

Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

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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: 4, pitch: 5 mm, connection method: Push-in spring connection, color: black, 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
- 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 055626 404042
GTIN	4055626404042

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	FKCT 2,5/...-ST
Pitch	5 mm
Number of positions	4
Connection method	Push-in spring connection
Number of levels	1
Number of connections	4
Number of potentials	4

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Technical data

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 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
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	black (9005)
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

Insulating material	PBT
CTI according to IEC 60112	600

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Material data – actuating element

Flammability rating according to UL 94	V0
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Dimensions for the product

Length [l]	25.6 mm
Width [w]	20.1 mm
Pitch	5 mm
Height (without solder pin)	15 mm

Packaging information

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

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	0.14 mm ² / solid / > 10 N
	0.14 mm ² / flexible / > 10 N
	2.5 mm ² / solid / > 50 N
	2.5 mm ² / 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

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Technical data

Mechanical tests according to standard

Test force per pos.	32 N
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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)	1.6 mm
Minimum creepage distance value (II/2)	3.2 mm

Current carrying capacity / derating curves

Caption	Type: FKCT 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	1.2 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 7 GΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	20
Conductor cross section	2.5 mm ²
Test current	12 A
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

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Technical data

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

Environmental and durability tests (E)

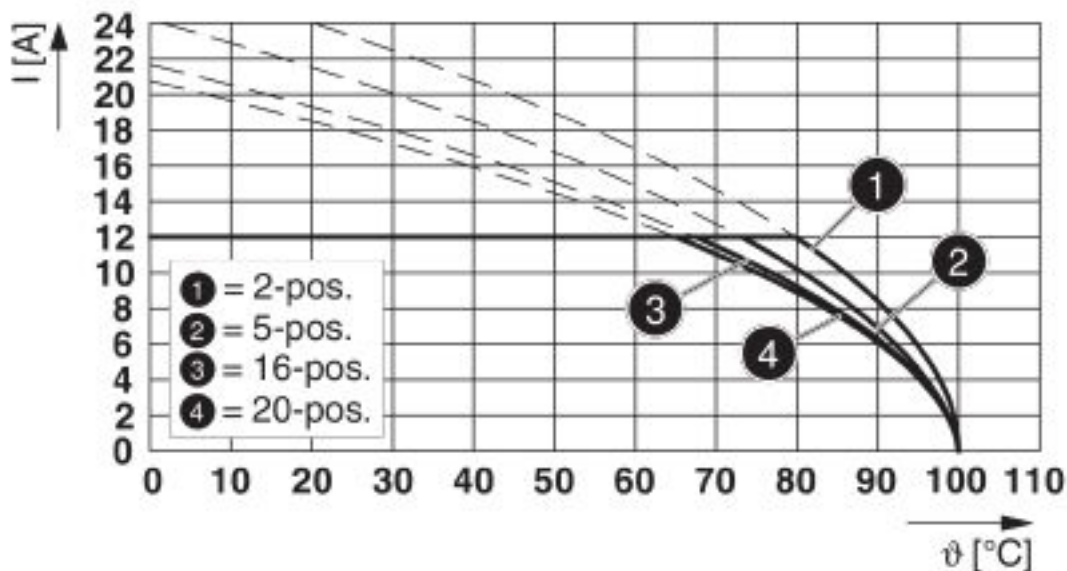
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

