

Printed-circuit board connector - PC 16/ 3-ST-10,16 - 1967388

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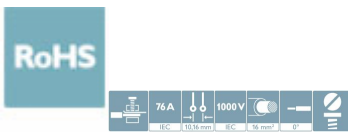


PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver


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



Key Commercial Data

| | |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 25 pc |
| GTIN |  4 017918 939243 |
| GTIN | 4017918939243 |

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 | 3 |
| 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 | 3 |
| Number of potentials | 3 |

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 mm ² ... 16 mm ² |
| Conductor cross section flexible | 0.75 mm ² ... 16 mm ² |
| Conductor cross section AWG / kcmil | 18 ... 6 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.5 mm ² ... 16 mm ² (Only in connection with CRIMPFOX 16 S) |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.5 mm ² ... 10 mm ² (Only in connection with CRIMPFOX 16 S) |
| 2 conductors with same cross section, solid | 0.75 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible | 0.75 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.5 mm ² ... 4 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 6 mm ² |
| 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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Technical data

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] | 30.32 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 mm ² / solid / > 30 N |
| | 0.75 mm ² / flexible / > 30 N |
| | 16 mm ² / solid / > 100 N |
| | 16 mm ² / 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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Technical data

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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Technical data

Thermal tests (C)

| | |
|-------------------------------------------------|--------------------|
| Conductor cross section | 16 mm ² |
| 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)

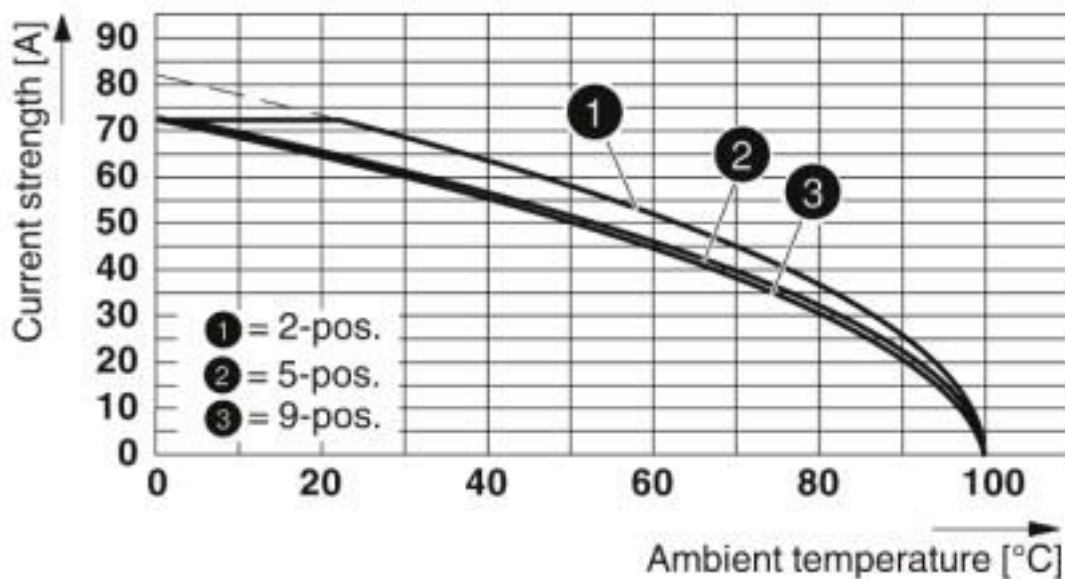
| | |
|---------------------------------------|-------------------------------------|
| Specification | IEC 61984:2008-10 |
| Result, degree of protection, IP code | Finger safety with IP20 test finger |

