

# UP 6/ 8 - Plug

3060681

<https://www.phoenixcontact.com/us/products/3060681>



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Plug, nom. voltage: 1000 V, nominal current: 41 A, number of positions: 8, connection method: Screw connection, Rated cross section: 6 mm<sup>2</sup>, cross section: 0.2 mm<sup>2</sup>- 6 mm<sup>2</sup>, color: gray

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 3060681       |
| Packing unit                         | 25 pc         |
| Minimum order quantity               | 25 pc         |
| Sales key                            | BE01          |
| Product key                          | BE1144        |
| GTIN                                 | 4046356607896 |
| Weight per piece (including packing) | 58.664 g      |
| Weight per piece (excluding packing) | 58.664 g      |
| Customs tariff number                | 85366990      |
| Country of origin                    | CN            |

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## 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 | 8             |
| Pitch               | 8.2 mm        |
| Potentials          | 8             |

### Insulation characteristics

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

### Electrical properties

|                     |      |
|---------------------|------|
| Rated surge voltage | 8 kV |
|---------------------|------|

### Connection data

|                       |                   |
|-----------------------|-------------------|
| Nominal cross section | 6 mm <sup>2</sup> |
|-----------------------|-------------------|

### Level 1 above 1 below 1

|   |   |
|---|---|
| Connection method   | Screw connection                                      |
| Screw thread  | M3  |
| Tightening torque   | 0.6 ... 0.8 Nm  |
| Stripping length  | 10 mm   |
| Internal cylindrical gage   | A5  |
| Connection in acc. with standard  | IEC 61984   |
| Conductor cross-section rigid   | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>             |
| Cross section AWG   | 24 ... 10 (converted acc. to IEC)                     |
| Conductor cross-section flexible  | 0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup>            |
| Conductor cross-section, flexible [AWG]   | 24 ... 8 (converted acc. to IEC)                      |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>            |
| Flexible conductor cross-section (ferrule with plastic sleeve)                            | 0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>            |
| 2 conductors with same cross section, rigid   | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>           |
| 2 conductors with same cross section, flexible  | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>           |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>          |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>             |
| Nominal cross section   | 6 mm <sup>2</sup>                                     |
| Nominal current   | 41 A  |
| Maximum load current  | 41 A (with 6 mm <sup>2</sup> conductor cross-section) |
| Nominal voltage   | 1000 V  |

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## Dimensions

|        |         |
|--------|---------|
| Width  | 65.6 mm |
| Height | 21 mm   |
| Depth  | 42.7 mm |
| Length | 21 mm   |
| Pitch  | 8.2 mm  |

## Material specifications

|   |                 |
|---|-----------------|
| Color   | gray (RAL 7042) |
| Flammability rating according to UL 94                                  | V0              |
| Insulating material group   | I               |
| Insulating material   | PA              |
| Static insulating material application in cold                          | -60 °C          |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 125 °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     |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 27,5 MJ/kg      |
| 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 |
|----------------------------------|-----------|

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## Drawings

### Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3060681>

 **CSA**  
Approval ID: 13631

 **IECEE CB Scheme**  
Approval ID: DE1-62748

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 1000 V                | 41 A                  | -                 | 0.2 - 6                     |

 **cULus Recognized**  
Approval ID: E60425

|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| B |                       |                       |                   |                             |
|   | 600 V                 | 40 A                  | 24 - 8            | -                           |
| C |                       |                       |                   |                             |
|   | 600 V                 | 40 A                  | 24 - 8            | -                           |

 **VDE Gutachten mit Fertigungsüberwachung**  
Approval ID: 40034876

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 1000 V                | 41 A                  | -                 | 0.2 - 6                     |

 **CSA**  
Approval ID: 13631

 **EAC**  
Approval ID: KZ7500651131219505

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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## 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% |
|-------------------------------------|----------------------------|

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