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

Drawings

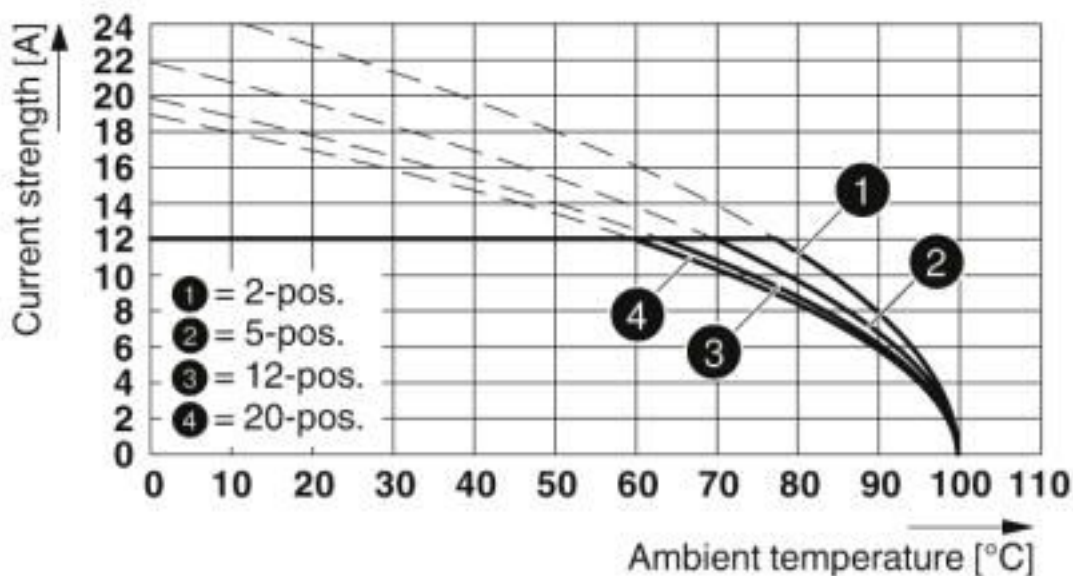
Diagram



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

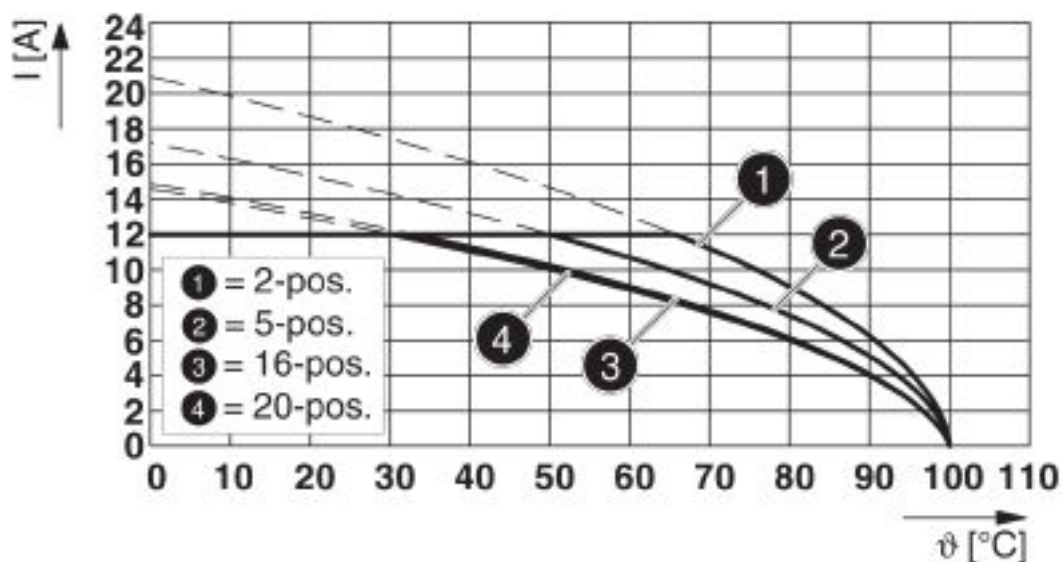
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



