

CCV 2,5/ 8-GF-5,08 GYP26THRR88 - PCB header



1845454

<https://www.phoenixcontact.com/us/products/1845454>

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PCB headers, nominal cross section: 2.5 mm², color: gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: CCV 2,5/..-GF, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: 88 mm wide tape

Your advantages

- Designed for integration into the SMT soldering process
- Vertical connection enables multi-row arrangement on the PCB
- Screwable flange for superior mechanical stability
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies

Commercial Data

Item number	1845454
Packing unit	140 pc
Minimum order quantity	140 pc
Note	Made to Order (non-returnable)
Product Key	AACTBH
GTIN	4046356966405
Weight per Piece (including packing)	9.121 g
Weight per Piece (excluding packing)	9.121 g
Country of origin	DE

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Technical Data

Product properties

Type	Component suitable for through hole reflow
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	CCV 2,5/..-GF
Number of positions	8
Pitch	5.08 mm
Number of connections	8
Number of rows	1
Mounting flange	Threaded flange
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	1.3 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)	400 V
Rated surge voltage (II/2)	4 kV

Mounting

Mounting type	THR soldering
Pin layout	Linear pinning

Flange

Tightening torque	0.3 Nm
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Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

Material specifications

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC
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	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

Color (Housing)	gray (7042)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Material data – actuating element

Color ()	()
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Notes

Details for soldering processes	Processing using reflow processes in compliance with IEC 60068-2-58 or DIN EN 61760-1 (latest version) Moisture Sensitive Level (MSL) = 1 according to IPC/JEDEC J-STD-020-C
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	
Pitch	5.08 mm
Width [w]	50.75 mm
Height [h]	14.6 mm
Length [l]	8.57 mm
Installed height	12 mm
Solder pin length [P]	2.6 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

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Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	2.5 mm ² / solid / > 50 N
	2.5 mm ² / 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.	6 N

Torque test

Specification	IEC 60999-1:1999-11
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Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

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

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	12

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	IIIa

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Comparative tracking index (IEC 60112)	CTI 175
Rated insulation voltage (III/3)	250 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
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3.2 mm
Rated insulation voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	4 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	1.3 m Ω
Contact resistance R_2	1.3 m Ω
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 M Ω

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

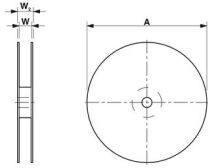
Packaging specifications

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Dimensional drawing	
Type of packaging	88 mm wide tape
[W] tape width	88 mm
[W2] coil overall dimension	94.4 mm
[A] coil diameter	330 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

