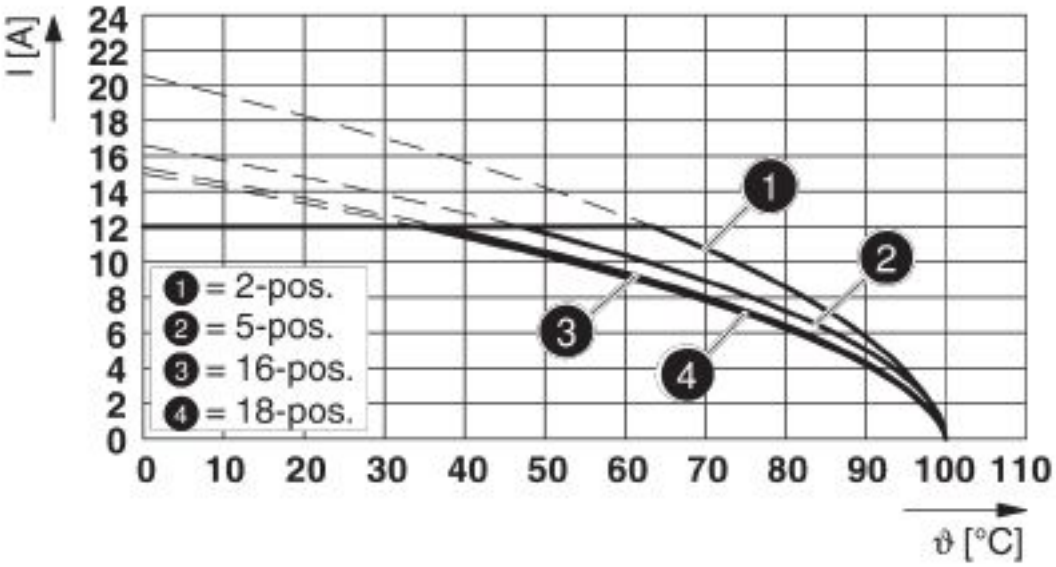
Diagram



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

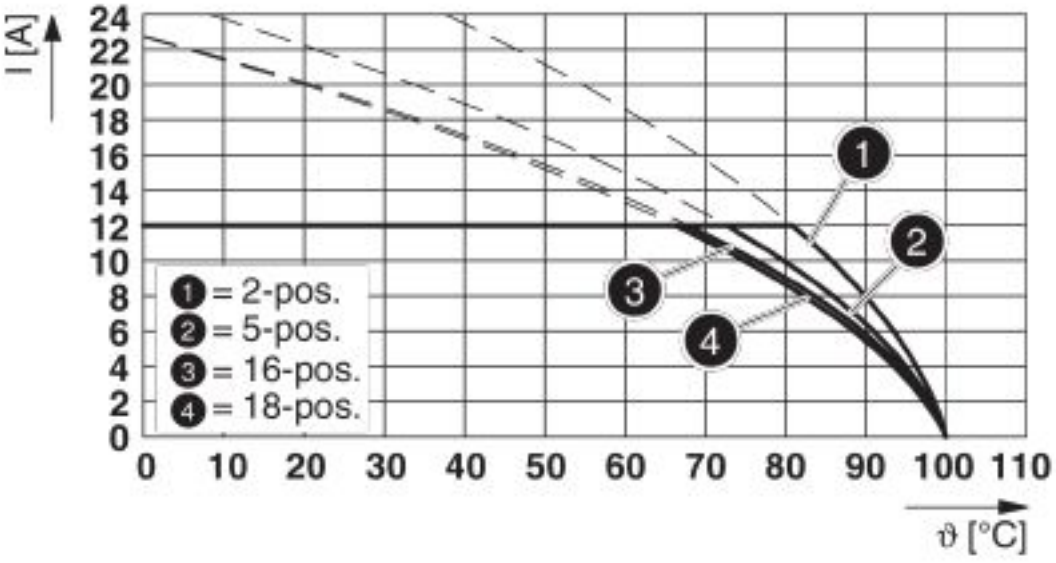
Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Diagram



