

M23-7ES198A8024 - Cable connector



1628820

<https://www.phoenixcontact.com/pc/products/1628820>

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M23, Cable connector, series: M23 PRO, straight short, shielded: yes, Screw locking mechanism, No. of pos.: 4+3+PE, Direction of rotation: Standard, contact connection type: Socket, Crimp connection, cable diameter range: 9.5 mm ... 14.5 mm, coding: N, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

Your advantages

- Solutions with cross-manufacturer compatibility for standard and fast locking systems
- Reliable under the harshest conditions: cable connectors with vibration brake
- Modern, consistent design for highly convenient operation
- Easy, cost-effective cable assembly: uniform shielding of M17 to M40

Commercial data

Item number	1628820
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	ABRBBA
Catalog page	Page 146 (C-2-2019)
GTIN	4055626617565
Weight per piece (including packing)	139 g
Weight per piece (excluding packing)	123.669 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

Order information:	Order crimp contacts 4 x Ø 1 mm, 4 x Ø 2 mm separately
Notes on operation	Please observe the derating curve.

Safety note

Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	<ul style="list-style-type: none">• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	<ul style="list-style-type: none">• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	<ul style="list-style-type: none">• The products are suitable for applications in plant, controller, and electrical device engineering.
	<ul style="list-style-type: none">• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	<ul style="list-style-type: none">• Assembled products may not be manipulated or improperly opened.
	<ul style="list-style-type: none">• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
	<ul style="list-style-type: none">• When using the product in direct connection with third-party manufacturers, the user is responsible.
	<ul style="list-style-type: none">• For operating voltages > 50 V AC, conductive connector housings must be grounded
	<ul style="list-style-type: none">• Ensure that the protective or functional ground has been properly connected.
	<ul style="list-style-type: none">• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	<ul style="list-style-type: none">• Only use tools recommended by Phoenix Contact
	<ul style="list-style-type: none">• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	<ul style="list-style-type: none">• Operate the connector only when it is fully plugged in and interlocked.
	<ul style="list-style-type: none">• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	<ul style="list-style-type: none">• Observe the minimum bending radius of the cable. Lay the cable without twisting it.
	<ul style="list-style-type: none">• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to

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warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

Product properties

Product type

Circular connector (cable-side)

Connector

Connection 1

Head design

Socket

Insulating body

Note

Order information: Order crimp contacts 4 x Ø 1 mm, 4 x Ø 2 mm separately

Coding

N

Insulation body material

PA 6.6

Insertion/withdrawal cycles

100

Connection method

Crimp connection

Contact switching type

Socket

Application

Power

Number of positions

8

Direction of rotation

Standard

Connection profile

4+3+PE

Contact diameter **Power contacts**

2 mm

Litz wire cross-section **Power contacts** min.

0.25 mm²

Litz wire cross-section **Power contacts** max.

4 mm²

Rated current **Power contacts**

30 A

Note

for max. connection cross section

Rated voltage

630 V

Rated surge voltage

6 kV

Overvoltage category

III

Degree of pollution

3

Contact diameter **Signal contacts**

1 mm

Litz wire cross-section **Signal contacts** min.

0.06 mm²

Litz wire cross-section **Signal contacts** max.

1 mm²

Nominal current per signal contact

9 A

Note

for max. connection cross section

Rated voltage Signal contact

250 V

Rated surge voltage

4 kV

Overvoltage category

III

Degree of pollution

3

Installation height

3000 m

Housing

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Thread type	M23
Type of locking	Screw locking mechanism
Pg screw connection	none
Housing material	GD-Zn
Degree of protection (plugged in)	IP66 / IP68 (2m / 24h) / IP69K

Seal

External cable diameter	9.5 mm ... 14.5 mm
Seal material	FKM

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (see to derating)
Permanent temperature	125 °C (DIN EN 60512-9-2 / 1000 h)