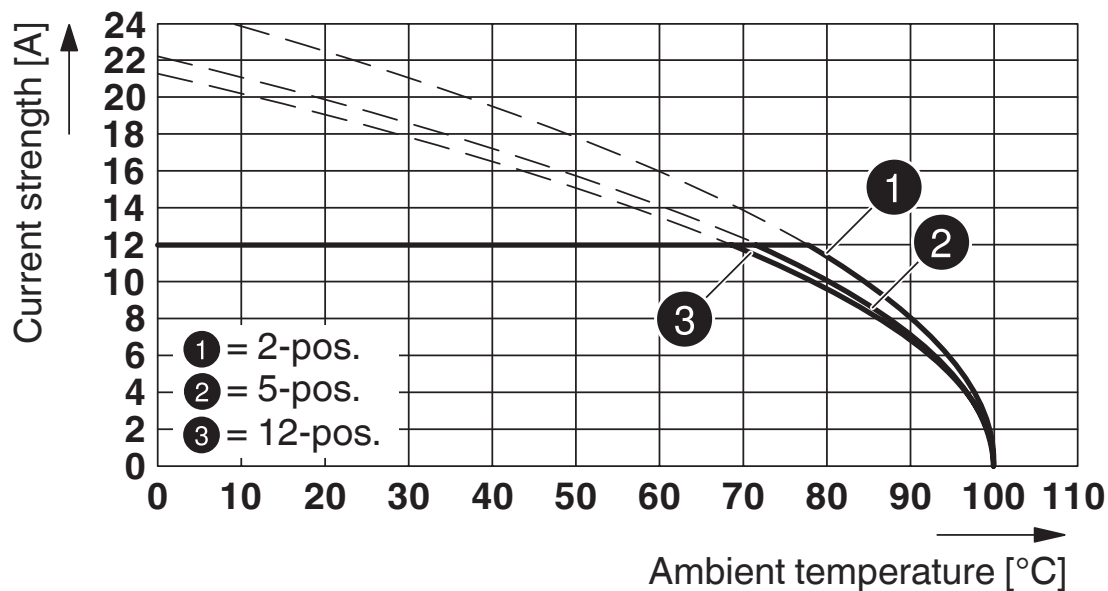
Drawings

Diagram



Derating curve for: MSTB 2,5 HC/...-STF-5,08 with CCV 2,5/...-GF-5,08 P26THR