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

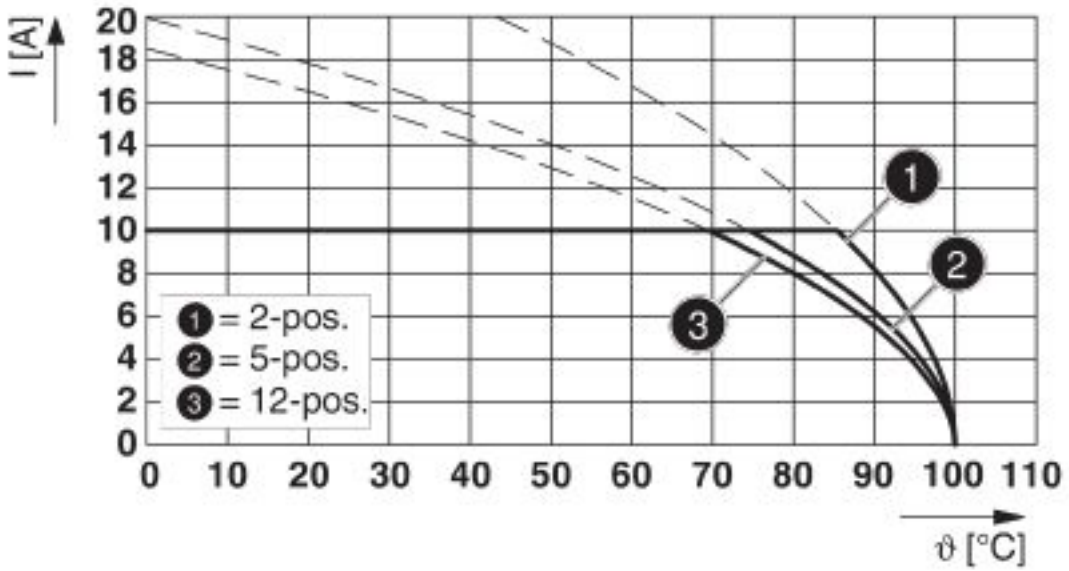
Diagram



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

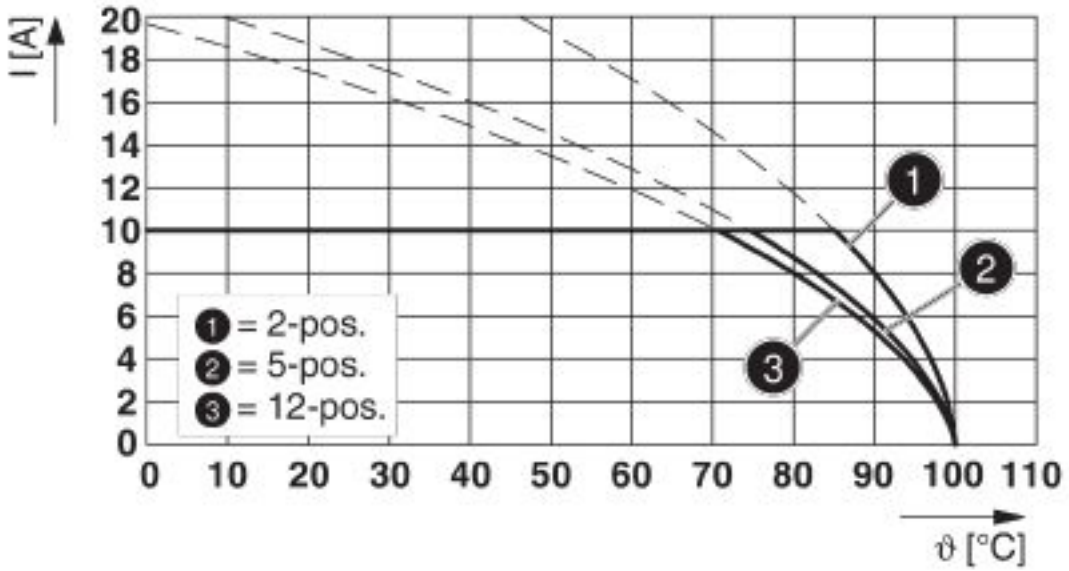
Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Diagram



