

AHXAMK-W Cable



Eland Product Group: C9Q



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APPLICATION

Medium-voltage cable for fixed installations outdoors. May be buried directly in soil, also by ploughing. Cable is longitudinally and radially watertight and therefore it is suitable where wet soil and / or fresh water permanently occurs. Installations must be in accordance with national regulations and rules of installations.

CHARACTERISTICS

Voltage $U_0/U(U_m)$

12/20 (24)kV
19/33 (36)kV

Temperature Rating

-50°C to +90°C
Max. conductor temperature during short circuit max. 5s: +250°C
Minimum temperature during handling: -20°C
Minimum temperature during transport: -40°C

CONSTRUCTION

Conductor

Class 2 watertight, circular, stranded aluminium

Conductor Screen

Semi conducting XLPE (Cross-Linked Polyethylene)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi conducting XLPE (Cross-Linked Polyethylene)

Metallic Screen

Aluminium/plastic laminate (Acts as a radial water barrier)

Outer Sheath

PE (Polyethylene)

Cable Lay Up

Three sheathed cores laid up around a bare earth conductor

Outer Sheath Colour

● Black

STANDARDS

HD 620 10-F, SFS 5636, EN/IEC 60228

THE CABLE LAB[®]

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



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[®].





DIMENSIONS 12/20 (24)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL EARTH CONDUCTOR AREA SIZE mm ²	NOMINAL EARTH CONDUCTOR DIAMETER mm	NOMINAL DIAMETER OVER INSULATION WITHOUT SCREEN mm	NOMINAL INSULATION THICKNESS mm	NOMINAL THICKNESS OF ALUMINIUM LAMINATED FOIL mm	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER OF COMPLETE CABLE mm	NOMINAL WEIGHT kg/km
C9Q20KV103050BK	3	50	8.0	35	6.9	19.3	5.5	0.2	2.8	59	2243
C9Q20KV103070BK	3	70	9.6	35	6.9	20.7	5.5	0.2	2.8	62	2531
C9Q20KV103095BK	3	95	11.1	25	-	22.4	5.5	0.2	2.9	66	2817
C9Q20KV103095BK	3	95	11.1	35	6.9	22.4	5.5	0.2	2.9	66	2905
C9Q20KV103120BK	3	120	12.6	35	6.9	23.4	5.5	0.2	2.9	68	3200
C9Q20KV103150BK	3	150	13.9	35	6.9	25.1	5.5	0.2	2.9	71	3570
C9Q20KV103185BK	3	185	15.6	35	6.9	27.0	5.5	0.2	3.0	76	4091
C9Q20KV103185BK	3	185	15.6	50	8.2	27.0	5.5	0.2	3.0	76	4191
C9Q20KV103185BK	3	185	15.6	70	9.9	27.0	5.5	0.2	3.0	76	4373
C9Q20KV103240BK	3	240	18.0	35	6.9	29.2	5.5	0.3	3.1	82	4868
C9Q20KV103240BK	3	240	18.0	70	9.9	29.2	5.5	0.3	3.1	82	5173
C9Q20KV103300BK	3	300	19.8	35	6.9	31.0	5.5	0.3	3.2	86	5603
C9Q20KV103300BK	3	300	19.8	70	9.9	31.0	5.5	0.3	3.2	86	5893

MECHANICAL CHARACTERISTICS 12/20 (24)KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAX. PULLING FORCE BY PULLING-EYE kN	MAX. PULLING FORCE BY PULLING-STOCKING kN	MINIMUM BENDING RADIUS m	
			During handling and installation. phase conductor	In final installation. phase conductor
50+35	7.5	2.3	0.44	0.3
70+35	10.5	3.2	0.45	0.32
95+25	14.3	4.3	0.48	0.34
95+35	14.3	4.3	0.48	0.34
120+35	18.0	5.4	0.5	0.35
150+35	20.0	6.8	0.53	0.37
185+35	20.0	8.3	0.56	0.39
185+50	20.0	8.3	0.56	0.39
185+70	20.0	8.3	0.56	0.39
240+35	20.0	8.5	0.59	0.41
240+70	20.0	8.5	0.59	0.41
300+35	20.0	8.5	0.62	0.43
300+70	20.0	8.5	0.62	0.43



