1190490

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PCB headers, nominal cross section: 6 mm², color: black, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of rows: 1, number of positions: 4, product range: PC 6/..-G-THR, pitch: 7.62 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 6, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- · Designed for integration into the SMT soldering process
- · Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- · Easy PCB replacement thanks to plug-in modules

Commercial data

| Item number | 1190490 |
|--------------------------------------|---------------|
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | AA04 |
| Product key | AADTDA |
| GTIN | 4063151240110 |
| Weight per piece (including packing) | 11.096 g |
| Weight per piece (excluding packing) | 11.096 g |
| Customs tariff number | 85366930 |
| Country of origin | CN |



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Technical data

Product properties

| Product line | COMBICON Connectors L |
|---------------------------|-----------------------|
| Product type | PCB headers |
| Product family | PC 6/G-THR |
| Number of positions | 4 |
| Pitch | 7.62 mm |
| Number of rows | 1 |
| Mounting flange | without |
| Pin layout | Linear pinning |
| Solder pins per potential | 3 |

Electrical properties

| Nominal current I _N | 41 A |
|--------------------------------|--------|
| Nominal voltage U _N | 630 V |
| Degree of pollution | 3 |
| Contact resistance | 0.7 mΩ |
| 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 |

Mounting

| Mounting type | THR soldering |
|------------------|----------------|
| Pin layout | Linear pinning |
| Processing notes | |

| Process | Reflow/wave soldering |
|------------------------------------|-----------------------|
| Moisture Sensitive Level | MSL 1 |
| Classification temperature T_{c} | 260 °C |
| Solder cycles in the reflow | 3 |

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 contact area (top layer) | Tin (3 - 6 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 µm Ni) |
| Metal surface soldering area (top layer) | Tin (3 - 6 μm Sn) |

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| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 µm Ni) |
|---|------------------------|
| Material data - housing | |
| Color (Housing) | black (9005) |
| Insulating material | LCP |
| Insulating material group | Illa |
| CTI according to IEC 60112 | 175 |
| Flammability rating according to UL 94 | VO |

Notes

| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no |
|--------------------|---|
| | switching power (COC). During designated use, they must not be |
| | plugged in or disconnected when carrying voltage or under load. |

Dimensions

| Dimensional drawing | |
|-----------------------|------------|
| Pitch | 7.62 mm |
| Width [w] | 30.88 mm |
| Height [h] | 15.6 mm |
| Length [I] | 28.2 mm |
| Installed height | 13 mm |
| Solder pin length [P] | 2.6 mm |
| Pin dimensions | 1 x 1.2 mm |
| PCB design | |
| Hole diameter | 1.7 mm |
| | 1.7 mm |

Mechanical tests

Polarization and coding

| Visual inspection | |
|----------------------------|------------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |
| Dimension check | |
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |
| Resistance of inscriptions | |
| Specification | IEC 60068-2-70:1995-12 |
| Result | Test passed |
| | |



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| Specification | IEC 60512-13-5:2006-02 |
|--|--|
| Result | Test passed |
| Contact holder in insert | |
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert Requirements >20 N | Test passed |
| nsertion and withdrawal forces | |
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 4 N |
| Withdraw strength per pos. approx. | 5 N |
| Pectrical tests | |
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 6 |
| nsulation resistance | |
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |
| insulation resistance, neighbornig positions | > 5 MI2 |
| Air clearances and creepage distances | 2 JMI C < |
| | IEC 60664-1:2007-04 |
| Air clearances and creepage distances | |
| Air clearances and creepage distances Specification | IEC 60664-1:2007-04 |
| Air clearances and creepage distances Specification Insulating material group | IEC 60664-1:2007-04 |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) | IEC 60664-1:2007-04 Illa CTI 175 |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) | IEC 60664-1:2007-04 Illa CTI 175 630 V |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) | IEC 60664-1:2007-04 Illa CTI 175 630 V 6 kV |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) | IEC 60664-1:2007-04 Illa CTI 175 630 V 630 V 5.5 mm |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) | IEC 60664-1:2007-04 Illa CTI 175 630 V 6 kV 5.5 mm 10 mm |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) | IEC 60664-1:2007-04 Illa CTI 175 630 ∨ 630 ∨ 5.5 mm 10 mm 630 ∨ |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) | IEC 60664-1:2007-04 IIIa CTI 175 630 V 6 kV 5.5 mm 10 mm 630 V 630 V 6 kV |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) | IEC 60664-1:2007-04 Illa CTI 175 630 V 630 V 5.5 mm 10 mm 630 V 630 V 5.5 mm 10 mm 630 V 5.5 mm |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) minimum clearance value - non-homogenous field (III/2) minimum clearance value - non-homogenous field (III/2) | IEC 60664-1:2007-04 IIIa CTI 175 630 V 630 V 5.5 mm 10 mm 630 V 630 V 5.5 mm 10 mm 630 V 630 N 630 N 630 M 630 M |
| Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) minimum clearance value - non-homogenous field (III/2) | IEC 60664-1:2007-04 IIIa CTI 175 630 ∨ 630 ∨ 5.5 mm 10 mm 630 ∨ 630 ∨ 630 ∨ 5.5 mm 10 mm 630 ∨ 630 ∨ 630 ∨ 10 mm 10 mm 630 ∨ 630 ∨ 10 mm 10 mm 10 m 630 ∨ 10 m 10 m 100 m |

Environmental and real-life conditions

| Vibration test | |
|----------------|-----------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |



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| | 0.35 mm (10 Hz 60.1 Hz) |
|--|---|
| Sweep speed | 5g (60.1 Hz 150 Hz) |
| Fest duration per axis | 2.5 h |
| ability test | |
| Specification | IEC 60512-9-1:2010-03 |
| mpulse withstand voltage at sea level | 7.3 kV |
| Contact resistance R ₁ | 0.7 mΩ |
| Contact resistance R ₂ | 0.7 mΩ |
| nsertion/withdrawal cycles | 25 |
| nsulation resistance, neighboring positions | > 5 MΩ |
| Specification Corrosive stress | ISO 6988:1985-02 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| | |
| | 3.31 kV |
| Power-frequency withstand voltage | 3.31 kV |
| Power-frequency withstand voltage | 3.31 kV -40 °C 105 °C (dependent on the derating curve) |
| Power-frequency withstand voltage bient conditions Ambient temperature (operation) | |
| Power-frequency withstand voltage bient conditions Ambient temperature (operation) Ambient temperature (storage/transport) | -40 °C 105 °C (dependent on the derating curve) |
| Power-frequency withstand voltage bient conditions Ambient temperature (operation) Ambient temperature (storage/transport) Relative humidity (storage/transport) | -40 °C 105 °C (dependent on the derating curve) -40 °C 70 °C |
| Power-frequency withstand voltage bient conditions Ambient temperature (operation) Ambient temperature (storage/transport) Relative humidity (storage/transport) Ambient temperature (assembly) aging specifications | -40 °C 105 °C (dependent on the derating curve) -40 °C 70 °C 30 % 70 % |



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Classifications

ECLASS

| ECLASS-12.0 27460201 ECLASS-13.0 27460201 | ECLASS-11.0 | 27460201 |
|---|-------------|----------|
| ECLASS-13.0 27460201 | ECLASS-12.0 | 27460201 |
| | ECLASS-13.0 | 27460201 |

ETIM

| | ETIM 9.0 | EC002637 | | |
|--------|-------------|----------|--|--|
| UNSPSC | | | | |
| | 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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