# MKDSC 3/ 6 SO BJ 2 - PCB terminal block

1889657

https://www.phoenixcontact.com/us/products/1889657

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Printed circuit board terminal, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm$^2$, number of potentials: 6, number of rows: 1, number of positions per row: 6, product range: MKDSC 3, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, number of solder pins per potential: 1, type of packaging: packed in cardboard

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Anti-rotation pins reduce the mechanical strain on the soldering spots
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve
- The latching on the side enables various numbers of positions to be combined

## Commercial data

| | |
|---|---|
| Item number | 1889657 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Product key | AAMFIH |
| GTIN | 4017918363567 |
| Weight per piece (including packing) | 11.798 g |
| Weight per piece (excluding packing) | 11.192 g |
| Country of origin | DE |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Printed circuit board terminal |
| Product family | MKDSC 3 |
| Product line | COMBICON Terminals M |
| Number of positions | 6 |
| Pitch | 5 mm |
| Number of connections | 6 |
| Number of rows | 1 |
| Number of potentials | 6 |
| Solder pins per potential | 1 |

## Electrical properties

### Properties

| | |
|---|---|
| Nominal current $I_N$ | 24 A |
| Nominal voltage $U_N$ | 400 V |
| Rated voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

## Connection data

### Connection technology

| | |
|---|---|
| Nominal cross section | 2.5 mm² |

### Conductor connection

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| Conductor cross-section rigid | 0.2 mm² ... 4 mm² |
| Conductor cross-section flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross-section AWG | 24 ... 12 |
| Conductor cross-section flexible, with ferrule without plastic sleeve | 0.25 mm² ... 2.5 mm² |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.25 mm² ... 1.5 mm² |
| 2 conductors with same cross section, solid | 0.2 mm² ... 2.5 mm² |
| 2 conductors with same cross section, flexible | 0.2 mm² ... 1.5 mm² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm² ... 0.75 mm² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² ... 1.5 mm² |
| Stripping length | 7 mm |
| Drive form screw head | Slotted (L) |

| | |
|---|---|
| Tightening torque | 0.5 Nm ... 0.6 Nm |

## Mounting

| | |
|---|---|
| Mounting type | Wave soldering |

## 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 | Tin-plated |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn) |
| Metal surface soldering area (top layer) | Tin (4 - 8 µm Sn) |

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 |

## Notes

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|---|---|
| Note on application | For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing). |

## Dimensions

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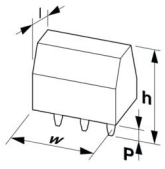
|---|---|
| Dimensional drawing |  |
| Pitch | 5 mm |

## Electrical tests

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) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| minimum clearance value - non-homogenous field (III/3) | 3 mm |
| minimum creepage distance (III/3) | 3.2 mm |
| Rated insulation voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| minimum clearance value - non-homogenous field (III/2) | 3 mm |
| minimum creepage distance (III/2) | 3 mm |
| Rated insulation voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |
| minimum clearance value - non-homogenous field (II/2) | 3 mm |
| minimum creepage distance (II/2) | 3.2 mm |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

## Packaging specifications

| | |
|---|---|
| Type of packaging | packed in cardboard |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27460101 |
| ECLASS-15.0 | 27460101 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC002643 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## Environmental product compliance

EU RoHS

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|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |

EF3.0 Climate Change

| | |
|---|---|
| CO2e kg | 0.062 kg CO2e |




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