Printed-circuit board connector - PC 16/ 7-ST-10,16 - 1967427

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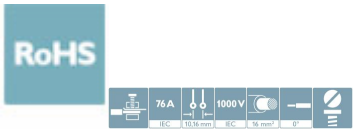
The figure shows a 5-pos. version of the product

PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

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
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve



Key Commercial Data

Packing unit	25 pc
GTIN	4 017918 939281
GTIN	4017918939281

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 16
Type of contact	Female connector
Range of articles	PC 16/..-ST
Pitch	10.16 mm
Number of positions	7
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M4
Locking	without

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Technical data

Item properties

Number of levels	1
Number of connections	7
Number of potentials	7

Electrical parameters

Nominal current	76 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	0.75 mm² ... 16 mm²
Conductor cross section flexible	0.75 mm² ... 16 mm²
Conductor cross section AWG / kcmil	18 ... 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm² ... 16 mm² (Only in connection with CRIMPFOX 16 S)
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm² ... 10 mm² (Only in connection with CRIMPFOX 16 S)
2 conductors with same cross section, solid	0.75 mm² ... 6 mm²
2 conductors with same cross section, flexible	0.75 mm² ... 6 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm² ... 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 6 mm²
Cylindrical gauge a x b / diameter	- / 5.4 mm
Stripping length	12 mm
Torque	1.7 Nm ... 1.8 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	Selective coating
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface terminal point (middle layer)	Nickel flash (Ni flash)
Metal surface contact area (top layer)	Silver (2 - 4 µm Ag)
Metal surface contact area (middle layer)	Nickel flash (Ni flash),

Material data - housing

Housing color	green (6021)

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Material data - housing

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	The figure shows the 3-pos. version
Length [l]	41.5 mm
Width [w]	70.96 mm
Height [h]	27.8 mm
Pitch	10.16 mm
Height (without solder pin)	28 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	25
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	0.75 mm² / solid / > 30 N
	0.75 mm² / flexible / > 30 N
	16 mm² / solid / > 100 N
	16 mm² / flexible / > 100 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

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Mechanical tests according to standard

No. of cycles	50
Insertion strength per pos. approx.	17 N
Withdraw strength per pos. approx.	17 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	20 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)	8 mm
Minimum creepage distance value (II/2)	5.5 mm

Current carrying capacity / derating curves

Caption	Type: PC 16/..-ST-10,16 with PC 6-16/..-G1-10,16
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.	17 N
Withdraw strength per pos. approx.	17 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	0.22 mΩ
Insertion/withdrawal cycles	50
Contact resistance R_2	0.24 mΩ
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	> 17 TΩ

Thermal tests (C)

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

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Thermal tests (C)

Conductor cross section	16 mm²
Test current	57 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	9.8 kV
Power-frequency withstand voltage	4.26 kV

Environmental and durability tests (E)

