

## PCB terminal block - FRONT 2,5-V/SA 5/ 4 BK VPE200 - 1701337

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PCB terminal block, nominal current: 24 A, nom. voltage: 400 V, pitch: 5 mm, number of positions: 4, connection method: Front screw connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: black. The article can be aligned to create different nos. of positions!

The figure shows a 1-pos. version of the product

### Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Operation and conductor connection from one direction enable integration into front of device
- ✓ Two solder pins reduce the mechanical strain on the soldering spots
- ✓ The latching on the side enables various numbers of positions to be combined



### Key Commercial Data

|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
| Packing unit | 200 pc                                                                               |
| GTIN         |  |
| GTIN         | 4017918234959                                                                        |

### Technical data

#### Item properties

|                           |                        |
|---------------------------|------------------------|
| Brief article description | PCB terminal block     |
| Range of articles         | FRONT 2,5-V/SA 5       |
| Pitch                     | 5 mm                   |
| Number of positions       | 4                      |
| Connection method         | Front screw connection |
| Screw thread              | M2,5                   |
| Mounting type             | Wave soldering         |
| Pin layout                | Linear double pinning  |
| Number of levels          | 1                      |

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## Technical data

### Electrical parameters

|                                  |       |
|----------------------------------|-------|
| Rated current                    | 24 A  |
| Rated insulation voltage (III/2) | 400 V |
| Rated surge voltage (III/2)      | 4 kV  |

### Connection capacity

|                                                                                 |                                               |
|---------------------------------------------------------------------------------|-----------------------------------------------|
| Conductor cross section solid                                                   | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>   |
| Conductor cross section flexible                                                | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>   |
| Conductor cross section AWG / kcmil                                             | 24 ... 14                                     |
| Conductor cross section flexible, with ferrule without plastic sleeve           | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section, flexible, with ferrule, with plastic sleeve            | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, solid                                     | 0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible                                  | 0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve | 0.25 mm <sup>2</sup> ... 0.34 mm <sup>2</sup> |
| Stripping length                                                                | 9 mm                                          |
| Torque                                                                          | 0.4 Nm ... 0.5 Nm                             |

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

### Dimensions for the product

|                             |              |
|-----------------------------|--------------|
| Length [ L ]                | 18.5 mm      |
| Pitch                       | 5 mm         |
| Height (without solder pin) | 20 mm        |
| Solder pin [ P ]            | 3.5 mm       |
| Pin spacing                 | 5 mm         |
| Pin dimensions              | 0.8 x 0.8 mm |
| Dimension a                 | 15 mm        |

### Dimensions for PCB design

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## Technical data

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.2 mm |
| Pin spacing   | 5 mm   |

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 200                 |
| Denomination packing units | Pcs.                |

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly)          | -5 °C ... 100 °C |
| Ambient temperature (operation)         | -40 °C           |

### Termination and connection method

|                                          |                     |
|------------------------------------------|---------------------|
| Test for conductor damage and slackening | IEC 60999-1:1999-11 |
|                                          | Test passed         |

### Pull-out test

|                                                          |                             |
|----------------------------------------------------------|-----------------------------|
| Pull-out test                                            | IEC 60999-1:1999-11         |
|                                                          | Test passed                 |
| Conductor cross section / conductor type / tensile force | 0.2 mm² / solid / > 10 N    |
|                                                          | 0.2 mm² / flexible / > 10 N |
|                                                          | 2.5 mm² / flexible / > 50 N |
|                                                          | 2.5 mm² / solid / > 50 N    |

### Mechanical tests according to standard

|                    |               |
|--------------------|---------------|
| Test specification | IEC 60947-7-4 |
|--------------------|---------------|

### Electrical tests

|                                  |       |
|----------------------------------|-------|
| Rated current                    | 24 A  |
| Rated insulation voltage (III/2) | 400 V |
| Rated surge voltage (III/2)      | 4 kV  |

### Air clearances and creepage distances

|                                  |       |
|----------------------------------|-------|
| Insulating material group        | I     |
| Voltage                          | 250 V |
| Rated insulation voltage (III/3) | 250 V |
| Rated insulation voltage (III/2) | 400 V |
| Rated insulation voltage (II/2)  | 630 V |
| Rated surge voltage (III/3)      | 4 kV  |
| Rated surge voltage (III/2)      | 4 kV  |
| Rated surge voltage (II/2)       | 4 kV  |

### Current carrying capacity / derating curves

|               |               |
|---------------|---------------|
| Specification | IEC 60947-7-4 |
|---------------|---------------|

## PCB terminal block - FRONT 2,5-V/SA 5/ 4 BK VPE200 - 1701337

### Technical data

#### Standards and Regulations

|                                        |        |
|----------------------------------------|--------|
| Connection in acc. with standard       | EN-VDE |
|                                        | CSA    |
| Flammability rating according to UL 94 | V0     |

#### Environmental Product Compliance

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

### Approvals

#### Approvals

##### Approvals

DNV GL / CSA / RS / EAC / cULus Recognized

##### Ex Approvals

#### Approval details

|        |                                                                           |            |
|--------|---------------------------------------------------------------------------|------------|
| DNV GL | <a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a> | TAE00001EV |
|--------|---------------------------------------------------------------------------|------------|

|                    |                                                                                     |                                                                                                                                         |       |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                    | D                                                                                   | B                                                                                                                                       |       |
| Nominal voltage UN | 300 V                                                                               | 300 V                                                                                                                                   |       |
| Nominal current IN | 10 A                                                                                | 10 A                                                                                                                                    |       |
| mm²/AWG/kcmil      | 24-12                                                                               | 24-12                                                                                                                                   |       |

|    |                                                                                     |                                                                                             |              |
|----|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------|
| RS |  | <a href="http://www.rs-head.spb.ru/en/index.php">http://www.rs-head.spb.ru/en/index.php</a> | 17.00014.272 |
|----|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------|

|     |                                                                                     |  |         |
|-----|-------------------------------------------------------------------------------------|--|---------|
| EAC |  |  | B.01742 |
|-----|-------------------------------------------------------------------------------------|--|---------|

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### Approvals

|                    |                                                                                   |                                                                                                                                                                       |       |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 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> E60425-19860303 |       |
|                    | D                                                                                 | B                                                                                                                                                                     | C     |
| Nominal voltage UN | 300 V                                                                             | 300 V                                                                                                                                                                 | 300 V |
| Nominal current IN | 10 A                                                                              | 10 A                                                                                                                                                                  | 17 A  |
| mm²/AWG/kcmil      | 30-12                                                                             | 30-12                                                                                                                                                                 | 30-12 |

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