ELECTRICAL CHARACTERISTICS 12/20 (24)KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAX. DC RESISTANCE OF CONDUCTOR AT 20°C Ω/km	NOMINAL DC RESISTANCE OF ALUMINIUM LAMINATED FOIL AT 20°C Ω/km	INDUCTANCE PER PHASE. IN TREFOIL FORMATION. CABLES TOUCHING EACH OTHER mH/km
50+35	0.641	2.0	0.44
70+35	0.443	1.9	0.41
95+25	0.320	1.8	0.39
95+35	0.320	1.8	0.39
120+35	0.253	1.7	0.37
150+35	0.206	1.6	0.36
185+35	0.164	1.5	0.35
185+50	0.164	1.5	0.35
185+70	0.164	1.5	0.35
240+35	0.125	0.9	0.34
240+70	0.125	0.9	0.34
300+35	0.100	0.9	0.33
300+70	0.100	0.9	0.33

CURRENT RATING 12/20 (24)KV

NOMINAL CROSS SECTIONAL AREA mm ²	CABLES IN AIR (25 °C) A				CABLES IN THE GROUND (15°C AND 1.0 K.M/W). INSTALLATION DEPTH 0.7M A				MAXIMUM THERMAL SHORT CIRCUIT CURRENT DURING 1S kA			
	In flat formation. conductor temperature 90°C		In trefoil formation. conductor temperature 90°C		In trefoil formation. conductor temperature 65°C		In trefoil formation. conductor temperature 90°C		Phase (initial 90°C. final 250°C)	Metal screen		
	Open screen A	Closed screen A	Open screen A	Closed screen A	Open screen A	Closed screen A	Open screen A	Closed screen A		Initial 35°C. final 250°C	Initial 60°C. final 250°C	Initial 85°C. final 250°C
50+35	210	205	195	195	155	155	185	185	4.7	2.9	2.7	2.4
70+35	265	255	235	235	205	200	240	235	6.6	3.0	2.8	2.5
95+25	320	310	285	280	240	235	280	275	8.9	3.2	2.9	2.7
95+35	320	310	285	280	240	235	280	275	8.9	3.2	2.9	2.7
120+35	370	350	330	325	270	265	320	310	11.3	3.4	3.1	2.9
150+35	425	395	380	370	305	300	360	355	14.1	3.6	3.3	3.0
185+35	485	440	430	425	345	330	405	390	17.4	3.8	3.5	3.2
185+50	485	440	430	425	345	330	405	390	17.4	3.8	3.5	3.2
185+70	485	440	430	425	345	330	405	390	17.4	3.8	3.5	3.2
240+35	570	515	505	490	395	385	465	455	22.6	5.3	4.9	4.4
240+70	570	515	505	490	395	385	465	455	22.6	5.3	4.9	4.4
300+35	650	580	580	565	445	435	525	510	28.3	5.7	5.3	4.8
300+70	650	580	580	565	445	435	525	510	28.3	5.7	5.3	4.8



DIMENSIONS 19/33 (36)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL EARTH CONDUCTOR AREA SIZE mm ²	NOMINAL EARTH CONDUCTOR DIAMETER mm	NOMINAL DIAMETER OVER INSULATION WITHOUT SCREEN mm	NOMINAL INSULATION THICKNESS mm	NOMINAL THICKNESS OF ALUMINIUM LAMINATED FOIL mm	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER OF COMPLETE CABLE mm	NOMINAL WEIGHT kg/km
C9Q30KV103095BK	3	95	11.0	35	7	26.7	8.0	0.3	3.0	76	3634
C9Q30KV103120BK	3	120	12.6	35	7	28.2	8.0	0.3	3.0	79	4034
C9Q30KV103150BK	3	150	13.9	35	7	29.5	8.0	0.3	3.1	82	4410
C9Q30KV103150BK	3	150	13.9	70	10	29.5	8.0	0.3	3.1	85	4883
C9Q30KV103185BK	3	185	15.6	35	7	31.2	8.0	0.3	3.1	86	4927
C9Q30KV103185BK	3	185	15.6	70	10	31.2	8.0	0.3	3.1	86	5217
C9Q30KV103240BK	3	240	18.0	35	7	33.6	8.0	0.3	3.2	92	5693
C9Q30KV103240BK	3	240	18.0	70	10	33.6	8.0	0.3	3.2	92	5983
C9Q30KV103300BK	3	300	19.8	35	7	35.4	8.0	0.3	3.3	96	6468
C9Q30KV103300BK	3	300	19.8	70	10	35.4	8.0	0.3	3.3	96	6758