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

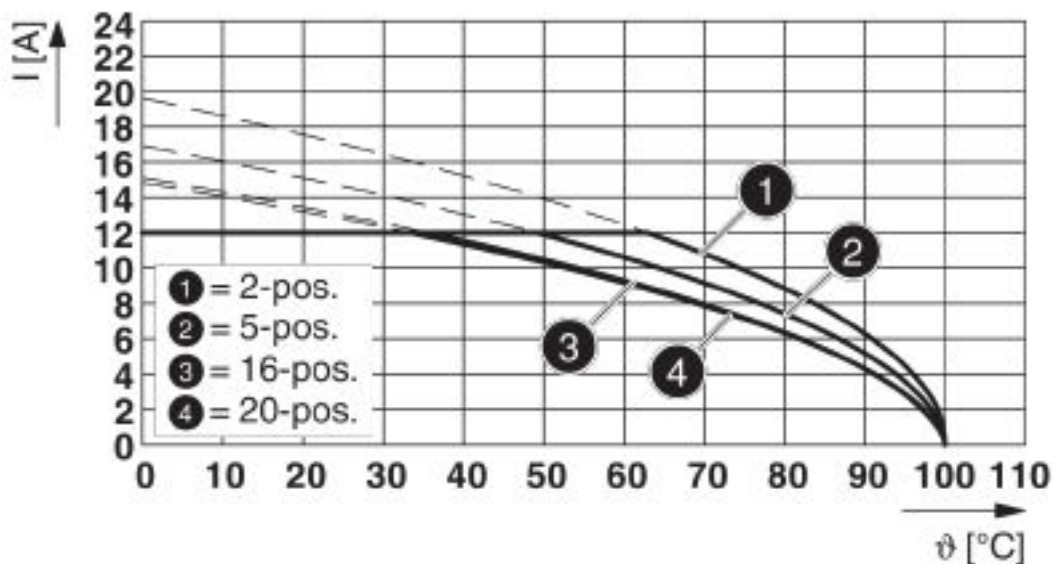
Diagram



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

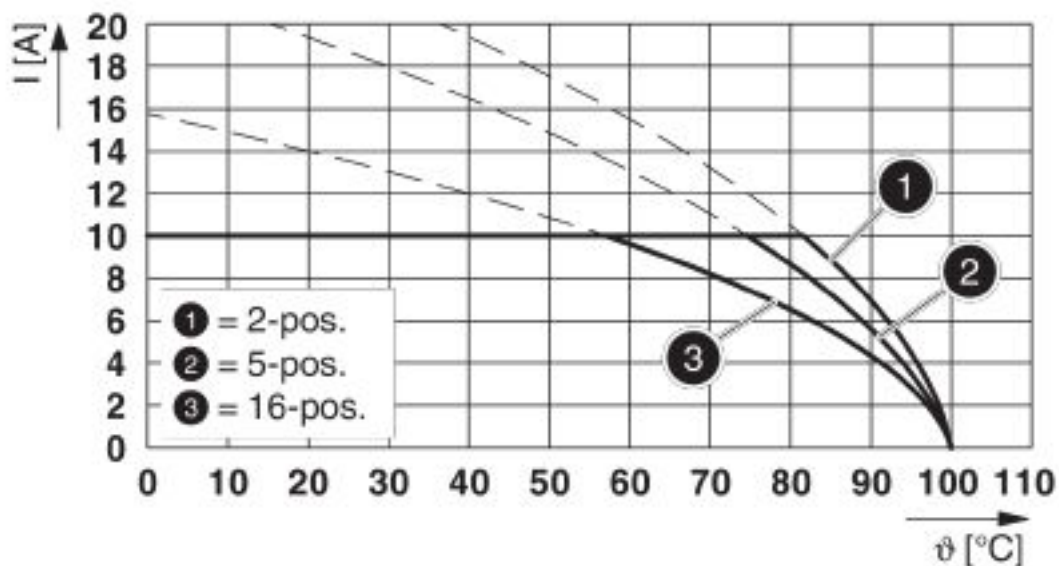
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



