XRUHKXS Cable

Eland Product Group: P9X

APPLICATION

Medium voltage power cables for distribution networks and generation units, suitable for external installation including direct in ground and in buried cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating Uo/U
6/10 (12)kV
8.7/15 (17.5)kV
12/20 (24)kV
18/30 (36)kV

Test Voltage
10kV: 21 kV AC 50Hz (15 mins)
20kV: 42kV AC 50Hz (5 mins)
30kV: 63kV AC 50Hz (5 mins)

Temperature Rating
-20°C to +60°C
Permissible Conductor Operating Temperature: +90°C
Permissible Short Circuit Temperature up to 5 sec: 250°C

Minimum Bending Radius
15 x overall diameter

CONSTRUCTION

Conductor
Class 2 Stranded Copper

Conductor Screen
Semi-conductive material

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive material (bonded)

Longitudinal Waterblocking
Semi-conductive swellable tape

Screen
Copper wires and copper tape

Longitudinal Waterblocking
Swellable Tapes

Radial Waterblocking
Al/PET (Aluminium/Polyester) Tape bonded to sheath

Outer Sheath
MDPE (Medium Density Polyethylene)

Sheath Colour
● Red ● Black

STANDARDS

IEC 60502-2, Generally to PN HD 620 10R

UV Resistant: ISO 4892-3
Water Resistant: EN 60529
Abrasion and Tear Resistant: EN 60229-4.1
Impact rated to: AG2 EN 60364-5.51

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.

ISO/IEC 17025 Accredited Testing Laboratory
IECEE CBTL Accredited Testing Laboratory

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

SCIENCE BASED TARGETS
BUSINESS AMBITION FOR 1.5°C

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®.

RoHS
REACH

DIMENSIONS 6/10 (12)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²		NOMINAL CONDUCTOR DIAMETER	NUMBER WIRES CONDUCTOR	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
		Conductor	Screen			INNER	OUTER			
				mm	mm	mm	mm	mm	mm	mm
P9XFL10KV1050**	1	50	16	8.10	10 x 2.62	0.50	0.40	3.40	2.96	16.3
P9XFL10KV1070**	1	70	16	9.70	14 x 2.62	0.50	0.40	3.40	2.96	17.9
P9XFL10KV1095**	1	95	16	11.4	19 x 2.62	0.50	0.40	3.40	2.96	19.6
P9XFL10KV1120**	1	120	16	12.7	19 x 2.97	0.50	0.40	3.40	2.96	20.9
P9XFL10KV1150**	1	150	25	14.5	19 x 3.20	0.50	0.40	3.40	2.96	22.7
P9XFL10KV1185**	1	185	25	15.9	27 x 2.62	0.50	0.40	3.40	2.96	24.1
P9XFL10KV1240**	1	240	25	18.6	48 x 2.62	0.50	0.40	3.40	2.96	26.8
P9XFL10KV1300**	1	300	25	20.7	61 x 2.62	0.50	0.40	3.40	2.96	28.9
P9XFL10KV1400**	1	400	35	23.5	61 x 2.97	0.50	0.40	3.40	2.96	31.7
P9XFL10KV1500**	1	500	35	26.5	61 x 3.29	0.50	0.40	3.40	2.96	34.7
P9XFL10KV1630**	1	630	35	30.2	61 x 3.80	0.50	0.40	3.40	2.96	38.9

** replace with sheath colour - RD = Red BK = Black

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm²	mm	mm	mm	mm	mm	kg/km	N/cm²	N
50	44 x 0.66	1x0.1x10	1.80	1.24	23	900	536	2500
70	44 x 0.66	1x0.1x10	1.80	1.24	25	1100	672	3500
95	44 x 0.66	1x0.1x10	1.80	1.24	26	1400	847	4750
120	44 x 0.66	1x0.1x10	1.80	1.24	28	1700	983	6000
150	71 x 0.66	1x0.1x10	1.90	1.32	30	2000	1124	7500
185	71 x 0.66	1x0.1x10	1.90	1.32	31	2500	1315	9250
240	71 x 0.66	1x0.1x10	2.00	1.40	34	3000	1521	12000
300	71 x 0.66	1x0.1x10	2.10	1.48	36	3500	1764	15000
400	60 x 0.85	1x0.1x15	2.20	1.56	39	4500	2133	20000
500	60 x 0.85	1x0.1x15	2.30	1.64	43	5500	2398	25000
630	60 x 0.85	1x0.1x15	2.40	1.72	47	7000	2720	31500

