

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

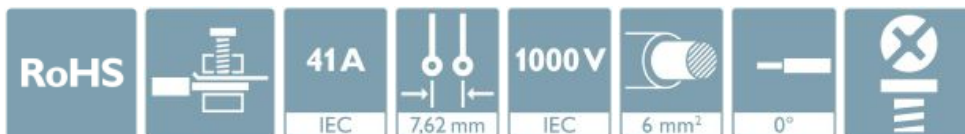


PCB connector, nominal cross section: 6 mm², color: black, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of connections: 2, product range: PC 5/..-ST1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Stecksystem: POWER COMBICON 5, Locking: without, type of packaging: packed in cardboard


The figure shows a 5-pos. version of the product

Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- ✓ 600 V UL approval in the smallest of dimensions



Key Commercial Data

Packing unit	50 pc
GTIN	 4 046356 701839
GTIN	4046356701839

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 5
Type of contact	Female connector
Range of articles	PC 5/..-ST1
Pitch	7.62 mm
Number of positions	2
Drive form screw head	Philipps recess with slotted Torx (H1L)
Screw thread	M3

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Technical data

Item properties

Locking	without
Number of levels	1
Number of connections	2
Number of potentials	2

Electrical parameters

Nominal current	41 A
Nom. voltage	1000 V
Rated voltage	1000 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.2 mm ² ... 10 mm ²
Conductor cross section flexible	0.2 mm ² ... 6 mm ²
Conductor cross section AWG / kcmil	24 ... 10
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 6 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 4 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 2.5 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 4 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm ² ... 2.5 mm ²
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.4 mm
Stripping length	10 mm
Torque	0.5 Nm ... 0.8 Nm ($\leq 4 \text{ mm}^2$ is 0.5 Nm to 0.6 Nm, $> 4 \text{ mm}^2$ is 0.7 Nm to 0.8 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

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Technical data

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

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	35.25 mm
Width [w]	15.19 mm
Height [h]	19.7 mm
Pitch	7.62 mm
Height (without solder pin)	19.7 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 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 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	6 mm ² / solid / > 80 N
	4 mm ² / flexible / > 60 N
	6 mm ² / flexible / > 80 N
	10 mm ² / solid / > 90 N

Mechanical tests according to standard

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

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	50
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	4 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	29 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)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	12.5 mm
Minimum creepage distance value (III/2)	5 mm
Minimum creepage distance value (II/2)	5 mm

Current carrying capacity / derating curves

Caption	Type: PC 5/...-ST(F)1-7,62 with PC 5/...-G(F)U-7,62 Conductor cross section: 10 mm ²
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.	4 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	0.4 mΩ
Insertion/withdrawal cycles	50
Contact resistance R ₂	0.4 mΩ

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Technical data

Durability tests (B)

Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV
Insulation resistance, neighboring positions	> 34 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	12
Conductor cross section	10 mm ²
Test current	41 A DC
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	7.3 kV
Power-frequency withstand voltage	3.31 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Back of hand safety with IP10 access probe

