

(N)SHTÖU-J + FO 0.6/1(1.2)kV Cable



Eland Product Group: F1A

APPLICATION

Specially designed flexible cable for power mobile connections, for extremely high mechanical stresses. The cable is used in cable winding reels for winding and unwinding with co-occurrent tensile and torsion stress. Other applications include installation on conveyors, container cranes, harbour cranes, building machinery, handling machines. For use in wet or dry conditions, in industrial units, in underground and open-cast mining, in explosion-risk areas.

CHARACTERISTICS

Voltage Rating U_0/U
0.6/1 (1.2)kV

Test Voltage
3kV

Temperature Rating

Max. conductor operating temperature: +90°C
Max. conductor temperature during short circuit: +250°C
Minimum ambient temperature for fixed installation: -40°C
Minimum ambient temperature for mobile installation: -25°C

CONSTRUCTION

Conductor

Annealed class 5 flexible stranded tinned or bare copper

Insulation

EPDM rubber, halogen-free, lead-free compound, type 3GI3

Earth Conductor

Tinned or bare copper conductor rubber insulated

Fibre Optic Module

A-D(ZN)13Y 6, 12, 18 or 24 fibers G50/125, G62,5/125 or E9/125

Fibre Covering

Loose buffered tubes with filling compound

Inner Sheath

A special synthetic thermosetting compound type 5GM3

Anti-Torsion Braid

Braid of polyamide threads

Outer Sheath

Special synthetic thermosetting compound, 5GM5

Core Identification

● Black, ● Brown, ● Grey, ● Green/Yellow
Fibre Identification: Colour coded fibres and tubes

Sheath Colour

● Yellow

STANDARDS

DIN VDE 0250-814, IEC 60228, DIN VDE 0207/20, HD 308,
DIN VDE 0293- 308, DIN VDE 0207/21, DIN VDE 0298-4,
DIN VDE 0298-3
Flame Propagation: PN-EN 60332-1-2, IEC 60332-1-2
Oil Resistant: PN-EN 60811-404, IEC 60811-404
UV Resistant: UL 2556, ISO 4892-2
Ozone Resistant: PN-ISO 1431-1
Tear, Impact and Abrasion Resistant

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECCE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability



REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab[®] as meeting the requirements of the BSI RoHS Trusted Kitemark[™].





DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
F1A03035-*****	3+2+FO	35+16/2	7.5	41.4	2987	2100
F1A03050-*****	3+2+FO	50+25/2	9.3	41.7	3395	3000
F1A03070-*****	3+2+FO	70+35/2	11.1	45.5	4318	4200
F1A03095-*****	3+2+FO	95+50/2	13	49.6	5372	5700
F1A03120-*****	3+2+FO	120+70/2	14.5	57.2	7131	7200
F1A03150-*****	3+2+FO	150+70/2	16.2	57.4	7849	9000
F1A03185-*****	3+2+FO	185+95/2	18.3	66.8	10006	11100
F1A03240-*****	3+2+FO	240+120/2	20.7	72.8	12649	14400
F1A03300-*****	3+2+FO	300+150/2	24.2	81.7	15382	18000

First ** = Fibre Count (06, 12, 18, 24)

Remaining 4 **** = Fibre Type (SM09, MM62, MM50)

Example: F1A03035-06SM09

FIBRE DATA

FIBRE TYPE	ATTENUATION dB/km			BANDWIDTH MHz*km		NUMERICAL APERTURE AT 850 nm	GROUP REFRACTIVE INDEX		
	850 nm	1300 nm	1550 nm	850 nm	1300 nm		850 nm	1300 nm	1550 nm
G50/125	≤2.5	≤0.6	-	700	500	0.200	1.483	1.479	-
G62.5/125	≤3.0	≤1.0	-	220	500	0.275	1.496	1.491	-
E9/125	-	-	≤0.21 / ≤0.19	-	-	-	-	-	1.468

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/Km		TWIST LIMITS 7/m	TRAVEL SPEED UP TO m/min	TENSILE LOAD N/mm ²
	Plain Wires	Tinned Wires			
16	1.21	1.24	50	180	20
25	0.78	0.795	50	180	20
35	0.554	0.565	50	180	20
50	0.386	0.393	50	180	20
70	0.272	0.277	50	180	20
95	0.206	0.21	50	180	20
120	0.161	0.164	50	180	20
150	0.129	0.132	50	180	20
185	0.106	0.108	50	180	20
240	0.0801	0.0817	50	180	20
300	0.0641	0.0654	50	180	20

MINIMUM BENDING RADIUS

OUTER DIAMETER OF CABLE mm ²	FIXED INSTALLATION X Outer Diameter	ON DRUMS X Outer Diameter	ON DEFLECTION PULLEYS X Outer Diameter	MOVING FREELY X Outer Diameter
>8 ≤ 12	3	5	7.5	4
>12 ≤ 20	4	5	7.5	5
>20	4	5	7.5	5