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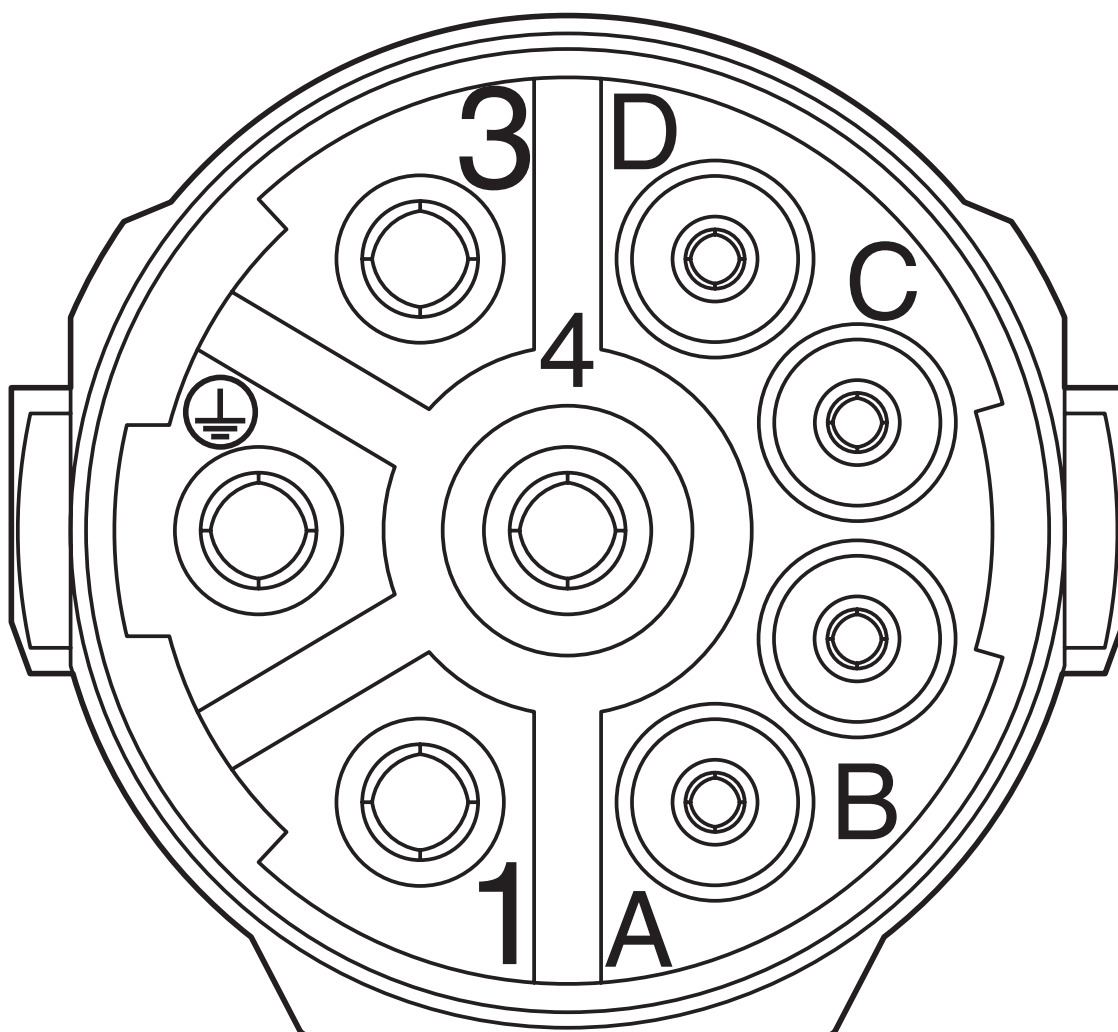
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Drawings

Schematic diagram



Connector pin assignment

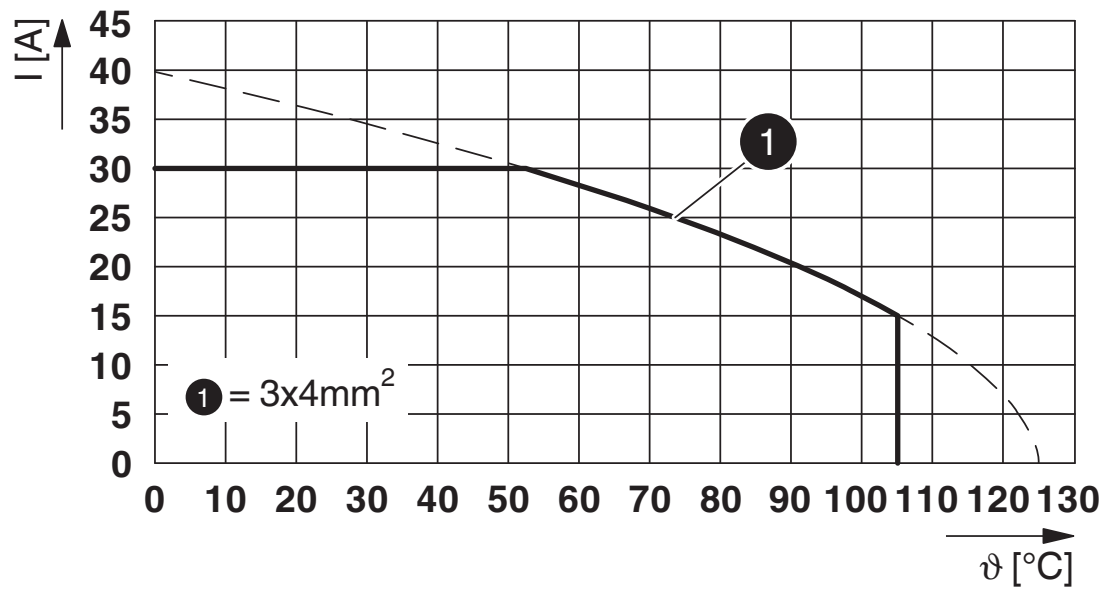
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Diagram



I = current strength, ϑ = ambient temperature, 3 x 30 A + 2 x 1 A constant


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Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1628820>



UL Listed

Approval ID: E468743-20190627



cUL Listed

Approval ID: E468743-20190627

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

ETIM

ETIM 9.0	EC002635
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UNSPSC

UNSPSC 21.0	39121400
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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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