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

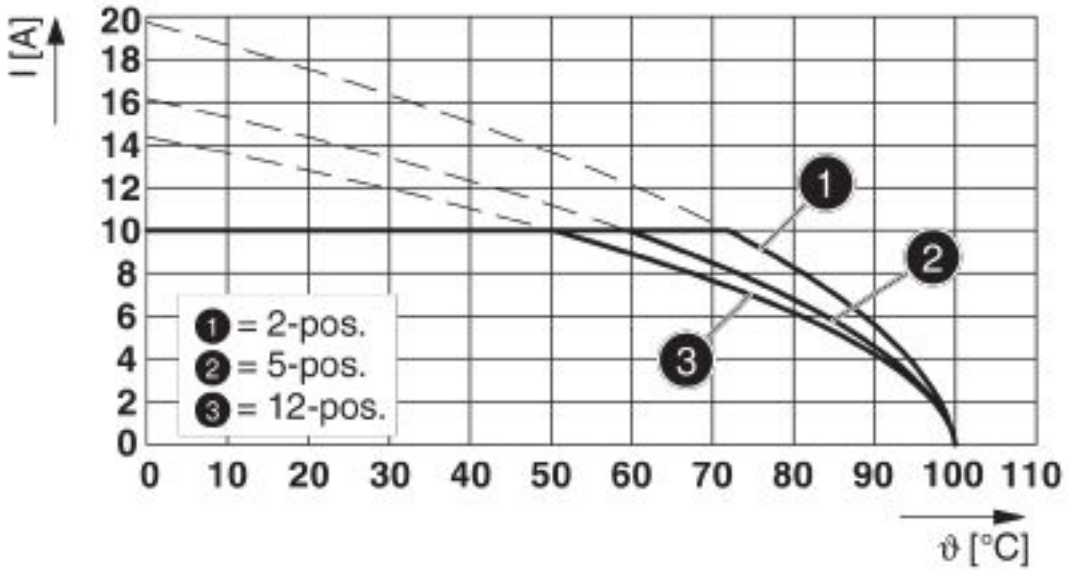
Diagram



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

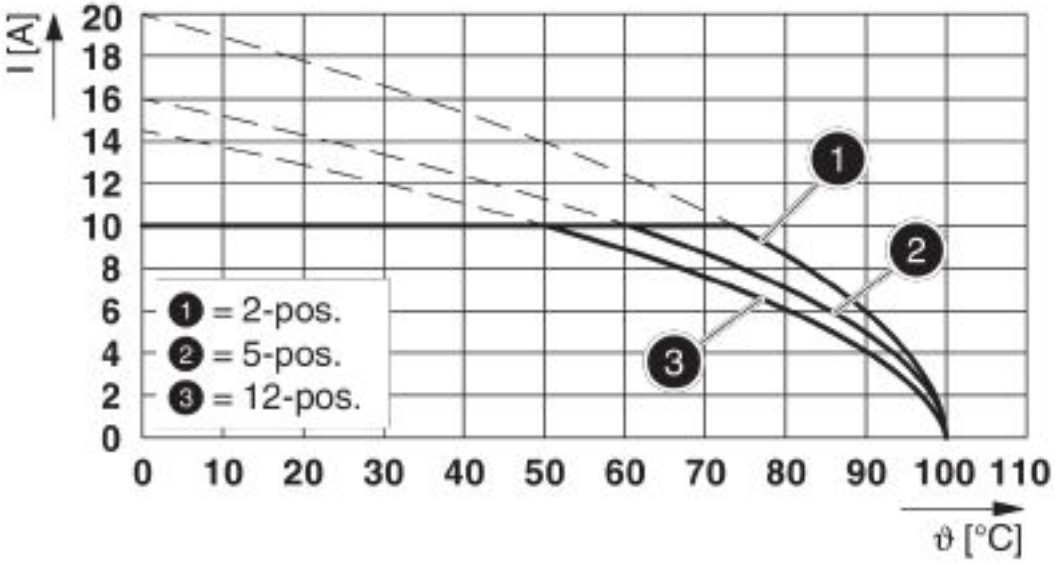
Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Diagram