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

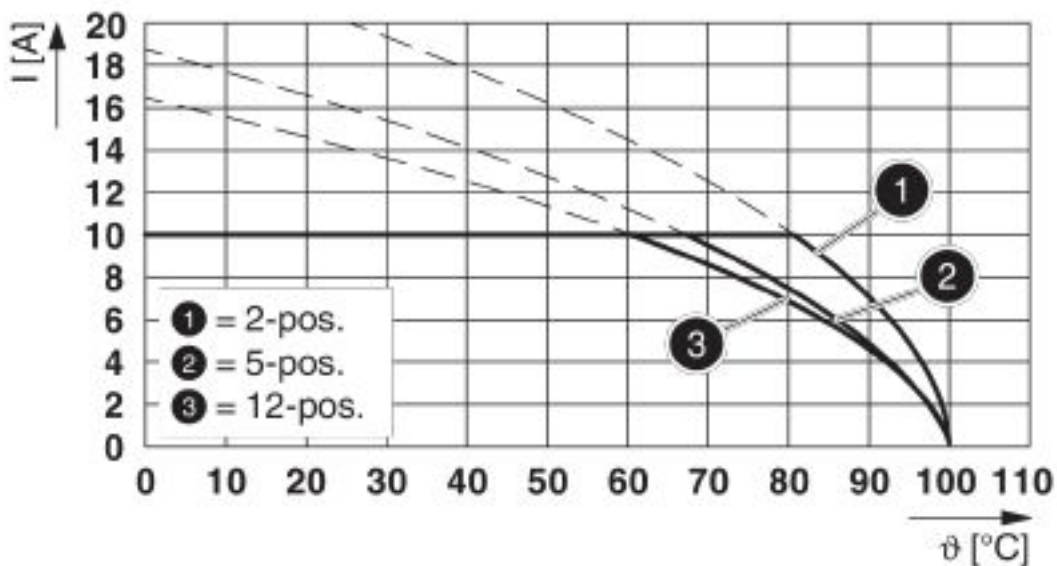
Diagram



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

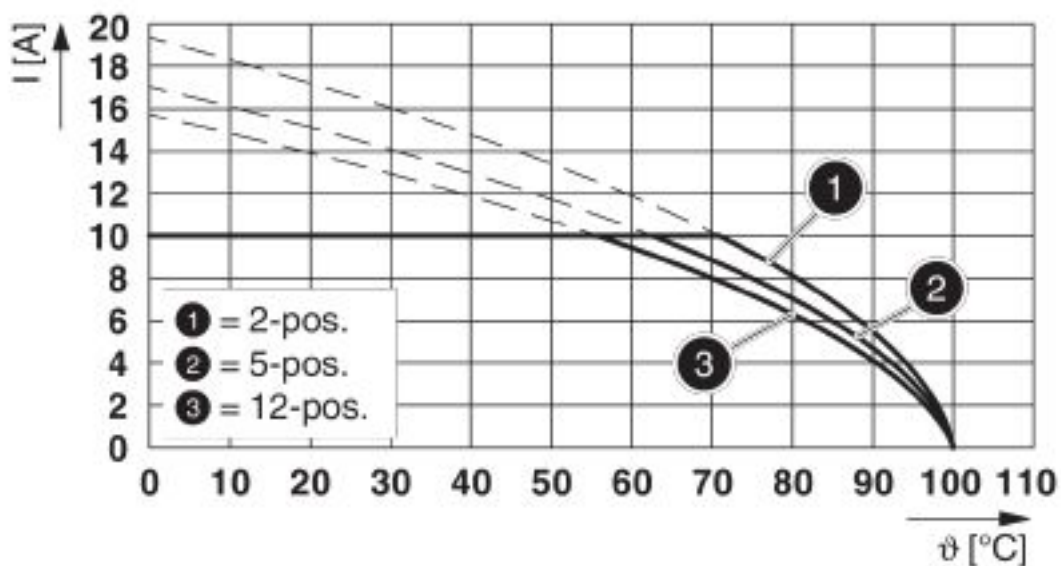
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