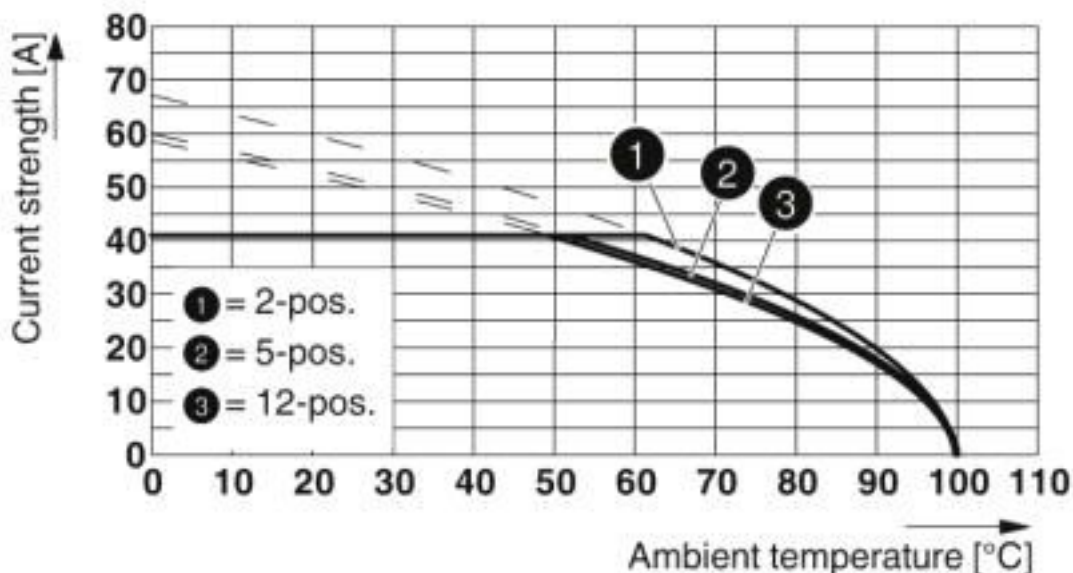
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

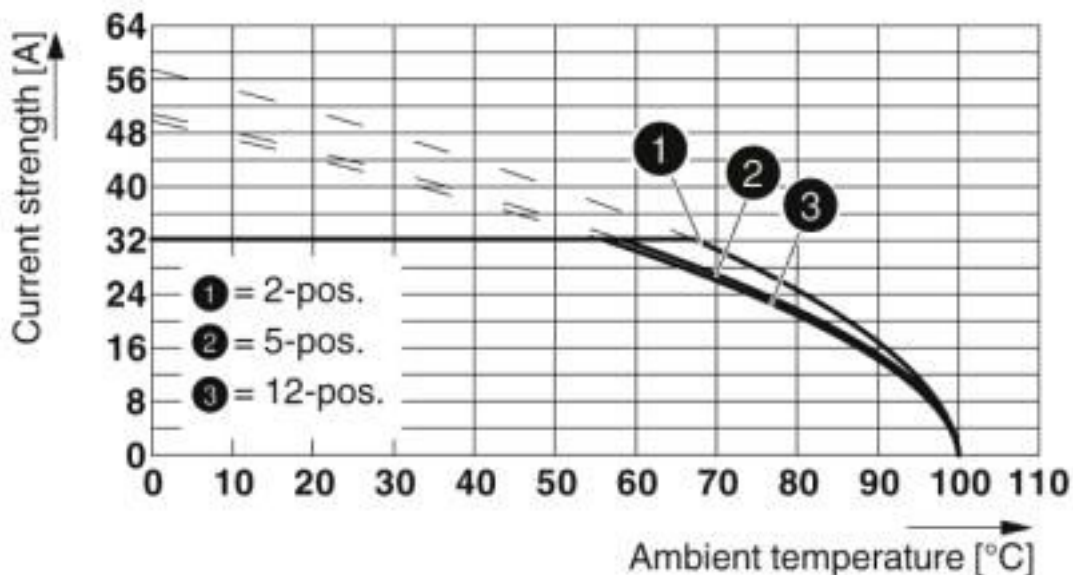
Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Type: PC 5/...-ST(F)1-7,62 with PC 5/...-G(F)U-7,62
Conductor cross section: 10 mm²

