TUNNELFLEX-R-PUR HF

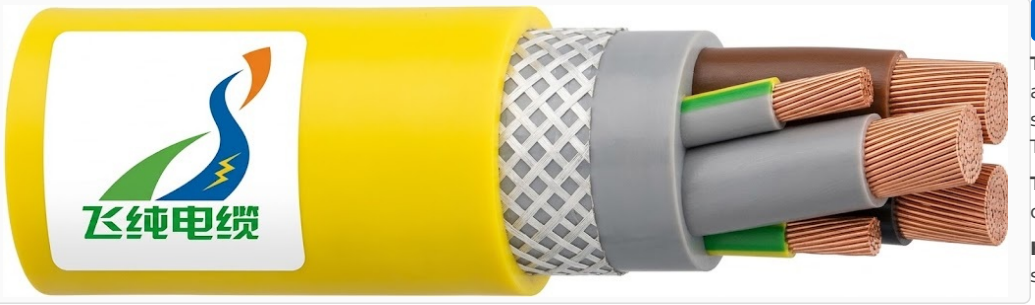
With Antitwisting Protection | Halogen-Free Low Voltage Power Cable for Mobile Applications | 0.6/1 kV

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Halogen-Free Power Cable with Antitwisting Protection

TUNNELFLEX-R-PUR HF supplies power to mobile equipment with high risk of mechanical damage in mining and tunnelling. The synthetic mesh antitwisting layer protects the cable against multi-directional torsional stress, allowing a maximum reeling speed of 120 m/min — twice that of the standard (non-antitwisting) TUNNELFLEX-PUR HF.

Total Configurations: 20 — 11 standard power-only constructions plus 9 constructions with integrated control cores, covering conductor sizes from 4G10 mm² up to 3×240 mm².

Key Advantages: Antitwisting synthetic mesh protection • Halogen-free & flame retardant • Higher reeling speed (120 m/min) • Tear, oil & chemical resistant PUR sheath

Technical Summary & Specifications

ELECTRICAL

Rated Voltage: 0.6/1 (1.2) kV

Max operating voltage Um: 1.2 kV

Test Voltage: 3.5 kV

THERMAL

Max conductor temp: 90°C

Short circuit temp: 250°C

Fixed install: -40 to +80°C

Flexible install: -30 to +80°C

MECHANICAL

Travel speed: 120 m/min

Bending radius (fixed): 6×D

Bending radius (on drums): 10×D

CHEMICAL

Halogen Free: ✓ Yes

Flame Retardant: ✓ EN/IEC 60332-1-2

Fire Behaviour: In accordance with EN/IEC 60332-1-2

Standards: DIN EN 60228 / IEC 60228 / VDE 0295 (Conductor) • DIN VDE 0298-300 (Core identification) • IEC 60754-1 (Halogen-free) • DIN EN 60332-1-2 / IEC 60332-1-2 (Fire performance)

Cable Construction

Conductor & Insulation

1. Conductor — plain copper, flexible, class 5
2. Core insulation — XLPE special compound (Brown / Black / Grey)

Core Arrangement

3. Phase cores laid up with earth core in the interstices
4. Earth core — plain copper, flexible, class 5
5. Control cores — optional

Sheath & Protection

6. Inner sheath — HFFR* thermoplastic polyurethane compound
7. Antitwisting layer — synthetic mesh
8. Outer sheath — HFFR* thermoplastic polyurethane compound, tear, oil & chemical resistant

*halogen free and flame retardant

Complete Technical Specifications — All 20 Configurations

TUNNELFLEX-R-PUR HF-0.6/1kV — 11 Configurations (Standard, No Control Cores)

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Bending Radius, Fixed (mm)	Current Carrying Capacity (A)
4G10	4.0	18.5	20.5	630	800	123	74
4G16	5.1	21.5	23.5	930	1,280	141	99
3×25+3G6	6.5	24.5	26.5	1,240	1,500	159	131
3×35+3G6	7.5	26.0	28.5	1,520	2,100	171	162
3×50+3G10	9.1	30.0	32.5	2,130	3,000	195	202
3×70+3G16	10.8	34.0	37.0	3,000	4,200	222	250
3×95+3G16	12.1	37.5	40.5	3,710	5,700	243	301
3×120+3G25	14.3	42.5	45.5	4,830	7,200	273	352
3×150+3G25	16.1	47.5	50.5	5,830	9,000	303	404
3×185+3G35	17.5	52.0	55.0	7,050	11,100	330	461
3×240+3G50	19.9	58.0	61.0	9,240	14,400	366	540

TUNNELFLEX-R-PUR HF-0.6/1kV — 9 Configurations (With Control Cores)

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Bending Radius, Fixed (mm)	Current Carrying Capacity (A)
3×25+3G6+2×1	6.5	25.5	28.0	1,260	1,500	168	131
3×35+3G6+2×1.5	7.5	26.5	29.0	1,560	2,100	174	162
3×50+3G10+2×1.5	9.1	30.0	32.5	2,160	3,000	195	202
3×70+3G16+2×1.5	10.8	34.0	37.0	3,030	4,200	222	250
3×95+3G16+2×1.5	12.1	37.5	40.5	3,740	5,700	243	301
3×120+3G25+2×1.5	14.3	42.5	45.5	4,860	7,200	273	352
3×150+3G25+2×1.5	16.1	47.5	50.5	5,860	9,000	303	404
3×185+3G35+2×1.5	17.5	52.0	55.0	7,080	11,100	330	461
3×240+3G50+2×1.5	19.9	58.0	61.0	9,270	14,400	366	540

Applications

Application	Benefit
Mobile Mining Equipment	Antitwisting mesh allows multi-directional deflection at up to 120 m/min
Tunnelling Machinery	Halogen-free construction improves confined-space fire safety
High-Speed Reeling Drums	Synthetic mesh layer resists torsional twist during fast reeling cycles
Instrumented Power Circuits	Control-core variant integrates power + signal in a single cable

Ordering Information

For custom lengths, drum packaging, special core counts, or technical consultation, please contact us directly via WhatsApp or visit our websites below. All 20 standard configurations are available ex-works with standard lead times.

Contact AnHui Feichun Special Cable Co., Ltd
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