



Round PUR festoon cables

PUR-HF

0.6/1 kV Halogen-Free Polyurethane Festoon & Drag-Chain Cable

Round halogen-free PUR festoon, drag-chain and moderate reeling cable (D12Y11Y-J/O)



0.6/1 kV

D12Y11Y-J/O

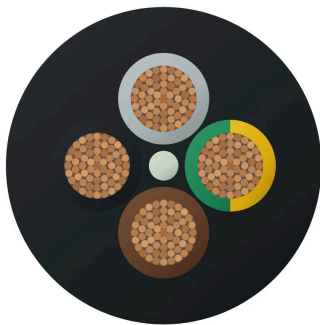
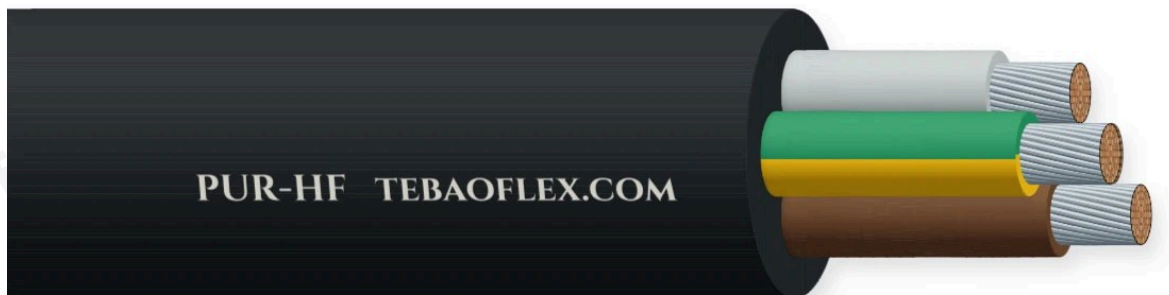
Halogen-Free PUR

Application

Heavy-duty 0.6/1 kV halogen-free polyurethane festoon and drag-chain cable (D12Y11Y-J/O / FESTOONFLEX PUR-HF) with Class 5 copper conductors, polyester-based HF insulation, central textile strength member and hydrolysis/oil-resistant PUR jacket.

Typical uses: Container & port gantry cranes, Machine tool & automation drag chains, Bulk material handling & conveyors, Steelworks & outdoor yard cranes, Wastewater & wet-process gantries, Automated warehouse transfer cars

Construction



Cross-section, not to scale

1 Conductor

2 Central strength member

3 Core insulation

4 Core lay-up

5 Outer sheath

IEC 60228 / DIN VDE 0295
Class 5

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV (600/1,000 V)	Max. operating voltage AC / DC	0.7/1.2 kV AC · 0.9/1.8 kV DC
AC test voltage	2.5 kV (5 min)	Current rating basis	DIN VDE 0298-4 at 30 °C ambient in free air
Max. conductor operating temperature	+90 °C	Max. short-circuit temperature (≤ 5 s)	+250 °C
Ambient temperature — flexing / mobile	-40 to +80 °C	Ambient temperature — fixed installation	-50 to +80 °C
Max. travel speed	Festoon up to 210 m/min · Drag chain up to 210 m/min · Reeling up to 60 m/min	Max. tensile load on conductor	15 N/mm ²
Max. torsional stress	± 25 °/m	Min. bending radius	6 × D fixed · 6 × D (up to 8 × D) flexing
Standards	DIN VDE 0250-1 (D12Y11Y-J/O) · IEC 60228 (VDE 0295 Class 5) · IEC 60502-1	Standard packing	500 m on wooden drums or custom cut festoon/chain lengths