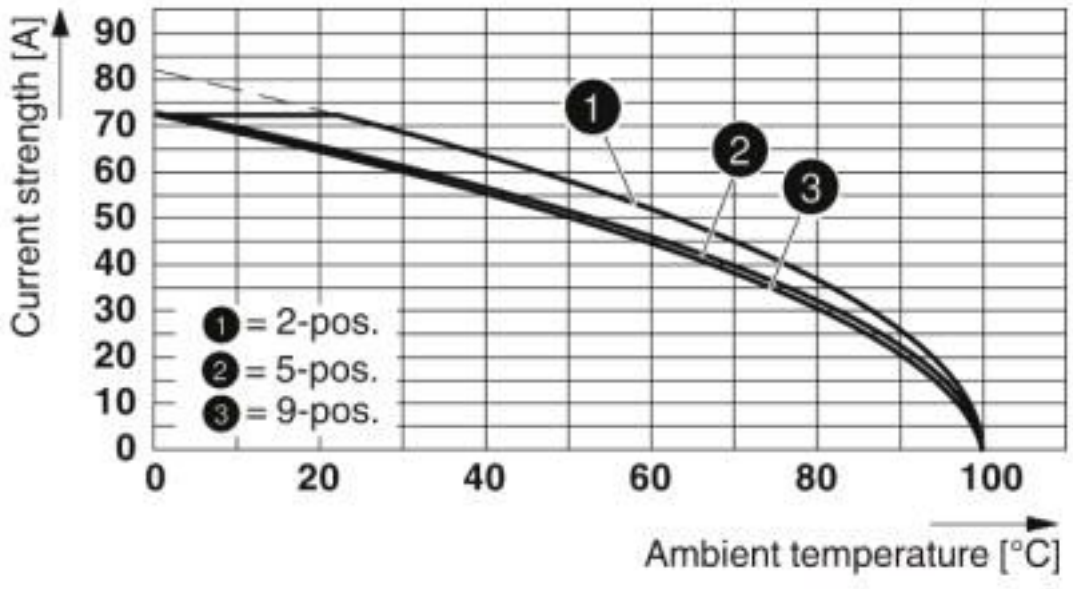
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

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

Diagram



Type: PC 16/..-ST-10,16 with PC 6-16/..-G1-10,16

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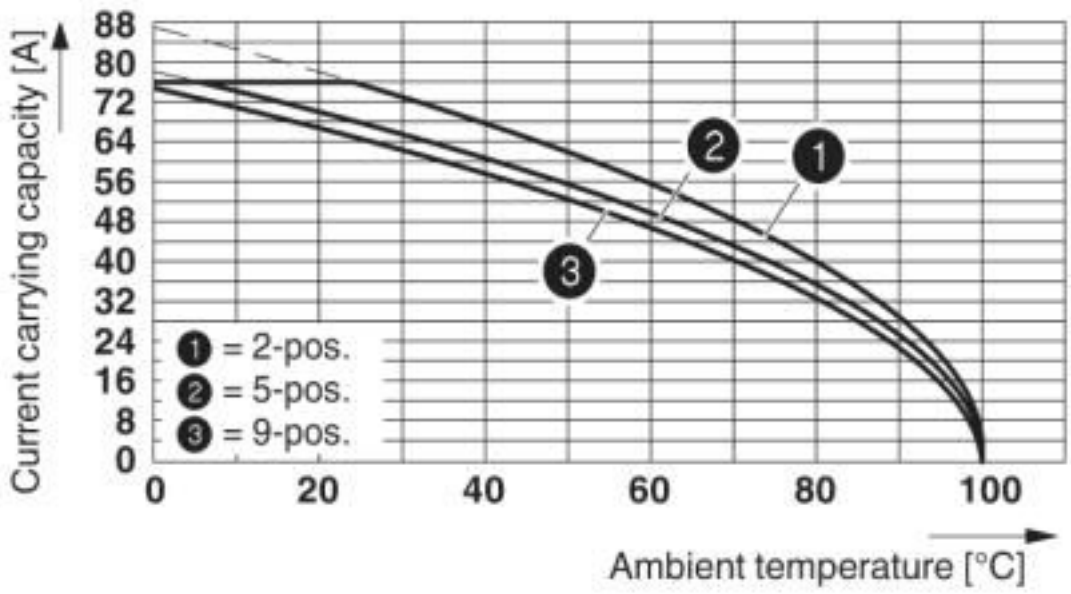
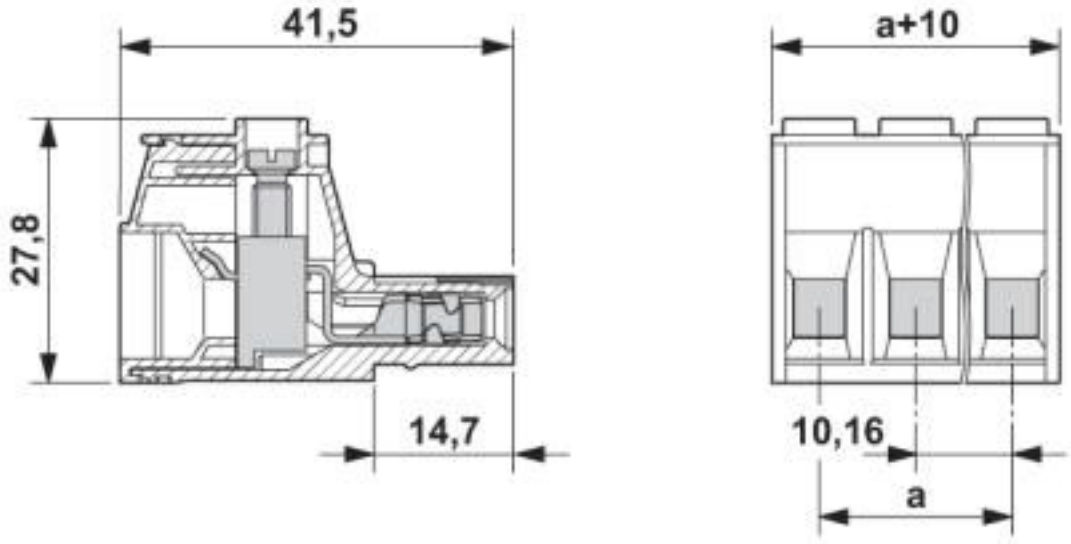
Diagram



