AnHui Feichun
Special Cable Co., Ltd
Professional Manufacturer

FESTOONFLEX C

PUR-HF

Halogen-Free Screened PUR Festoon Cable

Complete Technical Specification
All Product Configurations



FESTOONFLEX C PUR-HF - Professional Screened Halogen-Free Festoon Cable System

PRODUCT OVERVIEW

FESTOONFLEX C PUR-HF is a professional-grade halogen-free polyurethane screened festoon cable designed for severe conditions with frequent bending operations. With tinned copper wire shielding and superior EMI protection, it combines environmental safety, electromagnetic protection, and extended operational life in the most demanding industrial applications.

KEY FEATURES

- EMI/RFI Shielding
- Tinned copper braid
- Halogen-free design
- Flame retardant
- Water resistant
- 6×D bend radius

QUALITY CERTIFICATIONS

SCREENED CABLE | HALOGEN FREE | FLAME RETARDANT | WATER RESISTANT

ELECTRICAL & TECHNICAL PARAMETERS

Parameter	Specification
Brand/Type	FESTOONFLEX C PUR-HF
Type Designations	D12YC11Y-J / D12YC11Y-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
EMI/RFI Shielding	Tinned copper braid (80%+ coverage)

Max. Tensile Load	15 N/mm²
Torsional Stress	NOT ALLOWED
Min. Bending Radius	6 × D (proven by flexing tests)
Travel Speed (Festoon)	Up to 210 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

- ✓ **Electromagnetic Shielding:** Tinned copper braid provides 80%+ coverage for EMI/RFI protection
- ✓ **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
- ✓ **No Torsion Allowed:** Optimized for pure bending without twisting
- ✓ **Extended Service Life:** Superior protection against interference and mechanical stress
- ✓ **Multiple Speed Modes:** 210 m/min for both festoon and chain systems
- ✓ **Polyurethane Sheath:** Halogen-free, flame-retardant with superior abrasion resistance
- ✓ **36+ Configurations:** Complete range from single-core to pair control cables with full shielding

D12YC11Y-O SCREENED POWER CABLES - SINGLE CORE

9 configurations from 1×25 to 1×240 mm² | Orange identification (-O) | With tinned copper braid screening

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)
1×25	-	6.2	10.3	11.5	69	330	370	0.78	138	3.58
1×35	20161370	7.8	12.3	13.5	81	430	520	0.55	170	5.01
1×50	-	8.9	15.4	16.6	100	610	750	0.39	212	7.15
1×70	20157795	11.1	17.0	18.3	110	810	1050	0.27	263	10.01
1×95	-	12.6	18.9	20.1	121	1030	1420	0.21	316	13.59
1×120	20156875	14.8	21.4	22.8	137	1320	1800	0.16	370	17.16
1×150	-	16.0	23.1	24.5	147	1650	2250	0.13	424	21.45
1×185	-	17.7	25.5	27.2	163	2000	2770	0.11	484	26.46
1×240	-	20.2	28.5	30.1	181	2490	3600	0.08	567	34.32

D12YC11Y-J SCREENED POWER CABLES - FOUR CORE

9 configurations from 4×1.5 to 4×50 mm² | Black identification (-J) | Full EMI shielding

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	10.8	12.0	72	240	90	13.3	24	0.21
4×2.5	20166386	2.0	12.1	13.2	80	250	150	7.98	32	0.36
4×4	-	2.6	13.6	14.7	89	330	240	4.95	43	0.57
4×6	20161501	3.2	15.1	16.3	98	420	360	3.3	56	0.86

4×10	-	4.0	18.4	19.6	118	640	600	1.91	78	1.43
4×16	20166385	5.0	21.2	22.5	136	940	960	1.21	104	2.29
4×25	-	6.2	24.5	26.2	157	1360	1500	0.78	138	3.58
4×35	20168451	7.8	29.6	31.6	190	1870	2100	0.55	170	5.01
4×50	-	9.6	35.1	37.6	226	2560	3000	0.39	212	7.15

D12YC11Y-J SCREENED POWER CABLES - FIVE CORE

3 configurations: 5×1.5, 5×2.5, 5×4 mm² | Black identification (-J) | Complete EMI protection

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)
5×1.5	1.5	10.9	12.1	73	250	110	13.3	24	0.21
5×2.5	2.0	12.8	14.0	84	280	180	7.98	32	0.36
5×4	2.6	13.8	15.0	90	345	300	4.95	43	0.57

D12YC11Y-J SCREENED CONTROL CABLES - MULTI-CORE

5 configurations: 7-core to 18-core control cables | Black identification (-J) | Signal protection

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	20166387	1.5	10.9	12.1	73	220	150	13.3	24	0.21
12×1.5	20156247	1.5	15.0	16.2	97	360	270	13.3	24	0.21
18×1.5	20157796	1.5	15.0	16.2	97	420	400	13.3	24	0.21
12×2.5	-	2.0	17.4	18.6	112	530	450	7.98	32	0.36
18×2.5	-	2.0	17.5	18.8	113	650	670	7.98	32	0.36

D12YC11Y-O OVERALL SCREENED CONTROL PAIRS

4 configurations | Orange identification (-O) | Overall braid shielding for pair cables

Type	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)
3×(2x1.5)	-	1.5	16.5	17.8	107	350	130	13.3	24	0.21
4×(2x1)	-	1.3	15.3	16.5	99	310	120	19.5	19	0.14
4×(2x1.5)	-	1.5	17.2	18.5	111	385	180	13.3	24	0.21
2×(2x1.5)C	-	1.5	15.2	16.4	98	280	90	13.3	24	0.21

D12Y11Y-O INDIVIDUALLY SCREENED CONTROL PAIRS

3 configurations | Orange identification (-O) | Individual pair shielding for maximum EMI protection

Type	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×(2x1)C	20161461	1.3	15.9	17.1	103	350	120	19.5	19	0.14
6×(2x1)C	20160120	1.3	19.0	20.3	122	480	180	19.5	19	0.14
9×(2x1)C	-	1.3	23.6	25.0	150	721	270	19.5	19	0.14

Note (C): Individually screened configuration | 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

SHIELDING SYSTEM

- Tinned copper wire braid
- 80%+ coverage for EMI/RFI
- Inner sheath for some cross-sections

OUTER SHEATH

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

Core Identification: ≤5 cores colored per DIN VDE 0293-308 | ≥6 cores natural color with black numbers | Cores twisted around central element

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

COMPARISON: SCREENED VS. UNSCREENED

Feature	FESTOONFLEX C PUR-HF (Screened)	FESTOONFLEX PUR-HF (Unscreened)
EMI/RFI Protection	Yes - Tinned copper braid (80%+)	None
Torsional Stress	NOT ALLOWED	±25°/m Permitted
Diameter	Larger due to shielding	Smaller, more compact
Weight	Higher due to copper braid	Lower
Best Applications	High-interference environments, sensitive signals	General industrial, non-critical signals
Cost	Higher (due to shielding)	Lower (standard festoon)

CONTACT & TECHNICAL SUPPORT

Company: AnHui Feichun Special Cable Co., Ltd
WhatsApp: +86 13855123218
Website: feichuncables.com | reelingcable.com
Service: 24/7 Technical Support & Custom Solutions

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

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

Key Difference: FESTOONFLEX C series features tinned copper braid shielding for superior EMI/RFI protection. Torsional stress is NOT allowed - optimize for pure bending applications only.

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Technical data, dimensions and weights are subject to change. Current installation at 30°C ambient temperature, free air installation. Screened cables require proper grounding of shield for optimal EMI protection. For specific application requirements, please consult our technical team.