

MSTBO 2,5/ 4-G1R KMGY - PCB header



2907787
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PCB headers, nominal cross section: 2.5 mm², color: light gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 4, product range: MSTBO 2,5/..-G1R, connection method: pluggable, mounting: Wave soldering, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Orthogonal, locking: without, Product with pin output on right side

Your advantages

- Plug-in direction orthogonal to the PCB

Commercial data

Item number	2907787
Packing unit	200 pc
Minimum order quantity	200 pc
Sales key	AC08
Product key	ACHADB
Catalog page	Page 323 (C-1-2013)
GTIN	4017918367015
Weight per piece (including packing)	2.65 g
Weight per piece (excluding packing)	2.65 g
Customs tariff number	85366930
Country of origin	DE

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Technical data

Product properties

Product type	PCB headers
Product family	MSTBO 2,5/...-G1R
Product line	COMBICON Connectors M
Type	Header perpendicular to the PCB
Number of positions	4
Set comprises	2909905 ME 45 OT-MSTBO SET
	2907444 ME 22,5 OT-MSTBO SET
Number of rows	1
Solder pins per potential	1

Data management status

Article revision	09
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Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	250 V
Contact resistance	1.6 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

Mounting

Mounting type	Wave soldering
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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

Material data - housing

Color (Housing)	light gray (7035)
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

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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

Dimensions

Width [w]	19.95 mm
Height [h]	16.5 mm
Length [l]	14.65 mm
Pin dimensions	1 x 1 mm

Mechanical tests

Visual inspection

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

Dimension check

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

Contact holder in insert

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

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

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	4

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

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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
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)	1.6 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

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)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R_1	1.6 mΩ
Contact resistance R_2	1.6 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

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 ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 55 °C

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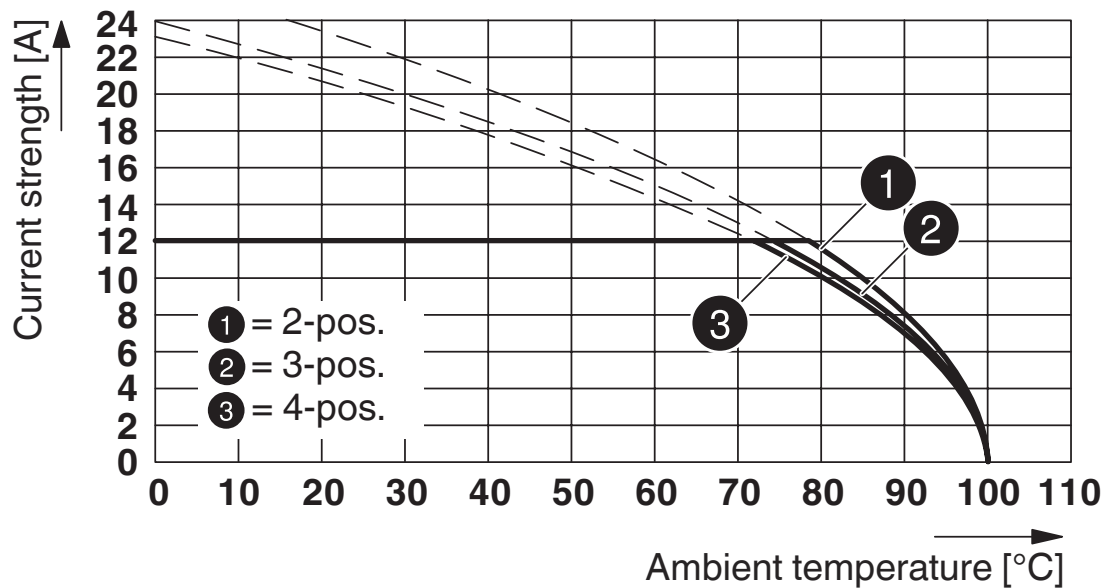
<https://www.phoenixcontact.com/us/products/2907787>



Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

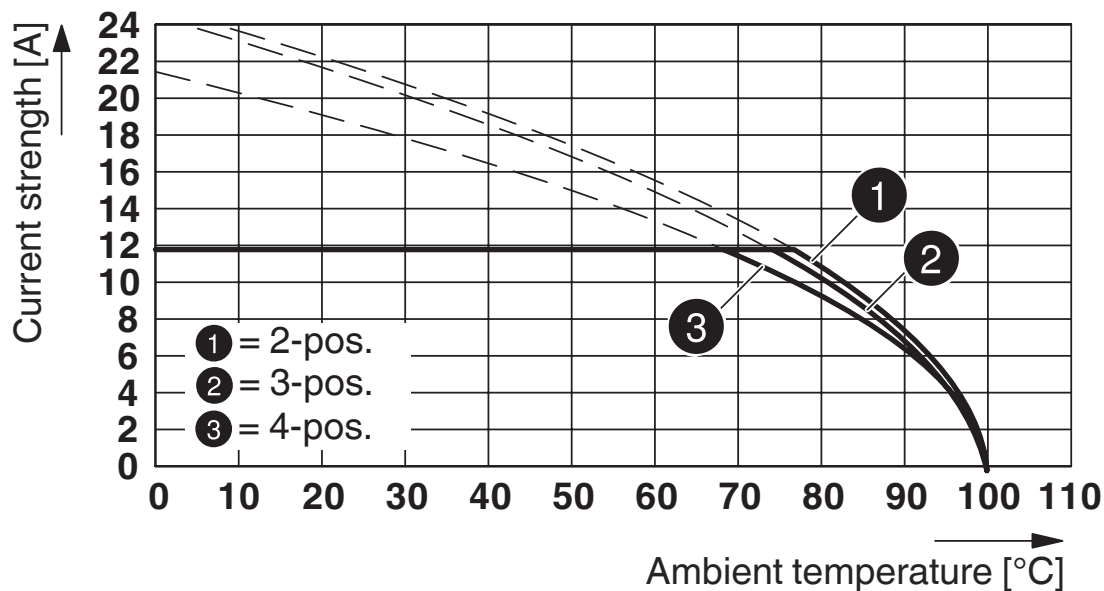
Drawings

Diagram

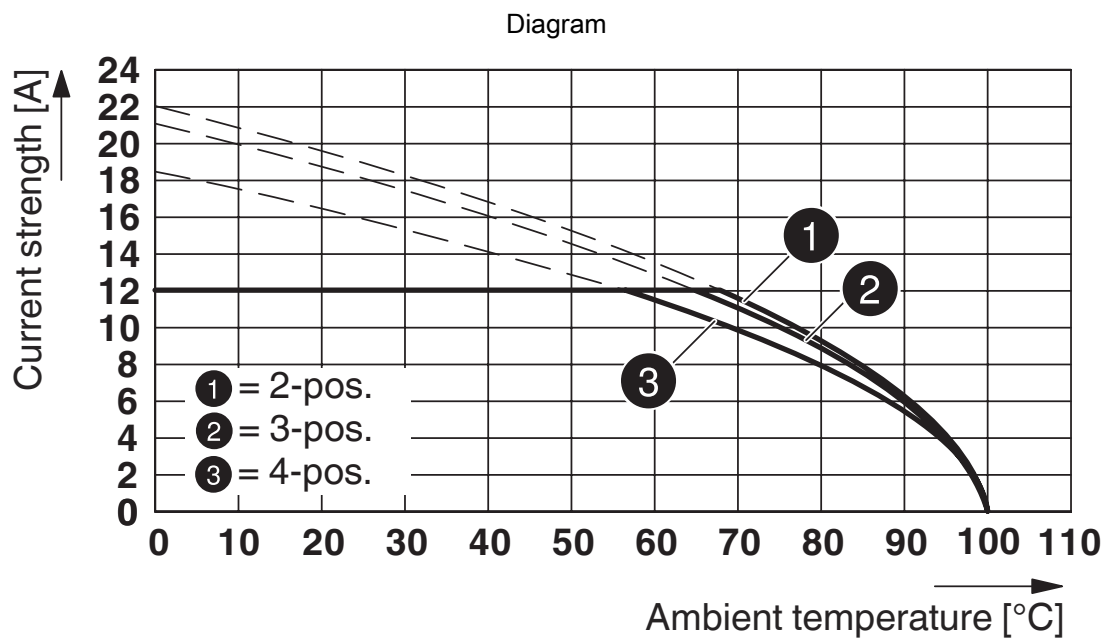


