

SPC 16/ 6-STF-10,16 - PCB connector



1711417

<https://www.phoenixcontact.com/de/produkte/1711417>

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PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Socket, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: SPC 16/...-STF, pitch: 10.16 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- Optimized for tight installation situations: operation and conductor connection from one direction
- Screwable flange for superior mechanical stability

Commercial data

Item number	1711417
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	E1 - Leiterplattenanschl.
Product key	AAEFAB
Catalog page	Page 563 (C-1-2013)
GTIN	4046356081160
Weight per piece (including packing)	52,072 g
Weight per piece (excluding packing)	52,072 g
Customs tariff number	85366990
Country of origin	IN

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Technical data

Product properties

Type	Plug component
Product line	COMBICON Connectors XL
Product type	PCB connector
Product family	SPC 16/...STF
Number of positions	6
Pitch	10.16 mm
Number of connections	6
Number of rows	1
Mounting flange	Screw flange
Number of potentials	6

Electrical properties

Nominal current I_N	76 A
Nominal voltage U_N	1000 V
Degree of pollution	3
Contact resistance	0.5 m Ω
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON PC 16
Nominal cross section	16 mm ²
Contact connection type	Socket

Interlock

Locking type	Screw locking mechanism
Mounting flange	Screw flange
Tightening torque	0.3 Nm ... 0.7 Nm

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.75 mm ² ... 16 mm ²
Conductor cross section flexible	0.75 mm ² ... 16 mm ²
Conductor cross section AWG	18 ... 4

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Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm ² ... 16 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm ² ... 10 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.75 mm ² ... 4 mm ²
Cylindrical gauge a x b / diameter	- / 5.4 mm
Stripping length	18 mm

Material specifications

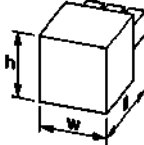
Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Silver-plated strip
Metal surface terminal point (top layer)	Silver (4 - 8 µm Ag)
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)

Material data - housing

Color (Housing)	green (6021)
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

Dimensional drawing	
Pitch	10.16 mm
Width [w]	78.72 mm
Height [h]	25.1 mm
Length [l]	44.5 mm

Mounting

Connection method	Push-in spring connection
Flange	
Tightening torque	0.3 Nm ... 0.7 Nm

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Notes

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.
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Mechanical tests

Conductor connection

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

Test for conductor damage and slackening

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

Repeated connection and disconnection

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

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.75 mm ² / solid / > 30 N
	0.75 mm ² / flexible / > 30 N
	16 mm ² / solid / > 100 N
	16 mm ² / flexible / > 100 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 N

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

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	9.8 kV
Contact resistance R_1	0.5 m Ω
Contact resistance R_2	0.5 m Ω
Insertion/withdrawal cycles	50
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	4.26 kV

Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

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

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	9

Insulation resistance

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

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Temperature cycles

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

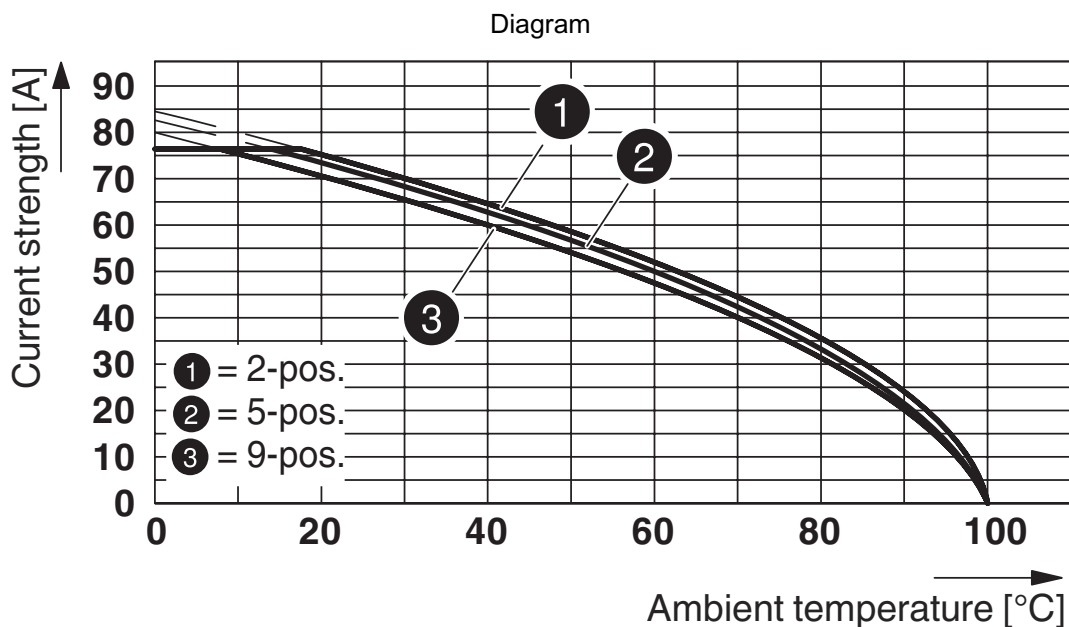
Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