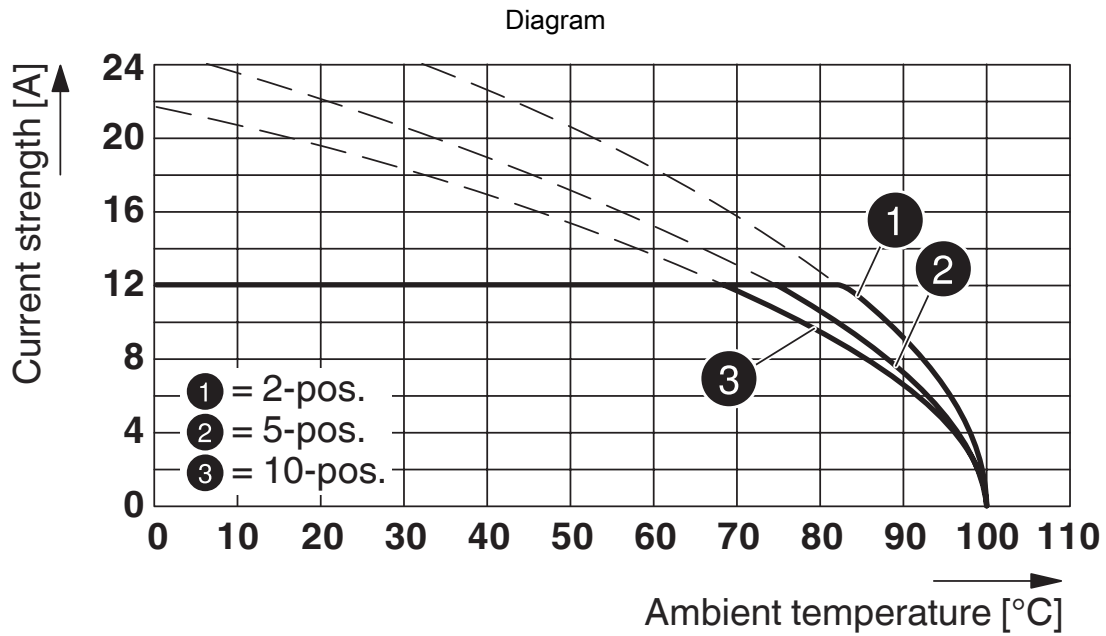
Diagram



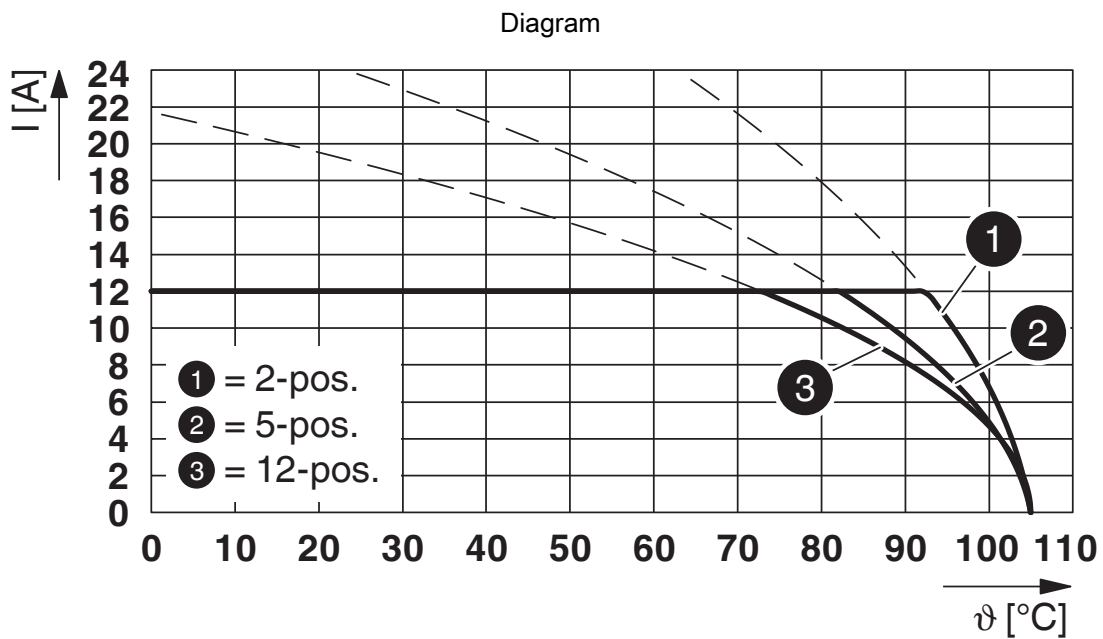
Type: MSTB 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P26THR