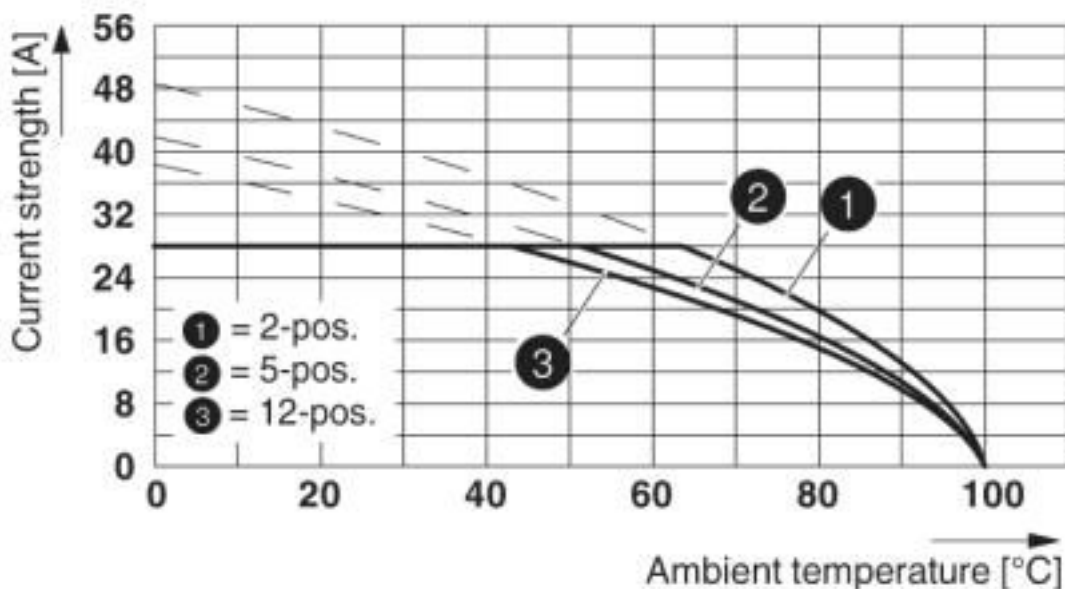
Diagram



Type: PC 5/...-ST(F)1-7,62 with PC 5/...-GU(F)-7,62
Conductor cross section: 6 mm²

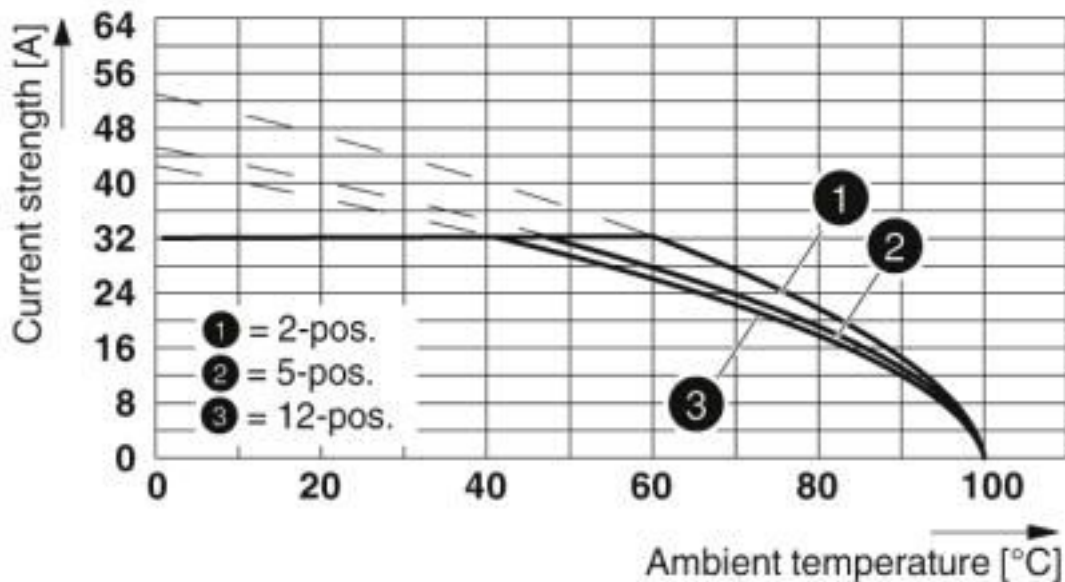
Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Derating curve for: PC 5/...-ST1-7,62 with PC 4/....-G-7,62
Conductor cross section: 4 mm²