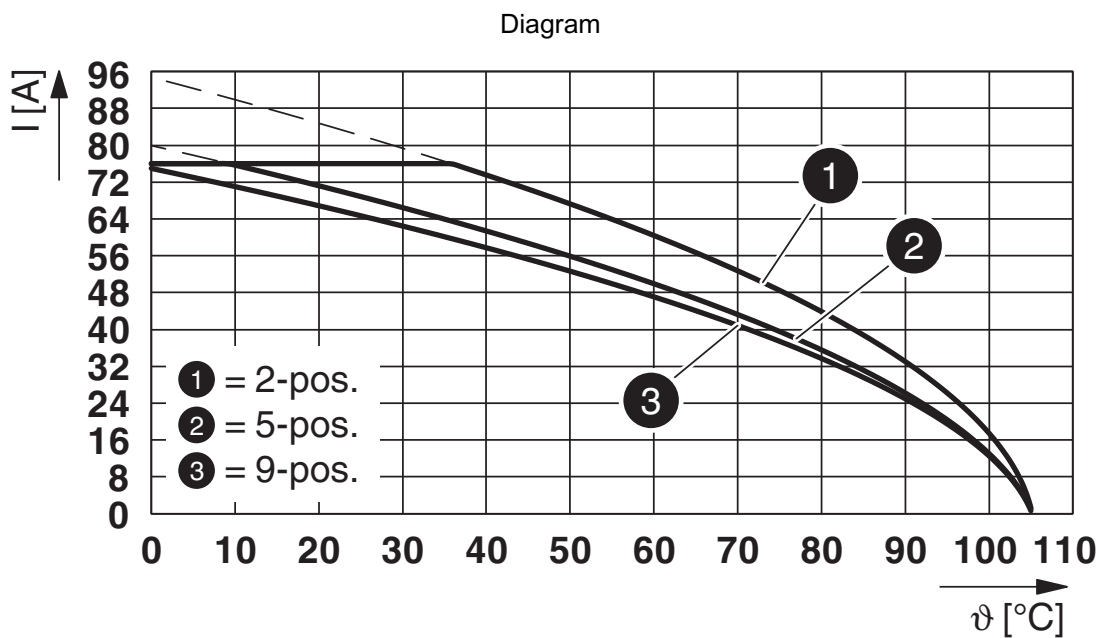
Packaging specifications

Type of packaging	packed in cardboard
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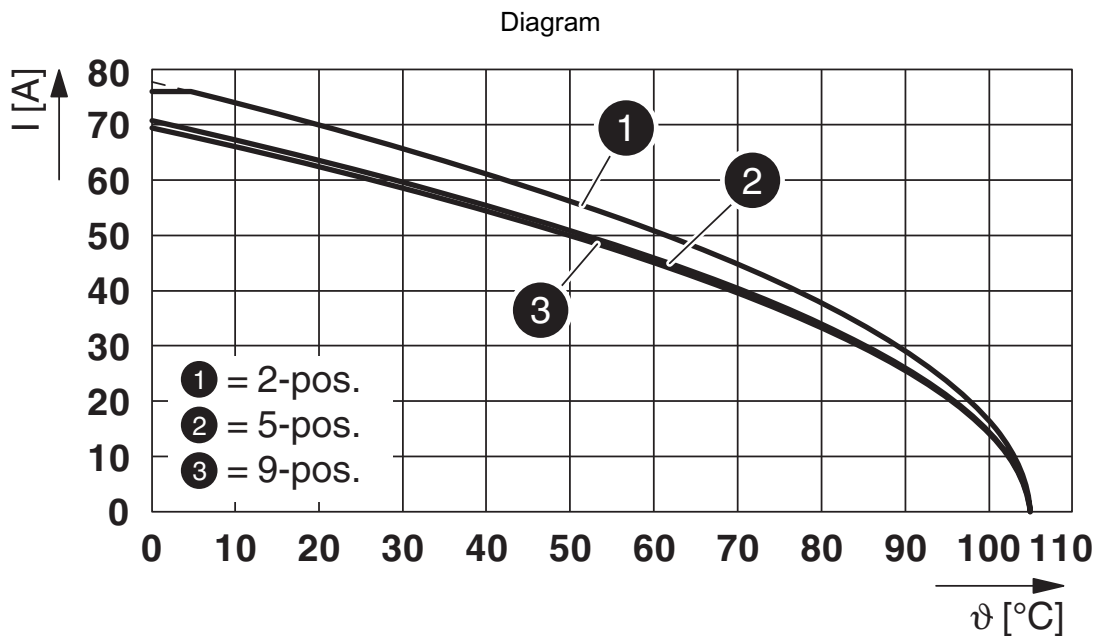
Drawings



