



Eland Product Group: MP39

**APPLICATION**

Portuguese reference Medium Voltage cable for power distribution and power supply stations used in Utility and Industrial applications, for rated voltages up to 3.6/6kV. Suitable for fixed installations, indoor or outdoor, in open air on cable trays, or underground in ducts or directly buried.

**CHARACTERISTICS**

**Voltage Rating** U<sub>0</sub>/U (Um)

- 3.6/6 (7.2)kV,
- 6/10 (12)kV,
- 8.7/15 (17.5)kV,
- 12/20 (24)kV,
- 18/30 (36)kV

**Test Voltage**

- 3.6/6 (7.2)kV: 12.6kV
- 6/10 (12)kV: 21kV
- 8.7/15 (17.5)kV: 30kV
- 12/20 (24)kV: 42kV
- 18/30 (36)kV: 63kV

**Temperature Range**

Fixed: -20°C to +90°C

**Minimum Bending Radius**

15 x overall diameter

**CONSTRUCTION**

**Conductor**

Class 2 Aluminium, circular, stranded

**Conductor Screen**

Semi-conductive XLPE (Cross-Linked Polyethylene)

**Insulation**

XLPE (Cross-Linked Polyethylene)

**Insulation Screen**

Semi-conductive XLPE (Cross-Linked Polyethylene)

**Metallic Screen**

Copper tape

**Sheath**

PVC (Polyvinyl Chloride)

**Sheath Colour**

- Black

**STANDARDS**

IEC 60228, IEC 60502-2

Flame Retardant according to BS EN/IEC 60332-1-2

**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 2015/85/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.





## DIMENSIONS 3.6/6 (7.2)kV

ELAND PART NO.	NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
MP3906K01025	1	25	12.5	20.0	505
MP3906K01035	1	35	13.5	21.0	560
MP3906K01050	1	50	15.0	22.0	615
MP3906K01070	1	70	16.5	24.0	705
MP3906K01095	1	95	18.0	25.5	830
MP3906K01120	1	120	20.0	27.5	950
MP3906K01150	1	150	21.0	29.0	1055
MP3906K01185	1	185	22.5	30.5	1205
MP3906K01240	1	240	25.5	33.5	1425
MP3906K01300	1	300	28.5	37.0	1695
MP3906K01400	1	400	32.0	40.0	2055
MP3906K01500	1	500	35.0	43.5	2450
MP3906K01630	1	630	40.0	49.0	3040
MP3906K03025	3	25	12.5	39.0	1935
MP3906K03035	3	35	13.5	41.5	2140
MP3906K03050	3	50	15.0	44.0	2395
MP3906K03070	3	70	16.5	48.0	2785
MP3906K03095	3	95	18.0	52.0	3270
MP3906K03120	3	120	20.0	56.0	3725
MP3906K03150	3	150	21.0	59.0	4170
MP3906K03185	3	185	22.5	62.5	4725
MP3906K03240	3	240	25.5	68.5	5750
MP3906K03300	3	300	28.5	76.0	6860
MP3906K03400	3	400	32.0	83.5	8390

## ELECTRICAL CHARACTERISTICS 3.6/6 (7.2)kV

NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA	CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km	CURRENT CARRYING CAPACITY Amps	
						In Air	Buried
1	25	2.4	1.2000	0.41	0.27	121	124
1	35	3.3	0.8680	0.39	0.30	147	148
1	50	4.7	0.6410	0.37	0.33	176	175
1	70	6.6	0.4430	0.35	0.38	221	215
1	95	9.0	0.3200	0.33	0.42	270	258
1	120	11.3	0.2530	0.32	0.47	315	295
1	150	14.2	0.2060	0.31	0.51	357	331
1	185	17.5	0.1640	0.30	0.55	411	375
1	240	22.7	0.1250	0.29	0.60	489	436
1	300	28.3	0.1000	0.28	0.63	571	495
1	400	37.8	0.0778	0.28	0.66	670	567
1	500	47.2	0.0605	0.27	0.69	782	649
1	630	59.5	0.0469	0.26	0.79	925	746
3	25	2.4	1.2000	0.38	0.27	142	115
3	35	3.3	0.8680	0.36	0.30	170	136
3	50	4.7	0.6410	0.35	0.33	204	162
3	70	6.6	0.4430	0.32	0.38	253	198



