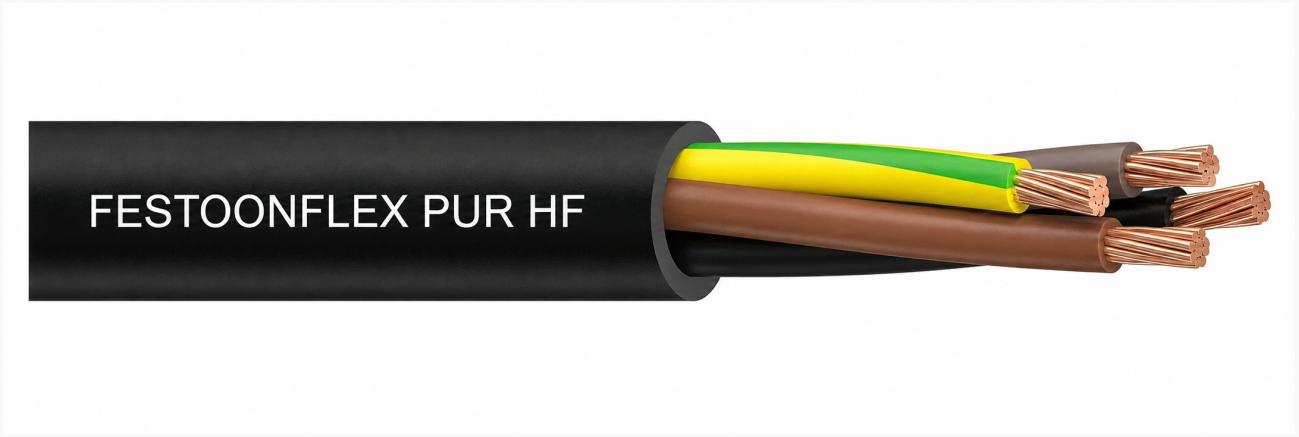
AnHui Feichun
Special Cable Co., Ltd
Professional Manufacturer

FESTOONFLEX

PUR-HF

Halogen-Free PUR Festoon Cable

Complete Technical Specification
All Product Configurations



FESTOONFLEX PUR-HF - Premium Halogen-Free Festoon Cable System

PRODUCT OVERVIEW

FESTOONFLEX PUR-HF is a professional-grade halogen-free polyurethane festoon cable designed for severe conditions with frequent bending operations. Complying with DIN EN 60228, DIN VDE 0295, and IEC 60332-1, it combines superior flexibility, environmental safety, and extended operational life in demanding industrial applications.

KEY APPLICATIONS

- Festoon energy systems
- Drag line systems
- Machine tools
- Material handling
- Drum reeling cables
- Underwater use (to 50m)
- Chain systems (up to 210 m/min)

QUALITY FEATURES

HALOGEN FREE | FLAME RETARDANT | WATER RESISTANT | TORSION ±25°/m

ELECTRICAL & TECHNICAL PARAMETERS

Parameter	Specification
Brand/Type	FESTOONFLEX PUR-HF
Type Designations	D12Y11Y-J / D12Y11Y-O
Rated Voltage	0.6/1 kV (600/1000V)
Max. Operating Voltage AC	0.7/1.2 kV
Max. Operating Voltage DC	0.9/1.8 kV

AC Test Voltage	4 kV (5 min)
Fire Resistance	Similar to IEC 60332-1
Water Resistance	Up to 50 meters diving depth
Max. Tensile Load	15 N/mm²
Torsional Stress	± 25°/m Allowed
Min. Bending Radius	6 × D (proven by flexing tests)
Travel Speed (Festoon)	Up to 210 m/min
Reeling Speed	Up to 60 m/min
Chain Speed	Up to 210 m/min
Ambient Temp (Fixed)	-50°C to +80°C
Ambient Temp (Flexible)	-40°C to +80°C
Max. Conductor Temp	90°C (continuous)
Short Circuit Temp	250°C (max)

