

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Power cable, 3-position, PVC, black, free cable end, on Socket angled M12, coding: S, cable length: 1 m, For alternating current up to 16 A/690 V

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Protection against incorrect connection using special S-coding

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1411648                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF05                           |
| Product key                          | AF1CBB                         |
| GTIN                                 | 4046356936743                  |
| Weight per piece (including packing) | 110 g                          |
| Weight per piece (excluding packing) | 22.22 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | PL                             |

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

## Technical data

### Product properties

|                      |               |
|----------------------|---------------|
| Product type         | Power cable   |
| Application          | Energy supply |
| Number of positions  | 3             |
| No. of cable outlets | 1             |
| Shielded             | no            |
| Coding               | S             |

### 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 | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 690 V AC                   |
| Nominal current $I_N$ | 16 A                       |

### Mechanical properties

#### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | > 100 |
|-----------------------------|-------|

### Connector

#### Connection 1

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

#### Connection 2

|             |                   |
|-------------|-------------------|
| Type        | Socket angled M12 |
| Coding type | S (Power)         |

### Cable/line

|              |     |
|--------------|-----|
| Cable length | 1 m |
|--------------|-----|

PVC black [PVC]

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

|   |  |
|---|--|
| Dimensional drawing                           |                  |
| Cable weight                                  | 80 kg/km   |
| UL AWM Style                                  | 2517 (105 °C / 300 V)  |
| Number of positions                           | 3  |
| Shielded                                      | no   |
| Cable type                                    | PVC black [PVC]  |
| Conductor structure, voltage supply           | 30x 0.25 mm  |
| AWG power supply                              | 16   |
| Conductor cross-section                       | 3x 1.5 mm <sup>2</sup>   |
| Wire diameter incl. insulation                | 2.4 mm ±0.1 mm   |
| External cable diameter                       | 6.80 mm ±0.2 mm  |
| Outer sheath, material                        | PVC  |
| External sheath, color                        | black  |
| Conductor material                            | Bare Cu litz wires   |
| Material wire insulation                      | PVC  |
| Single wire, color                            | black 1, black 2, green/yellow   |
| Overall twist                                 | 3 wires, twisted   |
| Max. conductor resistance                     | ≤ 13.3 Ω/km (at 20 °C)   |
| Insulation resistance                         | ≥ 10 MΩ*km (at 20 °C)  |
| Nominal voltage, cable                        | 300 V AC   |
| Test voltage                                  | 2000 V AC  |
| Minimum bending radius, fixed installation    | 5 x D  |
| Minimum bending radius, flexible installation | 12 x D   |
| Smallest bending radius, fixed installation   | 34 mm  |
| Smallest bending radius, movable installation | 82 mm  |
| Flame resistance                              | according to IEC 60332-1<br>According to DIN EN 60332-1-2<br>According to VW-1<br>According to FT1 |
| Ambient temperature (operation)               | -40 °C ... 90 °C (cable, fixed installation)<br>-5 °C ... 90 °C (Cable, flexible installation)     |

## Environmental and real-life conditions

### Ambient conditions

|                      |  |
|----------------------|--|
| Degree of protection | IP65<br>IP67 (without preloading, as additional test in accordance with IEC 60529) |
|----------------------|--|

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

|   |
|---|
| Ambient temperature (operation) (male connector/female connector) |
|---|

|                                  |
|----------------------------------|
| -25 °C ... 85 °C (Plug / socket) |
|----------------------------------|

## Standards and regulations

|                      |
|----------------------|
| Standard designation |
|----------------------|

|               |
|---------------|
| M12 connector |
|---------------|

|                          |
|--------------------------|
| Standards/specifications |
|--------------------------|

|                 |
|-----------------|
| IEC 61076-2-111 |
|-----------------|

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable

1411648

<https://www.phoenixcontact.com/us/products/1411648>



## Drawings

Dimensional drawing



M12 x 1 socket, angled

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable

1411648

<https://www.phoenixcontact.com/us/products/1411648>

Schematic diagram



Pin assignment of M12 socket, 3-pos., S-coded, socket side view

Circuit diagram



Contact assignment of the M12 socket

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1411648>

|  <b>UL Listed</b><br>Approval ID: FILE E 468743 |                       |                       |                   |                             |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine  |                       |                       |                   |                             |
|  | 300 V                 | 12 A                  | - 16              | - 16                        |

|  <b>cUL Listed</b><br>Approval ID: FILE E 468743 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 300 V                 | 12 A                  | - 16              | -                           |

|  <b>EAC-RoHS</b><br>Approval ID: RU D-DE.HB35.B.00387 |  |  |  |  |
|--|--|--|--|--|
|--|--|--|--|--|

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060327 |
| ECLASS-15.0 | 27060327 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001855 |
|-----------|----------|

### UNSPSC

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

# SAC-3P- 1,0-PVC/M12FRS PE - Power cable



1411648

<https://www.phoenixcontact.com/us/products/1411648>

## 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 | 1.118 kg CO2e |
|---------|---------------|

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)