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

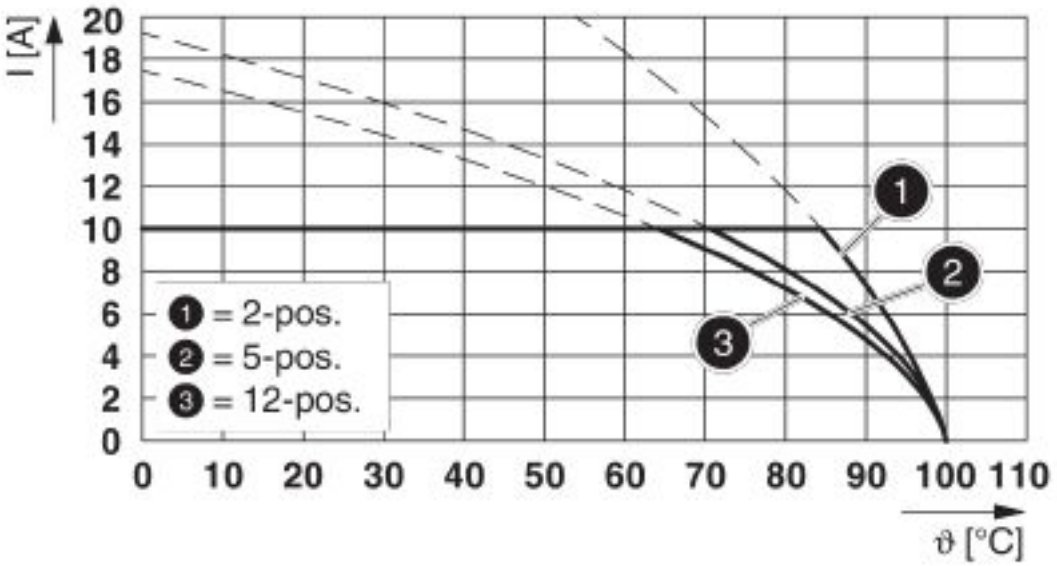
Diagram



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

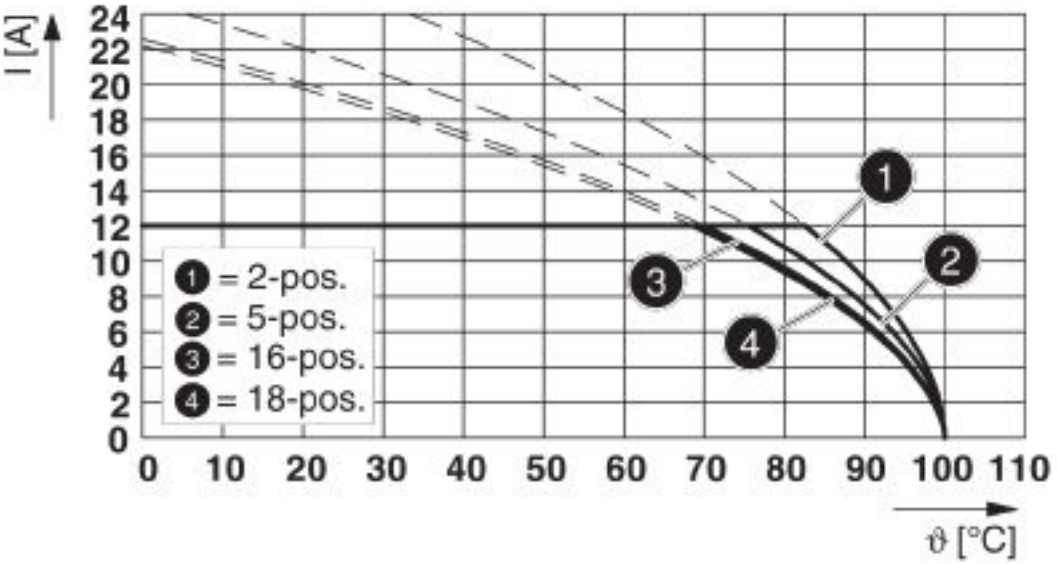
Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Diagram