KEY ADVANTAGES & FEATURES

- ✓ **Halogen-Free Design:** Safe for confined spaces and environmentally responsible
- ✓ **Flame Retardant:** Meets IEC 60332-1 fire safety standards
- ✓ **Exceptional Flexibility:** Class 5 copper stranding for extreme bending
- ✓ **Water Resistant:** Suitable for underwater applications up to 50 meters
- ✓ **Superior Torsion Tolerance:** ±25°/m torsional stress permitted
- ✓ **Extended Service Life:** Optimized for high-speed continuous bending
- ✓ **Multiple Speed Modes:** 210 m/min festoon, 60 m/min reeling, 210 m/min chain
- ✓ **Polyurethane Sheath:** Halogen-free, flame-retardant, superior abrasion resistance
- ✓ **Comprehensive Range:** 31+ configurations from single-core to 36-core control cables
- ✓ **DIN/IEC Compliant:** Full compliance with DIN EN 60228, DIN VDE 0295, IEC 60332-1

D12Y11Y-O POWER CABLES - SINGLE CORE CONFIGURATIONS

Complete range from 1×16 to 1×300 mm² | 11 standard configurations

Cores×mm²	Part No.	Ø Cond (mm)	Ø min (mm)	Ø max (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
1×16	20165443	5.0	8.5	9.5	57	170	240	1.21	104	2.29
1×25	20156874	6.2	9.9	11.1	67	270	370	0.78	138	3.58
1×35	20154575	7.8	11.7	12.9	77	380	520	0.55	170	5.01
1×50	20154574	8.9	13.9	15.1	91	530	750	0.39	212	7.15
1×70	20154573	11.1	16.2	17.4	104	740	1050	0.27	263	10.01
1×95	20166593	12.6	17.9	19.1	115	940	1420	0.21	316	13.59
1×120	20156873	14.8	20.2	21.5	130	1200	1800	0.16	370	17.16
1×150	-	16.0	21.8	23.2	139	1490	2250	0.13	424	21.45
1×185	-	17.7	24.3	25.7	154	1830	2770	0.11	484	26.46
1×240	-	20.2	27.7	29.3	176	2300	3600	0.08	567	34.32
1×300	-	22.7	30.0	32.0	192	3200	4500	0.06	651	42.9

D12Y11Y-O POWER CABLES - THREE CORE CONFIGURATIONS

3×1.5 and 3×2.5 mm² power cables | Orange identification (-O)

Cores×mm²	Ø Cond (mm)	Ø min (mm)	Ø max (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
3×1.5	1.5	6.5	7.5	45	115	60	13.3	24	0.21
3×2.5	2.0	8.5	9.5	57	130	110	7.98	32	0.36

D12Y11Y-J POWER CABLES - FOUR CORE CONFIGURATIONS

4×1.5 to 4×95 mm² power cables | Black identification (-J) | 11 configurations

Cores×mm²	Part No.	Ø Cond (mm)	Ø min (mm)	Ø max (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
4×1.5	-	1.5	8.1	9.1	55	120	90	13.3	24	0.21
4×2.5	20156878	1.5	9.2	10.2	61	160	150	7.98	32	0.36
4×4	20160347	2.6	10.3	11.5	69	230	240	4.95	43	0.57
4×6	-	3.2	12.1	13.2	80	320	360	3.3	56	0.86
4×10	20154577	4.0	15.0	16.2	97	520	600	1.91	78	1.43
4×16	20156879	5.0	17.7	18.9	113	750	960	1.21	104	2.29
4×25	20160348	6.2	21.1	22.5	135	1160	1500	0.78	138	3.58
4×35	-	7.8	25.8	27.4	164	1650	2100	0.55	170	5.01
4×50	-	9.6	31.0	33.0	198	2410	3000	0.39	212	7.15
4×70	-	11.1	38.1	40.6	244	3070	4200	0.27	263	10.01
4×95	-	12.6	42.0	44.5	267	4150	5700	0.21	316	13.59

