

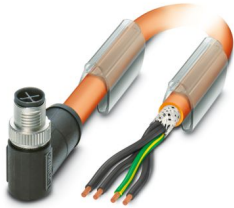
# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

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, 4-position, PUR halogen-free, orange RAL 2003, shielded (Advanced Shielding Technology), Plug angled M12, coding: S, on free cable end, cable length: 3 m, for AC current up to 12 A/690 V

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Protection against incorrect connection using special S-coding
- Our standard: robust halogen-free PUR cable
- Shield power reliably – 360° shielding to reduce electromagnetic loads

## Commercial data

Item number	1424109
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF05
Product key	AF1CCP
GTIN	4046356693134
Weight per piece (including packing)	378.7 g
Weight per piece (excluding packing)	470.7 g
Customs tariff number	85444290
Country of origin	DE

# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

## Technical data

### Product properties

Product type	Power cable
Application	Energy supply
Number of positions	4
No. of cable outlets	1
Shielded	yes
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 $I_N$	12 A

### Mechanical properties

#### Mechanical data

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

### Connector

#### Connection 1

Type	Plug angled M12
Coding type	S (Power)

#### Connection 2

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

### Cable/line

Cable length	3 m
--------------	-----

#### PUR halogen-free orange shielded [PUR]

UL AWM Style	80°C/1000 V
--------------	-------------

# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

Number of positions	4
Shielded	yes
Cable type	PUR halogen-free orange shielded [PUR]
Conductor structure, voltage supply	44x 0.20 mm
AWG power supply	16
Conductor cross-section	4x 1.5 mm <sup>2</sup>
Wire diameter incl. insulation	≤ 2.35 mm
External cable diameter	8.20 mm ±0.3 mm
Outer sheath, material	PUR
External sheath, color	orange RAL 2003
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	black 1, black 2, black 3, green/yellow
Thickness, insulation	0.36 mm
Thickness, outer sheath	0.90 mm
Overall twist	4 wires optimally twisted
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	≥ 10000 V AC (Spark test)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
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
Flame resistance	According to DIN EN 60332-2-2 (20 s) UL 1581, FT2
Resistance to oil	according to DIN EN 60811-404, 168 h at 100 °C
Other resistance	UV resistant Low adhesion
Ambient temperature (operation)	-50 °C ... 85 °C (cable, fixed installation) -30 °C ... 85 °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)
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)

