

# TSLF 18/30 (36) kV Cable



Eland Product Group: C9G

## APPLICATION

Medium-voltage cable for fixed installations outdoors, suitable for burial directly in soil. The TSLF cable is longitudinally and radially watertight and therefore it is suitable where wet soil and / or fresh water permanently occurs. The cable is halogen-free, but without fire protection.

## CHARACTERISTICS

**Voltage Rating**  
18/30(36) kV

**Temperature Rating**  
-50°C to +90°C

Minimum cable temperature during handling: -20°C  
Minimum cable temperature during transport: -40°C  
Maximum conductor temperature short circuit max. 5 s: +250°C

## CONSTRUCTION

**Conductor**  
Class 2 Watertight, circular, stranded aluminium

**Conductor Screen**  
Semiconducting XLPE (Cross-linked polyethylene)

**Insulation**  
XLPE (Cross-linked polyethylene)

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Semiconducting XLPE (Cross-linked polyethylene)

**Inner Covering**  
Water swellable tape under and over screen

**Screen**  
Copper wires and aluminium foil (CAS). Polyethylene laminated aluminium foil acts as a part of the metallic screen and needs to be connected in cable joints and terminations

**Sheath**  
PE (Polyethylene)

**Sheath Colour**  
● Black

## STANDARDS

HD 620 10 K, EN/IEC 60228

## THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IECEE 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](http://www.elandcables.com/company/about-us/esg-sustainability)



## REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.



## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL DIAMETER OVER INSULATION WITHOUT SCREEN mm	NOMINAL INSULATION THICKNESS mm	NOMINAL SIZE OF METAL SCREEN mm <sup>2</sup>	NOMINAL THICKNESS OF ALUMINIUM LAMINATED FOIL mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
C9F15KV101095BK	1	95	11.1	26.8	8.0	25	0.2	2.1	36	1164
C9G30KV101120BK	1	120	12.6	28.2	8.0	35	0.2	2.1	38	1383
C9G30KV101150BK	1	150	13.9	29.5	8.0	35	0.2	2.2	39	1489
C9G30KV101240BK	1	240	18.0	33.6	8.0	35	0.2	2.3	44	1892
C9G30KV101300BK	1	300	19.8	35.4	8.0	35	0.2	2.4	45	2160
C9G30KV101400BK	1	400	22.4	38.1	8.0	35	0.2	2.5	48	2403
C9G30KV101630BK	1	630	29.3	45.0	8.0	35	0.2	2.7	55	3433
C9G30KV201630BK	1	630	29.3	45.2	8.0	50	0.2	2.7	56	3574
C9G30KV101800BK	1	800	33.2	49.1	8.0	50	0.2	2.9	60	4252

## MECHANICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL SIZE OF METAL SCREEN mm <sup>2</sup>	MAXIMUM PULLING FORCE DURING INSTALLATION kN		MINIMUM BENDING RADIUS m		
		By pulling-eye	By pulling-stocking	During handling and installation, cable	In final installation, phase conductor	In final installation, cable
95	25	4.8	1.4	0.54	0.39	0.38
120	35	6.0	1.8	0.57	-	0.40
150	35	7.5	2.3	0.59	0.43	0.41
240	35	12.0	3.6	0.66	0.47	0.46
300	35	15.0	4.5	0.68	-	0.47
400	35	20.0	6.0	0.72	0.53	0.50
630	35	20.0	8.5	0.83	0.60	0.58
630	50	20.0	8.5	0.84	0.60	0.59
800	50	20.0	8.5	0.90	0.65	0.63

## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL SIZE OF METAL SCREEN mm <sup>2</sup>	MAX. DC RESISTANCE OF CONDUCTOR AT 20°C Ω/km	INDUCTANCE PER PHASE, IN TREFOIL FORMATION, CABLES TOUCHING EACH OTHER mH/km
95	25	0.320	0.42
120	35	0.253	0.41
150	35	0.206	0.40
240	35	0.125	0.37
300	35	0.100	0.35
400	35	0.0778	0.34
630	35	0.0469	0.32
800	50	0.0367	0.31

## CURRENT RATING CABLES IN AIR 25°C

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL SIZE OF METAL SCREEN mm <sup>2</sup>	IN FLAT FORMATION, CONDUCTOR TEMPERATURE 90°C		IN TREFOIL FORMATION, CONDUCTOR TEMPERATURE 90°C	
		Open screen A	Closed screen A	Open screen A	Closed screen A
95	25	320	310	285	280
120	35	370	350	330	325
150	35	425	395	380	370
240	35	570	515	505	490
300	35	650	580	580	565
400	35	790	680	695	680
630	35	1040	840	915	880
800	50	1220	950	1045	1010



## CURRENT RATING

CABLES IN GROUND 15°C AND 1.0 K.M/W, INSTALLATION DEPTH 0.7 M

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL SIZE OF METAL SCREEN mm <sup>2</sup>	IN FLAT FORMATION, CONDUCTOR TEMPERATURE 65°C		IN FLAT FORMATION, CONDUCTOR TEMPERATURE 90°C		IN TREFOIL FORMATION, CONDUCTOR TEMPERATURE 65°C		IN TREFOIL FORMATION, CONDUCTOR TEMPERATURE 90°C	
		Open screen A	Closed screen A	Open screen A	Closed screen A	Open screen A	Closed screen A	Open screen A	Closed screen A
95	25	255	250	300	295	240	235	280	275
120	35	-	-	-	-	270	265	320	310
150	35	330	315	390	370	305	300	360	355
240	35	435	395	510	465	395	385	465	455
300	35	-	-	-	-	445	435	525	510
400	35	570	500	670	590	525	510	615	600
630	35	720	610	850	715	665	635	780	745
630	50	720	610	850	715	665	635	780	745
800	50	805	650	-	-	725	695	-	-

## MAXIMUM THERMAL SHORT CIRCUIT CURRENT DURING 1S

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL SIZE OF METAL SCREEN mm <sup>2</sup>	PHASE (INITIAL 90 °C, FINAL 250 °C) kA	METAL SCREEN (INITIAL 80 °C, FINAL 250 °C) kA
95	25	8.9	3.7
120	35	11.3	5.2
150	35	14.1	5.2
240	35	22.6	5.2
300	35	28.3	5.2
400	35	37.8	5.2
630	35	59.5	5.2
630	50	59.5	7.4
800	50	75.6	7.4

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.