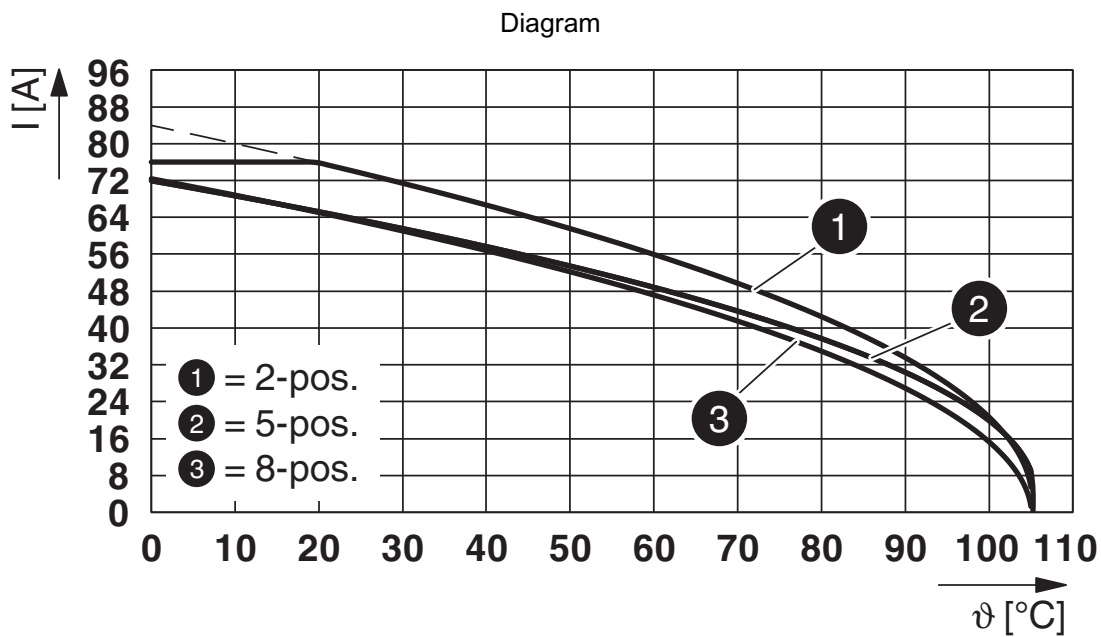
Type: SPC 16/...-ST(F)-10,16 with DFK-PC 16/...-ST(F)-10,16



