

ÖLFLEX® CHAIN 819 CP 5G0,5

Article No.: 1027903

Power and control cable; 5G0.5; Basic-Line; U_0/U : 300/500 V; PUR; Core identification: Numbers; Shielded; UL recognized; Cable chain



Details

Benefits

- Durable cable chain use with moderate travel distances or acceleration (LAPP performance class “Basic Line”).
- Ideal protection against electromagnetic interference thanks to copper shielding braiding with a high degree of coverage.
- 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.
- Especially for environments where electromagnetic compatibility (EMC) is required.
- Can be used in dry interiors.
- Suitable for light to medium mechanical stress.

- The outer jacket made of a special PU mix from LAPP is resistant to many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media.

Notes

Inductance and operating capacitance are neither defined nor controlled electrical parameters. The specified values were determined by calculation and may deviate due to tolerances.

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.

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

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.

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

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 | 289.62 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 conductor/conductor | 4 kV |
| Test voltage conductor/shielding | 3 kV |
| Current rating according to | VDE 0298-4 |

Product design

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|--|------------------------------|
| Cable dimension | 5G0.5 |
| Nominal cross section conductor (mm ²) | 0.5 mm ² |
| Nominal cross section conductor (AWG) | 21 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 | 5 |
| Stranding type | Layered Stranding |
| Wrapping above stranding | Fleece Wrapping |
| Shielded | Yes |
| Type of overall shielding | Tin-plated copper braiding |
| Nominal outer diameter | 0.28 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

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| Application area | Cable chain Flexible |
|------------------|-------------------------|

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| For permanent bending | Yes |
| For torsional load | Yes |
| Minimum bending radius, stationary | 4 x outer diameter |
| Minimum bending radius in inch, fixed installation | 1.118 in |
| Minimum bending radius, dynamic continuously flexing | 10 x outer diameter |
| Minimum bending radius in inch, dynamic continuously flexing | 2.795 in |
| Minimum bending radius, occasionally moved | 10 x outer diameter |
| Minimum bending radius in mm, occasionally moved | 2.795 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. -20 °C up to 2000 Torsion cycles For +/- 150 °/m and min. 5 °C up to 5000 Torsion cycles |
| Temperature, fixed installation | to 80 °C according to UL AWM to 80 °C according to CSA AWM -40 °C to 80 °C according to IEC |
| Temperature, fixed installation max | 80 °C |
| Temperature, fixed installation min | -40 °C |
| Temperature, occasionally moved | -5 °C to 80 °C according to UL AWM -5 °C to 80 °C according to CSA AWM -5 °C to 70 °C according to IEC |
| Temperature, occasionally moved max | 80 °C |
| Temperature, occasionally moved min | -5 °C |
| temperature, dynamic permanently moved | -5 °C to 80 °C according to CSA AWM -5 °C to 80 °C according to UL AWM -5 °C to 70 °C according to IEC |
| temperature, dynamic permanently moved max | 80 °C |

| | |
|--|--|
| temperature, dynamic permanently moved min | -5 °C |
| 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.АЮ064.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 II A according to CSA C22.2 No. 210 (e-file number: E63634) AWM I A 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) AWM I B according to CSA C22.2 No. 210 (e-file number: E63634) |
| cUL listed | No |
| CSA certified | No |

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| VDE certified | No |
| DNV-certified | No |
| Resistance to flame propagation tested according to UN/ECE-R118 | No |