## ELECTRICAL CHARACTERISTICS 3.6/6 (7.2)kV

NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA	CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE μF/km	CURRENT CARRYING CAPACITY Amps	
						In Air	Buried
3	95	9.0	0.3200	0.30	0.42	304	235
3	120	11.3	0.2530	0.29	0.47	351	268
3	150	14.2	0.2060	0.29	0.51	398	303
3	185	17.5	0.1640	0.28	0.55	455	343
3	240	22.7	0.1250	0.27	0.60	531	397
3	300	28.3	0.1000	0.26	0.63	606	448
3	400	37.8	0.0778	0.26	0.66	696	511

## DIMENSIONS 6/10 (12)kV

ELAND PART NO.	NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
MP3910K01025	1	25	14.5	22.0	505
MP3910K01035	1	35	15.5	23.0	560
MP3910K01050	1	50	17.0	24.5	615
MP3910K01070	1	70	18.5	26.0	705
MP3910K01095	1	95	20.0	28.0	830
MP3910K01120	1	120	22.0	29.5	950
MP3910K01150	1	150	23.0	31.0	1055
MP3910K01185	1	185	24.5	32.5	1205
MP3910K01240	1	240	27.0	35.0	1425
MP3910K01300	1	300	30.0	38.0	1695
MP3910K01400	1	400	32.5	41.0	2055
MP3910K01500	1	500	35.5	44.5	2450
MP3910K01630	1	630	40.5	49.0	3040
MP3910K03025	3	25	14.5	43.5	1935
MP3910K03035	3	35	15.5	46.0	2140
MP3910K03050	3	50	17.0	49.0	2395
MP3910K03070	3	70	18.5	52.5	2785
MP3910K03095	3	95	20.0	56.5	3270
MP3910K03120	3	120	22.0	60.5	3725
MP3910K03150	3	150	23.0	63.5	4170
MP3910K03185	3	185	24.5	67.0	4725
MP3910K03240	3	240	27.0	72.0	5750
MP3910K03300	3	300	30.0	79.0	6860
MP3910K03400	3	400	32.5	85.5	8390



## ELECTRICAL CHARACTERISTICS 6/10 (12)kV

NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA	CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE μF/km	CURRENT CARRYING CAPACITY Amps	
						In Air	Buried
1	25	2.4	1.2000	0.43	0.22	124	124
1	35	3.3	0.8680	0.41	0.24	150	148
1	50	4.7	0.6410	0.39	0.26	179	175
1	70	6.6	0.4430	0.37	0.30	225	215
1	95	9.0	0.3200	0.35	0.33	274	258
1	120	11.3	0.2530	0.33	0.37	319	295
1	150	14.2	0.2060	0.32	0.39	361	330
1	185	17.5	0.1640	0.31	0.43	415	374
1	240	22.7	0.1250	0.30	0.47	493	435
1	300	28.3	0.1000	0.29	0.53	573	495
1	400	37.8	0.0778	0.28	0.59	671	567
1	500	47.2	0.0605	0.28	0.65	783	649
1	630	59.5	0.0469	0.27	0.75	926	745
3	25	2.4	1.2000	0.40	0.22	142	115
3	35	3.3	0.8680	0.39	0.24	170	136
3	50	4.7	0.6410	0.37	0.26	204	162
3	70	6.6	0.4430	0.34	0.30	253	198
3	95	9.0	0.3200	0.32	0.33	304	235
3	120	11.3	0.2530	0.31	0.37	351	268
3	150	14.2	0.2060	0.30	0.39	398	303
3	185	17.5	0.1640	0.29	0.43	455	343
3	240	22.7	0.1250	0.28	0.47	531	397
3	300	28.3	0.1000	0.27	0.53	606	448
3	400	37.8	0.0778	0.26	0.59	696	511

