

# XHI1AV Cable



Eland Product Group: MP17

## APPLICATION

Portuguese Medium Voltage Cable for power distribution and power supply stations used in Utility and Industrial applications, with a rated voltage of 3.6/6kV to 18/30kV. Suitable for fixed installations, including directly buried. Good mechanical protection.

## 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

### Temperature Rating

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

### Minimum Bending Radius

During installation: 20 x overall diameter  
After installation: 15 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)

### Metallic Screen

Copper tape screen

### Inner Sheath

PVC (Polyvinyl Chloride)

### Armour

Two aluminium tapes helically applied

### Sheath

PVC (Polyvinyl Chloride) type ST2

### Sheath Colour

● Black

## STANDARDS

IEC 60228, IEC 60502-2,  
Flame retardant to IEC 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.



0578



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™.



KM 634267





## DIMENSIONS 3.6/6kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Over Insulation	Overall	
MP1706KV01025	1	25	13.0	25.5	960
MP1706KV01035	1	35	14.0	26.5	1080
MP1706KV01050	1	50	15.0	27.5	1230
MP1706KV01070	1	70	16.5	29.5	1470
MP1706KV01095	1	95	18.5	31.0	1760
MP1706KV01120	1	120	20.0	32.5	2035
MP1706KV01150	1	150	21.0	34.0	2325
MP1706KV01185	1	185	22.5	35.5	2700
MP1706KV01240	1	240	25.5	38.5	3340
MP1706KV01300	1	300	28.5	42.0	4050
MP1706KV01400	1	400	32.0	45.5	5045
MP1706KV01500	1	500	35.5	49.0	6070
MP1706KV01630	1	630	41.0	53.0	7775

## ELECTRICAL CHARACTERISTICS 3.6/6kV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT. T=1S kA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km
		In air	Buried				
1	25	164	164	3.6	0.7270	0.44	0.27
1	35	198	196	5.0	0.5240	0.42	0.30
1	50	238	231	7.2	0.3870	0.40	0.33
1	70	296	282	10.0	0.2680	0.38	0.38
1	95	360	338	13.6	0.1930	0.36	0.43
1	120	417	384	17.2	0.1530	0.34	0.48
1	150	470	428	21.5	0.1240	0.33	0.51
1	185	535	481	26.5	0.0991	0.33	0.54
1	240	635	557	34.3	0.0754	0.31	0.60
1	300	729	625	42.9	0.0601	0.31	0.63
1	400	844	708	57.2	0.0470	0.30	0.66
1	500	971	797	71.5	0.0366	0.29	0.69
1	630	1 109	892	90.1	0.0283	0.28	0.76



## DIMENSIONS 6/10kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Over Insulation	Overall	
MP1710KV01025	1	25	15.0	27.5	1050
MP1710KV01035	1	35	16.0	28.5	1175
MP1710KV01050	1	50	17.0	29.5	1325
MP1710KV01070	1	70	18.5	31.5	1575
MP1710KV01095	1	95	20.5	33.0	1865
MP1710KV01120	1	120	22.0	35.0	2170
MP1710KV01150	1	150	23.0	36.0	2445
MP1710KV01185	1	185	24.5	37.5	2845
MP1710KV01240	1	240	27.0	40.0	3445
MP1710KV01300	1	300	30.0	43.0	4130
MP1710KV01400	1	400	33.0	46.0	5105
MP1710KV01500	1	500	36.0	49.5	6100
MP1710KV01630	1	630	41.5	53.0	7815

## ELECTRICAL CHARACTERISTICS 6/10kV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT. T=1S kA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km
		In air	Buried				
1	25	166	163	3.6	0.7270	0.46	0.22
1	35	201	196	5.0	0.5240	0.44	0.24
1	50	240	231	7.2	0.3870	0.41	0.27
1	70	299	282	10.0	0.2680	0.39	0.30
1	95	364	338	13.6	0.1930	0.37	0.34
1	120	420	383	17.2	0.1530	0.36	0.37
1	150	474	428	21.5	0.1240	0.35	0.39
1	185	539	471	26.5	0.0991	0.34	0.42
1	240	636	555	34.3	0.0754	0.32	0.48
1	300	731	625	42.9	0.0601	0.31	0.53
1	400	846	708	57.2	0.0470	0.30	0.59
1	500	972	797	71.5	0.0366	0.29	0.65
1	630	1 110	892	90.1	0.0283	0.28	0.72



