

## Cable connector - M23-06P1N8A8002 - 1629235

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Cable connector, M23 PRO, straight, shielded: yes, Screw locking, M23, No. of pos.: 6, type of contact: Pin, Crimp connection, cable diameter range: 4 mm ... 8.5 mm

### 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

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 055626 618685 |
| GTIN         | 4055626618685                                                                                           |

### Technical data

#### Temperature range

|                     |                   |
|---------------------|-------------------|
| Ambient temperature | -40 °C ... 125 °C |
|---------------------|-------------------|

#### Standards and Regulations

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                                                                                                                                 |
|             | • 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.                                                                                                                                                                                                                    |
|             | • 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. |

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## Technical data

### Standards and Regulations

|  |                                                                                                                                                                                                                                                                                                |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>                                                                                                                                        |
|  | <ul style="list-style-type: none"> <li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>                                                                                                                 |
|  | <ul style="list-style-type: none"> <li>• Assembled products may not be manipulated or improperly opened.</li> </ul>                                                                                                                                                                            |
|  | <ul style="list-style-type: none"> <li>• 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 <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li> </ul> |
|  | <ul style="list-style-type: none"> <li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>                                                                                                                                       |
|  | <ul style="list-style-type: none"> <li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>                                                                                                                                                        |
|  | <ul style="list-style-type: none"> <li>• Ensure that the protective or functional ground has been properly connected.</li> </ul>                                                                                                                                                               |
|  | <ul style="list-style-type: none"> <li>• 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</li> </ul>                                                                                                      |
|  | <ul style="list-style-type: none"> <li>• Only use tools recommended by Phoenix Contact</li> </ul>                                                                                                                                                                                              |
|  | <ul style="list-style-type: none"> <li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li> </ul>                                             |
|  | <ul style="list-style-type: none"> <li>• Operate the connector only when it is fully plugged in and interlocked.</li> </ul>                                                                                                                                                                    |
|  | <ul style="list-style-type: none"> <li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>                                                                                                          |
|  | <ul style="list-style-type: none"> <li>• Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li> </ul>                                                                                                                                                        |
|  | <ul style="list-style-type: none"> <li>• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul>       |

### Data of the insulating body

|                                                 |                                                               |
|-------------------------------------------------|---------------------------------------------------------------|
| Note                                            | Order information: Order crimp contacts 6 x Ø 2 mm separately |
| Coding                                          | N                                                             |
| Insulator material                              | PA 6.6                                                        |
| Contact connection method                       | Crimp connection                                              |
| Type of contacts                                | Pin                                                           |
| Application                                     | Signal                                                        |
| Number of positions                             | 6                                                             |
| Direction of rotation                           | Standard                                                      |
| Contact diameter of signal contacts             | 2 mm                                                          |
| Litz wire cross section of signal contacts min. | 0.5 mm <sup>2</sup>                                           |
| Litz wire cross section of signal contacts max. | 2.5 mm <sup>2</sup>                                           |
| Nominal current per signal contact              | 20 A                                                          |
| Note                                            | for max. connection cross section                             |
| Rated voltage of signal contact                 | 300 V                                                         |
| Rated surge voltage                             | 2.5 kV                                                        |
| Overvoltage category                            | II                                                            |

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### Technical data

#### Data of the insulating body

|                     |                                   |
|---------------------|-----------------------------------|
| Degree of pollution | 3                                 |
| Note                | for max. connection cross section |

#### Housing data

|                                        |                          |
|----------------------------------------|--------------------------|
| Housing material                       | GD-Zn                    |
| Type of locking                        | Screw locking            |
| Degree of protection (when plugged in) | IP66 / IP68 (2 m / 24 h) |
| Thread type                            | M23                      |

#### Cable seal data

|                  |                 |
|------------------|-----------------|
| Cable diameter   | 4 mm ... 8.5 mm |
| Sealing material | FKM             |