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

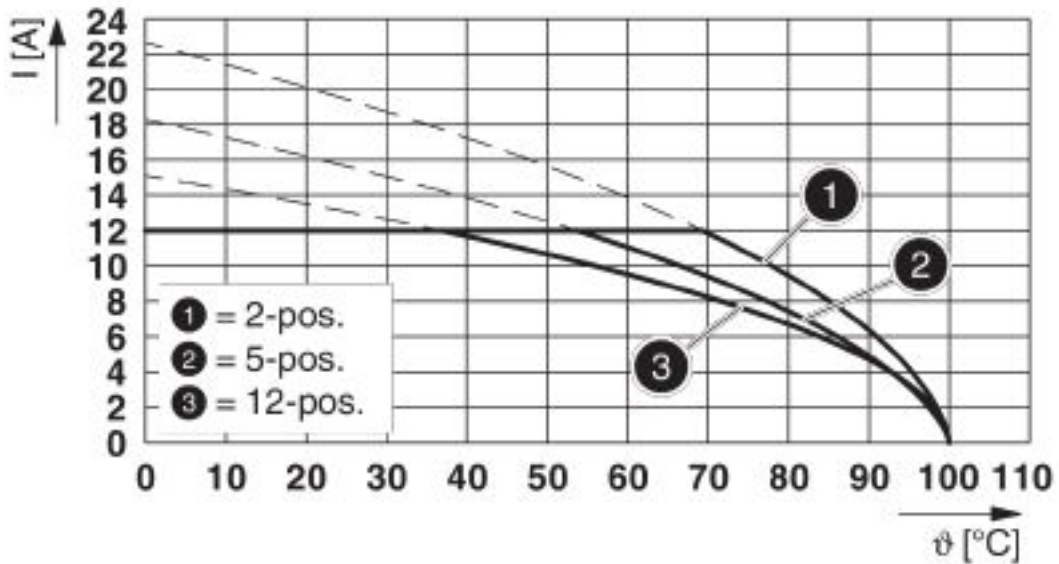
Diagram



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

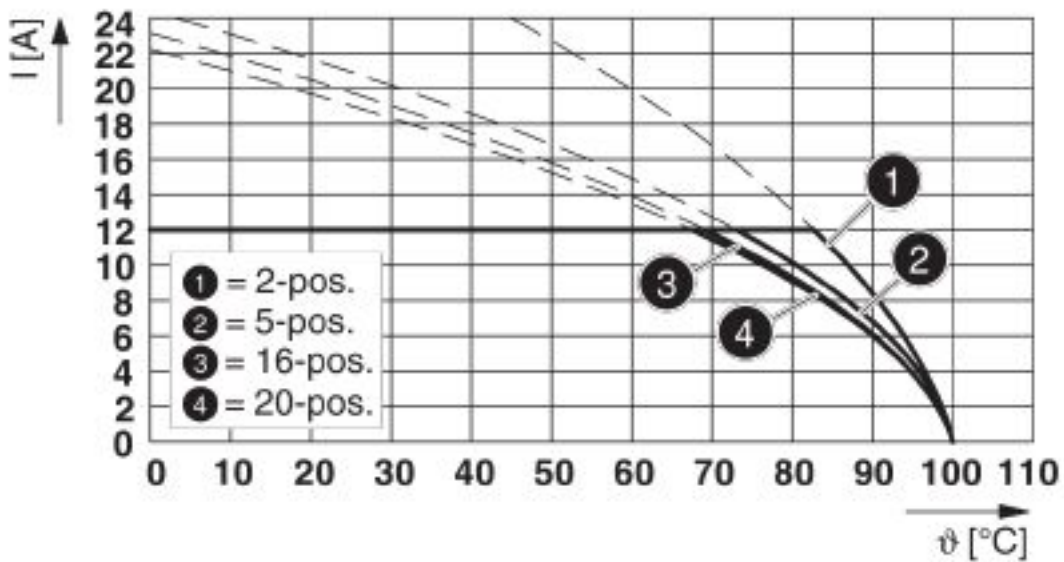
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