Sizes

41 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation -J	Order designation -O	Cores × mm ²	AWG ≈	OD min mm	OD max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm	Max. pull N
Single-core 16–185 mm ² 9 sizes									
☐ PUR-HF 1G16	PUR-HF 1×16	1 × 16	6	8.5	9.5	154	170	57	240
☐ PUR-HF 1G25	PUR-HF 1×25	1 × 25	4	9.9	11.1	240	270	67	370
☐ PUR-HF 1G35	PUR-HF 1×35	1 × 35	2	11.7	12.9	336	380	77	520
☐ PUR-HF 1G50	PUR-HF 1×50	1 × 50	1	13.9	15.1	480	530	91	750
☐ PUR-HF 1G70	PUR-HF 1×70	1 × 70	2/0	16.2	17.4	672	740	104	1,050
☐ PUR-HF 1G95	PUR-HF 1×95	1 × 95	3/0	17.9	19.1	912	940	115	1,420
☐ PUR-HF 1G120	PUR-HF 1×120	1 × 120	4/0	20.2	21.5	1,152	1,200	130	1,800
☐ PUR-HF 1G150	PUR-HF 1×150	1 × 150	300 kcmil	21.8	23.2	1,440	1,490	139	2,250
☐ PUR-HF 1G185	PUR-HF 1×185	1 × 185	350 kcmil	24.3	25.7	1,776	1,830	154	2,770
1.5 mm ² (3–36 cores) 9 sizes									
☐ PUR-HF-J 3G1.5	PUR-HF-O 3×1.5	3 × 1.5	16	6.5	7.5	43	115	45	60
☐ PUR-HF-J 4G1.5	PUR-HF-O 4×1.5	4 × 1.5	16	8.1	9.1	58	120	55	90
☐ PUR-HF-J 5G1.5	PUR-HF-O 5×1.5	5 × 1.5	16	8.0	9.0	72	150	54	110
☐ PUR-HF-J 7G1.5	PUR-HF-O 7×1.5	7 × 1.5	16	9.0	10.0	101	220	60	150
☐ PUR-HF-J 12G1.5	PUR-HF-O 12×1.5	12 × 1.5	16	14.3	15.5	173	320	93	270
☐ PUR-HF-J 18G1.5	PUR-HF-O 18×1.5	18 × 1.5	16	14.5	15.7	259	380	94	400
☐ PUR-HF-J 24G1.5	PUR-HF-O 24×1.5	24 × 1.5	16	16.5	17.8	346	500	107	540
☐ PUR-HF-J 30G1.5	PUR-HF-O 30×1.5	30 × 1.5	16	19.6	21.0	432	680	126	670
☐ PUR-HF-J 36G1.5	PUR-HF-O 36×1.5	36 × 1.5	16	21.1	22.5	518	770	135	810
2.5 mm ² (3–36 cores) 9 sizes									
☐ PUR-HF-J 3G2.5	PUR-HF-O 3×2.5	3 × 2.5	14	8.5	9.5	72	130	57	110
☐ PUR-HF-J 4G2.5	PUR-HF-O 4×2.5	4 × 2.5	14	9.2	10.2	96	160	61	150
☐ PUR-HF-J 5G2.5	PUR-HF-O 5×2.5	5 × 2.5	14	9.8	11.0	120	180	66	180
☐ PUR-HF-J 7G2.5	PUR-HF-O 7×2.5	7 × 2.5	14	11.5	12.7	168	250	76	260
☐ PUR-HF-J 12G2.5	PUR-HF-O 12×2.5	12 × 2.5	14	16.5	17.7	288	460	106	450
☐ PUR-HF-J 18G2.5	PUR-HF-O 18×2.5	18 × 2.5	14	16.7	17.9	432	580	107	670
☐ PUR-HF-J 24G2.5	PUR-HF-O 24×2.5	24 × 2.5	14	19.2	20.4	576	760	122	900
☐ PUR-HF-J 30G2.5	PUR-HF-O 30×2.5	30 × 2.5	14	24.9	26.5	720	1,080	159	1,120