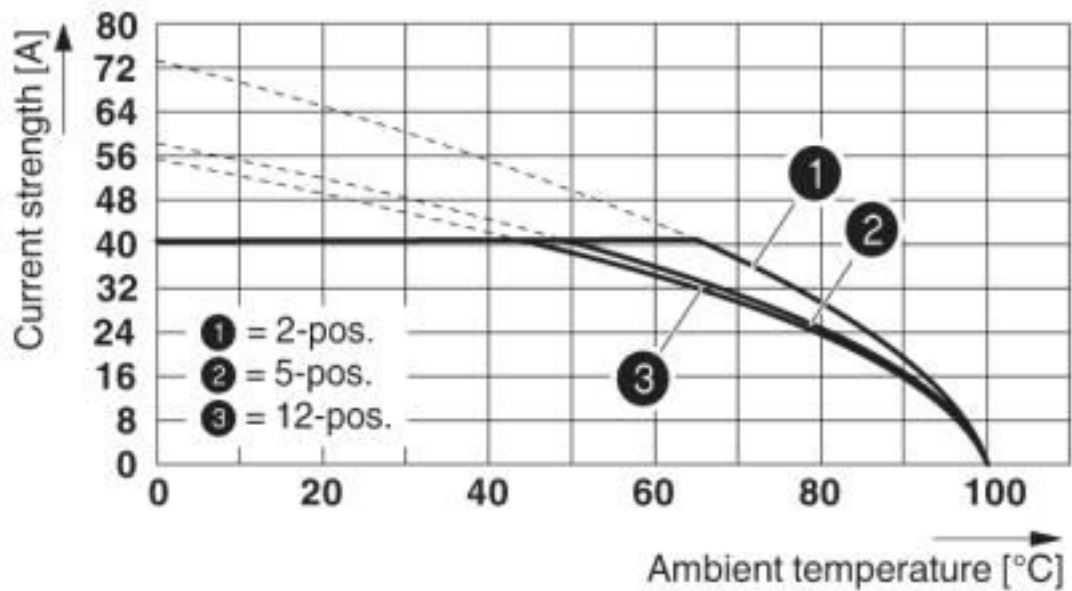
Diagram



Derating curve for: PC 5/...-ST1-7,62 with PC 4/....-G-7,62
Conductor cross section: 6 mm²

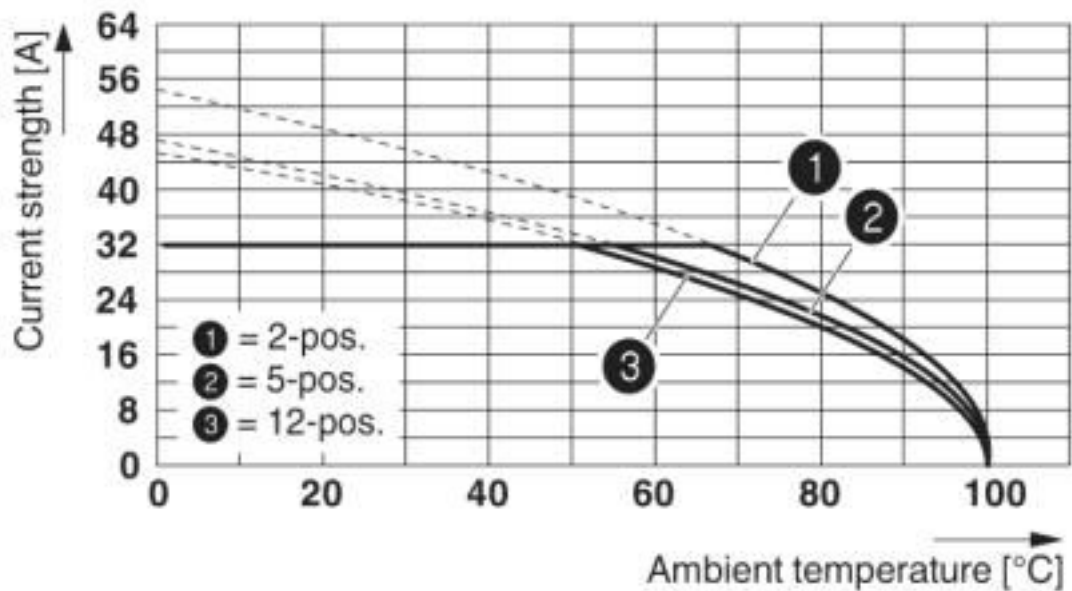
Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62
Conductor cross section: 10 mm²