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

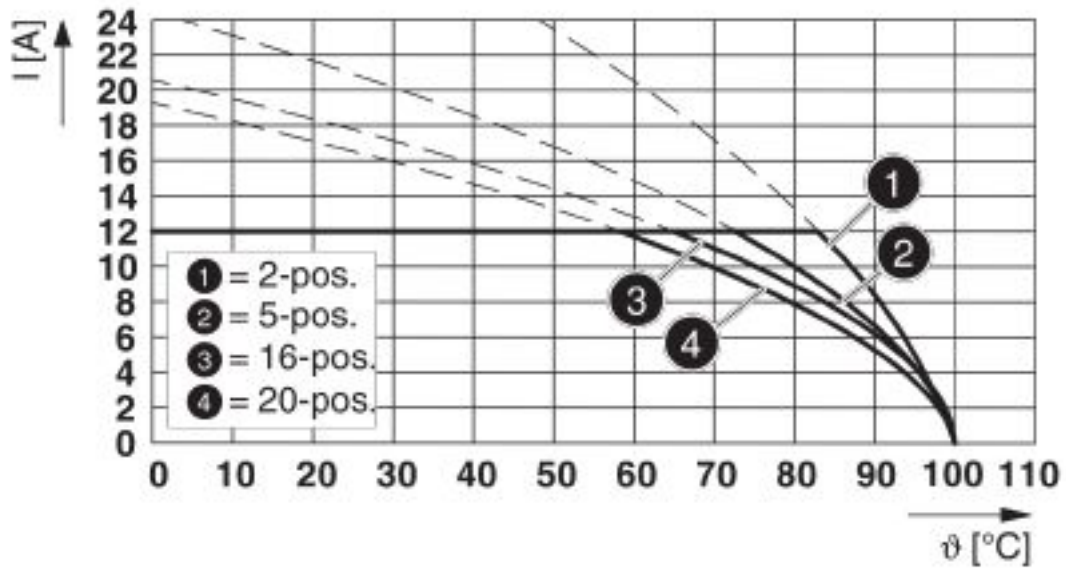
Diagram



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

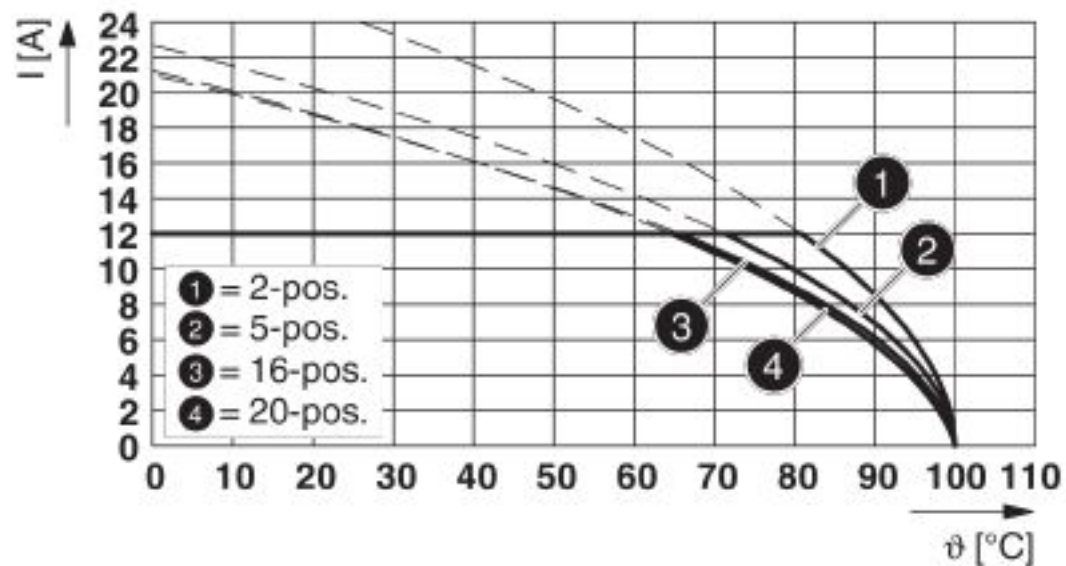
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



