

ÖLFLEX® CHAIN 819 P 4G1,0

Article No.: 1027822

Power and control cable; 4G1; Basic-Line; U_0/U : 300/500 V; PUR; Core identification: Numbers; UL recognized; Cable chain



Details

Benefits

- Durable cable chain use with moderate travel distances or acceleration (LAPP performance class “Basic Line”).
- UL/CSA certification according to technical data enables the product to be used on the North American market.
- Operating voltage of 1000 V according to UL, permitted for North America.
- Product with multiple certifications enables universal use and reduces the variety of parts, thus guaranteeing logistics savings.
- High oil resistance according to DIN EN 50363-4-1 (TM5).

Application

- The cable design allows flexible, continuously flexing use in moving machine parts and in the cable chain.
- Can be used in dry interiors.
- Suitable for light to medium mechanical stress.
- The outer jacket made of a special in-house PU mix is resistant to many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media.

Notes

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

If applicable, the prices are solid metal prices without additional charges and VAT. Sales only to business customers.

Unless specified otherwise, the product values shown are rated values at room temperature. You can receive additional values, such as tolerances, upon request if they are available and have been released for publication.

The absence of PWIS raw materials does not protect against the potential risk of contamination with substances that interfere with the paint wetting during subsequent handling of the product(s) during transport, storage or further processing after delivery.

Remarks

When used in cable chains: please follow the T3 technical assembly guidelines

Bending cycles and usage parameters: please refer to the A2-1 selection table

Technical Data

General information

| | |
|-------------------|-------------------------|
| Brand | ÖLFLEX® |
| Product type | Power and control cable |
| Copper index | 262.07 lb/10000 ft |
| Performance class | Basic-Line |

Electrical parameters

| | |
|-----------------------------|---|
| Nominal voltage | U_0/U : 300/500 V AC rms according to IEC |
| Rated voltage | 1000 V AC rms according to cRU AWM 1000 V AC rms according to UL AWM |
| test voltage | 4 kV |
| Current rating according to | VDE 0298-4 |

Product design

| | |
|--|-------------------|
| Cable dimension | 4G1 |
| Nominal cross section conductor (mm ²) | 1 mm ² |
| Nominal cross section conductor (AWG) | 18 AWG |

| | |
|---|------------------------------|
| Leading conductor cross-section | mm ² |
| Conductor material | Bare Copper |
| Conductor design | IEC 60228 class 5: fine-wire |
| Including protective ground | Yes |
| Number of cores | 4 |
| Stranding type | Layered Stranding |
| Wrapping above stranding | Fleece Wrapping |
| Shielded | No |
| Nominal outer diameter | 0.272 in |
| Cable form | Round |
| Core insulation base material | Polyvinylchloride |
| Conductor insulation basic material, short form | PVC |
| Basic material of outer jacket | Polyurethane |
| Base material of outer sheath, shortname | PUR |
| Outer jacket color | black |
| Colour outer sheath RAL code | RAL 9005 |
| Core identification | Numbers |
| Conductor color code | EN 50334 VDE 0293-1 |

Product features

| | |
|--|-------------------------|
| Application area | Cable chain Flexible |
| For permanent bending | Yes |
| For torsional load | Yes |
| Minimum bending radius, stationary | 4 x outer diameter |
| Minimum bending radius in inch, fixed installation | 1.087 in |
| Minimum bending radius, dynamic continuously flexing | 10 x outer diameter |
| Minimum bending radius in inch, dynamic continuously flexing | 2.717 in |
| Minimum bending radius, occasionally moved | 10 x outer diameter |

| | |
|--|---|
| Minimum bending radius in mm, occasionally moved | 2.717 in |
| Maximum bending cycles | 5,000,000 |
| Maximum travel distance | 32.808 ft |
| Maximum speed sliding | 9.843 ft/s |
| Maximum speed unsupported | 16.404 ft/s |
| Maximum acceleration | 16.404 ft/s ² |
| Torsion | For +/- 150 °/m and min. 5 °C up to 5000 Torsion cycles For +/- 150 °/m and min. -20 °C up to 2000 Torsion cycles |
| Temperature, fixed installation | to 80 °C max. conductor temperature according to CSA AWM -40 °C to 80 °C max. conductor temperature according to IEC to 80 °C max. conductor temperature according to UL AWM |
| Temperature, occasionally moved | -5 °C to 70 °C max. conductor temperature according to IEC -5 °C to 80 °C max. conductor temperature according to UL AWM -5 °C to 80 °C max. conductor temperature according to CSA AWM |
| temperature, dynamic permanently moved | -5 °C to 80 °C max. conductor temperature according to CSA AWM -5 °C to 80 °C max. conductor temperature according to UL AWM -5 °C to 70 °C max. conductor temperature according to IEC |
| Flame-retardant | Yes |
| Flame retardance according to | IEC 60332-1-2 CSA FT2 UL Horizontal Flame Test |
| UV-resistant | Yes |
| UV-resistant according to | DIN EN ISO 4892-2 method A |
| Chemical resistant | Yes |
| Halogenfree | No |
| Oil resistant | Yes |
| Oil resistance according to | EN 50363-4-1: TM5 |

| | |
|-----------------------------|-----------------|
| PWIS-free | Yes |
| PWIS-free according to | VDMA 24364-B2-L |
| Low-adhesive jacket surface | Yes |