Type: MSTBT 2,5/...-ST with MSTBO 2,5/...-G1R

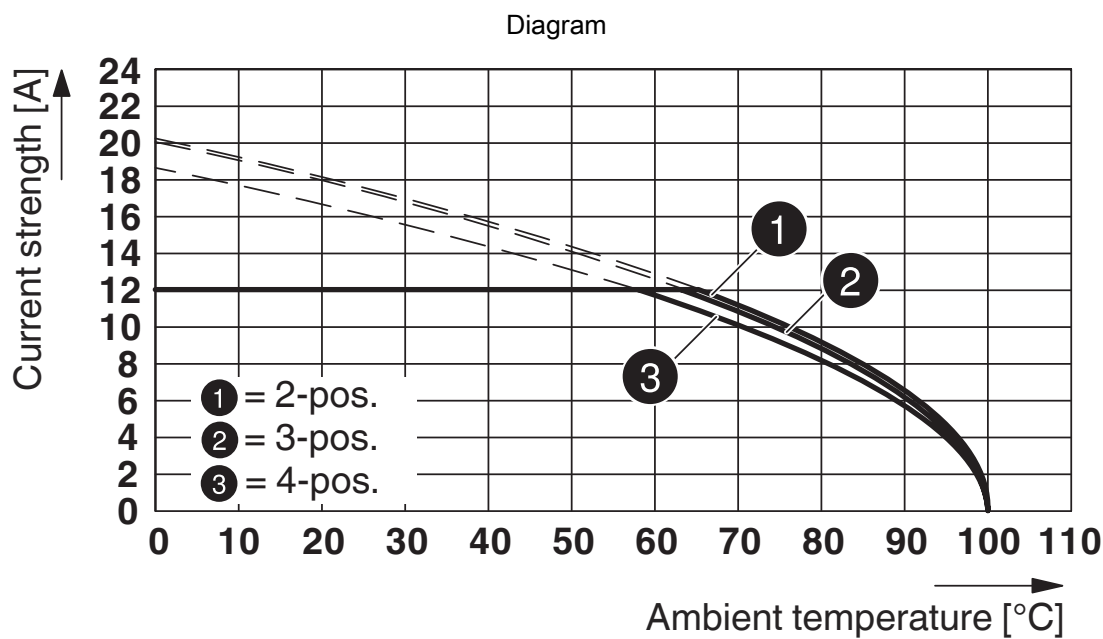
Diagram



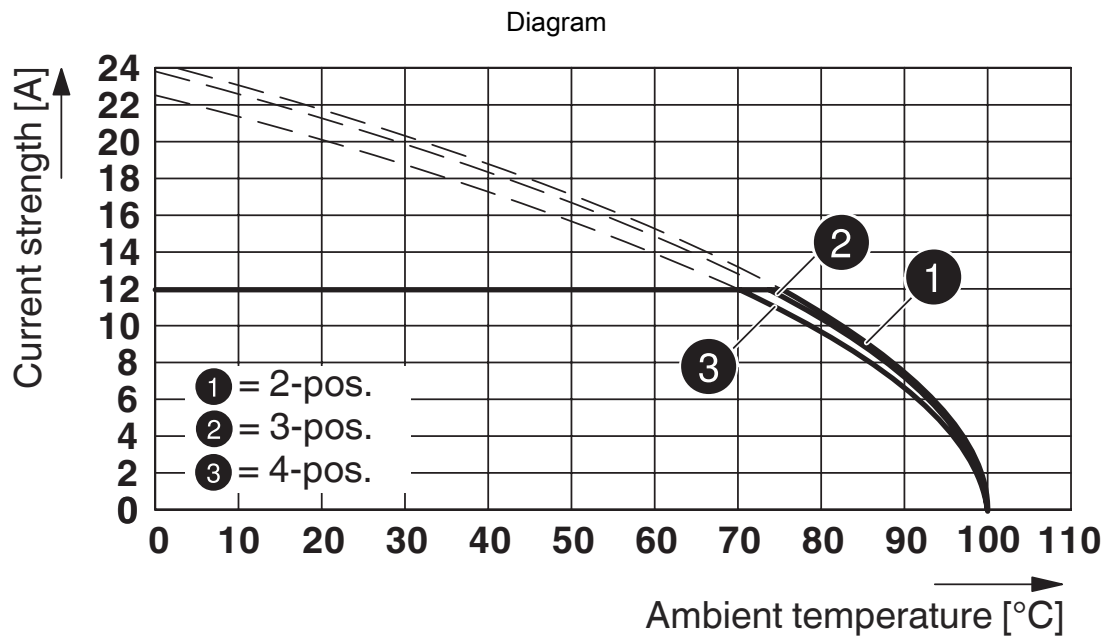
Type: MSTBP 2,5/...-ST with MSTBO 2,5/...-G1R