## DIMENSIONS 8.7/15kV

ELAND PART NO.	NO. OF CORES	NOMINAL GROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Over Insulation	Overall	
MP1715KV01025	1	25	17.0	29.5	1155
MP1715KV01035	1	35	18.0	30.5	1285
MP1715KV01050	1	50	19.0	32.0	1440
MP1715KV01070	1	70	21.0	33.5	1690
MP1715KV01095	1	95	22.5	35.5	2010
MP1715KV01120	1	120	24.5	37.0	2300
MP1715KV01150	1	150	25.5	38.5	2600
MP1715KV01185	1	185	26.5	39.5	2985
MP1715KV01240	1	240	29.5	42.5	3615
MP1715KV01300	1	300	32.0	45.5	4315
MP1715KV01400	1	400	35.0	48.5	5300
MP1715KV01500	1	500	38.0	52.0	6335
MP1715KV01630	1	630	44.0	55.5	8045

## ELECTRICAL CHARACTERISTICS 8.7/15kV

NO. OF CORES	NOMINAL GROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT. T=1S kA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km
		In air	Buried				
1	25	168	163	3.6	0.7270	0.48	0.18
1	35	203	195	5.0	0.5240	0.45	0.20
1	50	243	231	7.2	0.3870	0.43	0.21
1	70	302	282	10.0	0.2680	0.41	0.24
1	95	366	337	13.6	0.1930	0.39	0.27
1	120	423	383	17.2	0.1530	0.37	0.29
1	150	477	428	21.5	0.1240	0.36	0.31
1	185	541	480	26.5	0.0991	0.35	0.33
1	240	640	555	34.3	0.0754	0.34	0.38
1	300	736	626	42.9	0.0601	0.32	0.42
1	400	850	709	57.2	0.0470	0.31	0.46
1	500	976	798	71.5	0.0366	0.30	0.51
1	630	1 115	894	90.1	0.0283	0.29	0.56



## DIMENSIONS 12/20kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Over Insulation	Overall	
MP1720KV01035	1	35	20.0	32.5	1390
MP1720KV01050	1	50	21.0	34.0	1565
MP1720KV01070	1	70	23.0	35.5	1825
MP1720KV01095	1	95	24.5	37.5	2150
MP1720KV01120	1	120	26.5	39.5	2445
MP1720KV01150	1	150	27.5	40.5	2750
MP1720KV01185	1	185	28.5	42.0	3140
MP1720KV01240	1	240	31.5	45.0	3780
MP1720KV01300	1	300	34.0	47.5	4490
MP1720KV01400	1	400	37.0	51.0	5515
MP1720KV01500	1	500	40.0	54.5	6535
MP1720KV01630	1	630	46.0	58.0	8300

## ELECTRICAL CHARACTERISTICS 12/20kV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT. T=1S kA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE µF/km
		In air	Buried				
1	35	204	195	5.0	0.5240	0.47	0.17
1	50	244	231	7.2	0.3870	0.44	0.19
1	70	304	282	10.0	0.2680	0.42	0.21
1	95	368	337	13.6	0.1930	0.40	0.23
1	120	425	383	17.2	0.1530	0.38	0.25
1	150	479	427	21.5	0.1240	0.37	0.27
1	185	544	479	26.5	0.0991	0.36	0.28
1	240	643	555	34.3	0.0754	0.35	0.32
1	300	739	626	42.9	0.0601	0.33	0.35
1	400	853	709	57.2	0.0470	0.32	0.39
1	500	979	799	71.5	0.0366	0.31	0.43
1	630	1 119	896	90.1	0.0283	0.30	0.47



## DIMENSIONS 18/30kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Over Insulation	Overall	
MP1730KV01050	1	50	26.0	39.0	1890
MP1730KV01070	1	70	28.0	41.0	2180
MP1730KV01095	1	95	29.5	43.0	2500
MP1730KV01120	1	120	31.5	44.5	2835
MP1730KV01150	1	150	32.5	46.0	3125
MP1730KV01185	1	185	33.5	47.5	3550
MP1730KV01240	1	240	36.5	50.5	4245
MP1730KV01300	1	300	39.0	53.5	4985
MP1730KV01400	1	400	42.0	56.5	6040
MP1730KV01500	1	500	45.0	59.5	7060
MP1730KV01630	1	630	51.0	63.5	8875

## ELECTRICAL CHARACTERISTICS 18/30kV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT CARRYING CAPACITY Amps		CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT, T=1S kA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C ohm/km	INDUCTANCE mH/km	CAPACITANCE μF/km
		In air	Buried				
1	50	248	230	7.2	0.3870	0.48	0.14
1	70	307	281	10.0	0.2680	0.45	0.16
1	95	372	335	13.6	0.1930	0.43	0.18
1	120	429	382	17.2	0.1530	0.41	0.19
1	150	484	426	21.5	0.1240	0.40	0.20
1	185	549	479	26.5	0.0991	0.39	0.21
1	240	648	555	34.3	0.0754	0.37	0.24
1	300	744	627	42.9	0.0601	0.36	0.26
1	400	858	710	57.2	0.0470	0.34	0.29
1	500	985	801	71.5	0.0366	0.33	0.31
1	630	1 126	900	90.1	0.0283	0.32	0.34

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.