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ELECTRICAL CHARACTERISTICS 6/10 (12)kV

NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A) In Ground 20°C	CURRENT CARRYING CAPACITY (A) In Air 30°C	REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
50	0.387	0.801	0.497	249	277	0.18	0.36	0.21	7.15	3.2	30.8
70	0.268	0.555	0.344	303	345	0.17	0.34	0.24	10.1	3.2	31.6
95	0.193	0.399	0.248	358	418	0.17	0.33	0.27	13.59	3.2	31.8
120	0.153	0.316	0.196	404	481	0.16	0.32	0.30	17.16	3.2	32.0
150	0.124	0.160	0.256	441	537	0.16	0.30	0.33	21.45	5.0	31.1
185	0.0991	0.205	0.128	493	612	0.16	0.30	0.35	26.46	5.0	31.1
240	0.0754	0.156	0.0980	563	716	0.15	0.28	0.40	34.32	5.0	31.1
300	0.0601	0.124	0.0800	626	811	0.15	0.28	0.44	42.90	5.0	31.4
400	0.0470	0.0974	0.0640	676	901	0.15	0.27	0.49	57.20	7.1	29.2
500	0.0366	0.0758	0.0510	743	1006	0.15	0.26	0.54	71.50	7.1	28.2
630	0.0283	0.0420	0.0586	850	1030	0.14	0.26	0.62	90.09	7.1	30.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)
Derating factor (air): 1 (Flat formation - touching)

DIMENSIONS 8.7/15 (17.5)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL SCREEN CROSS SECTIONAL AREA mm²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
P9XFL15KV1050	1	50	16	4.5	1.7	26.6	1008
P9XFL15KV1070	1	70	16	4.5	1.8	28.6	1243
P9XFL15KV1095	1	95	16	4.5	1.8	29.9	1505
P9XFL15KV1120	1	120	16	4.5	1.9	31.5	1768
P9XF 15KV1150	1	150	25	4.5	2	33.5	2155
P9XFL15KV1185	1	185	25	4.5	2	35	2501
P9XFL15KV1240	1	240	25	4.5	2.1	37.4	3086
P9XF15KV1300	1	300	25	4.5	2.2	40	3675
P9XFL15KV1400	1	400	35	4.5	2.3	43	4609
P9XFL15KV1500	1	500	35	4.5	2.4	46.6	5619
P9XFL15KV1630	1	630	35	4.5	2.5	51.5	7060
P9XFL15KV1800	1	800	35	4.5	2.6	55.8	8863

ELECTRICAL CHARACTERISTICS 8.7/15 (17.5)kV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20 °C Ω/Km	MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50HZ Ω/Km	CAPACITANCE µF/Km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/Km	REACTANCE AT 50 HZ ohm/km	CONDUCTOR S.C.C FOR 1 SEC KA	COPPER SCREEN S.C.C FOR 1 SEC KA	CURRENT RATING A	
									Laid in ground	Laid in free air
50	0.387	0.494	0.214	0.586	20.37	0.135	7.15	1.75	210	221
70	0.268	0.342	0.245	0.67	23.29	0.127	10.01	1.75	254	278
95	0.193	0.247	0.267	0.73	25.39	0.122	13.585	1.75	302	336
120	0.153	0.196	0.29	0.794	27.64	0.118	17.16	1.75	342	389
150	0.124	0.159	0.317	0.868	30.20	0.114	21.45	2.73	383	440
185	0.0991	0.128	0.343	0.937	32.59	0.110	26.455	2.73	432	506
240	0.0754	0.098	0.383	1.047	36.42	0.105	34.32	2.73	497	599
300	0.0601	0.078	0.423	1.156	40.23	0.102	42.9	2.73	558	690
400	0.047	0.062	0.466	1.275	44.35	0.098	57.2	3.82	625	794
500	0.0366	0.049	0.523	1.429	49.74	0.095	71.5	3.82	703	914
630	0.0283	0.039	0.601	1.643	57.17	0.093	90.09	3.82	780	1037
800	0.0221	0.032	0.669	1.829	63.65	0.090	114.4	3.82	850	1166

