

ZFK3DSA 1,5-5,08-DS - PCB terminal block



1706167

<https://www.phoenixcontact.com/in/products/1706167>

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PCB terminal block, nominal current: 12 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², number of potentials: 3, number of rows: 3, number of positions per row: 1, product range: ZFK3DS(A) 1,5, pitch: 5.08 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

Your advantages

- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Conductor connection on several levels enables higher contact density
- The latching on the side enables various numbers of positions to be combined

Commercial Data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1706167 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Note | Made to Order (non-returnable) |
| Sales Key | AAL |
| Product Key | AALMDA |
| Catalog Page | Page 133 (C-1-2013) |
| GTIN | 4017918125868 |
| Weight per Piece (including packing) | 5.46 g |
| Weight per Piece (excluding packing) | 4.86 g |
| Customs tariff number | 85369010 |
| Country of origin | DE |

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Technical Data

Product properties

| | |
|---------------------------|----------------------------------|
| Type | PC terminal block can be aligned |
| Product line | COMBICON Terminals S |
| Product type | Printed circuit board terminal |
| Product family | ZFK3DS(A) 1,5 |
| Number of positions | 1 |
| Pitch | 5.08 mm |
| Number of connections | 3 |
| Number of rows | 3 |
| Number of potentials | 3 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

| | |
|-----------------------------|-------|
| Nominal current I_N | 12 A |
| Nominal voltage U_N | 400 V |
| Degree of pollution | 3 |
| 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

| | |
|-----------------------|----------------------------------|
| Type | PC terminal block can be aligned |
| Nominal cross section | 1.5 mm ² |

Conductor connection

| | |
|-----------------------------------------------------------------------|----------------------------------------------|
| Connection method | Spring-cage connection |
| Conductor cross section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 24 ... 14 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| Stripping length | 7.5 mm |

Mounting

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

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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 | hot-dip tin-plated |
| Metal surface terminal point (top layer) | Tin (10 - 16 µm Sn) |
| Metal surface soldering area (top layer) | Tin (10 - 16 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 |

Material data – actuating element

| | |
|---------------------------|--------------|
| Color (Actuating element) | green (6021) |
|---------------------------|--------------|

Dimensions

| | |
|-----------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Pitch | 5.08 mm |
| Width [w] | 6.08 mm |
| Height [h] | 40 mm |
| Length [l] | 32.2 mm |
| Installed height | 36.6 mm |
| Solder pin length [P] | 3.4 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 |

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| | |
|--------------------------------------------------------|--------|
| 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) | 1.6 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 |
|-------------------|---------------------|

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Approvals



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-19941110

| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | 250 V | 10 A | 26 - 12 | - |
| | 300 V | 10 A | 26 - 12 | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460101 |
| ECLASS-12.0 | 27460101 |
| ECLASS-13.0 | 27460101 |

ETIM

| | |
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| ETIM 8.0 | EC002643 |
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UNSPSC

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

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Environmental Product Compliance

| | |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

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