

BS7870-4.20 19/33kV Copper Single Core Unarmoured LSZH Cable



Eland Product Group: D60

APPLICATION

Medium Voltage cable for power distribution and power supply stations used in Utility and Industrial applications, for the rated voltage of 19/33 (36)kV. Optional conductor waterblocking and longitudinal waterblocking available.

CHARACTERISTICS

Voltage Rating U₀/U (Um)
19/33 (36)kV

Temperature Rating
Conductor maximum operating temperature: 90°C
Maximum short-circuit temperature: 250°C

Minimum Bending Radius
10 x overall diameter

CONSTRUCTION

Conductor
Class 2 Stranded Copper

Conductor Screen
Semi-conductive XLPE (Cross-Linked Polyethylene)

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive XLPE (Cross-Linked Polyethylene) - Fully bonded

Paper separation tapes

Metallic Screen
Copper wires - number/diameter of wires dependent on required earth fault rating
Optional copper equalising tapes applied helically

Sheath
LSZH (Low Smoke Zero Halogen)

Sheath Colour
● Black

STANDARDS

IEC 60502-2, BS 7870-4.20, BS EN 60754-1/2,
BS EN 61034-1/2, BS EN 60332-1-2

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



8578



FS 672069



EMS 672067



OHS 672066

REGULATORY COMPLIANCE

This cable meets the requirements of 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™.



KN 674287





DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL DIAMETER mm			MAXIMUM PULLING TENSION ON CABLE kg	NOMINAL WEIGHT kg/km
			Over Conductor	Over Insulation	Overall		
D600112BK000	1	70	9.8	27.0	34.1	350	1560
D600113BK000	1	95	11.5	28.7	36.1	475	1880
D600114BK000	1	120	12.8	30.0	37.5	600	2160
D600115BK000	1	150	14.3	31.5	39.3	750	2480
D600116BK000	1	185	15.9	33.1	41.0	925	2860
D600117BK000	1	240	18.4	35.6	43.8	1200	3530
D600118BK000	1	300	20.5	38.1	46.6	1500	4220
D600119BK000	1	400	23.2	41.2	50.2	2000	5150
D600120BK000	1	500	26.2	44.2	53.4	2500	6250
D600121BK000	1	630	30.3	48.3	58.0	3150	7740
D600122BK000	1	800	34.7	52.7	66.0	4000	9630
D600123BK000	1	1000	38.0	57.3	71.0	5000	12200

ELECTRICAL CHARACTERISTICS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C W/km	MAXIMUM CONDUCTOR AC RESISTANCE AT 90°C W/km	CAPACITANCE µF/km	INDUCTANCE AT 50Hz mH/km	CURRENT CARRYING CAPACITY (Laid in trefoil) Amps		
						In air 25°C	Single way ducts	Buried 15°C
1	70	0.2680	0.3420	0.14	0.43	320	270	270
1	95	0.1930	0.2470	0.16	0.41	390	320	320
1	120	0.1530	0.1960	0.17	0.40	445	360	360
1	150	0.1240	0.1590	0.18	0.38	510	405	410
1	185	0.0991	0.1280	0.20	0.37	580	445	460
1	240	0.0754	0.0980	0.22	0.36	680	520	530
1	300	0.0601	0.0790	0.25	0.36	770	570	600
1	400	0.0470	0.0630	0.26	0.33	895	630	690
1	500	0.0366	0.0510	0.29	0.32	1020	700	760
1	630	0.0283	0.0420	0.32	0.31	1160	780	850
1	800	0.0221	0.0350	0.35	0.30	1290	860	930
1	1000	0.0176	0.0300	0.38	0.29	1430	920	1010

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR SHORT-CIRCUIT CURRENT 1SECOND 90°C to 250°C kA		35mm ² COPPER WIRE SCREEN SHORT-CIRCUIT CURRENT 1SECOND 80°C to 250°C kA		50mm ² COPPER WIRE SCREEN SHORT-CIRCUIT CURRENT 1SECOND 80°C to 250°C kA	
1	70		9.7		4.8		8.2
1	95		13.5		4.8		8.2
1	120		17.1		4.8		8.2
1	150		21.0		4.8		8.2
1	185		26.3		4.8		8.2
1	240		34.6		4.8		8.2
1	300		43.4		4.8		8.2
1	400		57.7		4.8		8.2
1	500		72.1		4.8		8.2
1	630		90.7		4.8		8.2
1	800		115.1		4.8		8.2
1	1000		143.8		4.8		8.2