## DIMENSIONS 8.7/15 (17.5)kV

ELAND PART NO.	NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
MP3915K01025	1	25	17.0	24.5	665
MP3915K01035	1	35	18.0	25.5	720
MP3915K01050	1	50	19.0	26.5	785
MP3915K01070	1	70	20.5	28.5	900
MP3915K01095	1	95	22.5	30.0	1020
MP3915K01120	1	120	24.0	32.0	1160
MP3915K01150	1	150	25.5	33.5	1270
MP3915K01185	1	185	27.0	35.0	1435
MP3915K01240	1	240	29.0	37.5	1665
MP3915K01300	1	300	32.0	40.5	1915
MP3915K01400	1	400	35.0	43.5	2270
MP3915K01500	1	500	38.0	46.5	2655
MP3915K01630	1	630	42.5	51.5	3240
MP3915K03025	3	25	17.0	49.0	2665
MP3915K03035	3	35	18.0	51.5	2905
MP3915K03050	3	50	19.0	54.0	3210



## DIMENSIONS 8.7/15 (17.5)kV

ELAND PART NO.	NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
MP3915K03070	3	70	20.5	58.0	3650
MP3915K03095	3	95	22.5	61.5	4210
MP3915K03120	3	120	24.0	65.5	4725
MP3915K03150	3	150	25.5	68.5	5285
MP3915K03185	3	185	27.0	72.0	5835
MP3915K03240	3	240	29.0	77.5	6830
MP3915K03300	3	300	32.0	84.0	7965
MP3915K03400	3	400	35.0	90.5	9390

## ELECTRICAL CHARACTERISTICS 8.7/15 (17.5)kV

NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA	CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km	CURRENT CARRYING CAPACITY Amps	
						In Air	Buried
1	25	2.4	1.2000	0.45	0.18	126	124
1	35	3.3	0.8680	0.43	0.19	152	148
1	50	4.7	0.6410	0.41	0.21	182	175
1	70	6.6	0.4430	0.38	0.24	228	215
1	95	9.0	0.3200	0.36	0.27	277	257
1	120	11.3	0.2530	0.35	0.29	322	294
1	150	14.2	0.2060	0.34	0.31	365	330
1	185	17.5	0.1640	0.33	0.34	419	373
1	240	22.7	0.1250	0.32	0.37	496	434
1	300	28.3	0.1000	0.30	0.42	577	494
1	400	37.8	0.0778	0.29	0.46	675	566
1	500	47.2	0.0605	0.29	0.51	787	648
1	630	59.5	0.0469	0.27	0.58	929	745
3	25	2.4	1.2000	0.43	0.18	142	115
3	35	3.3	0.8680	0.41	0.19	170	136
3	50	4.7	0.6410	0.39	0.21	204	162
3	70	6.6	0.4430	0.36	0.24	253	198
3	95	9.0	0.3200	0.34	0.27	304	235
3	120	11.3	0.2530	0.33	0.29	351	268
3	150	14.2	0.2060	0.32	0.31	398	303
3	185	17.5	0.1640	0.31	0.34	455	343
3	240	22.7	0.1250	0.30	0.37	531	397
3	300	28.3	0.1000	0.29	0.42	606	448
3	400	37.8	0.0778	0.27	0.46	696	511



## DIMENSIONS 12/20 (24)kV

ELAND PART NO.	NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
MP3920K01035	1	35	20.0	27.5	815
MP3920K01050	1	50	21.0	28.5	880
MP3920K01070	1	70	22.5	30.5	1005
MP3920K01095	1	95	24.5	32.5	1130
MP3920K01120	1	120	26.0	34.0	1275
MP3920K01150	1	150	27.5	35.5	1395
MP3920K01185	1	185	29.0	37.0	1565
MP3920K01240	1	240	31.0	39.5	1785
MP3920K01300	1	300	34.0	42.5	2065
MP3920K01400	1	400	37.0	45.5	2425
MP3920K01500	1	500	40.0	48.5	2825
MP3920K01630	1	630	44.5	53.5	3425
MP3920K03035	3	35	20.0	56.0	3315
MP3920K03050	3	50	21.0	58.5	3645
MP3920K03070	3	70	22.5	62.5	4145
MP3920K03095	3	95	24.5	66.5	4740
MP3920K03120	3	120	26.0	70.5	5285
MP3920K03150	3	150	27.5	73.5	5810
MP3920K03185	3	185	29.0	76.5	6450
MP3920K03240	3	240	31.0	82.0	7495
MP3920K03300	3	300	34.0	88.5	8640
MP3920K03400	3	400	37.0	95.0	10165