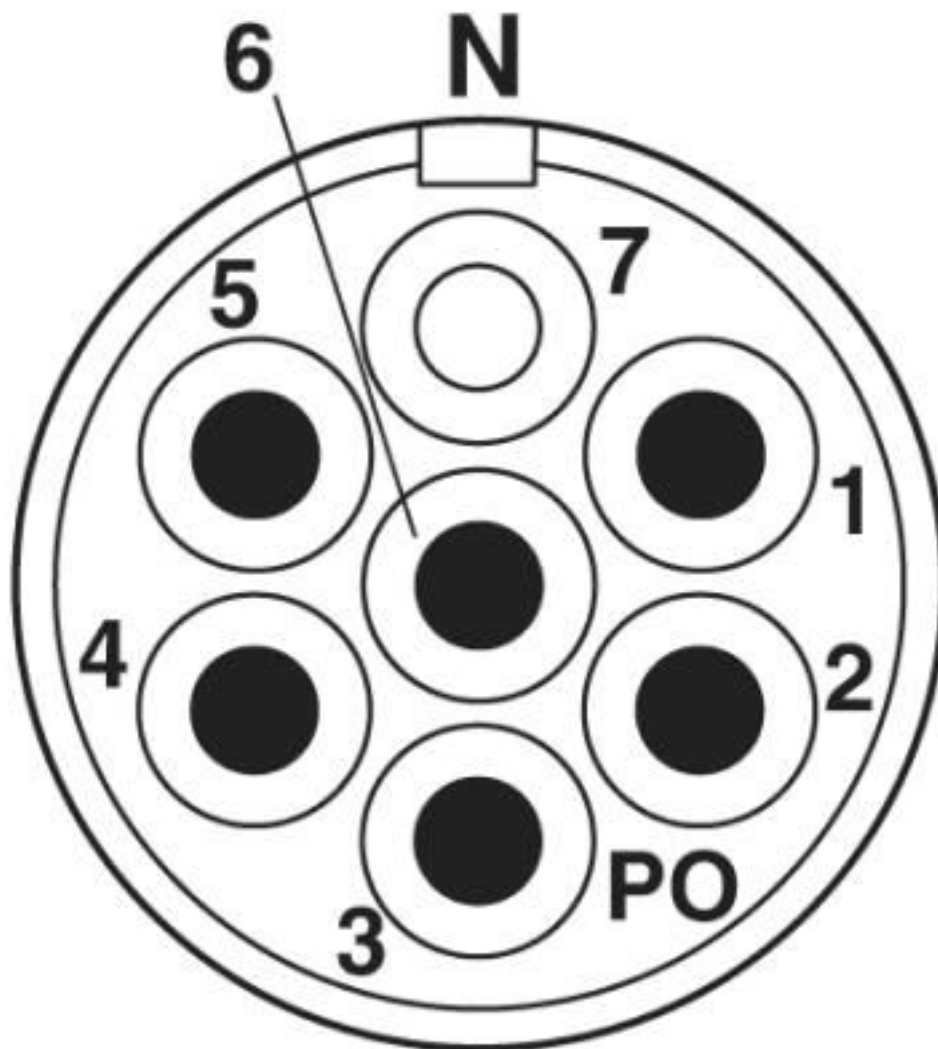
#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

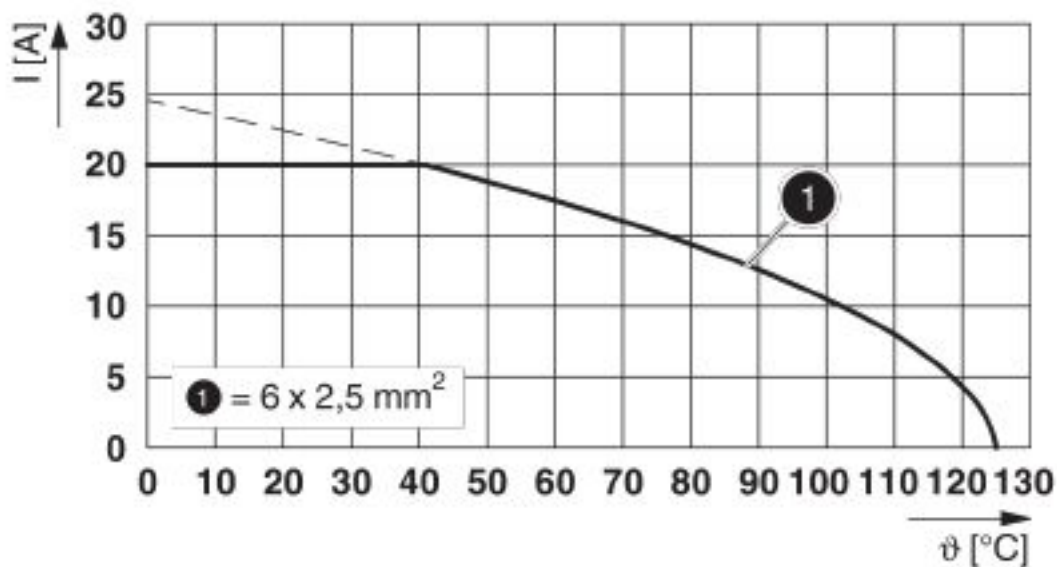
## Cable connector - M23-06P1N8A8002 - 1629235