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

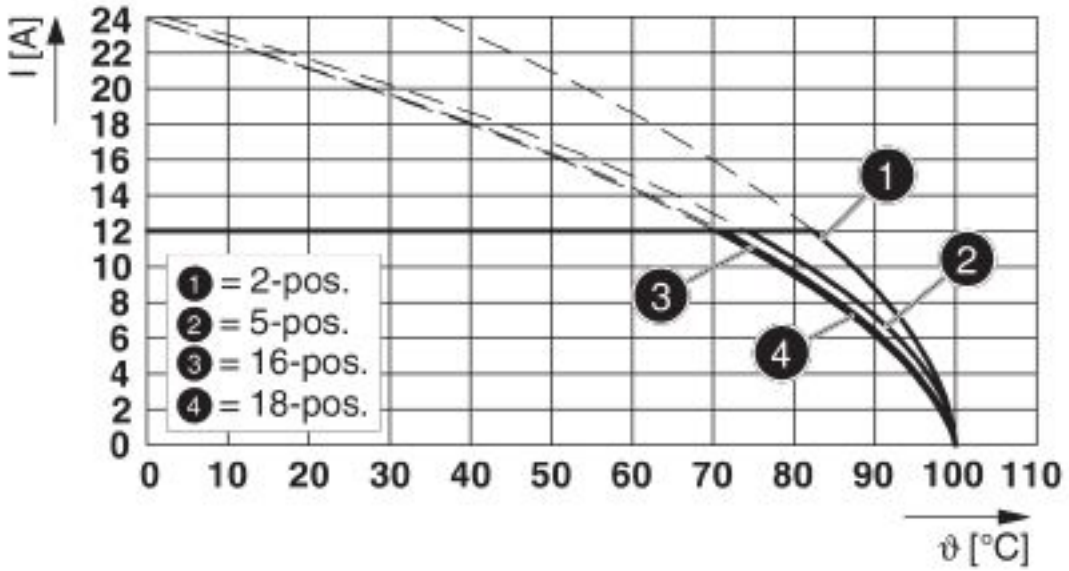
Diagram



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

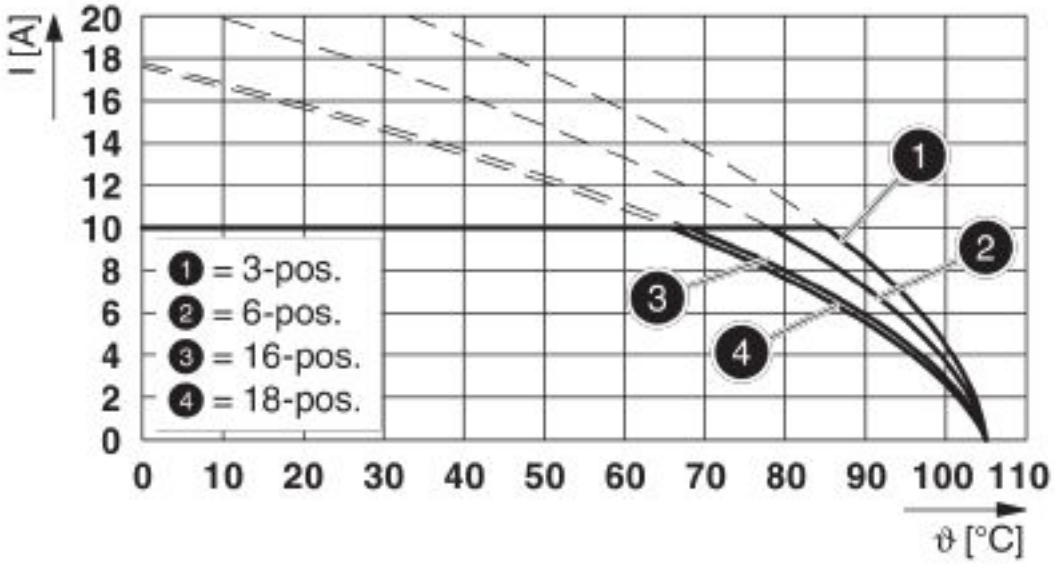
Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Diagram



