

## PCB direct plug - CDDC 1,5/ 3-PV-3,5 - 1016513

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PCB direct plug, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 3, pitch: 3.5 mm, connection method: Crimp connection, color: green, contact surface: Tin, mounting: SKEDD - Direct plug-in technology, pin layout: Linear pinning


The figure shows a 5-pos. version with 10 contacts

### Your advantages

- ✓ SKEDD direct plug-in technology enables flexible positioning on the PCB
- ✓ Reduced component and process costs: simple insertion by hand and vibration-resistant connection
- ✓ Contacts arranged in a double row enable high packing density in a compact area
- ✓ Wide range of applications, thanks to suitability for PCBs with chemically tin-plated or Hot Air Leveling (HAL) surface
- ✓ Cost-effective connection of crimped conductors in large quantities
- ✓ Tools for manual and automatic crimping available as an option



### Key Commercial Data

|                      |   |
|----------------------|---|
| Packing unit         | 1   |
| GTIN                 | <br>4 055626 498157 |
| GTIN                 | 4055626498157   |
| Custom tariff number | 85472000  |

### Technical data

#### Item properties

|                           |                  |
|---------------------------|------------------|
| Brief article description | Direct connector |
| Plug-in system            | SKEDD            |
| Range of articles         | CDDC 1,5/..-PV   |
| Pitch                     | 3.5 mm           |
| Number of positions       | 3                |

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## Technical data

### Item properties

|                       |                                   |
|-----------------------|-----------------------------------|
| Connection method     | Crimp connection                  |
| Mounting type         | SKEDD - Direct plug-in technology |
| Pin layout            | Linear pinning                    |
| Locking               | Self-locking flange               |
| Number of levels      | 2                                 |
| Number of connections | 6                                 |
| Number of potentials  | 6                                 |

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Nominal current             | 8 A    |
| Nom. voltage                | 160 V  |
| Rated voltage               | 160 V  |
| Rated voltage (III/2)       | 160 V  |
| Rated voltage (II/2)        | 320 V  |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated surge voltage (II/2)  | 2.5 kV |

### Connection capacity

|                                     |  |
|-------------------------------------|--|
| Connection method                   | Crimp connection                             |
| Conductor cross section flexible    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section AWG / kcmil | 26 ... 16                                    |

### Material data - housing

|   |              |
|---|--------------|
| Housing color   | 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       |

### Material data – actuating element

|  |     |
|--|-----|
| Insulating material  | PA  |
| 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 |

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## Technical data

### Material data – actuating element

|   |        |
|---|--------|
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |
|---|--------|

### Dimensions for the product

|                             |         |
|-----------------------------|---------|
| Length [ l ]                | 13 mm   |
| Width [ w ]                 | 17.8 mm |
| Height [ h ]                | 19.6 mm |
| Pitch                       | 3.5 mm  |
| Height (without solder pin) | 16 mm   |
| Pin spacing                 | 7.00 mm |

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 250                 |
| Denomination packing units | Pcs.                |

### General product information

|              |  |
|--------------|--|
| Type of note | Note on the contact  |
|              | Note on application  |
|              | Note on application  |
|              | Note on application  |
|              | Note on application  |
| Note         | The information on the basic material and the finish properties of the crimp contacts is to be found in the E-Shop in the technical data for the respective crimp contact. |
|              | All laboratory tests are performed in combination with the crimp contacts specified as accessories.  |
|              | The current depends on the crimp contact and conductor cross section used.   |
|              | The corresponding crimp contacts are to be found in the "Accessories" tab.   |
|              | The crimp contacts may only be processed with approved crimping tools.   |

### Ambient conditions

|   |   |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C                                    |
| Ambient temperature (assembly)          | -5 °C ... 100 °C                                    |
| Ambient temperature (operation)         | -55 °C ... 105 °C (dependent on the derating curve) |

### Termination and connection method

### Mechanical tests according to standard

|                    |                                   |
|--------------------|-----------------------------------|
| Test specification | IEC 61984                         |
| Visual examination | Test passed IEC 60512-1-1:2002-02 |
| Dimensional test   | Test passed IEC 60512-1-2:2002-02 |

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## Technical data

### Mechanical tests according to standard

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Resistance of marking               | Test passed IEC 60068-2-70:1995-12 |
| Result                              | Test passed                        |
| Specification                       | IEC 60512-13-2:2006-02             |
| No. of cycles                       | 25                                 |
| Insertion strength per pos. approx. | 4 N                                |
| Withdraw strength per pos. approx.  | 3 N                                |
| Polarization and coding             | Test passed IEC 60512-13-5:2006-02 |
| Result                              | Test passed                        |
| Specification                       | 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) | 1.5 mm              |
| Minimum clearance - inhomogeneous field (III/2) | 1.5 mm              |
| Minimum clearance - inhomogeneous field (II/2)  | 1.5 mm              |
| Minimum creepage distance value (III/3)         | 2 mm                |
| Minimum creepage distance value (III/2)         | 1.5 mm              |
| Minimum creepage distance value (II/2)          | 1.6 mm              |