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DIMENSIONS 12/202 (24)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²		NOMINAL CONDUCTOR DIAMETER	NUMBER WIRES CONDUCTOR	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
		Conductor	Screen			INNER	OUTER			
				mm	mm	mm	mm	mm	mm	mm
P9XFL20KV1050**	1	50	16	8.10	10 x 2.62	0.50	0.40	5.50	4.85	20.3
P9XFL20KV1070**	1	70	16	9.70	14 x 2.62	0.50	0.40	5.50	4.85	21.9
P9XFL20KV1095**	1	95	16	11.4	19 x 2.62	0.50	0.40	5.50	4.85	23.6
P9XFL20KV1120**	1	120	16	12.7	19 x 2.97	0.50	0.40	5.50	4.85	24.9
P9XFL20KV1150**	1	150	25	14.5	19 x 3.20	0.50	0.40	5.50	4.85	26.7
P9XFL20KV1185**	1	185	25	15.9	27 x 2.62	0.50	0.40	5.50	4.85	28.1
P9XFL20KV1240**	1	240	25	18.6	48 x 2.62	0.50	0.40	5.50	4.85	30.8
P9XFL20KV1300**	1	300	25	20.7	61 x 2.62	0.50	0.40	5.50	4.85	32.9
P9XFL20KV1400**	1	400	35	23.5	61 x 2.97	0.50	0.40	5.50	4.85	35.7
P9XFL20KV1500**	1	500	35	26.5	61 x 3.29	0.50	0.40	5.50	4.85	38.7
P9XFL20KV1630**	1	630	35	30.2	61 x 3.80	0.50	0.40	5.50	4.85	42.9

** replace with sheath colour - RD = Red BK = Black

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm²	mm	mm	mm	mm	mm	kg/km	N/cm²	N
50	44 x 0.66	1x0.1x10	1.80	1.24	27	1100	475	2500
70	44 x 0.66	1x0.1x10	1.90	1.32	29	1300	603	3500
95	44 x 0.66	1x0.1x10	1.90	1.32	31	1600	747	4750
120	44 x 0.66	1x0.1x10	2.00	1.40	32	1900	895	6000
150	71 x 0.66	1x0.1x10	2.00	1.40	34	2250	1031	7500
185	71 x 0.66	1x0.1x10	2.10	1.48	35	2750	1212	9250
240	71 x 0.66	1x0.1x10	2.10	1.48	38	3250	1413	12000
300	71 x 0.66	1x0.1x10	2.20	1.56	40	3750	1647	15000
400	60 x 0.85	1x0.1x15	2.30	1.64	44	4750	1975	20000
500	60 x 0.85	1x0.1x15	2.40	1.72	47	5750	2268	25000
630	60 x 0.85	1x0.1x15	2.50	1.80	51	7250	2586	31500

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ELECTRICAL CHARACTERISTICS 12/20 (24)kV

NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A) In Ground 20°C	CURRENT CARRYING CAPACITY (A) In Air 30°C	REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
50	0.387	0.801	0.497	250	279	0.19	0.40	0.15	7.15	3.2	31.1
70	0.268	0.555	0.344	304	347	0.18	0.38	0.17	10.1	3.2	31.8
95	0.193	0.399	0.248	361	420	0.18	0.36	0.19	13.59	3.2	32.3
120	0.153	0.316	0.196	407	483	0.17	0.35	0.20	17.16	3.2	32.5
150	0.124	0.160	0.256	445	540	0.17	0.33	0.24	21.45	5.0	31.7
185	0.0991	0.205	0.128	498	614	0.16	0.32	0.24	26.46	5.0	31.7
240	0.0754	0.156	0.0980	569	718	0.16	0.31	0.27	34.32	5.0	31.7
300	0.0601	0.124	0.0800	633	813	0.16	0.30	0.29	42.90	5.0	32.1
400	0.0470	0.0974	0.0640	686	904	0.16	0.29	0.32	57.20	7.1	30.1
500	0.0366	0.0758	0.0510	756	1011	0.15	0.28	0.36	71.50	7.1	29.1
630	0.0283	0.0420	0.0586	850	1030	0.15	0.27	0.40	90.09	7.1	30.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)
Derating factor (air): 1 (Flat formation - touching)