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

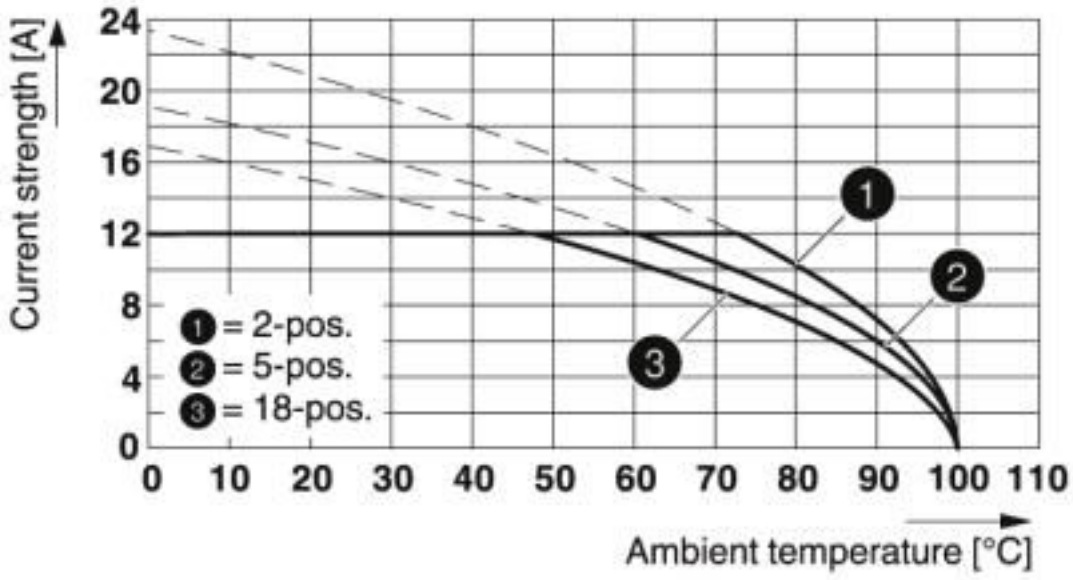
Diagram



Type: FKCN 2,5/...-ST with MDSTB 2,5/...-G1

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Diagram



Type: FKCN 2,5/...-ST with CCDN 2,5/...-G1 P26 THR

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
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 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	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

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Classifications

UNSPSC

UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC

Ex Approvals

Approval details

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-58427

Nominal voltage UN	400 V
Nominal current IN	12 A
mm²/AWG/kcmil	0.2-2.5

VDE Gutachten mit Fertigungsüberwachung	VDE	http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40041908

Nominal voltage UN	400 V
Nominal current IN	12 A
mm²/AWG/kcmil	0.2-2.5

EAC	EAC	B.01687

Accessories

Accessories

Cable end sleeve

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Accessories

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

Ferrule - A 0,5 -10 - 3202494

Ferrule, length: 10 mm, color: silver

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Accessories

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

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

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Accessories

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/ 8-G1 P26 THR - 1734339

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm

Feed-through header - MSTBW 2,5/ 8-G - 1736056

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

Feed-through header - MSTBV 2,5/ 8-G - 1753550

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm

Feed-through header - MSTB 2,5/ 8-G - 1754559

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Accessories

Printed-circuit board connector - MSTBVA 2,5/ 8-G - 1755574

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm

Printed-circuit board connector - MSTBA 2,5/ 8-G - 1757527

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

Feed-through header - MDSTBV 2,5/ 8-G1 - 1762907

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, 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 - MSTB 2,5/ 8-G-LA - 1768244

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm

Printed-circuit board connector - SMSTB 2,5/ 8-G - 1769298

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Accessories

Feed-through header - SMSTBA 2,5/ 8-G - 1769861

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

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Feed-through header - MSTBA 2,5/ 8-G-LA - 1770546

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm

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Feed-through header - MDSTBVA 2,5/ 8-G - 1845840

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, 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 - MDSTBV 2,5/ 8-G - 1845992

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Can be aligned! Mounting flange: Order No. 1836477, 1836480. 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 - MDSTBA 2,5/ 8-G - 1846577

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, 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!

Printed-circuit board connector - FKCN 2,5/ 8-ST - 1732807

Accessories

Feed-through header - MDSTBW 2,5/ 8-G - 1846878

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.8 mm, 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!

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