Derating curve for: PC 16/..-ST-10,16 with DFK-PC 6-16/..-G-10,16

Dimensional drawing



The figure shows the 3-pos. version

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700

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Classifications

eCl@ss

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
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

SEV / EAC / cULus Recognized / IECEE CB Scheme

Ex Approvals

Approval details

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Approvals

SEV		https://www.eurofins.ch/de/	IK-4468-M1

Nominal voltage UN	1000 V
Nominal current IN	76 A
mm²/AWG/kcmil	16

EAC		B.01687

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20040202

	B	C
Nominal voltage UN	600 V	600 V
Nominal current IN	55 A	55 A
mm²/AWG/kcmil	20-6	20-6

IECEE CB Scheme		http://www.iecee.org/	CH-10653-M1

Nominal voltage UN	1000 V
Nominal current IN	76 A
mm²/AWG/kcmil	16

Accessories

Accessories

Coding element

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

Crimping tool

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Accessories

Crimping pliers - CRIMPFOX 6 - 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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Crimping pliers - CRIMPFOX 16 S - 1207983

Crimping pliers for ferrules up to 16 mm²

Screwdriver tools

Screwdriver - SZS 1,0X4,0 VDE - 1205066

Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip

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Terminal marking

Marker strip - SK 5,0 WH:REEL - 0805221

Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: continuous x 5#mm, Number of individual labels: 90000

Additional products

Feed-through header - PCV 6-16/ 7-G1-10,16 - 1998836

PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

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Accessories

Feed-through header - PC 6-16/ 7-G1-10,16 - 1998988

PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

Printed-circuit board connector - IPC 16/ 7-ST-10,16 - 1969425

PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

Feed-through header - PC 6-16/ 7-G1U-10,16 - 1996281

PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

Printed-circuit board connector - ISPC 16/ 7-ST-10,16 - 1748590

PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, connection method: Push-in spring connection, color: green, contact surface: Silver

Feed-through header - DFK-PC 6-16/ 7-G-10,16 - 1701508

Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm

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Accessories

Feed-through header - DFK-PC 6-16/ 7-GU-10,16 - 1701663

Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm

Feed-through header - DFK-PCV 6-16/ 7-G-10,16 - 1702141

Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.2 mm

Feed-through plug - DFK-PC 16/ 7-ST-10,16 - 1703425

Feed-through connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 7, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

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