

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



1411648

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

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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

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## 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
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### Connector

#### Connection 1

Type	free cable end
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#### Connection 2

Type	Socket angled M12
Coding type	S (Power)

### Cable/line

Cable length	1 m
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PVC black [PVC]

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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 According to DIN EN 60332-1-2 According to VW-1 According to FT1
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation) -5 °C ... 90 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65 IP67 (without preloading, as additional test in accordance with IEC 60529)
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Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
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## Standards and regulations

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

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## Drawings

Dimensional drawing



M12 x 1 socket, angled

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Schematic diagram



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

Circuit diagram



Contact assignment of the M12 socket

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## Approvals

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 <b>UL Listed</b> 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> 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> Approval ID: RU D-DE.HB35.B.00387				
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## Classifications

### ECLASS

ECLASS-13.0	27060327
ECLASS-15.0	27060327

### ETIM

ETIM 10.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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### EF3.1 Climate Change

CO2e kg	1.118 kg CO2e
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