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

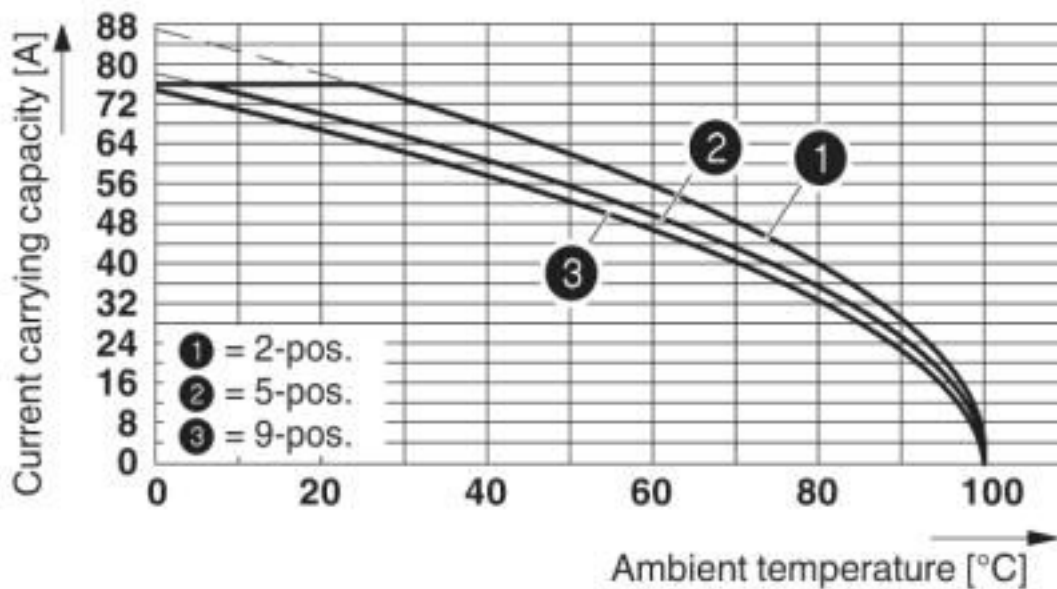
Diagram



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

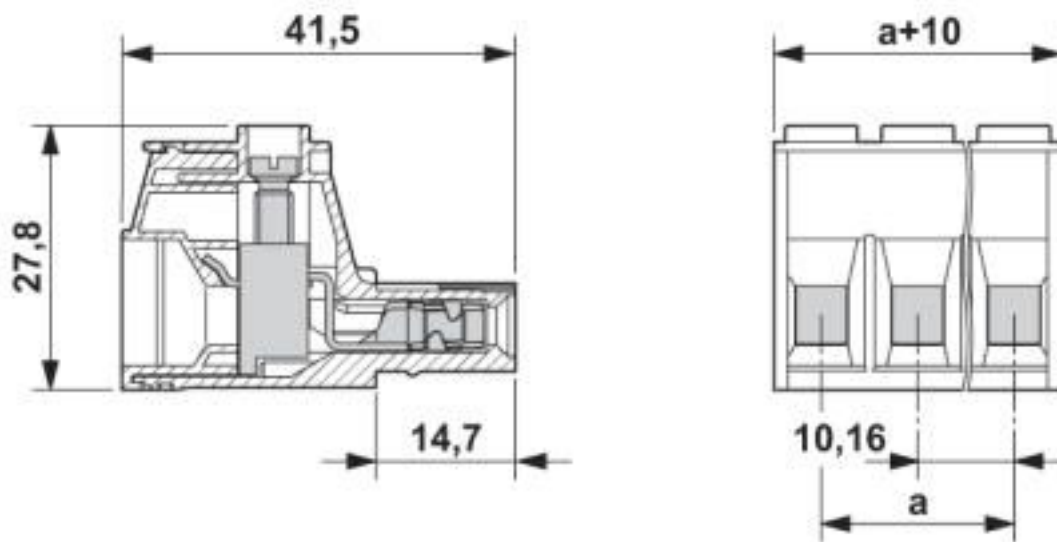
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Diagram



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

Dimensional drawing



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440309 |
| eCl@ss 4.0 | 27260700 |
| eCl@ss 4.1 | 27260700 |
| eCl@ss 5.0 | 27260700 |

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Classifications

eCl@ss

| | |
|------------|----------|
| 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 / IECCEB CB Scheme

Ex Approvals

Approval details

| | | | |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------|
| SEV |  | https://www.eurofins.ch/de/ | IK-4468-M1 |
| Nominal voltage UN | 1000 V | | |

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Approvals

| | |
|--------------------------------|------|
| Nominal current I _N | 76 A |
| mm ² /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 U _N | 600 V | 600 V | |
| Nominal current I _N | 55 A | 55 A | |
| mm ² /AWG/kcmil | 20-6 | 20-6 | |

| | | | |
|--------------------------------|--------|-----------------------------------------------------------|-------------|
| IECEE CB Scheme | | http://www.iecee.org/ | CH-10653-M1 |
| Nominal voltage U _N | 1000 V | | |
| Nominal current I _N | 76 A | | |
| mm ² /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

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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Accessories

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

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/ 3-G1-10,16 - 1998797



PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

Feed-through header - PC 6-16/ 3-G1-10,16 - 1998946



PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, 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

Printed-circuit board connector - IPC 16/ 3-ST-10,16 - 1969386



PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

Feed-through header - PC 6-16/ 3-G1U-10,16 - 1996249



PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, 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/ 3-ST-10,16 - 1748558



PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, pitch: 10.16 mm, connection method: Push-in spring connection, color: green, contact surface: Silver

Feed-through header - DFK-PC 6-16/ 3-G-10,16 - 1701469



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, 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-PC 6-16/ 3-GU-10,16 - 1701621



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, 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-PCV 6-16/ 3-G-10,16 - 1702109



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, 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/ 3-ST-10,16 - 1703386



Feed-through connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 3, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

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