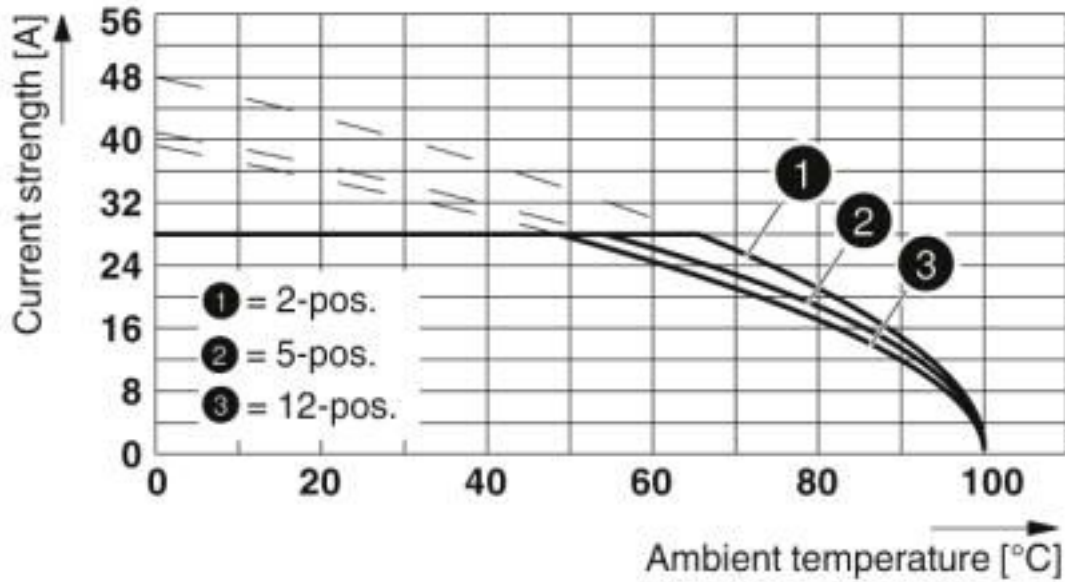
Diagram



Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62
Conductor cross section: 6 mm²

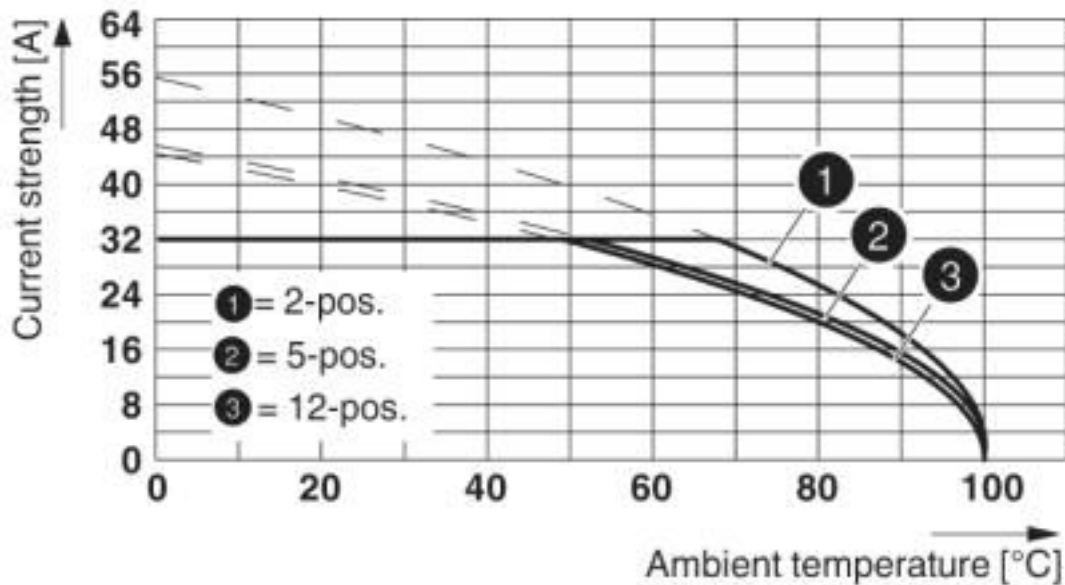
Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Derating curve for: PC 5/...-ST1-7,62 with PCV 4/....-G-7,62
Conductor cross section: 4 mm²

