

## PCB terminal block - SPT 2,5/ 3-V-5,0 BD:ERDE,-,+SO - 1700695

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The figure shows a 10-position version of the product

PCB terminal block, nominal current: 24 A, nom. voltage: 400 V, pitch: 5 mm, number of positions: 3, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: green

### Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- ✓ Operation and conductor connection from one direction enable integration into front of device
- ✓ Two solder pins reduce the mechanical strain on the soldering spots



### Key Commercial Data

|                      |                                                                                      |
|----------------------|--------------------------------------------------------------------------------------|
| Packing unit         | 1                                                                                    |
| GTIN                 |  |
| GTIN                 | 4046356497947                                                                        |
| Custom tariff number | 85369010                                                                             |

### Technical data

#### Item properties

|                           |                           |
|---------------------------|---------------------------|
| Brief article description | PCB terminal block        |
| Range of articles         | SPT 2,5/...-V             |
| Pitch                     | 5 mm                      |
| Number of positions       | 3                         |
| Connection method         | Push-in spring connection |
| Mounting type             | Wave soldering            |
| Pin layout                | Linear double pinning     |
| Number of levels          | 1                         |

#### Electrical parameters

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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> ... 4 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 ... 12                                                            |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Stripping length 8 mm) |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Stripping length 8 mm) |
| Stripping length                                                      | 10 mm                                                                |

### 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 ]                | 13.5 mm      |
| Width [ w ]                 | 16.4 mm      |
| Height [ h ]                | 16.9 mm      |
| Pitch                       | 5 mm         |
| Height (without solder pin) | 14.4 mm      |
| Solder pin [P]              | 2.5 mm       |
| Pin spacing                 | 8.2 mm       |
| Pin dimensions              | 0.8 x 0.8 mm |
| Dimension a                 | 10 mm        |

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.1 mm |
| Pin spacing   | 8.2 mm |

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## Technical data

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 50                  |
| 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

|                 |                       |
|-----------------|-----------------------|
| Connection test | IEC 60998-2-2:2002-12 |
| Test result     | Test passed           |

### Pull-out test

|                                                          |                             |
|----------------------------------------------------------|-----------------------------|
| Pull-out test                                            | IEC 60998-2-2:2002-12       |
|                                                          | Test passed                 |
| Conductor cross section / conductor type / tensile force | 0.2 mm² / solid / > 10 N    |
|                                                          | 0.2 mm² / flexible / > 10 N |
|                                                          | 4 mm² / solid / > 60 N      |
|                                                          | 2.5 mm² / flexible / > 50 N |

### Mechanical tests according to standard

|                    |                          |
|--------------------|--------------------------|
| Test specification | IEC 60998-2-2 (in parts) |
|--------------------|--------------------------|

### 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 60998-2-2 (in parts) |
|---------------|--------------------------|

### Vibration test

|                                                                                                           |                                                             |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water | Test passed IEC 60998-1:2002-12 168 h/100°C 48 h/30 °C/92 % |
| Test result                                                                                               | Test passed                                                 |

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### Technical data

#### Vibration test

|                    |                     |
|--------------------|---------------------|
| Test specification | IEC 60998-1:2002-12 |
| Dry heat           | 168 h/100°C         |
| Humid heat         | 48 h/30 °C/92 %     |

#### Resistance to ageing, humidity and penetration of solids

|                    |                     |
|--------------------|---------------------|
| Test result        | Test passed         |
| Test specification | IEC 60998-1:2002-12 |
| Dry heat           | 168 h/100°C         |
| Humid heat         | 48 h/30 °C/92 %     |

#### Standards and Regulations

|                                  |        |
|----------------------------------|--------|
| Connection in acc. with standard | EN-VDE |
|                                  | CUL    |

#### Environmental Product Compliance

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

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27141111 |
| eCl@ss 4.1 | 27141109 |
| eCl@ss 5.0 | 27141190 |
| eCl@ss 5.1 | 27261100 |
| eCl@ss 6.0 | 27261100 |
| eCl@ss 7.0 | 27440401 |
| eCl@ss 8.0 | 27440401 |
| eCl@ss 9.0 | 27440401 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11     | 39121432 |
| UNSPSC 12.01  | 39121432 |
| UNSPSC 13.2   | 39121432 |

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### Approvals

#### Approvals

#### Approvals

CCA / IECCEB Scheme / SEV / EAC / cULus Recognized

#### Ex Approvals

#### Approval details

|                            |         |
|----------------------------|---------|
| CCA                        | IK-2956 |
| Nominal voltage UN         | 250 V   |
| Nominal current IN         | 24 A    |
| mm <sup>2</sup> /AWG/kcmil | 2.5     |

|                    |  |                                                                                     |                                                           |         |
|--------------------|--|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------|
| IECEE CB Scheme    |  |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | CH-7429 |
|                    |  |                                                                                     |                                                           |         |
| Nominal voltage UN |  | 250 V                                                                               |                                                           |         |
| Nominal current IN |  | 24 A                                                                                |                                                           |         |
| mm²/AWG/kcmil      |  | 2.5                                                                                 |                                                           |         |

|                    |                                                                                     |                                                                                                                                                     |         |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| SEV                |  | <a href="https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html">https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html</a> | IK-3150 |
|                    |                                                                                     |                                                                                                                                                     |         |
| Nominal voltage UN | 250 V                                                                               |                                                                                                                                                     |         |
| Nominal current IN | 24 A                                                                                |                                                                                                                                                     |         |
| mm²/AWG/kcmil      | 2.5                                                                                 |                                                                                                                                                     |         |

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

|                    |  |       |                                                                                     |                                                                                                                                                       |                 |
|--------------------|--|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 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> | E60425-20061129 |
|                    |  | D     |                                                                                     | B                                                                                                                                                     |                 |
| Nominal voltage UN |  | 300 V |                                                                                     | 300 V                                                                                                                                                 |                 |

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### Approvals

|                                | D     | B     |
|--------------------------------|-------|-------|
| Nominal current I <sub>N</sub> | 10 A  | 20 A  |
| mm <sup>2</sup> /AWG/kcmil     | 24-12 | 24-12 |