

ANHUI FEICHUN SPECIAL CABLE CO., LTD.

安徽飞纯特种电缆有限公司

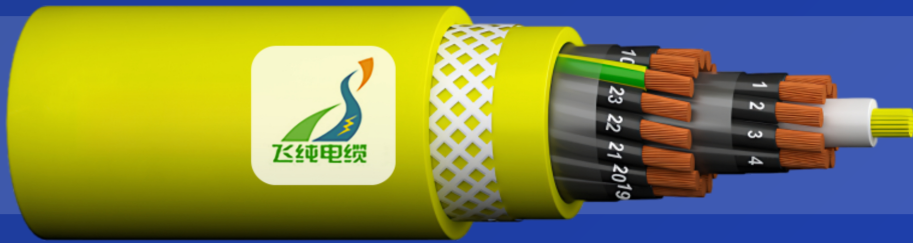


CORDAFLEX(SMK)-V (N)SHTOEU

RATED VOLTAGE: 0.6/1 kV

CABLE CONFIGURATION

44 × 2.5 mm²



PRODUCT DESIGNATION

Low Voltage Cable for Vertical Reeling

Flexible low voltage reeling cable for application under extreme mechanical stresses, specially designed for vertical reeling operation (spreader reeling application).

VERTICAL REELING

SPREADER APPLICATION

EXTREME MECHANICAL STRESS

STANDARDS & APPROVALS

DIN VDE 0250-814
General standard

DIN VDE 0295 / IEC 60228
Conductor

DIN VDE 0207-20 / 21
Compound specifications

DIN VDE 0298-3 / 4
Application & electrical parameters

DIN EN 60811-404
Chemical behaviour

DIN EN 60332-1-2
Fire performance

VDE Reg. Nr. 7519
Certifications

CABLE DESIGN

Conductor

Very finely stranded copper, bare, class FS according to DIN VDE 0295 / DIN EN 60228 / IEC 60228

Core Insulation

ETFE - Ethylene Tetrafluoroethylene, providing excellent mechanical and chemical resistance

Core Arrangement

Laid-up in a maximum of 3 layers with **central aramid support element** to increase the maximum permissible tensile force on the cable

Individual Screen

- ▶ Tinned copper braid with 60% coverage (individual)
- ▶ Total Screen Package (TSP): 80% coverage

Sheath System - PROTOFIRM

- ▶ **Inner Sheath:** Rubber - Polychloroprene (PCP) - PROTOFIRM Special compound > 5GM5
- ▶ **Armouring/Reinforcement:** Polyester braiding for enhanced mechanical strength
- ▶ **Outer Sheath:** Rubber - Polychloroprene (PCP) - PROTOFIRM Special compound > 5GM5

ELECTRICAL PARAMETERS

Rated Voltage U ₀ /U (U _m)	Nominal Voltage U	Test Voltage
0.6/1 (1.2) kV	1,000 V	3.5 kV

THERMAL PARAMETERS

Max. Conductor Temperature	Max. Short Circuit Temperature	Ambient Temp. (Fixed Installation)
90 °C	250 °C	-50 °C to +80 °C
Ambient Temp. (Flexible Installation)		
-35 °C to +80 °C		

CHEMICAL PARAMETERS

Oil Resistance	Ozone Resistance	UV Resistance
Yes - DIN EN 60811-404	Yes	Yes
Sea Water Resistance		
Yes		

MECHANICAL PARAMETERS

Torsional Stress	Travel Speed (Hoist/Vertical)	Bending Radius (Fixed)
± 50 °/m	Up to 240 m/min	4 × D
Bending Radius (Flexible)	Min. Distance (S-type Changes)	Permanent Tensile Strength
5 × D	20 × D	Increased through aramid support

Note on Travel Speed:

For speeds beyond 240 m/min, it is recommended to consult the manufacturer for specific application requirements.

TECHNICAL DATA - 44 × 2.5 mm²

KEY SPECIFICATIONS

Part Number: 20004115
MLFB Number: 5DH3298

Conductor Diameter: 2.0 mm
Current Capacity: 30 A

Parameter	Value	Unit
SAP Code	20004115	-
External Code (MLFB)	5DH3298	-
Conductor Diameter (max.)	2.0	mm
Cable Diameter (min.)	34.1	mm
Cable Diameter (max.)	37.1	mm
Cable Weight (approx.)	2,310	kg/km
Max. Tensile Strength	5,100	N
Bending Radius Moving (min.)	186	mm
Conductor Resistance at 20°C (max.)	7.98	Ω/km
Current Carrying Capacity	30	A

Current Carrying Capacity Note:

Values according to VDE 0298-4, Table 15, for rubber cables laid on a surface at 30°C ambient temperature. Higher values may be permissible for specific applications - please consult the manufacturer.

AVAILABLE CONFIGURATIONS

The CORDAFLEX(SMK)-V (N)SHTOEU series is available in multiple configurations to suit various applications:

Standard Configurations

- ▶ Power conductor configurations: From 12×2.5 to 56×2.5 mm²
- ▶ Combined power and control configurations available
- ▶ With integrated fiber optic elements (6, 12, 18, or 24 fibers)
- ▶ Fiber types: G62.5, G50, and E9 (upon request)
- ▶ Custom combinations with different fiber types possible

OPTICAL FIBER PROPERTIES

Available configurations can include fiber optic elements with the following specifications:

Parameter	G62.5/125 μm	G50/125 μm	E9/125 μm
Fiber Type	Multi-mode graded index	Multi-mode graded index	Single-mode
Cladding Diameter	125 μm	125 μm	125 μm

Parameter	G62.5/125 μm	G50/125 μm	E9/125 μm
Fiber Diameter	250 μm	250 μm	250 μm
Attenuation at 850 nm	< 3.3 dB/km	< 2.8 dB/km	-
Attenuation at 1310 nm	< 0.9 dB/km	< 0.8 dB/km	< 0.4 dB/km
Attenuation at 1550 nm	-	-	< 0.3 dB/km
Bandwidth at 850 nm	> 400 MHz	> 400 MHz	-
Bandwidth at 1310 nm	> 600 MHz	> 1200 MHz	-
Numerical Aperture	0.275 ± 0.02	0.2 ± 0.02	0.14 ± 0.02

TESTING & QUALITY ASSURANCE

- ▶ Reversed bending test according to standards
- ▶ Roller bending test verification
- ▶ Torsional stress testing
- ▶ Fire performance testing per DIN EN 60332-1-2 / IEC 60332-1-2
- ▶ Chemical behaviour verification per DIN EN 60811-404 / IEC 60811-404

APPLICATIONS

- ▶ Container spreaders in port operations
- ▶ Vertical hoisting equipment
- ▶ Crane systems with vertical reeling requirements
- ▶ Material handling equipment under extreme mechanical stress
- ▶ Applications requiring combined power and data transmission

Important Application Note:

This cable is specifically engineered for vertical reeling applications (spreader reeling). The central aramid support element provides enhanced tensile strength crucial for vertical installations. For optimal performance and longevity, please ensure proper installation according to manufacturer guidelines and consult technical support for specific application requirements.



FEICHUN SPECIAL CABLES

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