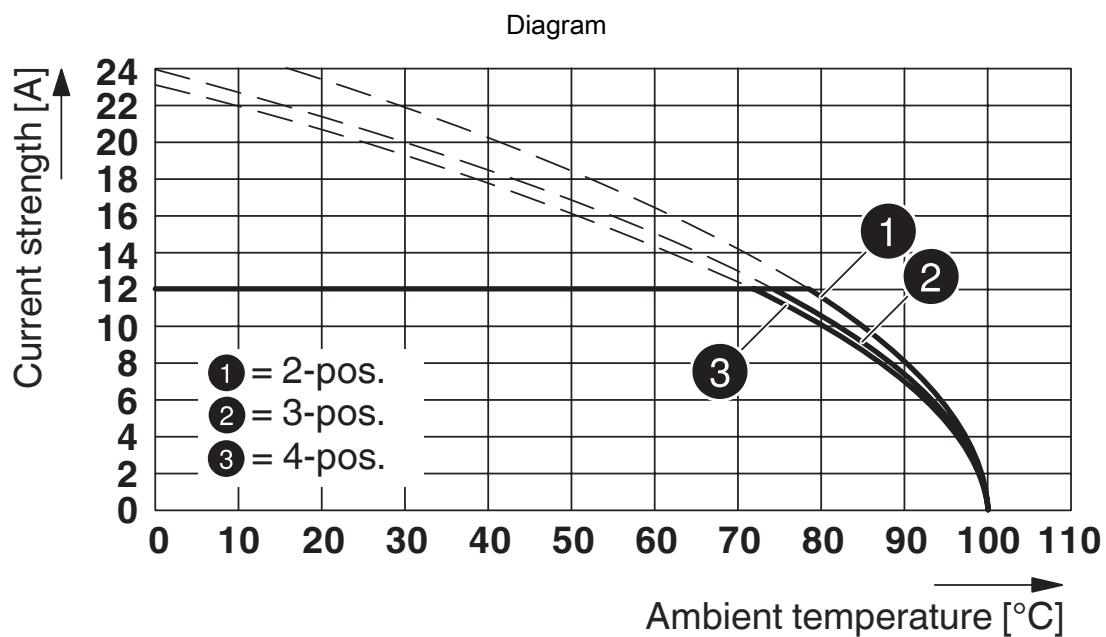
Type: MVSTB(R/W) 2,5/...-ST with MSTBO 2,5/...-G1R



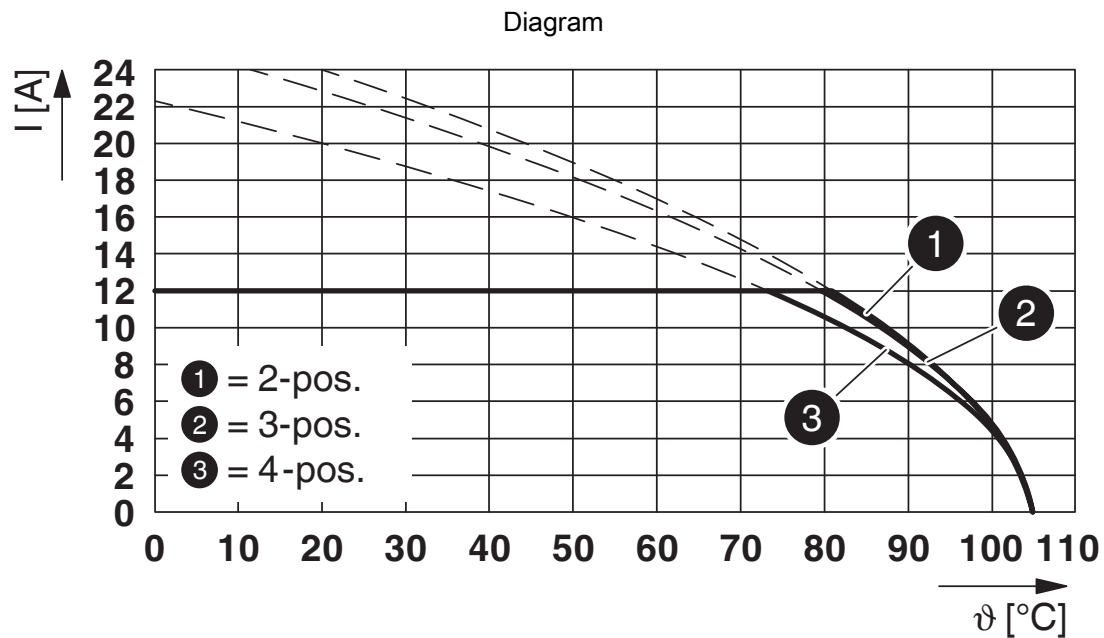
Type: SMSTB 2,5/...-ST with MSTBO 2,5/...-G1R



