# SP 2,5/ 1 BU - Plug

3040698

https://www.phoenixcontact.com/us/products/3040698

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Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 $mm^2$, cross section: 0.08 $mm^2$ - 4 $mm^2$, color: blue

## Your advantages

- Large-surface labeling option
- Practical coding option

## Commercial data

| | |
|---|---|
| Item number | 3040698 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE02 |
| Product key | BE2144 |
| GTIN | 4017918832568 |
| Weight per piece (including packing) | 3.224 g |
| Weight per piece (excluding packing) | 2.8 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

## Technical data

### Notes

| | |
|---|---|
| Notes on operation | COMBI connectors are connectors without switching power in accordance with IEC 61984 and can be connected or disconnected without load or voltage when used as intended |

### Product properties

| | |
|---|---|
| Product type | Terminal plug |
| Number of positions | 1 |
| Pitch | 5.2 mm |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |
| Degree of pollution | 3 |

### Electrical properties

| | |
|---|---|
| Rated surge voltage | 6 kV |

### Connection data

| | |
|---|---|
| Nominal cross section | 2.5 mm² |
| Connection method | Spring-cage connection |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 61984 |
| Conductor cross-section rigid | 0.08 mm² ... 4 mm² |
| Cross section AWG | 28 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.08 mm² ... 2.5 mm² |
| Conductor cross-section, flexible [AWG] | 28 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm² ... 2.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm² ... 2.5 mm² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² |
| Nominal cross section | 2.5 mm² |
| Nominal current | 24 A |
| Maximum load current | 24 A (with 4 mm² conductor cross-section) |
| Nominal voltage | 500 V |

### Dimensions

| | |
|---|---|
| Width | 5.2 mm |
| Height | 15.8 mm |
| Depth | 39 mm |
| Length | 15.8 mm |
| Pitch | 5.2 mm |

## Material specifications

| | |
|---|---|
| Color | blue (RAL 5015) |
| Flammability rating according to UL 94 | V0 |
| Insulating material group | I |
| Insulating material | PA |
| Static insulating material application in cold | -60 °C |
| Relative insulation material temperature index (Elec., UL 746 B) | 130 °C |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 3 |
| Surface flammability NFPA 130 (ASTM E 162) | passed |
| Specific optical density of smoke NFPA 130 (ASTM E 662) | passed |
| Smoke gas toxicity NFPA 130 (SMP 800C) | passed |

## Environmental and real-life conditions

Ambient conditions

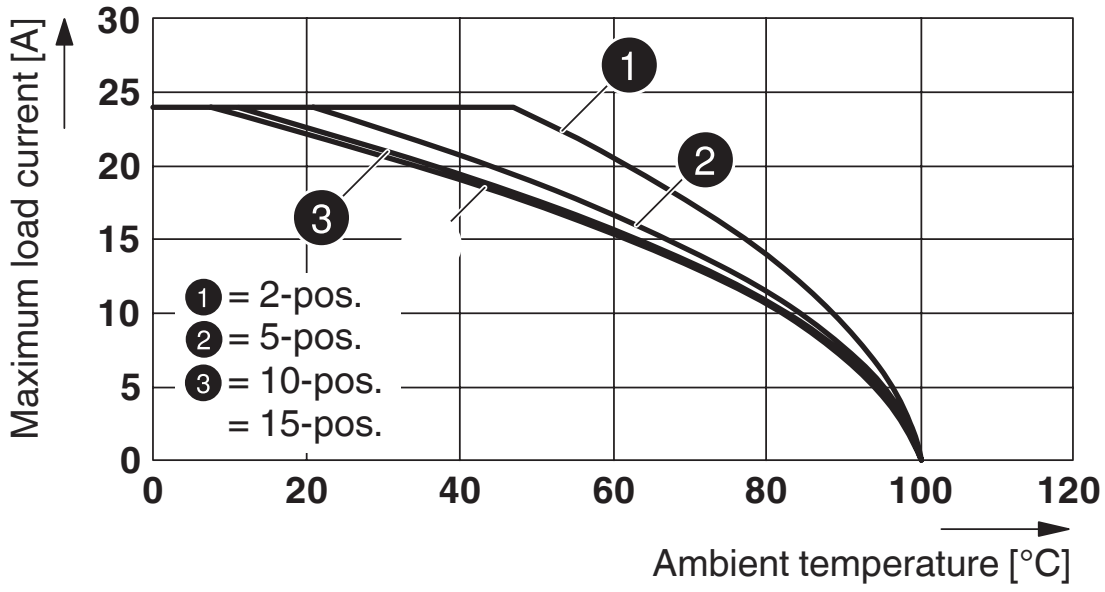
| | |
|---|---|
| Ambient temperature (operation) | -60 °C (max. operating temperature see derating curve) |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |
| Ambient temperature (assembly) | -5 °C ... 70 °C |
| Ambient temperature (actuation) | -5 °C ... 70 °C |
| Permissible humidity (operation) | 20 % ... 90 % |
| Permissible humidity (storage/transport) | 30 % ... 70 % |

