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# SAC-6P- 1,5-PUR/M12FSM PE - Power cable

1414901

https://www.phoenixcontact.com/gb/products/1414901

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Power cable, 6-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, coding: M, cable length: 1.5 m, for AC current up to 8 A/690 V

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Protection against mismatching, thanks to special M-coding
- Our standard: robust halogen-free PUR cable

## Commercial data

| | |
|---|---|
| Item number | 1414901 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF1CGP |
| Product key | BF1CGP |
| Catalog page | Page 298 (C-2-2019) |
| GTIN | 4055626035321 |
| Weight per piece (including packing) | 253.67 g |
| Weight per piece (excluding packing) | 253.67 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

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## Technical data

### Product properties

| | |
|---|---|
| Product type | Power cable |
| Application | Power supply |
| Number of positions | 6 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | M |

Data management status

| | |
|---|---|
| Article revision | 05 |

Insulation characteristics

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

### Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Material of grip body | PP |
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA |
| Material for screw connection | Zinc die-cast, nickel-plated |

### Electrical properties

| | |
|---|---|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 690 V AC |
| Nominal current $I_N$ | 8 A |

### Connector

Connection 1

| | |
|---|---|
| Type | free cable end |

Connection 2

| | |
|---|---|
| Type | Socket straight M12 |
| Coding type | M (Power) |

### Cable/line

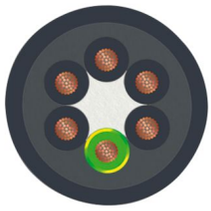
| | |
|---|---|
| Cable length | 1.5 m |

PUR halogen-free black [PUR]

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| | |
|---|---|
| Dimensional drawing |  |
| Cable weight | 130 kg/km |
| Number of positions | 6 |
| Shielded | no |
| Cable type | PUR halogen-free black [PUR] |
| Conductor cross section | 6x 1.5 mm² |
| Wire diameter incl. insulation | 2.35 mm ±0.1 mm |
| External cable diameter | 8.80 mm ±0.25 mm |
| Outer sheath, material | PUR |
| External sheath, color | black-gray RAL 7021 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | black 1, black 2, black 3, black 4, black 5, green/yellow |
| Thickness, insulation | ≥ 0.36 mm |
| Thickness, outer sheath | approx. 0.90 mm |
| Max. conductor resistance | ≤ 14.1 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 1 GΩ*km (at 20 °C) |
| Nominal voltage, cable | ≤ 1000 V AC |
| Test voltage | ≥ 3000 V AC (Spark test) |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 44 mm |
| Smallest bending radius, movable installation | 88 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 4000000, Bending radius: 10xD, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s² |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | according to DIN EN 60754-1 |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| | according to DIN EN 60332-2-2 |
| Resistance to oil | according to DIN EN 60811-404, 168 h at 100 °C |
| Other resistance | Hydrolysis and microbe resistant as per VDE 0282 section 10 |
| | Low adhesion |
| | abrasion-resistant |
| | Resistant to salt water |
| Ambient temperature (operation) | -50 °C ... 85 °C (cable, fixed installation) |
| | -30 °C ... 85 °C (Cable, flexible installation) |

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## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 (without preloading, as additional test in accordance with IEC 60529) |
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |

## Standards and regulations

| | |
|---|---|
| Standard designation | M12 connector |
| Standards/specifications | IEC 61076-2-111 |