Type: SPC 16/...-STF-10,16 with PC 6-16/...-G1F-10,16

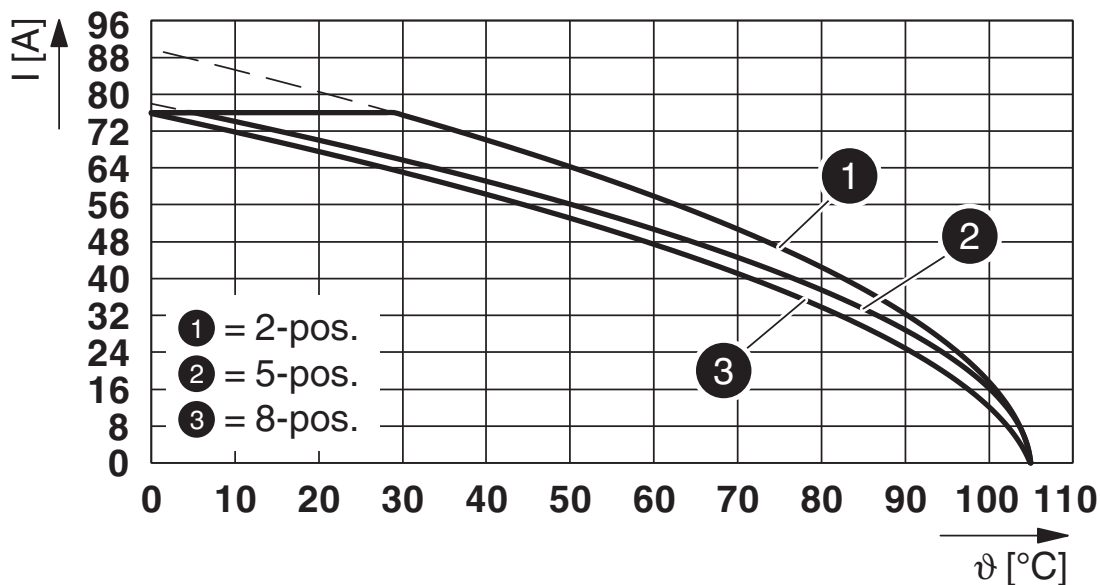


Type: SPC 16/...-STF-10,16 with PC 6-16/...-G1FU-10,16



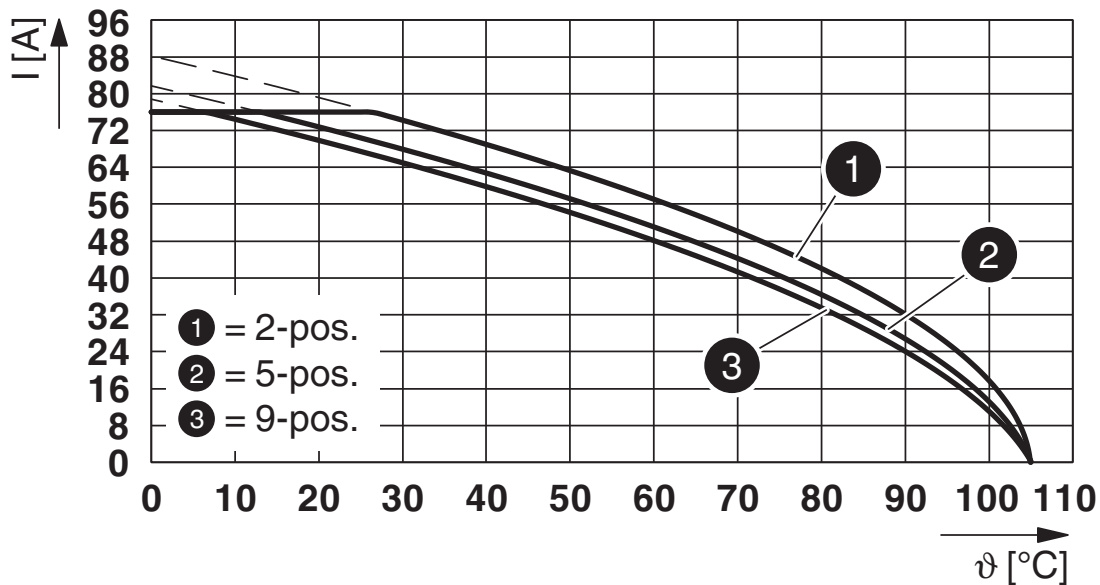
Type: SPC 16/...-STF-10,16 with PC 6-16/...-GF-10,16

Diagram



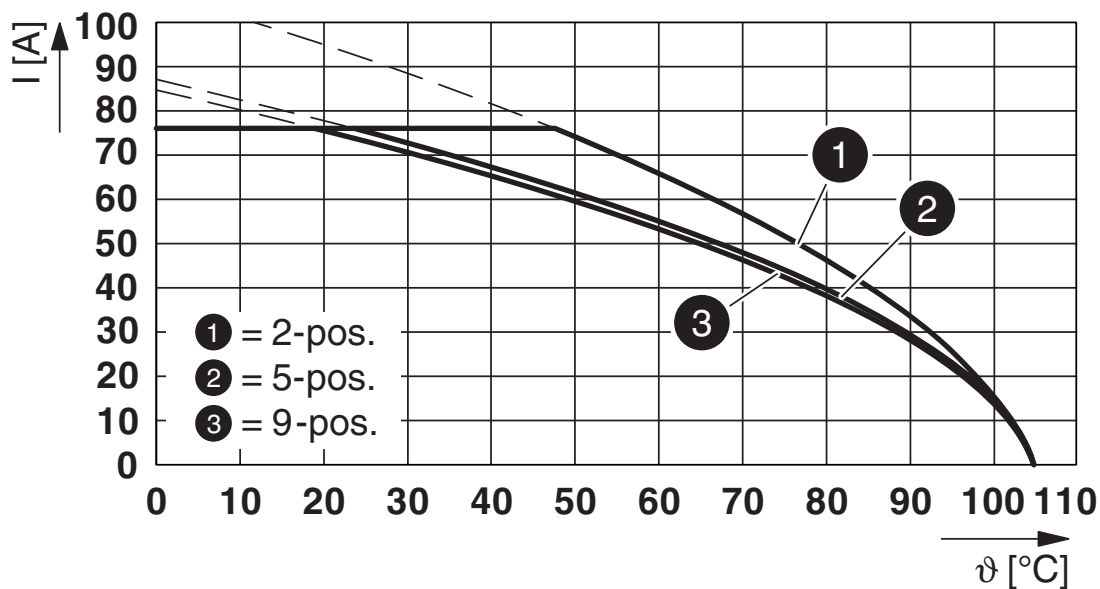
Type: SPC 16/...-STF-10,16 with PCV 6-16/...-GF-10,16