## Standards and regulations

# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

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

1424109

<https://www.phoenixcontact.com/us/products/1424109>

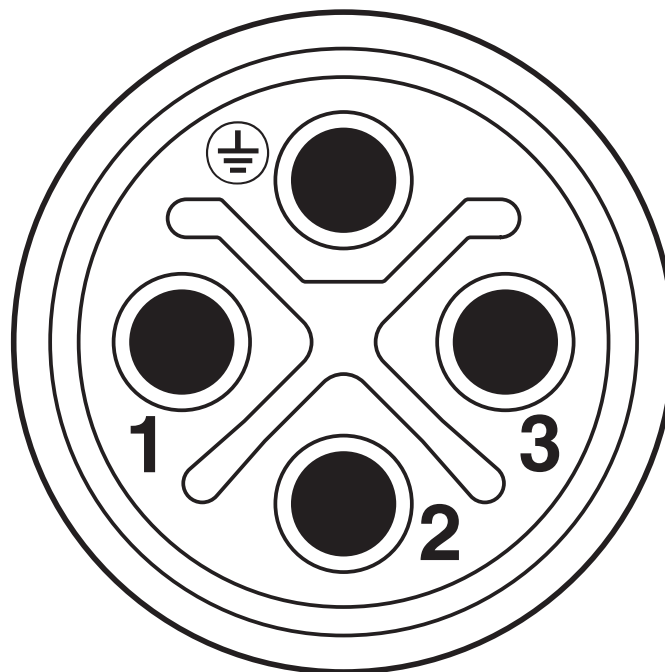
## Drawings

Dimensional drawing

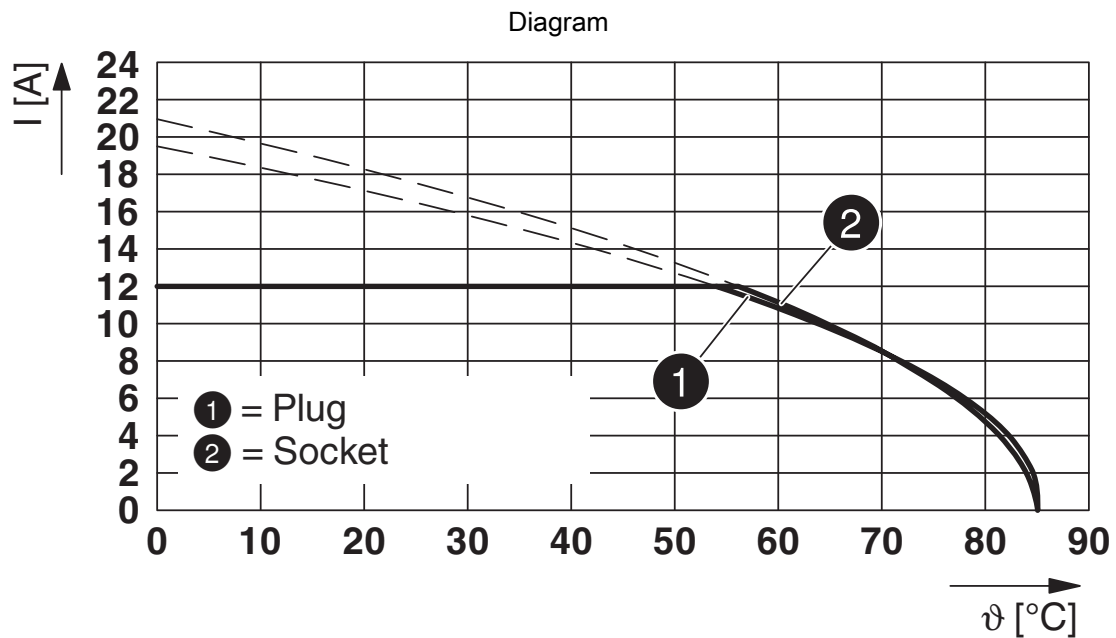


M12 x 1 male plug, angled

Schematic diagram

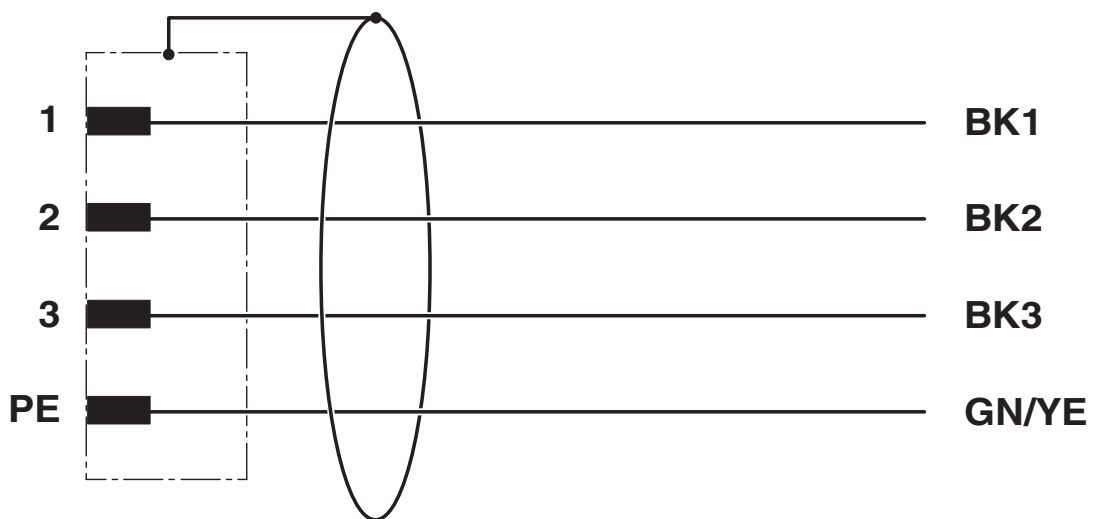


M12 plug pin assignment, 4-pos., S-coded, plug side view



Base curve

Circuit diagram



Contact assignment of the M12 plug

# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1424109>

 <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				
	600 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				
	600 V	12 A	- 16	-

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

# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

## Classifications

### ECLASS

ECLASS-13.0	27060327
ECLASS-15.0	27060327

### ETIM

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

### UNSPSC

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

# SAC-4P-M12MRS/ 3,0-PUR PE SH - Power cable



1424109

<https://www.phoenixcontact.com/us/products/1424109>

## 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	4.314 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)