### Current carrying capacity / derating curves

|               |           |
|---------------|-----------|
| Specification | IEC 61984 |
|---------------|-----------|

### Mechanical tests (A)

|  |             |
|--|-------------|
| Test specification                           | IEC 61984   |
| Insertion strength per pos. approx.          | 4 N         |
| Withdraw strength per pos. approx.           | 3 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 $R_1$                     | 1.5 m $\Omega$        |
| Insertion/withdrawal cycles                  | 25                    |
| Contact resistance $R_2$                     | 1.6 m $\Omega$        |
| Impulse withstand voltage at sea level       | 2.95 kV               |
| Power-frequency withstand voltage            | 1.39 kV               |
| Insulation resistance, neighboring positions | > 20 G $\Omega$       |

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## Technical data

### Climatic tests (D)

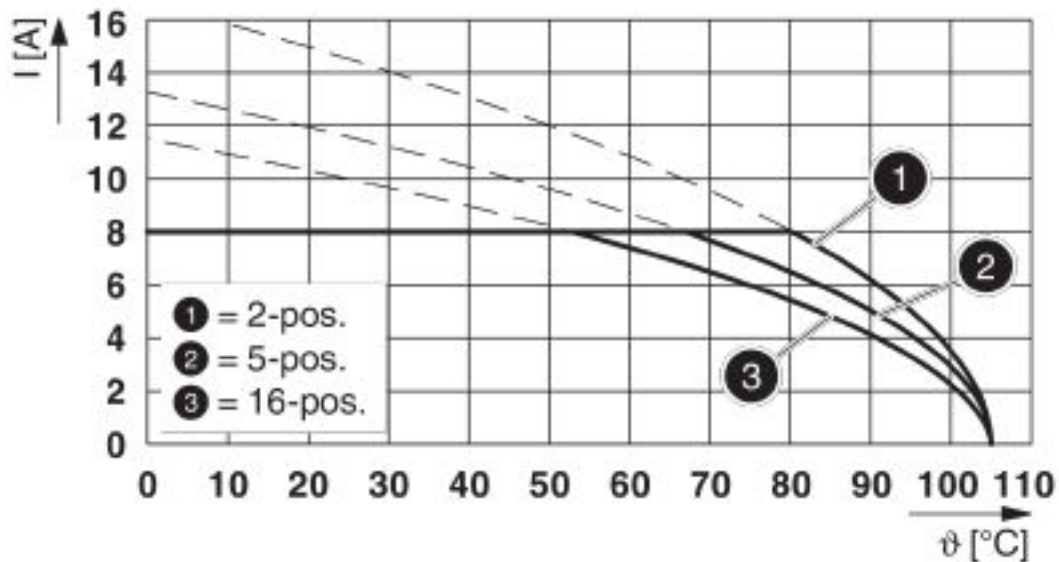
|  |   |
|--|---|
| Specification                          | ISO 6988:1985-02  |
| Cold stress                            | -55 °C/2 h  |
| Thermal stress                         | 105 °C/168 h  |
| Corrosive stress                       | 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle |
| Impulse withstand voltage at sea level | 2.95 kV   |
| Power-frequency withstand voltage      | 1.39 kV   |

### Environmental and durability tests (E)

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

## Drawings

Diagram



Type: CDDC 1,5/...-PV-3,5

## Classifications

eCl@ss

|            |          |
|------------|----------|
| 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 5.0 | EC002637 |
| ETIM 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

## Approvals


### Approvals


#### Approvals

cULus Recognized / VDE Zeichengenehmigung / IECEE CB Scheme

#### Ex Approvals

### Approval details

|                            |   |   |                 |
|----------------------------|---|---|-----------------|
| cULus Recognized           |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E60425-20160718 |
|                            | B   | D   |                 |
| Nominal voltage UN         | 150 V   | 300 V   |                 |
| Nominal current IN         | 8 A   | 8 A   |                 |
| mm <sup>2</sup> /AWG/kcmil | 26-16   | 26-16   |                 |

|                            |   |   |          |
|----------------------------|---|---|----------|
| VDE Zeichengenehmigung     |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40044617 |
| Nominal voltage UN         | 160 V   |   |          |
| Nominal current IN         | 8 A   |   |          |
| mm <sup>2</sup> /AWG/kcmil | 0.14-1.5  |   |          |

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## Approvals

|                 |  |   |           |
|-----------------|--|---|-----------|
| IECEE CB Scheme |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-63213 |
|-----------------|--|---|-----------|

## Accessories

### Accessories

#### Coding element

Coding profile - CP-PT 1,5 - 1985564

Coding profile, inserted into the hole on the plug, made from red insulating material, diameter: 1.35 mm



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## Additional products

Crimp contact - CDC-MP 0,14-0,5 - 1016664



Crimp contact

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Crimp contact - CDC-MP 0,14-0,5-R - 1016663



Crimp contact

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Crimp contact - CDC-MP 0,5-1,5 - 1016662



Crimp contact

## PCB direct plug - CDDC 1,5/ 3-PV-3,5 - 1016513

### Accessories

Crimp contact - CDC-MP 0,5-1,5-R - 1016661



Crimp contact