Certifications and standards

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|---|--|
| CE marking | Yes |
| EAC certified | Yes |
| EAC certification number | EAЭC N RU Д-DE.АЮ64.В.00130/20 |
| UL recognized | Yes |
| UL AWM certification | 11009 according to UL 758 (e-file number: E63634) 21576 according to UL 758 (e-file number: E63634) |
| UL listed | No |
| cUR recognized | Yes |
| cUR certification | AWM I A according to CSA C22.2 No. 210 (e-file number: E63634) AWM II A according to CSA C22.2 No. 210 (e-file number: E63634) AWM I B according to CSA C22.2 No. 210 (e-file number: E63634) AWM II B according to CSA C22.2 No. 210 (e-file number: E63634) |
| cUL listed | No |
| CSA certified | No |
| VDE certified | No |
| DNV-certified | No |
| Resistance to flame propagation tested according to UN/ECE-R118 | No |

ÖLFLEX® CHAIN 819 P

| Article No. | Name | Number of cores | Including protective ground | Nominal cross section conductor (mm ²) | Nominal outer diameter | Copper index |
|-------------|-----------------------------|-----------------|-----------------------------|--|------------------------|---------------------|
| 1027800 | ÖLFLEX® CHAIN 819 P 2X0,5 | 2 | No | 0.5 mm ² | 0.205 in | 64.51 lb/10000 ft |
| 1027801 | ÖLFLEX® CHAIN 819 P 3G0,5 | 3 | Yes | 0.5 mm ² | 0.217 in | 96.77 lb/10000 ft |
| 1027802 | ÖLFLEX® CHAIN 819 P 4G0,5 | 4 | Yes | 0.5 mm ² | 0.236 in | 129.02 lb/10000 ft |
| 1027803 | ÖLFLEX® CHAIN 819 P 5G0,5 | 5 | Yes | 0.5 mm ² | 0.256 in | 161.28 lb/10000 ft |
| 1027804 | ÖLFLEX® CHAIN 819 P 7G0,5 | 7 | Yes | 0.5 mm ² | 0.303 in | 225.78 lb/10000 ft |
| 1027805 | ÖLFLEX® CHAIN 819 P 12G0,5 | 12 | Yes | 0.5 mm ² | 0.362 in | 387.06 lb/10000 ft |
| 1027806 | ÖLFLEX® CHAIN 819 P 18G0,5 | 18 | Yes | 0.5 mm ² | 0.433 in | 580.58 lb/10000 ft |
| 1027807 | ÖLFLEX® CHAIN 819 P 25G0,5 | 25 | Yes | 0.5 mm ² | 0.524 in | 806.36 lb/10000 ft |
| 1027810 | ÖLFLEX® CHAIN 819 P 2X0,75 | 2 | No | 0.75 mm ² | 0.22 in | 96.77 lb/10000 ft |
| 1027811 | ÖLFLEX® CHAIN 819 P 3G0,75 | 3 | Yes | 0.75 mm ² | 0.236 in | 145.15 lb/10000 ft |
| 1027812 | ÖLFLEX® CHAIN 819 P 4G0,75 | 4 | Yes | 0.75 mm ² | 0.256 in | 193.53 lb/10000 ft |
| 1027813 | ÖLFLEX® CHAIN 819 P 5G0,75 | 5 | Yes | 0.75 mm ² | 0.28 in | 241.91 lb/10000 ft |
| 1027814 | ÖLFLEX® CHAIN 819 P 7G0,75 | 7 | Yes | 0.75 mm ² | 0.335 in | 338.67 lb/10000 ft |
| 1027815 | ÖLFLEX® CHAIN 819 P 12G0,75 | 12 | Yes | 0.75 mm ² | 0.406 in | 580.58 lb/10000 ft |
| 1027816 | ÖLFLEX® CHAIN 819 P 18G0,75 | 18 | Yes | 0.75 mm ² | 0.48 in | 870.87 lb/10000 ft |
| 1027817 | ÖLFLEX® CHAIN 819 P 25G0,75 | 25 | Yes | 0.75 mm ² | 0.583 in | 1209.54 lb/10000 ft |
| 1027820 | ÖLFLEX® CHAIN 819 P 2X1,0 | 2 | No | 1 mm ² | 0.232 in | 129.02 lb/10000 ft |
| 1027821 | ÖLFLEX® CHAIN 819 P 3G1,0 | 3 | Yes | 1 mm ² | 0.248 in | 193.53 lb/10000 ft |
| 1027822 | ÖLFLEX® CHAIN 819 P 4G1,0 | 4 | Yes | 1 mm ² | 0.272 in | 262.07 lb/10000 ft |
| 1027823 | ÖLFLEX® CHAIN 819 P 5G1,0 | 5 | Yes | 1 mm ² | 0.295 in | 322.55 lb/10000 ft |
| 1027824 | ÖLFLEX® CHAIN 819 P 7G1,0 | 7 | Yes | 1 mm ² | 0.354 in | 450.22 lb/10000 ft |
| 1027825 | ÖLFLEX® CHAIN 819 P 12G1,0 | 12 | Yes | 1 mm ² | 0.429 in | 774.11 lb/10000 ft |
| 1027826 | ÖLFLEX® CHAIN 819 P 18G1,0 | 18 | Yes | 1 mm ² | 0.52 in | 1161.16 lb/10000 ft |
| 1027827 | ÖLFLEX® CHAIN 819 P 25G1,0 | 25 | Yes | 1 mm ² | 0.618 in | 1612.71 lb/10000 ft |
| 1027830 | ÖLFLEX® CHAIN 819 P 2X1,5 | 2 | No | 1.5 mm ² | 0.256 in | 193.53 lb/10000 ft |
| 1027831 | ÖLFLEX® CHAIN 819 P 3G1,5 | 3 | Yes | 1.5 mm ² | 0.272 in | 290.29 lb/10000 ft |
| 1027832 | ÖLFLEX® CHAIN 819 P 4G1,5 | 4 | Yes | 1.5 mm ² | 0.299 in | 389.74 lb/10000 ft |
| 1027833 | ÖLFLEX® CHAIN 819 P 5G1,5 | 5 | Yes | 1.5 mm ² | 0.335 in | 483.82 lb/10000 ft |
| 1027834 | ÖLFLEX® CHAIN 819 P 7G1,5 | 7 | Yes | 1.5 mm ² | 0.406 in | 677.34 lb/10000 ft |
| 1027835 | ÖLFLEX® CHAIN 819 P 12G1,5 | 12 | Yes | 1.5 mm ² | 0.484 in | 1161.16 lb/10000 ft |