## ELECTRICAL CHARACTERISTICS 12/20 (24)kV

NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA	CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE μF/km	CURRENT CARRYING CAPACITY Amps	
						In Air	Buried
1	35	3.3	0.8680	0.44	0.17	154	148
1	50	4.7	0.6410	0.42	0.18	184	175
1	70	6.6	0.4430	0.40	0.21	230	215
1	95	9.0	0.3200	0.38	0.23	280	257
1	120	11.3	0.2530	0.36	0.25	325	294
1	150	14.2	0.2060	0.35	0.27	368	329
1	185	17.5	0.1640	0.34	0.29	422	373
1	240	22.7	0.1250	0.33	0.32	499	434
1	300	28.3	0.1000	0.32	0.35	579	493
1	400	37.8	0.0778	0.30	0.39	677	566
1	500	47.2	0.0605	0.30	0.43	789	647
1	630	59.5	0.0469	0.28	0.49	930	744
3	35	3.3	0.8680	0.43	0.17	170	136
3	50	4.7	0.6410	0.41	0.18	204	162
3	70	6.6	0.4430	0.38	0.21	253	198
3	95	9.0	0.3200	0.36	0.23	304	235
3	120	11.3	0.2530	0.34	0.25	351	268
3	150	14.2	0.2060	0.33	0.27	398	303
3	185	17.5	0.1640	0.32	0.29	455	343
3	240	22.7	0.1250	0.31	0.32	531	397
3	300	28.3	0.1000	0.30	0.35	606	448
3	400	37.8	0.0778	0.29	0.39	696	511



## DIMENSIONS 18/30 (36)kV

ELAND PART NO.	NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
MP3930K01050	1	50	26.0	34.0	1155
MP3930K01070	1	70	27.5	36.0	1275
MP3930K01095	1	95	29.5	37.5	1435
MP3930K01120	1	120	31.0	39.5	1575
MP3930K01150	1	150	32.5	41.0	1725
MP3930K01185	1	185	34.0	42.5	1890
MP3930K01240	1	240	36.0	45.0	2150
MP3930K01300	1	300	39.0	48.0	2460
MP3930K01400	1	400	42.0	51.0	2850
MP3930K01500	1	500	45.0	54.0	3275
MP3930K01630	1	630	49.5	59.0	3920
MP3930K03050	3	50	26.0	70.0	4915
MP3930K03070	3	70	27.5	74.0	5520
MP3930K03095	3	95	29.5	78.0	6170
MP3930K03120	3	120	31.0	82.0	6865
MP3930K03150	3	150	32.5	85.0	7375
MP3930K03185	3	185	34.0	88.5	8160
MP3930K03240	3	240	36.0	93.5	9190
MP3930K03300	3	300	39.0	100.0	10515
MP3930K03400	3	400	42.0	106.5	12115

## ELECTRICAL CHARACTERISTICS 18/30 (36)kV

NO. OF CORES	CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA	CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km	CURRENT CARRYING CAPACITY Amps	
						In Air	Buried
1	50	4.7	0.6410	0.46	0.14	188	174
1	70	6.6	0.4430	0.43	0.16	234	214
1	95	9.0	0.3200	0.41	0.17	285	256
1	120	11.3	0.2530	0.39	0.19	330	293
1	150	14.2	0.2060	0.38	0.20	373	327
1	185	17.5	0.1640	0.37	0.21	427	371
1	240	22.7	0.1250	0.36	0.24	504	432
1	300	28.3	0.1000	0.34	0.26	584	491
1	400	37.8	0.0778	0.33	0.29	681	564
1	500	47.2	0.0605	0.32	0.31	792	646
1	630	59.5	0.0469	0.30	0.35	933	743
3	50	4.7	0.6410	0.45	0.14	204	162
3	70	6.6	0.4430	0.41	0.16	253	198
3	95	9.0	0.3200	0.39	0.17	304	235
3	120	11.3	0.2530	0.38	0.19	351	268
3	150	14.2	0.2060	0.37	0.20	398	303
3	185	17.5	0.1640	0.35	0.21	455	343
3	240	22.7	0.1250	0.34	0.24	531	397
3	300	28.3	0.1000	0.32	0.26	606	448
3	400	37.8	0.0778	0.31	0.29	696	511

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.