MECHANICAL CHARACTERISTICS 19/33 (36)KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAX. PULLING FORCE BY PULLING-EYE kN	MAX. PULLING FORCE BY PULLING-STOCKING kN	MINIMUM BENDING RADIUS m			
			During handling and installation, phase conductor	During handling and installation, cable	In final installation, phase conductor	In final installation, cable
95+35	14.3	4.3	0.53	0.91	0.37	0.64
120+35	18.0	5.4	0.55	0.95	0.39	0.66
150+35	20.0	6.8	0.57	0.98	0.40	0.69
150+70	20.0	6.8	0.57	1.02	0.40	0.71
185+35	20.0	8.3	0.60	1.03	0.42	0.72
185+70	20.0	8.3	0.60	1.03	0.42	0.72
240+35	20.0	8.5	0.64	1.10	0.45	0.77
240+70	20.0	8.5	0.64	1.10	0.45	0.77
300+35	20.0	8.5	0.67	1.15	0.47	0.81
300+70	20.0	8.5	0.67	1.15	0.47	0.81

ELECTRICAL CHARACTERISTICS 19/33 (36)KV

NOMINAL CROSS SECTIONAL AREA mm ²	MAX. DC RESISTANCE OF CONDUCTOR AT 20°C Ω/km	NOMINAL DC RESISTANCE OF ALUMINIUM LAMINATED FOIL AT 20°C Ω/km	AC RESISTANCE OF PHASE CONDUCTOR, SCREEN CIRCUIT CLOSED			INDUCTANCE PER PHASE, IN TREFOIL FORMATION. CABLES TOUCHING EACH OTHER mH/km	CALCULATED OPERATION CAPACITANCE μF/km	CALCULATED CHARGING CURRENT WITH MAIN VOLTAGE A/km	CALCULATED EARTH FAULT CURRENT WITH MAIN VOLTAGE A/km
			Conductor temperature 40°C	Conductor temperature 65°C	Conductor temperature 90°C				
95+35	0.320	1.02	0.35	0.38	0.41	0.42	0.16	0.9	2.8
120+35	0.253	0.97	0.27	0.30	0.32	0.40	0.17	1.0	3.1
150+35	0.206	0.93	0.22	0.24	0.26	0.39	0.18	1.1	3.3
150+70	0.206	0.93	0.22	0.24	0.26	0.39	0.18	1.1	3.3
185+35	0.164	0.89	0.18	0.19	0.21	0.37	0.20	1.2	3.6
185+70	0.164	0.89	0.18	0.19	0.21	0.37	0.20	1.2	3.6
240+35	0.125	0.81	0.14	0.15	0.16	0.36	0.22	1.3	4.0
240+70	0.125	0.81	0.14	0.15	0.16	0.36	0.22	1.3	4.0
300+35	0.100	0.78	0.11	0.12	0.13	0.35	0.24	1.4	4.2
300+70	0.100	0.78	0.11	0.12	0.13	0.35	0.24	1.4	4.2



CURRENT RATING 19/33 (36)kV

NOMINAL CROSS SECTIONAL AREA mm ²	CABLES IN AIR (25 °C) A				CABLES IN THE GROUND (15°C AND 1.0 K.M/W). INSTALLATION DEPTH 0.7M A				MAXIMUM THERMAL SHORT CIRCUIT CURRENT DURING 1S kA			
	In flat formation. conductor temperature 90°C		In trefoil formation. conductor temperature 90°C		In trefoil formation. conductor temperature 65°C		In trefoil formation. conductor temperature 90°C		Phase (initial 90°C. final 250°C)	Metal screen		
	Open screen A	Closed screen A	Open screen A	Closed screen A	Open screen A	Closed screen A	Open screen A	Closed screen A		Initial 35°C. final 250°C	Initial 60°C. final 250°C	Initial 85°C. final 250°C
95+35	320	310	285	280	240	235	280	275	8.9	4.8	4.4	4.0
120+35	370	350	330	325	270	265	320	310	11.3	5.0	4.6	4.2
150+35	425	395	380	370	305	300	360	355	14.1	5.2	4.8	4.4
150+70	425	395	380	370	305	300	360	355	14.1	5.2	4.8	4.4
185+35	485	440	430	425	345	330	405	390	17.4	5.5	5.0	4.6
185+70	485	440	430	425	345	330	405	390	17.4	5.5	5.0	4.6
240+35	570	515	505	490	395	385	465	455	22.6	6.0	5.5	5.0
240+70	570	515	505	490	395	385	465	455	22.6	6.0	5.5	5.0
300+35	650	580	580	565	445	435	525	510	28.3	6.2	5.7	5.2
300+70	650	580	580	565	445	435	525	510	28.3	6.2	5.7	5.2

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.