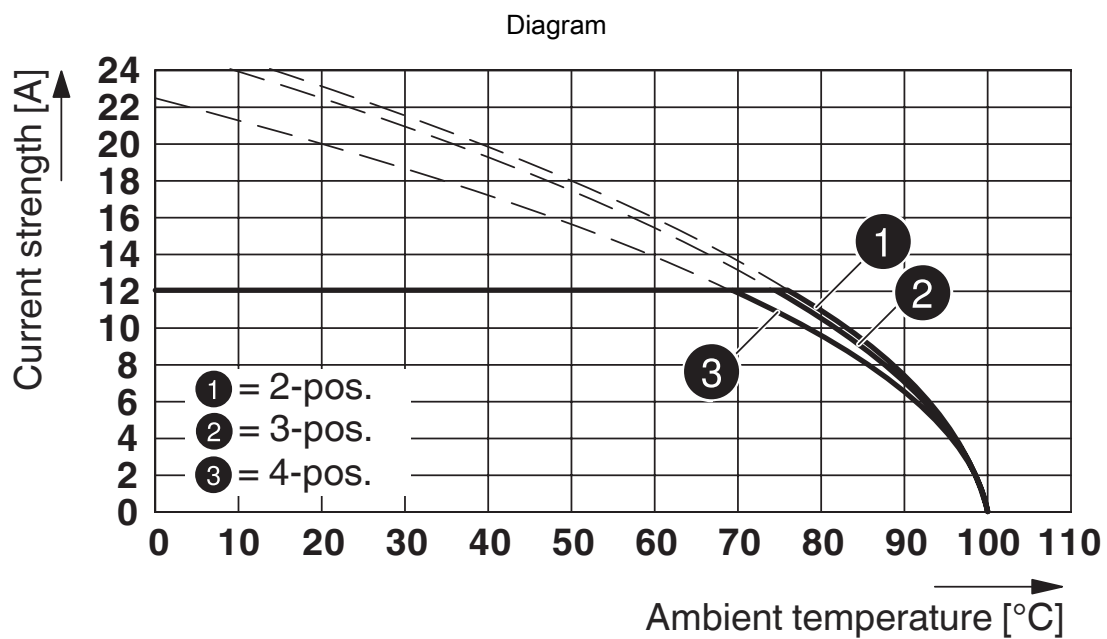
Type: MSTB 2,5/...-ST with MSTBO 2,5/...-G1R