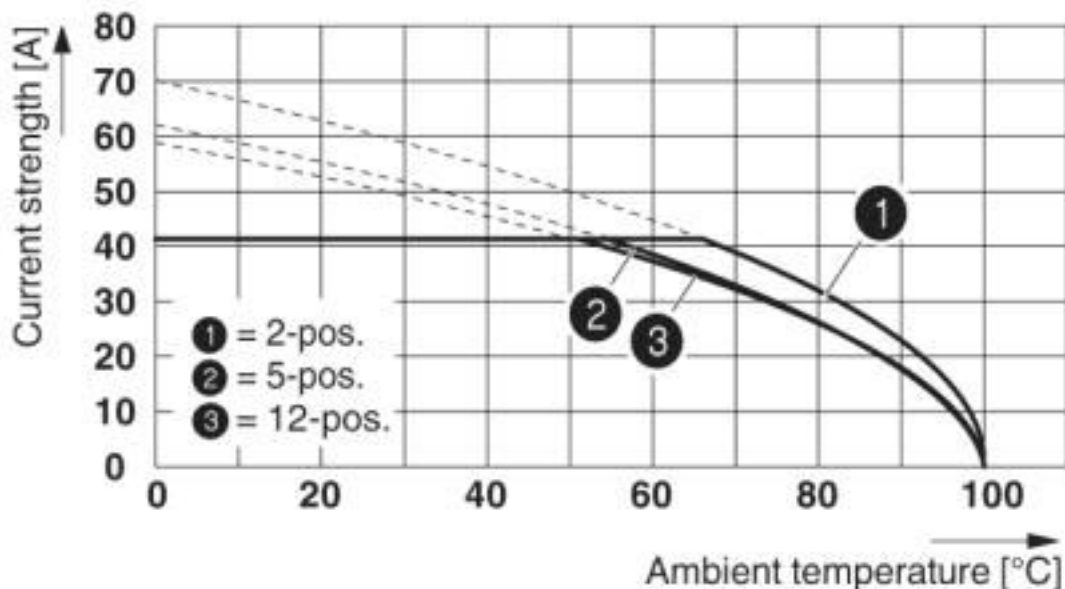
Diagram



Derating curve for: PC 5/...-ST1-7,62 with PCV 4/....-G-7,62
Conductor cross section: 6 mm²

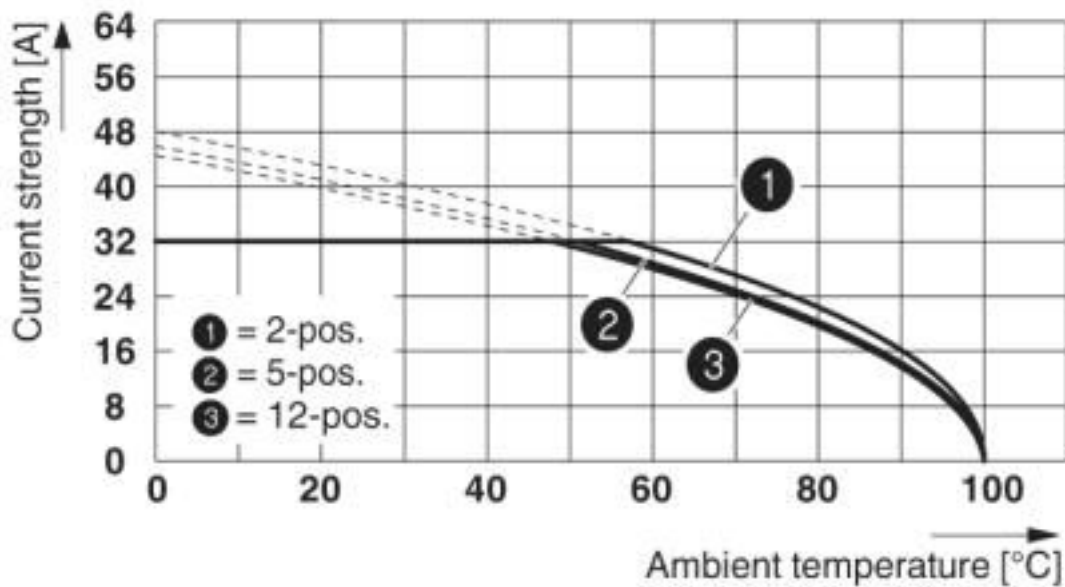
Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Derating curve for: PC 5/...-ST1-7,62 with PCV 5/...-G-7,62
Conductor cross section: 10 mm²

