

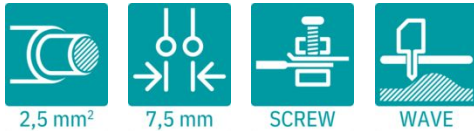
MKDSO 2,5 HV/ 3R-7,5 GN - PCB terminal block



2200856

<https://www.phoenixcontact.com/us/products/2200856>

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PCB terminal block, nominal current: 24 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of rows: 1, number of positions per row: 3, product range: MKDSO 2,5 HV/..-R, pitch: 7.5 mm, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1. Product with pin output on right side

Your advantages

- Maintenance-free and vibration-resistant, thanks to the Reakdyn principle or spring-loaded elements
- PCB terminal block is orthogonal to the PCB
- Internationally recognized and proven screw connection

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2200856 |
| Packing unit | 50 pc |
| Minimum order quantity | 100 pc |
| Note | Made to order (non-returnable) |
| Product key | ACHADA |
| GTIN | 4046356701983 |
| Weight per piece (including packing) | 8.082 g |
| Weight per piece (excluding packing) | 7.22 g |
| Country of origin | DE |

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Technical data

Product properties

| | |
|---------------------------|--------------------|
| Product type | PCB terminal block |
| Product family | MKDSO 2,5 HV/...-R |
| Number of positions | 3 |
| Pitch | 7.5 mm |
| Number of rows | 1 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

Properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 24 A |
| Nominal voltage U_N | 600 V |
| Rated voltage (III/3) | 630 V |
| Rated surge voltage (III/3) | 6 kV |
| Rated voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Connection data

Connection technology

| | |
|-----------------------|---------------------|
| Nominal cross section | 2.5 mm ² |
|-----------------------|---------------------|

Conductor connection

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 14 |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| 2 conductors with same cross section, rigid | 0.2 mm ² ... 0.75 mm ² |
| 2 conductors with same cross section, flexible | 0.25 mm ² ... 0.75 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 0.75 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| Stripping length | 8 mm |
| Tightening torque | 0.5 Nm ... 0.6 Nm |

Mounting

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| | |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

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 μm - 8 μm Sn) |
| Metal surface soldering area (top layer) | Tin (4 μm - 8 μm Sn) |

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 |

Notes

| | |
|---------------------|---|
| Note on application | For reliable conductor connection, always adhere to a defined tightening torque. During conductor connection (mounting), the terminal blocks must be supported (held with one hand, support on the housing). |
|---------------------|---|

Dimensions

| | |
|-----------------------|------------|
| Dimensional drawing | |
| Pitch | 7.5 mm |
| Width [w] | 23.25 mm |
| Height [h] | 20.8 mm |
| Length [l] | 27.95 mm |
| Solder pin length [P] | 3.5 mm |
| Pin dimensions | 0.8 x 1 mm |

PCB design

| | |
|---------------|--------|
| Hole diameter | 1.4 mm |
|---------------|--------|

Mechanical tests

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Test for conductor damage and slackening

| | |
|---------------|-----------------------|
| Specification | IEC 60998-2-1:2002-12 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60998-2-1:2002-12 |
| Conductor cross-section/conductor type/tractive force setpoint/actual value | 0.2 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 2.5 mm ² / solid / > 50 N |
| | 2.5 mm ² / flexible / > 50 N |

Torque test

| | |
|---------------|-----------------------|
| Specification | IEC 60998-2-1:2002-12 |
|---------------|-----------------------|

Electrical tests

Temperature-rise test

| | |
|-----------------------------------|--------------------------------|
| Specification | IEC 60998-1:2002-12 |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Insulation resistance

| | |
|--|---------------------|
| Specification | IEC 60998-1:2002-12 |
| Insulation resistance, neighboring positions | 10 ⁹ Ω |

Air clearances and creepage distances |

| | |
|--|---|
| Specification | IEC 60664-1:1992-10 + A1:2000-02 + A2:2002-05 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 630 V |
| Rated surge voltage (III/3) | 6 kV |
| minimum clearance value - non-homogenous field (III/3) | 5.5 mm |
| minimum creepage distance (III/3) | 8 mm |
| Rated insulation voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| minimum clearance value - non-homogenous field (III/2) | 5.5 mm |
| minimum creepage distance (III/2) | 5.5 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 |

Environmental and real-life conditions

Vibration test

| | |
|---------------|-----------------------|
| Specification | IEC 60068-2-6:1995-03 |
| Frequency | 10 - 150 - 10 Hz |

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| | |
|------------------------|-----------------------------|
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

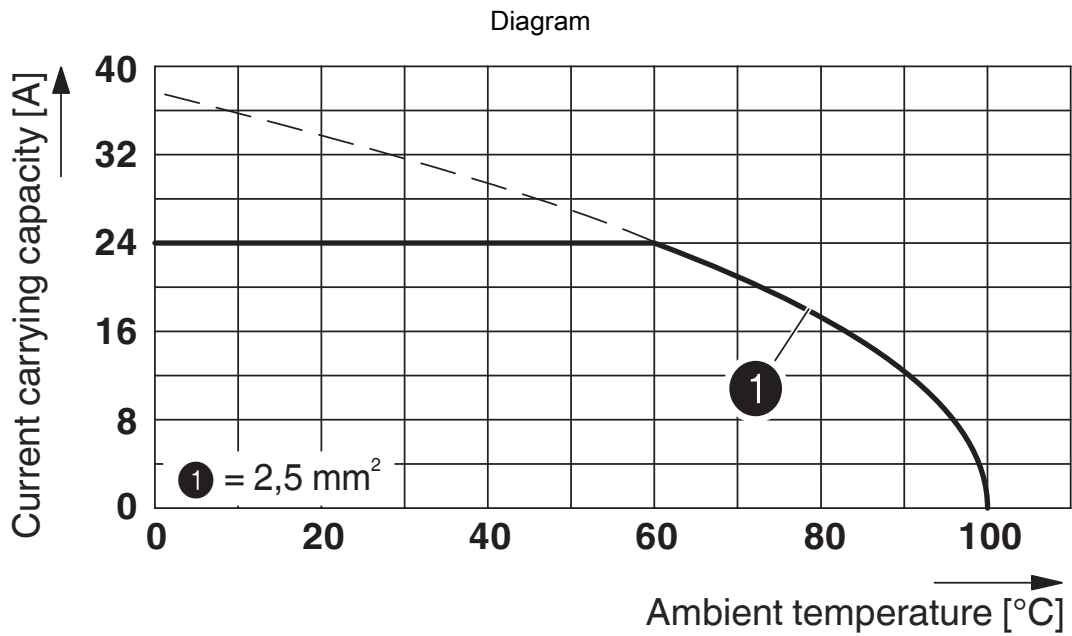
Glow-wire test

| | |
|------------------|---------------------|
| Specification | IEC 60998-1:2002-12 |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 55 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 105 °C (Depending on the current carrying capacity/derating curve) |

Drawings



Type: MKDSO 2,5 HV/3L-7,5 KMGY

Tested in accordance with DIN EN 60512-5-2: 2003-01

Reduction factor: 1

No. of positions: 3

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Classifications

ECLASS

ECLASS-15.0

27460101

UNSPSC

UNSPSC 21.0

39121400

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Environmental product compliance

EU RoHS

| | |
|---|------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 0161b6fc-6cf9-4c30-bc2f-8b45e7bf6d9b |

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