Order designation -J	Order designation -O	Cores × mm ²	AWG ≈	OD min mm	OD max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm	Max. pull N
☐ PUR-HF-J 36G2.5	PUR-HF-O 36×2.5	36 × 2.5	14	25.9	27.5	864	1,300	165	1,350
Power 4–95 mm ² 14 sizes									
☐ PUR-HF-J 4G4	PUR-HF-O 4×4	4 × 4	12	10.3	11.5	154	230	69	240
☐ PUR-HF-J 5G4	PUR-HF-O 5×4	5 × 4	12	11.6	12.7	192	290	77	300
☐ PUR-HF-J 4G6	PUR-HF-O 4×6	4 × 6	10	12.1	13.2	231	320	80	360
☐ PUR-HF-J 5G6	PUR-HF-O 5×6	5 × 6	10	14.0	15.2	288	420	91	450
☐ PUR-HF-J 4G10	PUR-HF-O 4×10	4 × 10	8	15.0	16.2	384	520	97	600
☐ PUR-HF-J 5G10	PUR-HF-O 5×10	5 × 10	8	16.2	17.5	480	630	105	750
☐ PUR-HF-J 4G16	PUR-HF-O 4×16	4 × 16	6	17.7	18.9	614	750	113	960
☐ PUR-HF-J 5G16	PUR-HF-O 5×16	5 × 16	6	19.4	20.6	768	920	124	1,200
☐ PUR-HF-J 4G25	PUR-HF-O 4×25	4 × 25	4	21.1	22.5	960	1,160	135	1,500
☐ PUR-HF-J 5G25	PUR-HF-O 5×25	5 × 25	4	23.2	24.5	1,200	1,380	148	1,870
☐ PUR-HF-J 4G35	PUR-HF-O 4×35	4 × 35	2	25.8	27.4	1,344	1,650	164	2,100
☐ PUR-HF-J 4G50	PUR-HF-O 4×50	4 × 50	1	31.0	33.0	1,920	2,410	198	3,000
☐ PUR-HF-J 4G70	PUR-HF-O 4×70	4 × 70	2/0	38.1	40.6	2,688	3,070	244	4,200
☐ PUR-HF-J 4G95	PUR-HF-O 4×95	4 × 95	3/0	42.0	44.5	3,648	4,150	267	5,700

– Min. bend R (mm) is stated for free-moving festoon/chain operation at 6 × D; Max. pull (N) is based on 15 N/mm² conductor tensile load.

Electrical & ampacity data

14 sizes

Cross-section mm ²	AWG ≈	Max. R20 Ω/km	Free in air 30 °C, A	On floor 30 °C, A	Reeled 1 layer 30 °C, A	Short-circuit 1 s kA
1.5	16	13.3	25	24	19	0.21
2.5	14	7.98	32	30	24	0.36
4	12	4.95	43	41	33	0.57
6	10	3.3	56	53	42	0.86
10	8	1.91	78	74	59	1.43
16	6	1.21	104	99	79	2.29
25	4	0.7839	138	131	105	3.58
35	2	0.554	170	162	130	5.01
50	1	0.386	212	202	162	7.15
70	2/0	0.272	263	250	200	10.01
95	3/0	0.206	316	301	241	13.59
120	4/0	0.161	370	352	282	17.16
150	300 kcmil	0.129	424	404	323	21.45
185	350 kcmil	0.106	484	461	369	26.46

- Ambient temperature derating factors (base 30 °C = 1.00): 10 °C 1.15 · 20 °C 1.08 · 35 °C 0.96 · 40 °C 0.91 · 45 °C 0.87 · 50 °C 0.82 · 60 °C 0.71 · 70 °C 0.58 · 80 °C 0.41.
- Multi-layer reeling reduction factors vs. 1 layer: 2 layers × 0.78 · 3 layers × 0.63 · 4 layers × 0.52 · 5 layers × 0.47.

Standards and approvals

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Web

tebaoflex.com/cables/pur-hf-low-voltage-festoon-cable



Typical values for this cable type, based on DIN VDE 0250-1 (D 12Y11Y). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.