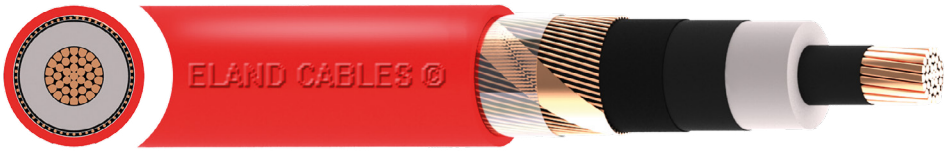
YHKXS Cable



Eland Product Group: P9X

APPLICATION

Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. To be laid directly in ground, outdoors, indoors and in cable ducts.

CHARACTERISTICS

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

Temperature Rating
Maximum conductor operating temperature: 90°C
Initial temperature at S.C.C for metallic screen: 80°C
Maximum conductor temperature during S.C: 250°C

Minimum Bending Radius
15 x overall diameter

CONSTRUCTION

Conductor
Class 2 Stranded copper conductor

Conductor Screen
Semi-conductive material (Bonded Type)

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive material (Strippable Type)

Screen
Copper wires with Open Helix Copper Tape Screen

Sheath
PVC (Polyvinyl Chloride)

Sheath Colour
● Red ●Black

STANDARDS

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

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

UV Resistant

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 6/10 (12)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
P9X10KV1050	1	50	16	3.4	1.7	21.8	897
P9X10KV1070	1	70	16	3.4	1.7	23.6	1117
P9X10KV1095	1	95	16	3.4	1.8	25.1	1387
P9X10KV1120	1	120	16	3.4	1.8	26.5	1636
P9X10KV1150	1	150	25	3.4	1.9	28.5	2020
P9X10KV1185	1	185	25	3.4	1.9	30	2361
P9X10KV1240	1	240	25	3.4	2	32.6	2952
P9X10KV1300	1	300	25	3.4	2.1	35	3521
P9X10KV1400	1	400	35	3.4	2.2	38	4450
P9X10KV1500	1	500	35	3.4	2.3	41.6	5457
P9X10KV1630	1	630	35	3.4	2.4	46.5	6893
P9X10KV1800	1	800	35	3.4	2.5	50.8	8694

ELECTRICAL CHARACTERISTICS 6/10 (12)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	0.263	0.496	11.90	0.122	7.15	3.2	234	244
70	0.268	0.342	0.303	0.571	13.71	0.115	10.01	3.2	279	309
95	0.193	0.247	0.332	0.625	15.00	0.111	13.585	3.2	332	373
120	0.153	0.196	0.362	0.683	16.40	0.107	17.16	3.2	376	432
150	0.124	0.159	0.397	0.75	17.99	0.103	21.45	5.0	421	489
185	0.0991	0.128	0.43	0.812	19.47	0.100	26.455	5.0	476	562
240	0.0754	0.098	0.483	0.911	21.85	0.097	34.32	5.0	550	665
300	0.0601	0.078	0.535	1.009	24.22	0.093	42.9	5.0	618	765
400	0.047	0.062	0.592	1.116	26.79	0.091	57.2	7.1	695	882
500	0.0366	0.049	0.666	1.256	30.14	0.088	71.5	7.1	779	1014
630	0.0283	0.039	0.768	1.449	34.77	0.087	90.09	7.1	864	1152
800	0.0221	0.032	0.858	1.617	38.81	0.084	114.4	7.1	945	1295

Laying conditions at trefoil formation are as below:

-Soil thermal resistivity 120 °C.Cm/Watt

-Burial depth 0.5 m

-Ground temperature 15 °C

-Air temperature 25 °C

-Frequency 50 Hz

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DIMENSIONS 12/20 (24)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
P9X20KV1050	1	50	16	5.5	1.8	26	1056
P9X20KV1070	1	70	16	5.5	1.9	28	1301
P9X20KV1095	1	95	16	5.5	1.9	29.3	1567
P9X20KV1120	1	120	16	5.5	2	30.9	1840
P9X20KV1150	1	150	25	5.5	2	32.7	2221
P9X20KV1185	1	185	25	5.5	2.1	34.2	2572
P9X20KV1240	1	240	25	5.5	2.2	36.8	3182
P9X20KV1300	1	300	25	5.5	2.2	39.2	3764
P9X20KV1400	1	400	35	5.5	2.3	42.2	4715
P9X20KV1500	1	500	35	5.5	2.4	45.8	5748
P9X20KV1630	1	630	35	5.5	2.5	50.7	7215
P9X20KV1800	1	800	35	5.5	2.7	55.2	9072