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Type: TFKC 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P26THR

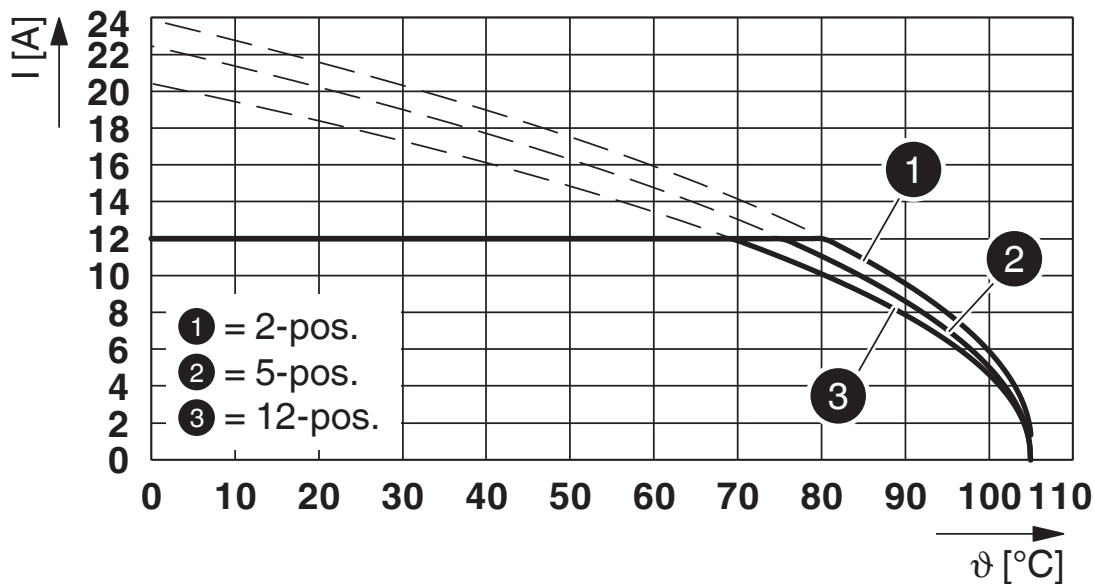


Type: FKCT 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P...THR

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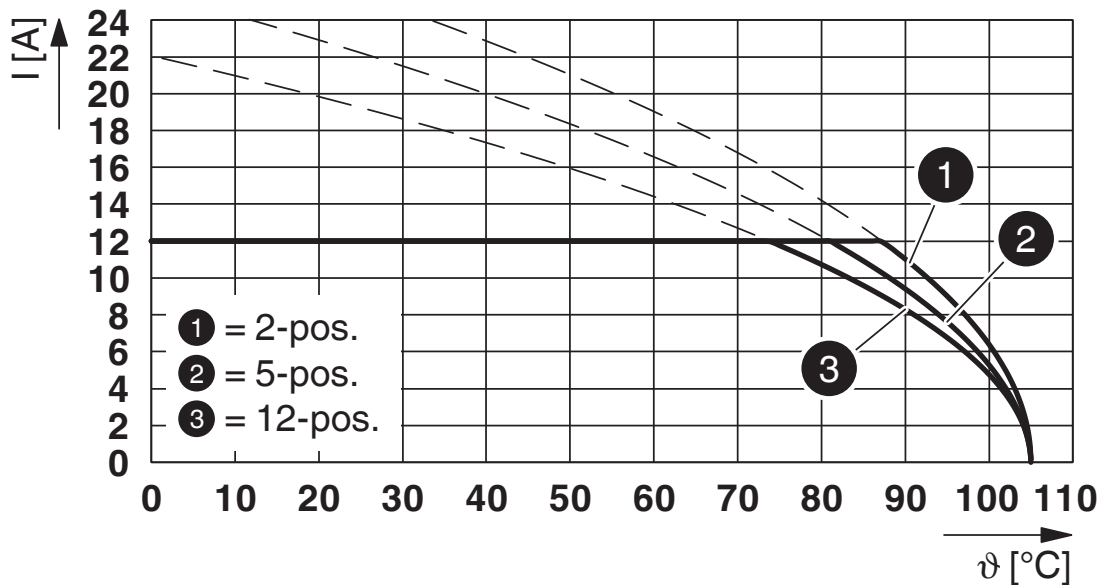
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Diagram