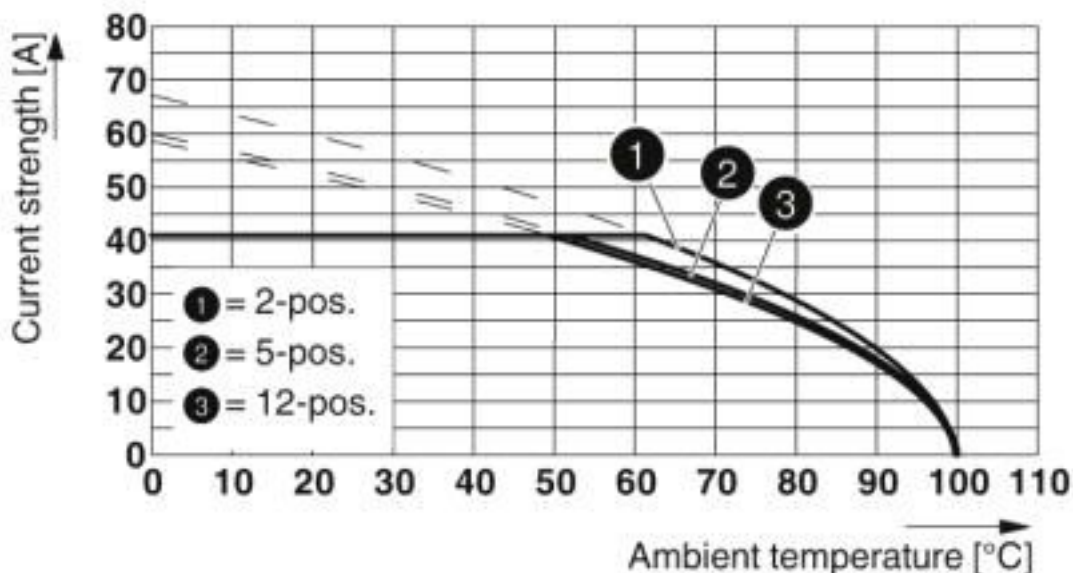
Diagram



Derating curve for: PC 5/...-ST1-7,62 with PCV 5/...-G-7,62
Conductor cross section: 6 mm²