ELECTRICAL CHARACTERISTICS 12/20 (24)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	0.184	0.693	33.24	0.133	7.15	3.2	234	245
70	0.268	0.342	0.209	0.787	37.78	0.126	10.01	3.2	284	309
95	0.193	0.247	0.227	0.855	41.03	0.121	13.585	3.2	337	378
120	0.153	0.196	0.246	0.928	44.52	0.117	17.16	3.2	384	436
150	0.124	0.159	0.268	1.01	48.48	0.112	21.45	5.0	428	491
185	0.0991	0.128	0.288	1.087	52.18	0.109	26.455	5.0	483	567
240	0.0754	0.098	0.321	1.21	58.08	0.104	34.32	5.0	553	669
300	0.0601	0.078	0.353	1.333	63.97	0.101	42.9	5.0	621	772
400	0.047	0.062	0.388	1.465	70.33	0.097	57.2	7.1	697	883
500	0.0366	0.049	0.434	1.638	78.63	0.094	71.5	7.1	783	1019
630	0.0283	0.039	0.498	1.876	90.08	0.092	90.09	7.1	866	1153
800	0.0221	0.032	0.553	2.084	100.05	0.089	114.4	7.1	945	1299

Laying conditions at trefoil formation are as below:

-Soil thermal resistivity 120 °C.Cm/Watt

-Burial depth 0.5 m

-Ground temperature 15 °C

-Air temperature 25 °C

-Frequency 50 Hz

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DIMENSIONS 18/30 (36)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
P9X30KV1050	1	50	16	8	2	31.4	1304
P9X30KV1070	1	70	16	8	2	33.2	1550
P9X30KV1095	1	95	16	8	2.1	34.5	1827
P9X30KV1120	1	120	16	8	2.1	35.9	2095
P9X30KV1150	1	150	25	8	2.2	37.9	2506
P9X30KV1185	1	185	25	8	2.2	39.4	2870
P9X30KV1240	1	240	25	8	2.3	42	3501
P9X30KV1300	1	300	25	8	2.4	44.6	4128
P9X30KV1400	1	400	35	8	2.5	47.6	5105
P9X30KV1500	1	500	35	8	2.6	51.2	6167
P9X30KV1630	1	630	35	8	2.7	56.1	7677
P9X30KV1800	1	800	35	8	2.8	60.4	9543

ELECTRICAL CHARACTERISTICS 18/30 (36)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	0.141	0.799	57.52	0.145	7.15	3.2	234	249
70	0.268	0.342	0.159	0.898	64.62	0.136	10.01	3.2	284	309
95	0.193	0.247	0.171	0.968	69.68	0.131	13.585	3.2	340	382
120	0.153	0.196	0.184	1.043	75.09	0.126	17.16	3.2	386	441
150	0.124	0.159	0.199	1.128	81.23	0.121	21.45	5.0	431	494
185	0.0991	0.128	0.213	1.208	86.95	0.118	26.455	5.0	487	571
240	0.0754	0.098	0.236	1.334	96.06	0.113	34.32	5.0	557	673
300	0.0601	0.078	0.258	1.46	105.11	0.109	42.9	5.0	625	777
400	0.047	0.062	0.282	1.595	114.87	0.105	57.2	7.1	699	887
500	0.0366	0.049	0.313	1.772	127.59	0.101	71.5	7.1	785	1021
630	0.0283	0.039	0.356	2.015	145.11	0.098	90.09	7.1	868	1153
800	0.0221	0.032	0.394	2.227	160.34	0.095	114.4	7.1	947	1299

Laying conditions at trefoil formation are as below:

-Soil thermal resistivity 120 °C.Cm/Watt

-Burial depth 0.5 m

-Ground temperature 15 °C

-Air temperature 25 °C

-Frequency 50 Hz

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