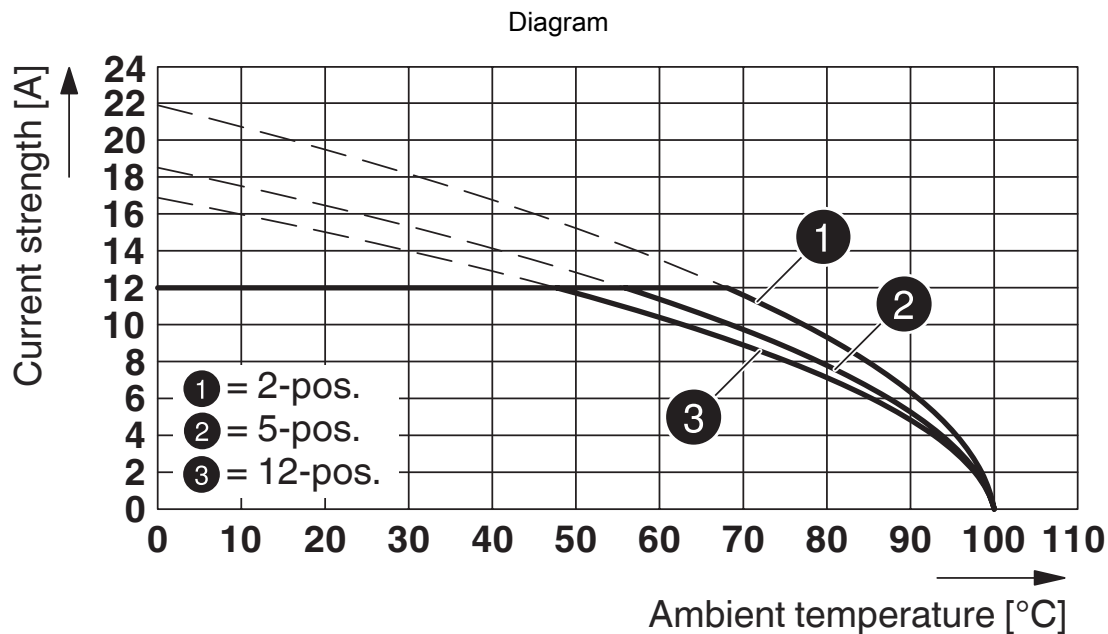


Type: FKCS 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P...THR

Diagram



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

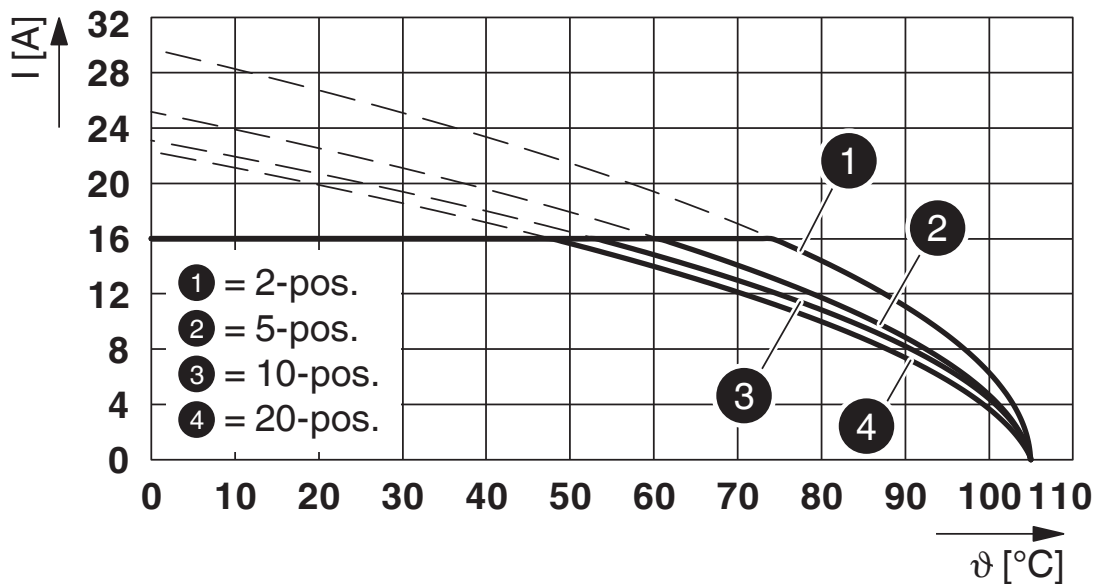


Type: SMSTB 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P...THR



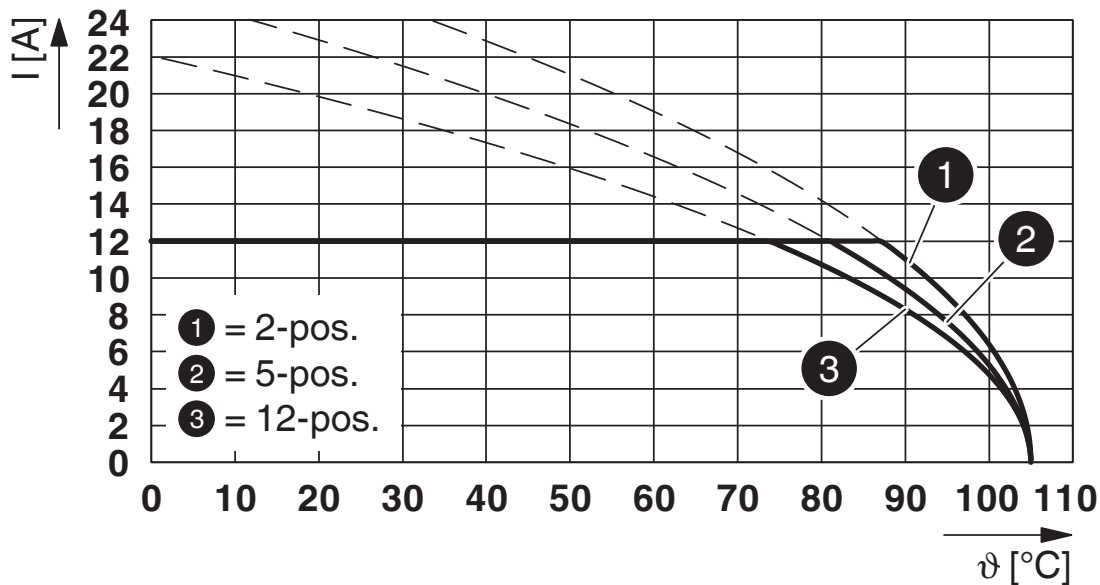
Type: MSTBT 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P26THR