## Standards and regulations

| | |
|---|---|
| Connection in acc. with standard | IEC 61984 |

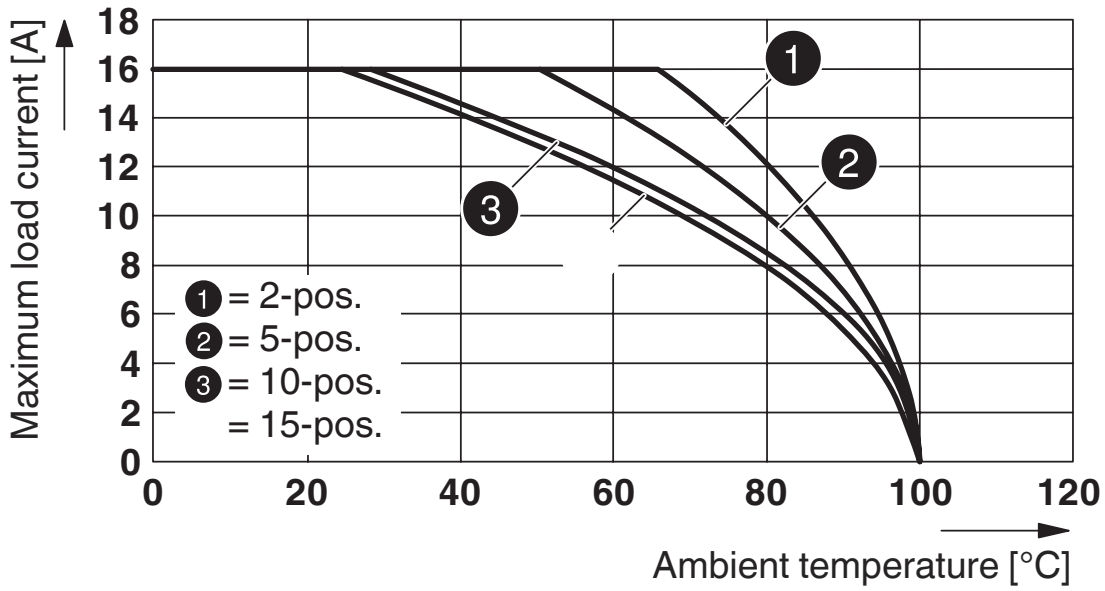
## Drawings

Diagram



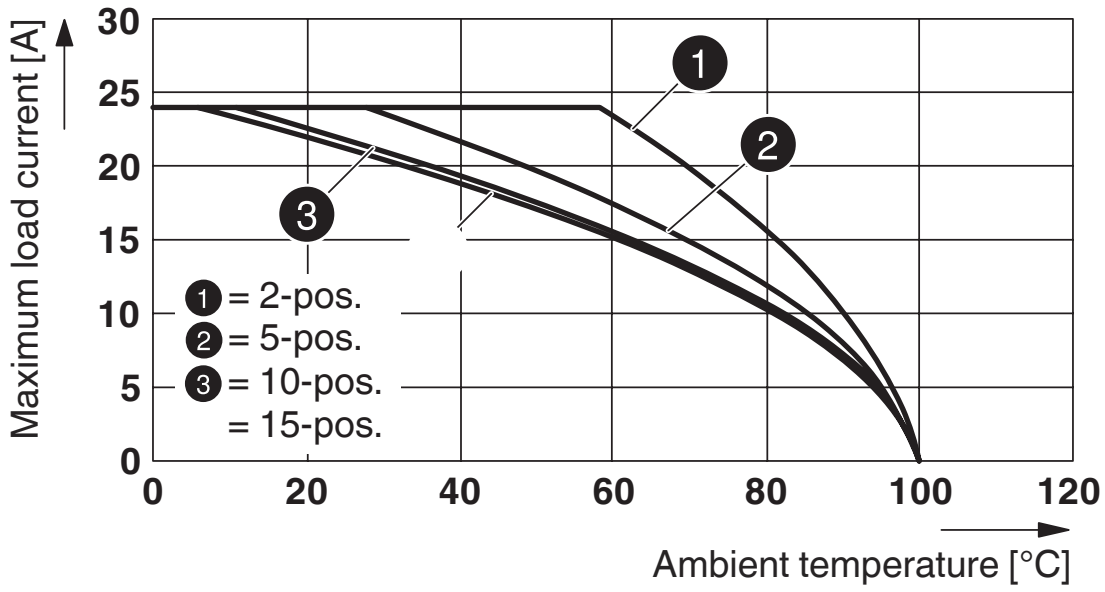