Schematic diagram



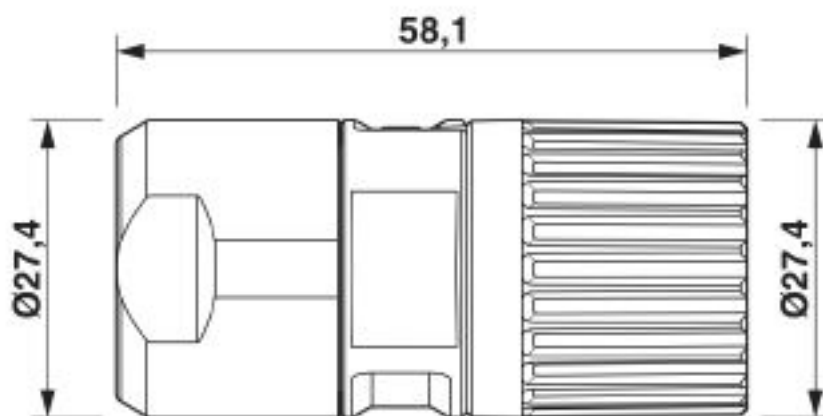
## Cable connector - M23-06P1N8A8002 - 1629235

Diagram



$I$  = current strength,  $\theta$  = ambient temperature, 6x 20 A

Dimensional drawing



Technical drawings can be found under Downloads

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 8.0    | 27440102 |

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### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 9.0 | 27440102 |
|------------|----------|

ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002635 |
| ETIM 6.0 | EC002061 |

### Approvals

Approvals

Approvals

UL Recognized / cUL Recognized

Ex Approvals

### Approval details

|                                                                                                                                                                                                                                                                          |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| UL Recognized  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> E335019-20141210 |       |
| Nominal voltage UN                                                                                                                                                                                                                                                       | 300 V |
| Nominal current IN                                                                                                                                                                                                                                                       | 17 A  |
| mm²/AWG/kcmil                                                                                                                                                                                                                                                            | 14    |

|                                                                                                                                                                                                                                                                           |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| cUL Recognized  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> E335019-20141210 |       |
| Nominal voltage UN                                                                                                                                                                                                                                                        | 300 V |
| Nominal current IN                                                                                                                                                                                                                                                        | 10 A  |
| mm²/AWG/kcmil                                                                                                                                                                                                                                                             | 14    |

### Accessories

Accessories

Circular connectors (device side)

## Cable connector - M23-06P1N8A8002 - 1629235

### Accessories

Hook wrench - SF-Z0027 - 1607455



Hook wrench

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### Crimp contact

Crimp contact - RC-5SP2000 - 1603529



Crimp contact, turned, contact diameter: 2 mm, crimp range: 0.5 mm<sup>2</sup> ... 0.75 mm<sup>2</sup>

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Crimp contact - RC-59P2000 - 1603498



Crimp contact, turned, contact diameter: 2 mm, crimp range: 0.75 mm<sup>2</sup> ... 1 mm<sup>2</sup>

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Crimp contact - RC-5CP2000 - 1603513



Crimp contact, turned, contact diameter: 2 mm, crimp range: 1 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>

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Crimp contact - RC-5AP2000 - 1603505



Crimp contact, turned, contact diameter: 2 mm, crimp range: 1.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>

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### Mounting material

## Cable connector - M23-06P1N8A8002 - 1629235

### Accessories

Torque screwdriver - SF-Z0028 - 1607456



Torque screwdriver

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Special wrench - RF-Z0007 - 1614347



Special wrench

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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

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