D12Y11Y-J POWER CABLES - FIVE CORE CONFIGURATIONS

5×1.5 to 5×25 mm² power cables | Black identification (-J) | 7 configurations

Cores×mm²	Part No.	Ø Cond (mm)	Ø min (mm)	Ø max (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
5×1.5	-	1.5	8.0	9.0	54	150	110	13.3	24	0.21
5×2.5	-	2.0	9.8	11.0	66	180	180	7.98	32	0.36
5×4	20154579	2.6	11.6	12.7	77	290	300	4.95	43	0.57
5×6	20154578	3.2	14.0	15.2	91	420	450	3.3	56	0.86
5×10	-	4.0	16.2	17.5	105	630	750	1.91	78	1.43
5×16	20166492	5.0	19.4	20.6	124	920	1200	1.21	104	2.29
5×25	-	6.2	23.2	24.5	148	1380	1870	0.78	138	3.58

D12Y11Y-J CONTROL CABLES - MULTI-CORE CONFIGURATIONS

7-core to 36-core control cables for festoon and signal applications | 8 configurations

Cores×mm²	Part No.	Ø Cond (mm)	Ø min (mm)	Ø max (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
7×1.5	-	1.5	9.0	10.0	60	220	150	13.3	24	0.21
7×2.5	20166594	2.0	11.5	12.7	76	250	260	7.98	32	0.36
12×1.5	-	1.5	14.3	15.5	93	320	270	13.3	24	0.21
12×2.5	20160349	2.0	16.5	17.7	106	460	450	7.98	32	0.36
18×1.5	20154580	1.5	14.5	15.7	94	380	400	13.3	24	0.21
24×1.5	20157942	1.5	16.5	17.8	107	500	540	13.3	24	0.21
30×1.5	-	1.5	19.6	21.0	126	680	670	13.3	24	0.21

36×1.5	-	1.5	21.1	22.5	135	770	810	13.3	24	0.21

Note: Control cables feature white insulation with black numbering (≥6 cores per DIN VDE 0293-308). All current and I²t values at 30°C ambient temperature in free air installation.

MATERIAL & CONSTRUCTION DETAILS

CONDUCTOR

- Plain copper, flexible class 5
- DIN EN 60228 / DIN VDE 0295
- Optimized for bending operations

INSULATION

- Halogen-free polyester compound
- Flame retardant (IEC 60332-1)
- Temperature rated to 90°C

CORE IDENTIFICATION

- ≤5 cores: colored per DIN VDE 0293-308
- ≥6 cores: white with black numbers
- Twisted around central element

OUTER SHEATH

- Polyurethane (PUR)
- Halogen-free, flame retardant
- Black opaque color

Marking: White imprint with FESTOONFLEX PUR-HF, number of cores, cross-section, and year/week of manufacture

APPLICATION & PERFORMANCE RANGES

Application Type	Speed Range	Special Notes
Festoon Systems	Up to 210 m/min	High-frequency bending in industrial systems
Chain Systems	Up to 210 m/min	Trouble-free operation depends on chain length; lower speeds recommended for long chains
Drum Reeling	Up to 60 m/min	Moderate mechanical stress; suitable for industrial reeling operations
Drag Lines	Variable	Severe conditions with frequent bending; 6×D minimum bend radius
Machine Tools	Variable	General machine tool applications with moderate bending
Material Handling	Variable	Severe conditions; torsional stress ±25°/m permitted
Underwater Use	N/A	Water resistant up to 50-meter diving depth; halogen-free for safety

CONTACT & TECHNICAL SUPPORT

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Service: 24/7 Technical Support & Custom Solutions

Quality Assurance: All FESTOONFLEX PUR-HF cables manufactured under strict ISO 9001 quality control with comprehensive testing including bending, torsion, water resistance, flame safety, and electrical parameter verification.

Standards Compliance: DIN EN 60228, DIN VDE 0295, IEC 60332-1, DIN VDE 0293-308

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Technical data, dimensions and weights are subject to change. Current installation at 30°C ambient temperature, free air installation. For specific application requirements, please

consult our technical team.