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

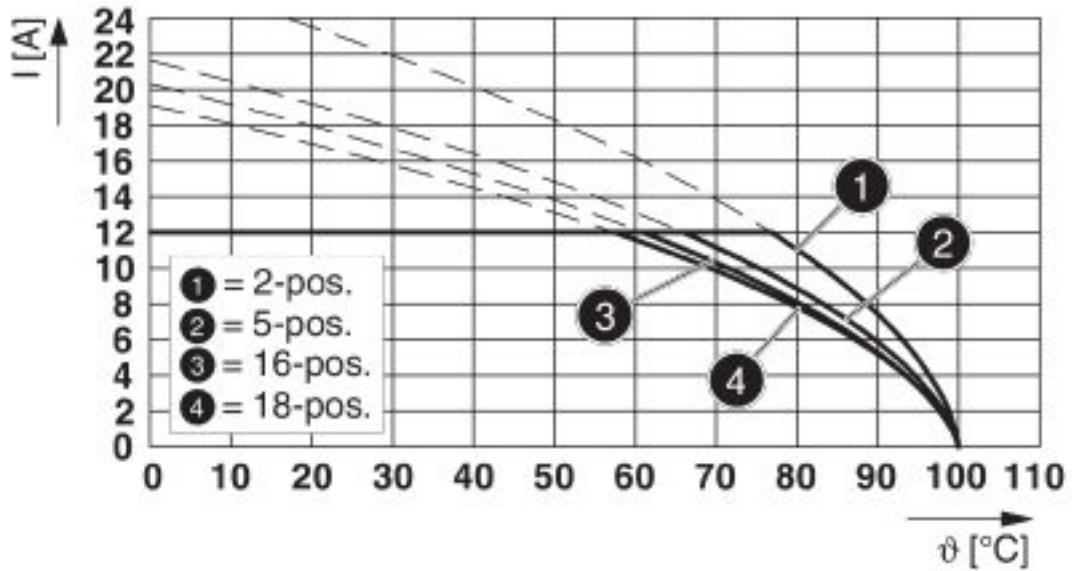
Diagram



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

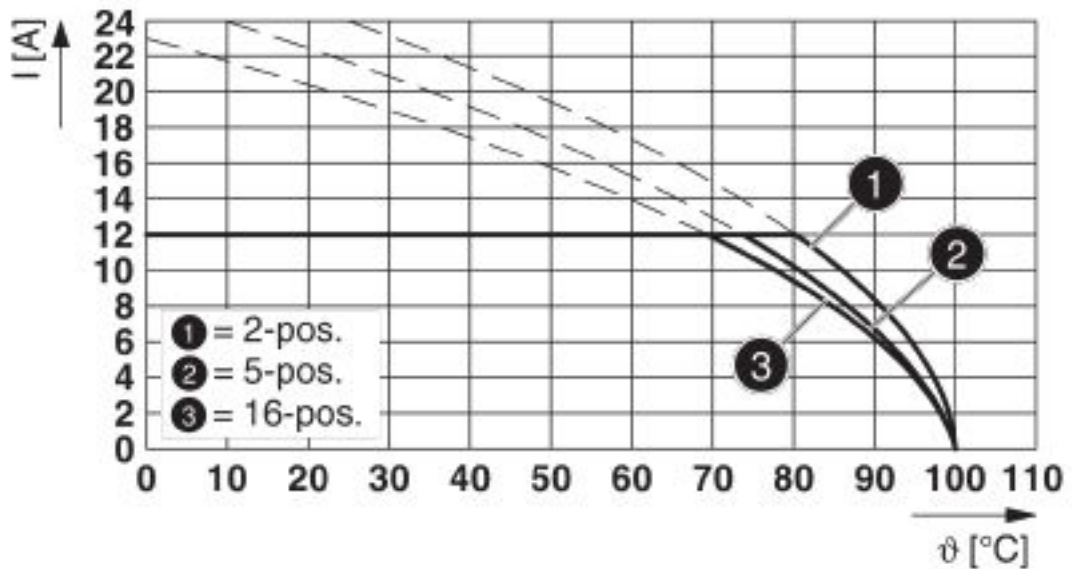
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



