

## ÖLFLEX® CHAIN 819 P 3G1,0

**Article No.:** 1027821

Power and control cable; 3G1; 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	193.53 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	3G1
Nominal cross section conductor (mm <sup>2</sup> )	1 mm <sup>2</sup>
Nominal cross section conductor (AWG)	18 AWG

Leading conductor cross-section	mm <sup>2</sup>
Conductor material	Bare Copper
Conductor design	IEC 60228 class 5: fine-wire
Including protective ground	Yes
Number of cores	3
Stranding type	Layered Stranding
Wrapping above stranding	Fleece Wrapping
Shielded	No
Nominal outer diameter	0.248 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	0.992 in
Minimum bending radius, dynamic continuously flexing	10 x outer diameter
Minimum bending radius in inch, dynamic continuously flexing	2.48 in
Minimum bending radius, occasionally moved	10 x outer diameter

Minimum bending radius in mm, occasionally moved	2.48 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 <sup>2</sup>
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

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

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

V1.1