Derating curve for ST 2,5/ 1P, ST 2,5/ 2P, ST 2,5-TWIN/ 1P and for all plug versions SP... .

Diagram



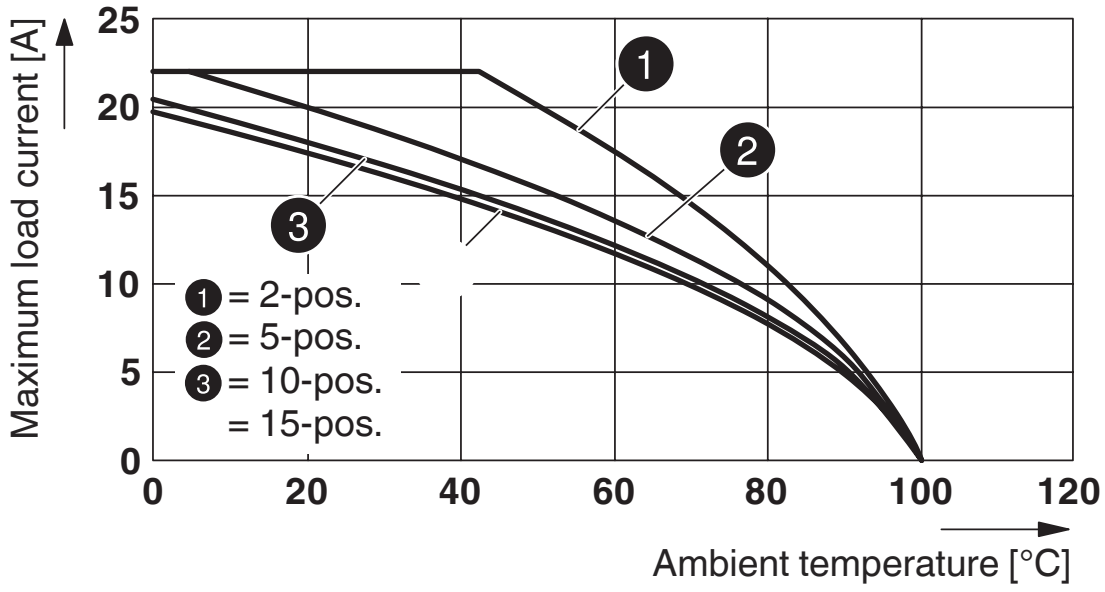

Derating curve for ST 2,5-TWIN-MT/1P, ST 2,5-TWIN-TG/1P and for all plug versions SP... .

