

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



1176857

<https://www.phoenixcontact.com/us/products/1176857>

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, PUR halogen-free, black, free cable end, on Socket angled M12, coding: S, cable length: 1 m, For alternating current up to 16 A/250 V

## Your advantages

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

## Commercial data

Item number	1176857
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF05
Product key	AF1CCP
GTIN	4063151209414
Weight per piece (including packing)	98.87 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	PL

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



1176857

<https://www.phoenixcontact.com/us/products/1176857>

## 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
--------------	-----

#### PUR black [PUR]

Cable weight	66 kg/km
--------------	----------

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



1176857

<https://www.phoenixcontact.com/us/products/1176857>

UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	3
Shielded	no
Cable type	PUR black [PUR]
Conductor structure, voltage supply	44x 0.20 mm
AWG power supply	16
Conductor cross-section	3x 1.5 mm <sup>2</sup>
Wire diameter incl. insulation	2.25 mm ±0.05 mm
External cable diameter	6.20 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
Max. conductor resistance	≤ 14.1 Ω/km (at 20 °C)
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Nominal voltage, cable	300 V AC
Test voltage	3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	31 mm
Smallest bending radius, movable installation	62 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: 500000, Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1
Flame resistance	According to UL 758/1581 (Cable Flame) in accordance with UL 758/1581 FT2 According to DIN EN 60332-2-2 (20 s)
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)	-40 °C ... 80 °C (cable, fixed installation) -25 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
----------------------	------

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



1176857

<https://www.phoenixcontact.com/us/products/1176857>

	IP67 (without preloading, as additional test in accordance with IEC 60529)
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-PUR/M12FRS PE - Power cable

1176857

<https://www.phoenixcontact.com/us/products/1176857>



## Drawings

Dimensional drawing



M12 x 1 socket, angled

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

1176857

<https://www.phoenixcontact.com/us/products/1176857>

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-PUR/M12FRS PE - Power cable



1176857

<https://www.phoenixcontact.com/us/products/1176857>

## Classifications

### ECLASS

ECLASS-13.0	27060327
ECLASS-15.0	27060327

### ETIM

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

### UNSPSC

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

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



1176857

<https://www.phoenixcontact.com/us/products/1176857>

## 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	4.869 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)