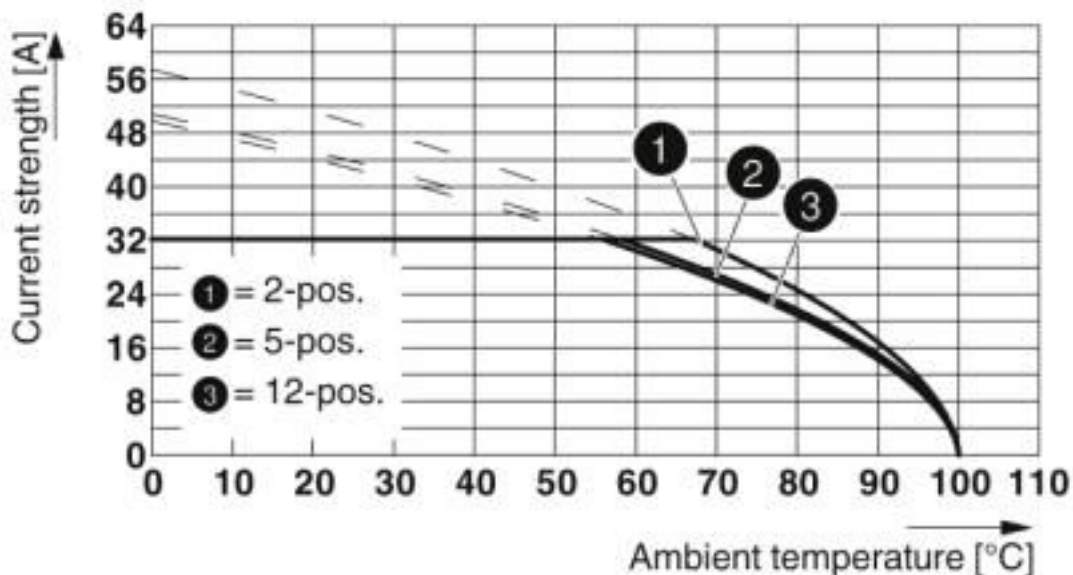
Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Type: PC 5/...-ST1-7,62 with PC 5/...-GU-7,62 P26 THT R..
Conductor cross section: 10 mm²

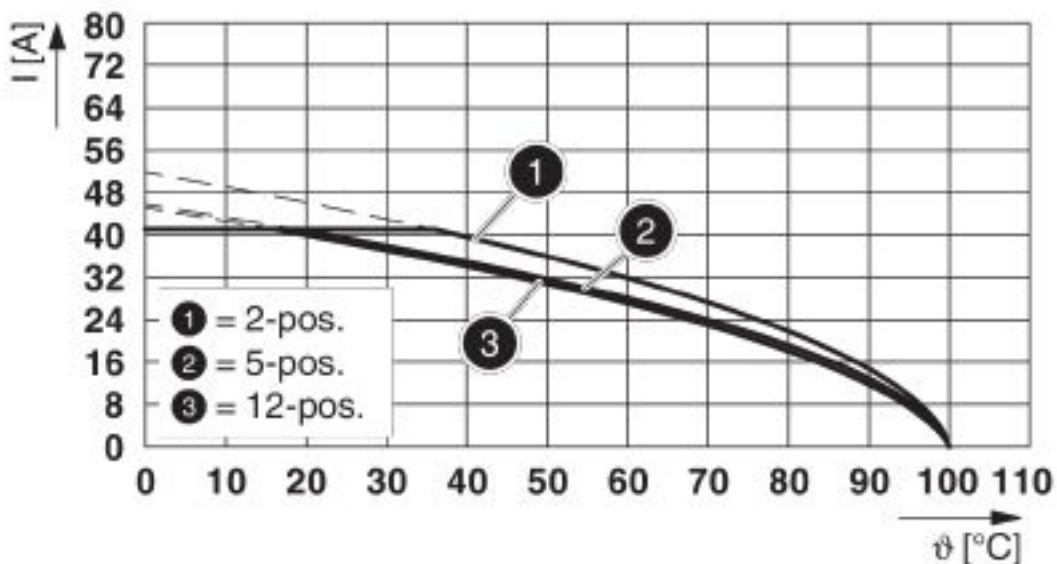
Diagram



Type: PC 5/...-ST1-7,62 with PC 5/...-GU-7,62 P26 THT R..
Conductor cross section: 6 mm²

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Diagram



Type: PC 5/...-ST1-7,62 with IPC 5/...-ST-7,62

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

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Classifications

UNSPSC

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.01742
-----	---	---------

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19920722
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	41 A	41 A	
mm ² /AWG/kcmil	24-8	24-8	

Accessories

Accessories

Coding element

Printed-circuit board connector - PC 5/ 2-ST1-7,62 BKBDWH:T,L - 1809487

Accessories

Coding profile - CP-PC RD - 1701967



Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red

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

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>