ÖLFLEX® CHAIN 819 CP

| Article No. | Name | Number of cores | Including protective ground | Nominal cross section conductor (mm ²) | Nominal outer diameter | Copper index |
|-------------|------------------------------|-----------------|-----------------------------|--|------------------------|---------------------|
| 1027900 | ÖLFLEX® CHAIN 819 CP 2X0,5 | 2 | No | 0.5 mm ² | 0.228 in | 151.2 lb/10000 ft |
| 1027901 | ÖLFLEX® CHAIN 819 CP 3G0,5 | 3 | Yes | 0.5 mm ² | 0.24 in | 182.11 lb/10000 ft |
| 1027902 | ÖLFLEX® CHAIN 819 CP 4G0,5 | 4 | Yes | 0.5 mm ² | 0.26 in | 235.86 lb/10000 ft |
| 1027903 | ÖLFLEX® CHAIN 819 CP 5G0,5 | 5 | Yes | 0.5 mm ² | 0.28 in | 289.62 lb/10000 ft |
| 1027904 | ÖLFLEX® CHAIN 819 CP 7G0,5 | 7 | Yes | 0.5 mm ² | 0.335 in | 374.96 lb/10000 ft |
| 1027905 | ÖLFLEX® CHAIN 819 CP 12G0,5 | 12 | Yes | 0.5 mm ² | 0.394 in | 558.41 lb/10000 ft |
| 1027906 | ÖLFLEX® CHAIN 819 CP 18G0,5 | 18 | Yes | 0.5 mm ² | 0.465 in | 806.36 lb/10000 ft |
| 1027907 | ÖLFLEX® CHAIN 819 CP 25G0,5 | 25 | Yes | 0.5 mm ² | 0.555 in | 1149.06 lb/10000 ft |
| 1027910 | ÖLFLEX® CHAIN 819 CP 2X0,75 | 2 | No | 0.75 mm ² | 0.244 in | 204.28 lb/10000 ft |
| 1027911 | ÖLFLEX® CHAIN 819 CP 3G0,75 | 3 | Yes | 0.75 mm ² | 0.26 in | 251.99 lb/10000 ft |
| 1027912 | ÖLFLEX® CHAIN 819 CP 4G0,75 | 4 | Yes | 0.75 mm ² | 0.28 in | 321.87 lb/10000 ft |
| 1027913 | ÖLFLEX® CHAIN 819 CP 5G0,75 | 5 | Yes | 0.75 mm ² | 0.303 in | 370.93 lb/10000 ft |
| 1027914 | ÖLFLEX® CHAIN 819 CP 7G0,75 | 7 | Yes | 0.75 mm ² | 0.358 in | 510.02 lb/10000 ft |
| 1027915 | ÖLFLEX® CHAIN 819 CP 12G0,75 | 12 | Yes | 0.75 mm ² | 0.429 in | 774.78 lb/10000 ft |
| 1027916 | ÖLFLEX® CHAIN 819 CP 18G0,75 | 18 | Yes | 0.75 mm ² | 0.512 in | 1128.9 lb/10000 ft |
| 1027917 | ÖLFLEX® CHAIN 819 CP 25G0,75 | 25 | Yes | 0.75 mm ² | 0.614 in | 1610.03 lb/10000 ft |
| 1027920 | ÖLFLEX® CHAIN 819 CP 2X1,0 | 2 | No | 1 mm ² | 0.256 in | 237.21 lb/10000 ft |
| 1027921 | ÖLFLEX® CHAIN 819 CP 3G1,0 | 3 | Yes | 1 mm ² | 0.272 in | 300.37 lb/10000 ft |
| 1027922 | ÖLFLEX® CHAIN 819 CP 4G1,0 | 4 | Yes | 1 mm ² | 0.295 in | 387.73 lb/10000 ft |
| 1027923 | ÖLFLEX® CHAIN 819 CP 5G1,0 | 5 | Yes | 1 mm ² | 0.327 in | 472.39 lb/10000 ft |
| 1027924 | ÖLFLEX® CHAIN 819 CP 7G1,0 | 7 | Yes | 1 mm ² | 0.386 in | 622.91 lb/10000 ft |
| 1027925 | ÖLFLEX® CHAIN 819 CP 12G1,0 | 12 | Yes | 1 mm ² | 0.461 in | 999.21 lb/10000 ft |
| 1027926 | ÖLFLEX® CHAIN 819 CP 18G1,0 | 18 | Yes | 1 mm ² | 0.551 in | 1505.87 lb/10000 ft |
| 1027927 | ÖLFLEX® CHAIN 819 CP 25G1,0 | 25 | Yes | 1 mm ² | 0.657 in | 2012.53 lb/10000 ft |
| 1027930 | ÖLFLEX® CHAIN 819 CP 2X1,5 | 2 | No | 1.5 mm ² | 0.28 in | 321.87 lb/10000 ft |
| 1027931 | ÖLFLEX® CHAIN 819 CP 3G1,5 | 3 | Yes | 1.5 mm ² | 0.295 in | 419.98 lb/10000 ft |
| 1027932 | ÖLFLEX® CHAIN 819 CP 4G1,5 | 4 | Yes | 1.5 mm ² | 0.331 in | 537.57 lb/10000 ft |
| 1027933 | ÖLFLEX® CHAIN 819 CP 5G1,5 | 5 | Yes | 1.5 mm ² | 0.358 in | 655.17 lb/10000 ft |
| 1027934 | ÖLFLEX® CHAIN 819 CP 7G1,5 | 7 | Yes | 1.5 mm ² | 0.429 in | 871.54 lb/10000 ft |
| 1027935 | ÖLFLEX® CHAIN 819 CP 12G1,5 | 12 | Yes | 1.5 mm ² | 0.524 in | 1417.84 lb/10000 ft |

| Article No. | Name | Number of cores | Including protective ground | Nominal cross section conductor (mm ²) | Nominal outer diameter | Copper index |
|-------------|-----------------------------|-----------------|-----------------------------|--|------------------------|---------------------|
| 1027936 | ÖLFLEX® CHAIN 819 CP 18G1,5 | 18 | Yes | 1.5 mm ² | 0.618 in | 2143.56 lb/10000 ft |
| 1027937 | ÖLFLEX® CHAIN 819 CP 25G1,5 | 25 | Yes | 1.5 mm ² | 0.736 in | 2876.67 lb/10000 ft |
| 1027940 | ÖLFLEX® CHAIN 819 CP 3G2,5 | 3 | Yes | 2.5 mm ² | 0.354 in | 654.5 lb/10000 ft |
| 1027941 | ÖLFLEX® CHAIN 819 CP 4G2,5 | 4 | Yes | 2.5 mm ² | 0.398 in | 838.61 lb/10000 ft |
| 1027942 | ÖLFLEX® CHAIN 819 CP 7G2,5 | 7 | Yes | 2.5 mm ² | 0.531 in | 1387.61 lb/10000 ft |
| 1027943 | ÖLFLEX® CHAIN 819 CP 12G2,5 | 12 | Yes | 2.5 mm ² | 0.638 in | 2335.07 lb/10000 ft |
| 1027944 | ÖLFLEX® CHAIN 819 CP 5G2,5 | 5 | Yes | 2.5 mm ² | 0.441 in | 999.21 lb/10000 ft |
| 1027950 | ÖLFLEX® CHAIN 819 CP 4G4 | 4 | Yes | 4 mm ² | 0.469 in | 1256.57 lb/10000 ft |
| 1027952 | ÖLFLEX® CHAIN 819 CP 4G10 | 4 | Yes | 10 mm ² | 0.717 in | 3037.95 lb/10000 ft |
| 1027955 | ÖLFLEX® CHAIN 819 CP 4G16 | 4 | Yes | 16 mm ² | 0.839 in | 4700.38 lb/10000 ft |
| 1027957 | ÖLFLEX® CHAIN 819 CP 4G25 | 4 | Yes | 25 mm ² | 1.035 in | 7136.91 lb/10000 ft |

V1.1