Diagram

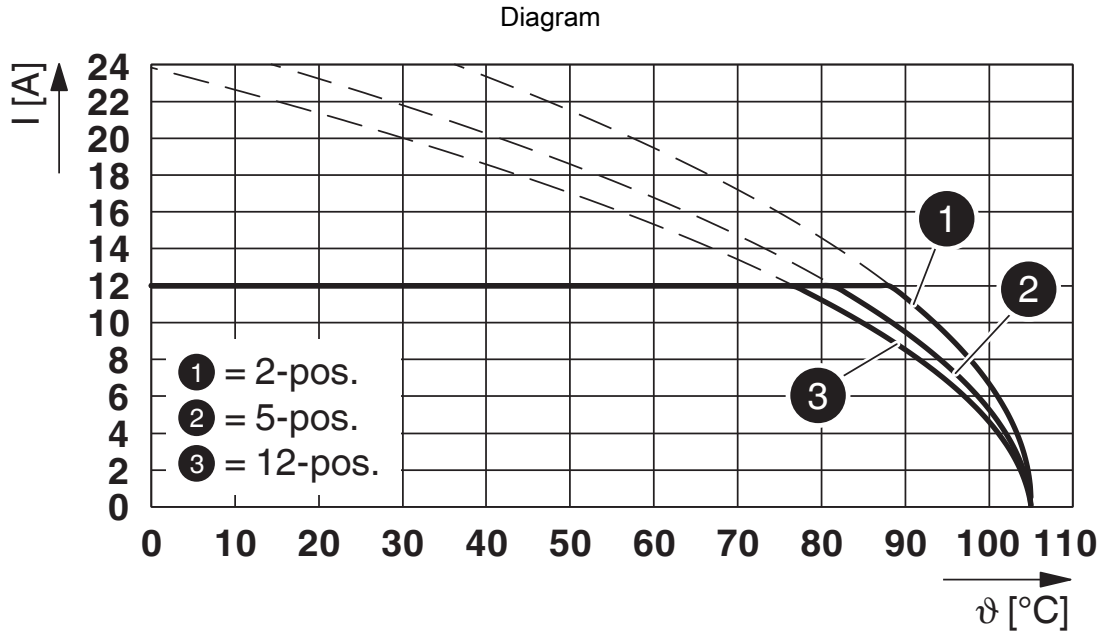


Type: LPC 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P...THR

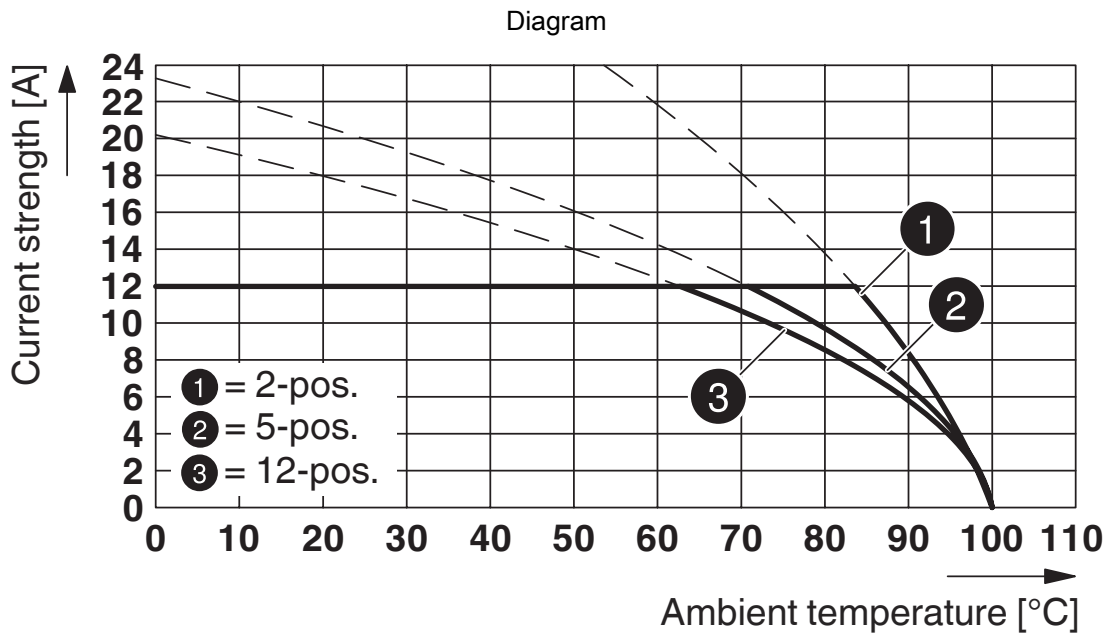
Diagram



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



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



Type: FRONT-MSTB 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P26THR

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Approvals

 IECEE CB Scheme Approval ID: DE1-58421-B1B2				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	400 V	12 A	-	-

 EAC Approval ID: B.01687				
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 cULus Recognized Approval ID: E60425-19931011				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
Standard	300 V	16 A	-	-
Use group D				
Standard	300 V	10 A	-	-
Alternative 1	150 V	15 A	-	-

 VDE Gutachten mit Fertigungsüberwachung Approval ID: 40041286				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	400 V	12 A	-	-

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Classifications

ECLASS

ECLASS-10.0.1	27440402
ECLASS-11.0	27460201

ETIM

ETIM 8.0	EC002637
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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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