Diagram



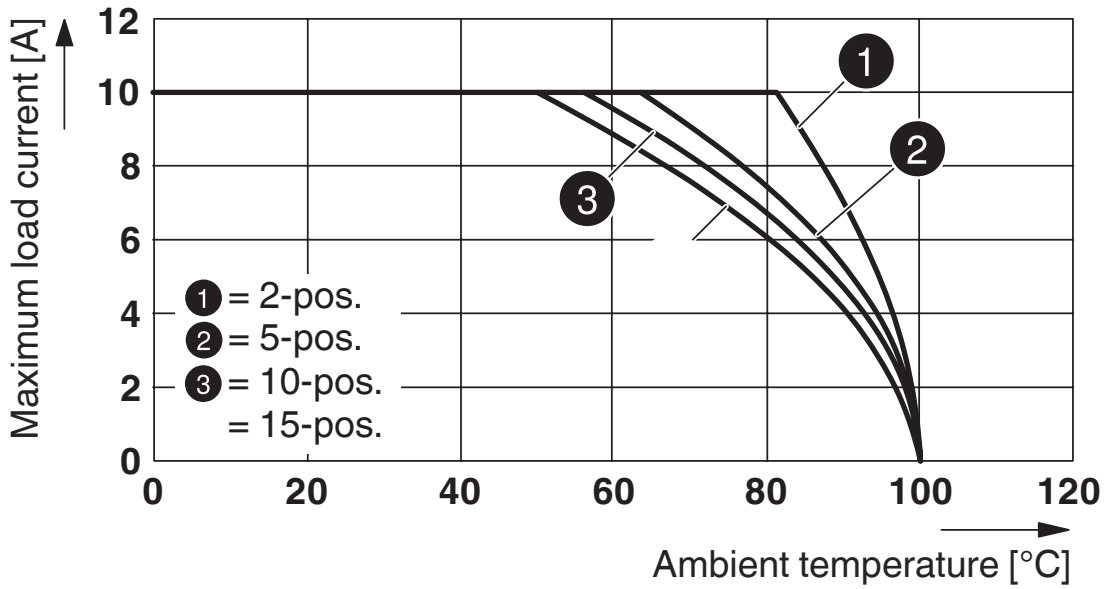

Derating curve for ST 2,5-QUATTRO/2P, ST 2,5-QUATTRO/4P and for all plug versions SP... .

Diagram




Derating curve for STTB 2,5/ 2P, STTB 2,5/ 2P-PV and for all plug versions SP... .

Diagram




Derating curve for ST 2,5-4L/1P, ST 2,5-4L/2P and for all plug versions SP... .

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3040698

**CSA**
Approval ID: 13631

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 300 V | 20 A | 28 - 12 | - |
| C | | | | |
| | 300 V | 20 A | 28 - 12 | - |
| D | | | | |
| | 600 V | 5 A | 28 - 12 | - |

**IECEE CB Scheme**
Approval ID: DE1-62736/B1/B2

**EAC**
Approval ID: KZ7500651131219505

**VDE Zeichengenehmigung**
Approval ID: 40019518

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| Only flexible conductors | 500 V | - | - | 0.2 - 2.5 |
| Only rigid conductors | 500 V | - | - | 0.2 - 4 |

**cULus Recognized**
Approval ID: E60425

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| C | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| D | | | | |
| | 600 V | 5 A | 26 - 12 | - |

**DNV**
Approval ID: TAE00001CS

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27250306 |
| ECLASS-15.0 | 27250306 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002021 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.028 kg CO2e |


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