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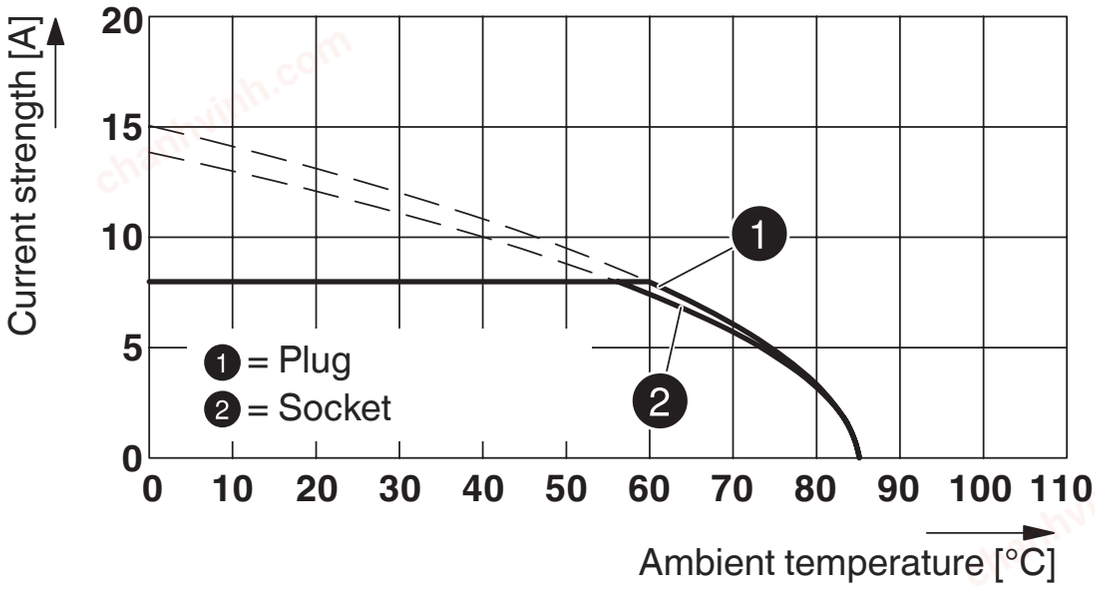
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## Drawings

Circuit diagram




Diagram




Current carrying capacity

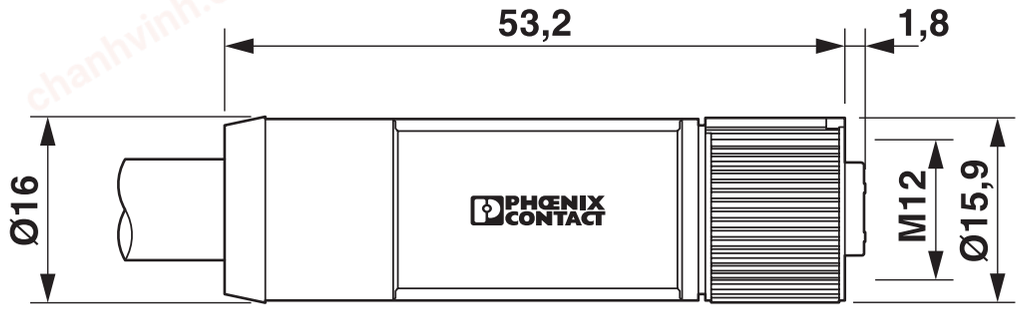
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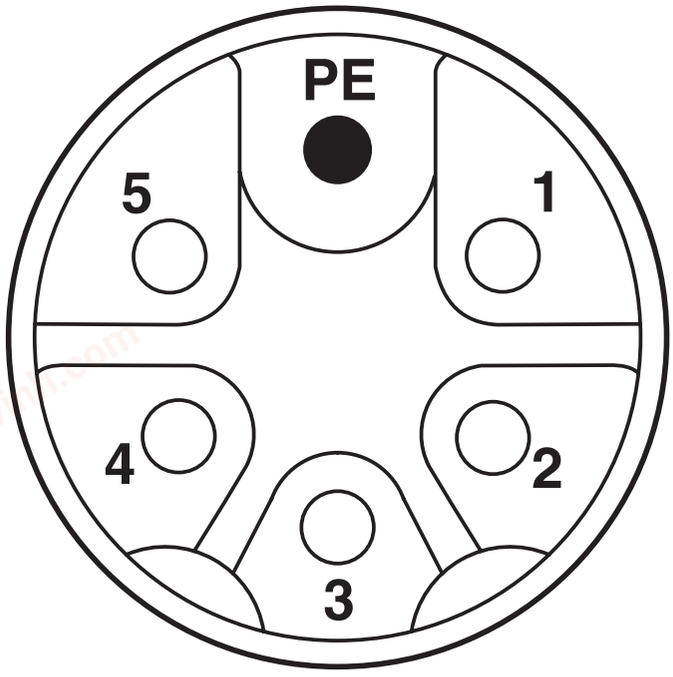
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Dimensional drawing




M12 x 1 socket, straight

Schematic diagram




Pin assignment of M12 socket, 6-pos., M-coded, socket side view

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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/1414901

**UL Listed**
Approval ID: E468743

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| | 600 V | 10 A | - | - 16 |

**cUL Listed**
Approval ID: E468743

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| | 600 V | 10 A | - 16 | - |

**EAC-RoHS**
Approval ID: RU D-DE.HB35.B.00387

**cULus Listed**

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060327 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC001855 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 26121600 |

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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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