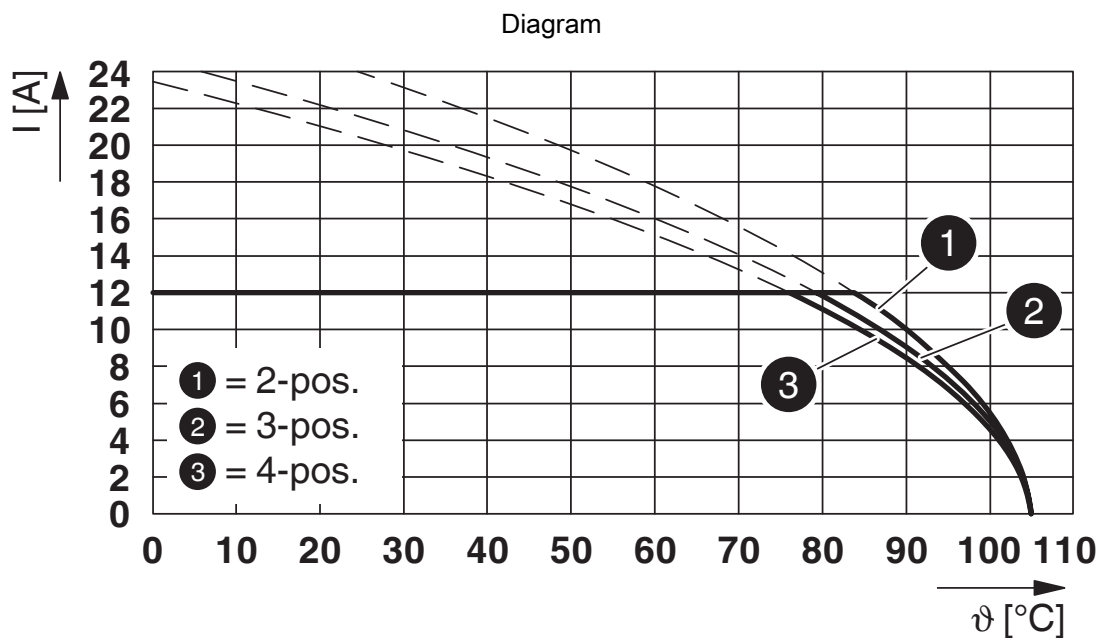
Type: MSTBTP 2,5/...-ST with MSTBO 2,5/...-G1R



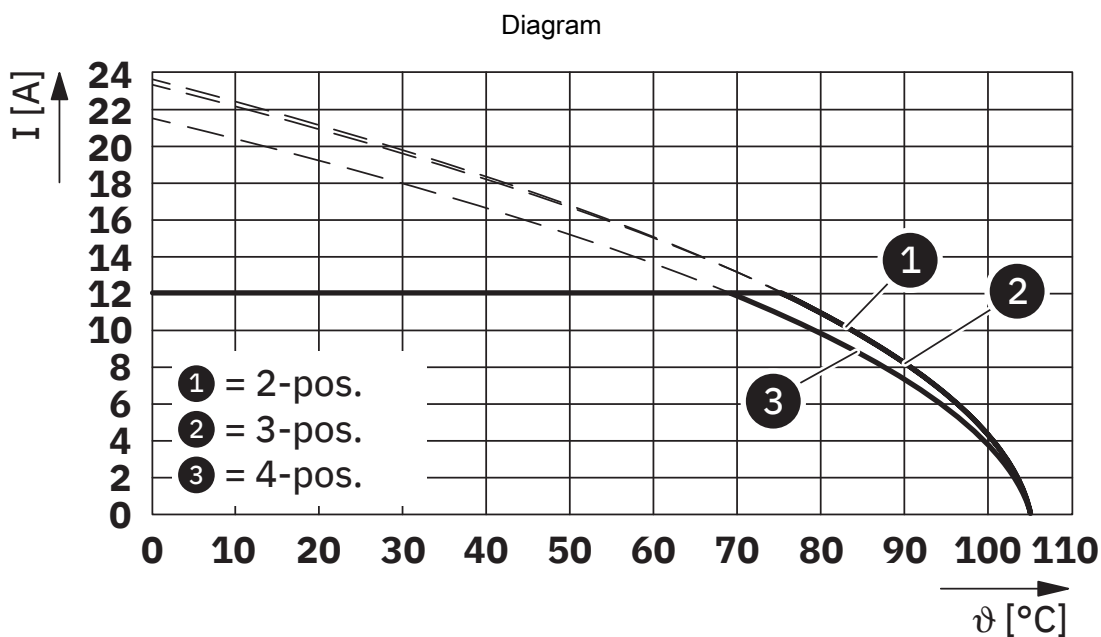
Type: FKCN 2,5/...-ST with MSTBO 2,5/...-G1R



Type: FRONT-MSTB 2,5/...-ST with MSTBO 2,5/...-G1R



Type: FKCT 2,5/...-ST with MSTBO 2,5/...-G1R



Type: FKCVR 2,5/...-ST with MSTBO 2,5/...-G1R

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907787>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	10 A	-	-
Use group D				
	300 V	10 A	-	-

 cULus Recognized Approval ID: E60425-20050718				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	16 A	-	-
Use group D				
	300 V	10 A	-	-

 VDE Zeichengenehmigung Approval ID: 40050648				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	8 A	-	-

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Classifications

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

ETIM

ETIM 9.0	EC002637
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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