Diagram



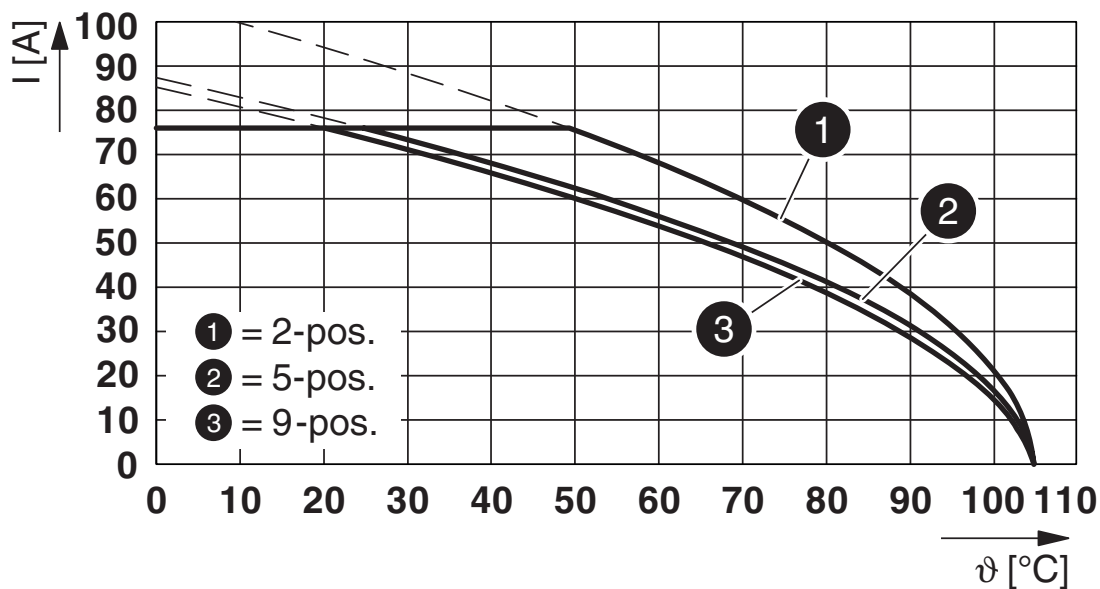
Type: SPC 16/...-STF-10,16 with PCV 6-16/...-G1F-10,16

Diagram



Type: SPC 16/...-STF-10,16 with ISPC 16/...-STGF-10,16

Diagram



Type: SPC 16/...-STF-10,16 with IPC 16/...-STGF-10,16

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/de/produkte/1711417>



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20040202

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	66 A	20 - 4	-
Use group C				
	600 V	66 A	20 - 4	-



VDE Zeichengenehmigung

Approval ID: 40055586

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1000 V	76 A	-	0.75 - 16

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Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 8.0	EC002638
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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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Accessories

CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/de/produkte/1701967>

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



SZF 2-0,8X4,0 - Screwdriver

1204520

<https://www.phoenixcontact.com/de/produkte/1204520>

Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip



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SK 5,0 WH:REEL - Marker strip

0805221

<https://www.phoenixcontact.com/de/produkte/0805221>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 5 mm

CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/de/produkte/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

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PCV 6-16/ 6-G1F-10,16 - PCB header

1998904

<https://www.phoenixcontact.com/de/produkte/1998904>



PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: PCV 6-16/...-G1F, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

PC 6-16/ 6-G1F-10,16 - PCB header

1999042

<https://www.phoenixcontact.com/de/produkte/1999042>



PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: PC 6-16/...-G1F, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

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