Type: FKCT 2,5/...-ST with FKIC 2,5/...-ST

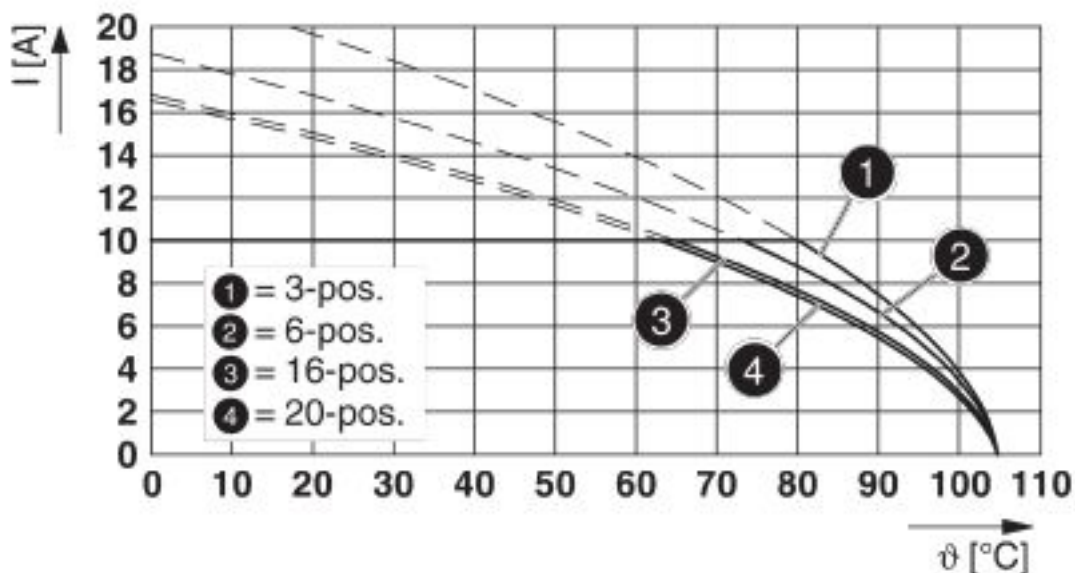
Diagram



Type: FKCT 2,5/...-ST with FKICS 2,5/...-ST

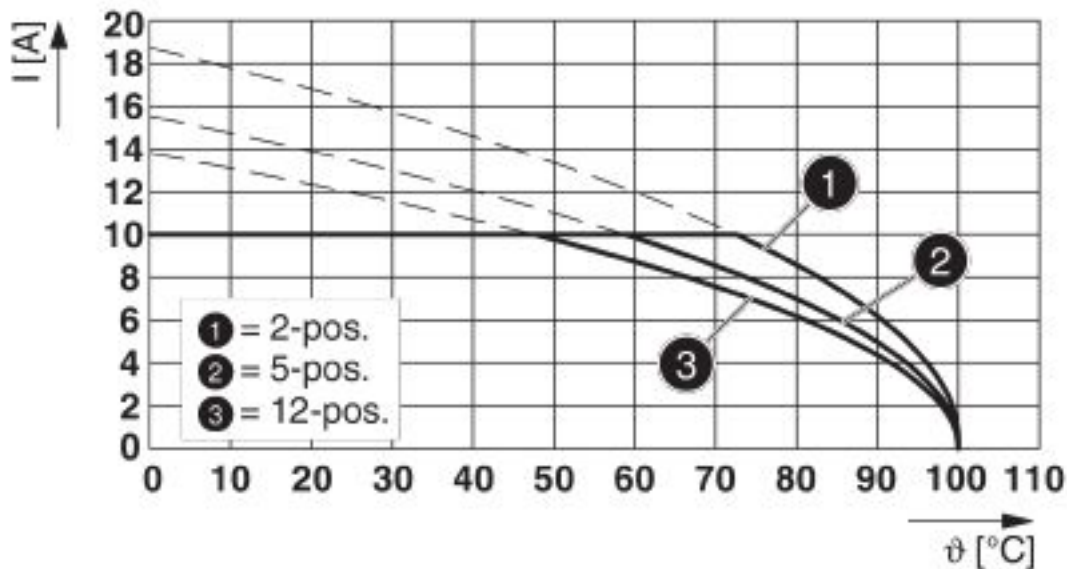
Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

Diagram



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

Diagram



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

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
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Printed-circuit board connector - FKCT 2,5/ 4-ST BK BDWH:42-44 - 1715301

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 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

Approvals


Approvals

Approvals

IECEE CB Scheme / EAC / cULus Recognized / VDE Zeichengenehmigung

Ex Approvals


Approval details


IECEE CB Scheme		http://www.iecee.org/	DE1-60988-B1B2
Nominal voltage UN	250 V		
Nominal current IN	12 A		
mm ² /AWG/kcmil	0.2-2.5		

EAC		B.01687
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Approvals

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931012
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm ² /AWG/kcmil	26-12	26-12	

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40004701
Nominal voltage UN	250 V		
Nominal current IN	12 A		
mm ² /AWG/kcmil	0.2-2.5		

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