| Article No. | Name | Number of cores | Including protective ground | Nominal cross section conductor (mm ²) | Nominal outer diameter | Copper index |
|-------------|----------------------------|-----------------|-----------------------------|--|------------------------|---------------------|
| 1027836 | ÖLFLEX® CHAIN 819 P 18G1,5 | 18 | Yes | 1.5 mm ² | 0.587 in | 1741.73 lb/10000 ft |
| 1027837 | ÖLFLEX® CHAIN 819 P 25G1,5 | 25 | Yes | 1.5 mm ² | 0.705 in | 2419.07 lb/10000 ft |
| 1027840 | ÖLFLEX® CHAIN 819 P 3G2,5 | 3 | Yes | 2.5 mm ² | 0.331 in | 483.82 lb/10000 ft |
| 1027841 | ÖLFLEX® CHAIN 819 P 4G2,5 | 4 | Yes | 2.5 mm ² | 0.366 in | 645.09 lb/10000 ft |
| 1027842 | ÖLFLEX® CHAIN 819 P 7G2,5 | 7 | Yes | 2.5 mm ² | 0.5 in | 1128.9 lb/10000 ft |
| 1027843 | ÖLFLEX® CHAIN 819 P 12G2,5 | 12 | Yes | 2.5 mm ² | 0.598 in | 1935.26 lb/10000 ft |
| 1027844 | ÖLFLEX® CHAIN 819 P 5G2,5 | 5 | Yes | 2.5 mm ² | 0.409 in | 806.36 lb/10000 ft |
| 1027850 | ÖLFLEX® CHAIN 819 P 4G4 | 4 | Yes | 4 mm ² | 0.437 in | 1032.14 lb/10000 ft |
| 1027852 | ÖLFLEX® CHAIN 819 P 4G10 | 4 | Yes | 10 mm ² | 0.677 in | 2580.34 lb/10000 ft |
| 1027855 | ÖLFLEX® CHAIN 819 P 4G16 | 4 | Yes | 16 mm ² | 0.791 in | 4128.54 lb/10000 ft |
| 1027857 | ÖLFLEX® CHAIN 819 P 4G25 | 4 | Yes | 25 mm ² | 0.98 in | 6450.84 lb/10000 ft |

V1.1