PROTOMONT FESTOON LWL

Underground Festoon Cable with Fibre-Optics | NTSKCGECWOEU I 6 KV



PRODUCT TYPE
Festoon Cable with Fibre-Optics

MODEL
NTSKCGECWOEU LWL

RATED VOLTAGE
3.6/6 (7.2) kV

STANDARDS
DIN VDE, GOST, WUG, MA China

MODEL RANGE
9 Configurations

APPLICATION
Festoon Systems with Optical Fiber

CONTACT INFORMATION

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AnHui Feichun Special Cable Co., Ltd

Technical Specifications

PROTOMONT FESTOON NTSKCGECWOEU LWL Series

As power feeder cable in underground mines and in tunnel sites. The cables are used in underground festoon systems for the power supply of mobile transformer and shiftable units in underground mining applications, with an integrated optical fiber element for data and communication transmission.

Key Features

Integrated Fibre-Optics
Combined power & data transmission

Medium Voltage Festoon
Rated at 3.6/6 (7.2) kV

Chemical Resistant
Oils, fuels & UV resistant

Electrical & Environmental Parameters

Parameter	Specification
Rated Voltage U0/U (Um)	3.6/6 (7.2) kV
Test Voltage	11 kV
AC Test Voltage (Control Cores)	2 kV
Nominal Voltage U	6,000 V
Conductor Temperature	90°C (250°C at short circuit)
Ambient Temperature (Fixed)	-40°C to +80°C
Ambient Temperature (Flexible)	-25°C to +60°C
Flame Retardant	EN/IEC 60332-1-2

Mechanical Properties

Permanent Tensile Strength
15 N/mm²

Bending Radius
6×D fixed / 10×D flexible

Standards & Certifications

DIN VDE 0250-813 | IEC 60228 / VDE 0295 | DIN VDE 0298-4 | DIN EN 60811-404 | DIN EN 60332-1-2 | GOST -R/-K/-B (Russia) | WUG Poland (6kV) | MA China | BAS Bosnia-Herzegovina

Optical Fiber Properties

Fiber Type	G62.5/125µm Multimode	G50/125µm Multimode	E9/125µm Singlemode
Cladding Diameter	125 µm	125 µm	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
Chrom. Dispersion 1300nm	—	—	<3.5 ps/nm·km
Chrom. Dispersion 1550nm	—	—	<18 ps/nm·km

Product Models

PROTOMONT FESTOON NTSKCGECWOEU LWL — 9 Standard Configurations

The PROTOMONT FESTOON NTSKCGECWOEU LWL series offers 9 standard configurations rated at 3.6/6 kV, each integrating a 6E9LWL optical fiber element alongside the power cores for combined power and data transmission.

Model Configuration	Cond. (mm²)	Cable Ø Min	Cable Ø Max	Weight (kg/km)	Tensile (N)	Capac. (nF/km)	Induct. (mH/km)	Curr. (A)
3x25+2x((3x1,5ST)+16/3KON)+1X(6E9LWL+16/3KON) +6UELKON	7.0	47.0	51.0	3,300	1,125	250	0.30	**131**
3x35+2x((3x1,5ST)+25/3KON)+1X(6E9LWL+25/3KON) +6UELKON	8.2	49.4	53.4	4,300	1,575	280	0.30	**162**
3x50+2x((3x1,5ST)+25/3KON)+1X(6E9LWL+25/3KON) +6UELKON	9.8	53.7	57.7	5,100	2,250	330	0.29	**202**
3x70+2x((3x1,5ST)+35/3KON)+1X(6E9LWL+35/3KON) +6UELKON	11.3	55.8	59.8	5,800	3,150	370	0.28	**250**
3x95+2x((3x1,5ST)+50/3KON)+1X(6E9LWL+50/3KON) +6UELKON	13.4	60.3	64.3	7,300	4,275	420	0.27	**301**
3x120+2x((3x1,5ST)+70/3KON)+1X(6E9LWL+70/3KON) +6UELKON	15.1	66.0	70.0	8,400	5,400	420	0.26	**352**
3x150+2x((3x1,5ST)+70/3KON)+1X(6E9LWL+70/3KON) +6UELKON	16.8	69.7	73.7	9,700	6,750	470	0.25	**404**
3x185+2x((3x1,5ST)+95/3KON)+1X(6E9LWL+95/3KON) +6UELKON	18.2	73.0	77.0	12,800	8,325	550	0.25	**461**
3x240+2x((3x1,5ST)+120/3KON)+1X(6E9LWL+120/3KON) +6UELKON	21.0	81.0	85.0	15,800	10,800	600	0.24	**540**

NOTE: Each model integrates one 6E9LWL fibre-optic element (available in multimode G62.5/125, multimode G50/125, or singlemode E9/125 variants) alongside the power and control cores — see Optical Fiber Properties table on page 2.

Applications & Contact

Mining Solutions Worldwide

PROTOMONT FESTOON NTSKCGECWOEU LWL cables combine medium-voltage power feeding with integrated fibre-optic data transmission for underground festoon systems. Below are the primary use cases where this cable series excels.

Primary Applications

- **Underground Festoon Systems:** Combined power and data feeder cable for festoon systems in mines and tunnels
- **Mobile Transformers:** Power supply with integrated communication link for mobile transformer units
- **Shiftable Units:** Reliable power and data connections for shiftable mining equipment
- **SCADA & Monitoring Systems:** Fibre-optic core enables real-time data and control signal transmission
- **Tunnel Sites:** Medium-voltage power distribution with communication backbone for tunnel infrastructure
- **Extreme Conditions:** Rated for harsh environments with mechanical stress, oils and UV exposure

Why Choose AnHui Feichun?

Manufacturing Excellence
State-of-the-art production

Global Reach
Worldwide support network

Certified Quality
Multiple international certifications

Ordering Information

HOW TO ORDER:
Select model configuration from the 9 available options • Specify fiber type (multimode or singlemode) • Specify length & quantity • Contact our sales team for competitive pricing & fast delivery
Custom specifications available upon request.

Document Reference

This technical specification sheet is provided for reference purposes. Technical data, dimensions, and weights are subject to change without notice. AnHui Feichun Special Cable Co., Ltd reserves the right to amend this specification. Please contact us directly for the most current product data and certification documents.

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