DIMENSIONS 18/30 (36)kV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²		NOMINAL CONDUCTOR DIAMETER	NUMBER WIRES CONDUCTOR	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
		Conductor	Screen			INNER	OUTER			
				mm	mm	mm	mm	mm	mm	mm
P9XFL30KV1050**	1	50	16	8.10	10 x 2.62	0.50	0.40	8.00	7.10	25.1
P9XFL30KV1070**	1	70	16	9.70	14 x 2.62	0.50	0.40	8.00	7.10	26.7
P9XFL30KV1095**	1	95	16	11.4	19 x 2.62	0.50	0.40	8.00	7.10	28.4
P9XFL30KV1120**	1	120	16	12.7	19 x 2.97	0.50	0.40	8.00	7.10	29.7
P9XFL30KV1150**	1	150	25	14.5	19 x 3.20	0.50	0.40	8.00	7.10	31.5
P9XFL30KV1185**	1	185	25	15.9	27 x 2.62	0.50	0.40	8.00	7.10	32.9
P9XFL30KV1240**	1	240	25	18.6	48 x 2.62	0.50	0.40	8.00	7.10	35.6
P9XFL30KV1300**	1	300	25	20.7	61 x 2.62	0.50	0.40	8.00	7.10	37.7
P9XFL30KV1400**	1	400	35	23.5	61 x 2.97	0.50	0.40	8.00	7.10	40.5
P9XFL30KV1500**	1	500	35	26.5	61 x 3.29	0.50	0.40	8.00	7.10	43.5
P9XFL30KV1630**	1	630	35	30.2	61 x 3.80	0.50	0.40	8.00	7.10	47.7

** replace with sheath colour - RD = Red BK = Black

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm²	mm	mm	mm	mm	mm	kg/km	N/cm²	N
50	44 x 0.66	1x0.1x10	2.00	1.40	32	1300	416	2500
70	44 x 0.66	1x0.1x10	2.00	1.40	34	1500	534	3500
95	44 x 0.66	1x0.1x10	2.10	1.48	36	1900	668	4750
120	44 x 0.66	1x0.1x10	2.10	1.48	37	2250	805	6000
150	71 x 0.66	1x0.1x10	2.20	1.56	39	2500	935	7500
185	71 x 0.66	1x0.1x10	2.20	1.56	40	3000	1103	9250
240	71 x 0.66	1x0.1x10	2.30	1.64	43	3500	1299	12000
300	71 x 0.66	1x0.1x10	2.40	1.72	46	4250	1499	15000
400	60 x 0.85	1x0.1x15	2.50	1.80	49	5250	1839	20000
500	60 x 0.85	1x0.1x15	2.60	1.88	52	6250	2123	25000
630	60 x 0.85	1x0.1x15	2.70	1.96	56	7250	2436	31500

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ELECTRICAL CHARACTERISTICS 18/30 (36)kV

NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A) In Ground 20°C	CURRENT CARRYING CAPACITY (A) In Air 30°C	REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km
50	0.387	0.801	0.497	251	279	0.20	0.44	0.12	7.15	3.2	31.3
70	0.268	0.555	0.344	306	348	0.19	0.41	0.13	10.1	3.2	32.2
95	0.193	0.399	0.248	363	421	0.19	0.38	0.14	13.59	3.2	32.7
120	0.153	0.316	0.196	410	483	0.18	0.37	0.15	17.16	3.2	32.9
150	0.124	0.160	0.256	449	540	0.18	0.36	0.17	21.45	5.0	32.3
185	0.0991	0.205	0.128	503	615	0.17	0.35	0.17	26.46	5.0	32.4
240	0.0754	0.156	0.0980	576	718	0.17	0.34	0.20	34.32	5.0	32.5
300	0.0601	0.124	0.0800	641	812	0.17	0.32	0.21	42.90	5.0	32.9
400	0.0470	0.0974	0.0640	697	904	0.16	0.31	0.24	57.20	7.1	31.1
500	0.0366	0.0758	0.0510	768	1011	0.16	0.30	0.26	71.50	7.1	30.1
630	0.0283	0.0420	0.0586	850	1030	0.15	0.29	0.29	90.09	7.1	30.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)
Derating factor (air): 1 (Flat formation - touching)